



**INVITATIONS FOR BIDS
SCHEDULE AND INSTRUCTIONS**

**CINCINNATI METROPOLITAN HOUSING AUTHORITY
INVITATION FOR BIDS (IFB) No.
2025-3026
PROJECT MANUAL**

DATE ISSUED	September 8, 2025
NON-MANDATORY SITE VISIT/WALK THROUGH	September 17, 2025 at 10:00 AM. Meet at City West Office, 1202 Linn Street, Cincinnati, OH 45214 It is suggested that the attendees have read the Scope of Work
LAST DATE FOR QUESTIONS	September 22, 2025 at 5:00 PM Questions shall be submitted in writing to procurement@cintimha.com . Responses to questions will be posted as an addendum to the website along with the other solicitation documents.
PROPOSAL SUBMITTAL DEADLINE & PUBLIC OPENING	September 30, 2025 at 10:00 AM Sealed Hard Copy Bids must be delivered to: Cincinnati Metropolitan Housing Authority 1627 Western Ave. Cincinnati OH 45214
WHAT TO SUBMIT	Bid Package MUST include the following documents: 1. Bid Form, 2. Bid Bond, 3. Non-Collusive Affidavit 4. Disclosure of Lobbying Activities, 5. Form HUD-2530, 6. Form HUD-5369A
NOTICE OF INTENT TO SUBMIT	It is suggested that interested companies submit a Notice of Intent to submit a proposal to procurement@cintimha.com . By indicating your intent to submit a proposal you will receive notice of any addenda posted.
CONSTRUCTION TIME	90 Calendar days from the date stated in the “Notice to Proceed”

CMHA Reserves the right to modify this schedule at its discretion.



INVITATION FOR BIDS CONDITIONS OF THE SOLICITATION

1. In 2012, CMHA established its Gold Performance Standards which consist of the principles and values by which the Agency performs and how our partners, vendors, contractors and consultants are measured.

The Gold Performance Standards are: Respect, Timely, Exceptional, Initiative, Excellent, Quality, Accurate, Integrity, Value, Creativity, Accountability and Professionalism.

It is CMHA's intent to procure Contractors that share these standards and can clearly demonstrate the services they can provide CMHA that no other contractor can offer. It's very imperative that our partners, vendors, contractors and consultants abide by these standards that have been established.

2. The Contractor shall hold the offer for 90 days after Bid Due Date
3. Notification of changes in the form of Addendums will be made available to all interested parties via an email and/or by posting on CMHA's website.
4. Only the documents stated on the Solicitation as required will be evaluated. DO NOT include additional documents like, but not limited to: references, licenses, curriculum vitae, previous job pictures. Submitting additional documents may cause the proposal to be unresponsive.
5. This project is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended. Preference may be given in accordance with 24 CFR 135 and the CMHA procurement policy.
6. The Prevailing Wages shall be paid for a legal day's work to laborers, workmen or mechanics engaged in work under this Contract, at the site of the Project, in the trade or occupation listed.
7. The Authority reserves the right to reject and not consider any proposal that does not meet the requirements of this Solicitation, including but not necessarily limited to incomplete proposals and/or proposals offering alternate or non-requested services, proposals deemed non-responsive, respondents deemed not responsible, and conditional proposals.
8. The responsibility for submitting a response to this request at the designated office of the Cincinnati Metropolitan Housing Authority on or before the stated time and date will be solely and strictly of the Proposer. The Authority will in no way be responsible for the delays caused by the delivery manner chosen by the respondent or caused by any other occurrence.

END OF CONDITIONS



INVITATION FOR BIDS INDEX

SECTION	PAGE
1. <u>Schedule and Instructions</u>	<u>1</u>
2. <u>Conditions of the Solicitation</u>	<u>2</u>
3. <u>Index</u>	<u>3</u>
4. <u>Bid Form <i>Fill, Sign and Return</i></u>	<u>4</u>
5. <u>Bid Bond Sample <i>Bid Bond Form Sample for Reference</i></u>	<u>10</u>
6. <u>Non-Collusive Affidavit <i>Fill, Sign and Return.</i></u>	<u>12</u>
7. <u>Disclosure of Lobbying Activities <i>Fill, Sign and Return.</i></u>	<u>13</u>
8. <u>Form HUD-2530 Previous Certificate Participation <i>Fill, Sign and Return.</i></u>	<u>14</u>
9. <u>Form HUD-5369A <i>Fill, Sign and Return</i></u> <u>Representations, Certifications, and other Statements of Bidders, Public and Indian Housing Programs</u>	<u>18</u>
10. <u>Form HUD-5369</u> <u>Instructions to Bidders for Contracts Public & Indian Housing Programs</u>	<u>22</u>
11. <u>CMHA Supplemental Instructions to Bidders (SITB)</u>	<u>27</u>
12. <u>Construction Contract Sample</u>	<u>31</u>
13. <u>Construction General Terms and Conditions</u>	<u>34</u>
14. <u>MBE/WBE Participation Report</u>	<u>128</u>
15. <u>Section 3 (S3) Residents and Business Concerns</u>	<u>129</u>
16. <u>Prevailing Wages Clause</u>	<u>133</u>
17. <u>Scope of Work</u>	<u>135</u>
18. <u>Wage Determination Rates</u>	<u>Attachment 1</u>

END OF INDEX

INVITATION FOR BIDS

BID FORM



INVITATION FOR BIDS BID FORM

All bid bonds be a shall be issued by Surety Companies licensed to issue bonds in the State of Ohio and listed in Federal Register Circular #570. The current power of attorney for the person who signs for any surety company shall be attached to such bid bond.

The CMHA will have the right to retain the bid security of bidders to whom an award is being considered until either (a) the contract has been executed and bonds, if required, have been executed, (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

3. Alternates

Alternate Deduct #1: Provide a silicone coating system in lieu of removal and replacement of the EPDM roof system at Roof Areas C-1 and C-2.

Figure

Dollars.

Words

4. Acknowledgment's

I acknowledge receipt and acceptance of the following:

- Scope of Work
- General Contract Conditions (HUD-5370-EZ)
- MBE/WBE Participation Report
- S3 Residents and Business Concerns
- Prevailing Wages Clause
- Wage Determination Rates
- Addendum No. Dated:
- Addendum No. Dated:
- Addendum No. Dated:

5. Basis of Contract Award

CMHA intends to award this contract to the Lowest Responsive Bidder complying with these Public Bid Specifications, Drawings and Addenda, if any, provided the Contractor's proposal is reasonable and in the best interest of CMHA to accept it.

6. Contract Time

The contract performance period from the "Notice to Proceed" until Substantial Completion, will be 90 Calendar Days.

7. Unit Costs

Unit costs shall be inclusive of materials, labor, overhead and profit. The unit prices offered will be used to increase or decrease the Total Contract Amount based on the existing conditions determined by the Owner at the time of construction of any given building. No unit prices may be used without the written permission of the Owner. CMHA has the right to reject any proposal, which indicates an unbalanced proposal or prices not realistic for the work.



INVITATION FOR BIDS BID FORM

8. Assurance of Compliance

The successful Bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation in the form of a performance and payment bond in a penal sum of 100 percent of the contract price.

9. Minority Business Enterprise (MBE) & Women Business Enterprise(WBE)

The contractor agrees to make its best effort to expend at least 20% of the total dollar amount of the Contract on Minority Business Enterprises (MBE), an entity with at least 51% ownership interest by a minority in business), and at least 5% of the Contract to a Women Business Enterprises (WBE), an entity with a least 51% ownership interest by a woman in business.

Prior to award of Contract, the Contractor will submit documents in support of its best efforts to achieve the above stated MBE/WBE participation. Best efforts may be established by documenting that the Contractor:

- Has made efforts to identify appropriate MBE/WBE contractors through community contacts or MBE and WBE associations.
- Has contacted CMHA's Economic Inclusion Coordinator to help identify potential
- MBE/WBE companies appropriate for the project.
- Has contacted and solicited proposals/Proposals from selected MBE/WBE companies.

Contractors agrees to promptly complete and return all required reports confirming MBE/WBE participation, including Proposed, Amended, and Final MBE/WBE Participation Forms. If requested by CMHA, Contractor agrees to submit proof of payment made to each MBE/WBE subcontractor listed on the MBE/WBE Participation Report.

Request for complete or partial waiver of the contractor's MBE/WBE participation goals must be made in writing, stating all details in the request, the circumstances, and all relevant information. The request must be accompanied by a record of all efforts taken by the Bidder/Bidder to locate MBE/WBEs, solicit MBE/WBEs, seek assistance from CMHA's Economic Inclusion Coordinator, or seek help from other community/business resources or technical assistance agencies. CMHA will respond in writing to the Waiver Request within five (5) business days upon receipt.

10. Section 3 Certification of Preference

Please note that a contract with Cincinnati Metropolitan Housing Authority is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended and to the Section 3 Action Plan submitted with the proposal for this project.

Type of Business (check all that apply)

<input type="checkbox"/> Corporation	<input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Joint Venture
<input type="checkbox"/> LLC	<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	<input type="checkbox"/>

You self-certify that your business is, documented within the last six months a Section 3 Business Concern based on one of the below eligibility criteria's. (Check the one that qualifies your business):

- ☐ **Category 1:** 51 percent or more owned and controlled by low- or very low-income persons (based on household income under HUD-income limits)
- ☐ **Category 2:** 75 percent or more of the business labor hours to perform the business are performed by low-very low-income persons
- ☐ **Category 3:** 51 percent owned and controlled by current residents of public housing or Section 8-assisted housing.



INVITATION FOR BIDS BID FORM

- ☐ My business does not meet the Section 3 eligibility criteria and wishes to forgo Section 3 preferences in the awarding of this contract, but understand that we are still responsible for meeting Section 3 compliance.

11. Section 3 – Action Plan

Please check any and all efforts from the below mentioned categories that your company will utilize to:

- ☐ recruit, solicit, encourage, facilitate and hire Section 3 Workers when new hiring/training opportunities are generated through the awarding of the contract.
- ☐ recruit, solicit, encourage, facilitate and Subcontract with Section 3 Business Concerns when new subcontracting opportunities are generated through the awarding of the contract.

Your acknowledgment is still needed, so please check accordingly. The Section 3 Action Plan is subject to audit at any time during the awarding of the contract through the duration of the contract by the Section 3 Compliance Coordinator

You are required to provide opportunities to “the greatest extent feasible” in order to comply with the requirements of Section 3. In the event that you are not able to hire/train and/or contract with Section 3 Residents and/or Section 3 Business Concerns, you will be required to document why you were unable to meet the numerical goals.

a. Opportunities Strategies - Hiring / Training

- **Mandatory** Commit that the company and/or subcontractors as a result of the contract, 25% of the labor hours will be Section 3 Workers.
- **Mandatory** Contact the CMHA Section 3 Compliance Coordinator regarding employment and training opportunities.
- **Mandatory** Provide the CMHA Section 3 Compliance Coordinator with a monthly report listing all employment and training opportunities.
- **Mandatory** Post notice (placards) at the worksite where the work is being done, indicating any employment and training opportunities
- Facilitate or co-facilitate Hiring Halls within close proximity to where the work is being done for Section 3 Workers and Tags.
- Contact/Meet with Resident Associations informing them of new training and employment opportunities.
- Advertise new training and employment opportunities in community and diversity newspapers/websites.
- Sponsor or participate in job informational meetings or job fairs in the neighborhood or service area of the Section 3 covered project.
- Establish an internal training program (pre-apprenticeship) that is consistent with Dept. of Labor requirements to provide Section 3 Workers with the opportunity to learn skills and job requirements.
- Distribute flyers to CMHA owned sites indicating the number and types of jobs that will be offered with contact information.
- Maintain a file of eligible qualified Section 3 Workers and Targeted Section 3 Workers for future employment opportunities.



INVITATION FOR BIDS BID FORM

- Incorporate into contract (after selection of Bidders but prior to the execution of contracts), a negotiated provision for a specific number of Section 3 Workers to be trained and/or employed during the contract.
- Other:

b. Opportunities Strategies - Subcontracting

- **Mandatory** Contact the CMHA Section 3 Compliance Coordinator regarding all new subcontracting opportunities.
- **Mandatory** Provide the CMHA Section 3 Compliance Coordinator with a monthly report
- listing all subcontracting opportunities.
- Advertise new contracting opportunities in community and diversity newspapers/websites.
- Maintain a file of eligible qualified Section 3 Business Concerns for future contracting opportunities.
- Incorporate into contract (after selection of Bidders but prior to the execution of contracts), a negotiated provision for a specific amount of work to be contracted with Section 3 Business Concern(s) during the contract.
- Sponsor or participate in minority, women, small business expositions and or conferences in the Cincinnati, Ohio area to network and promote contracting opportunities with Section 3 Business Concern
- Outreach to business assistance agencies, minority contracting associations, community organizations, to network and promote contracting opportunities with Section 3 Business Concerns.
- Contact/Meet with Resident Associations informing them of new contracting opportunities.
- Outreach to trade/labor organizations to network and promote contracting opportunities with Section 3 Business Concerns.
- Host/Facilitate workshops geared to Section 3 Business concerns on contracting procedures and opportunities.
- Become an active mentor to Section 3 Business Concerns.
- Other:



**INVITATION FOR BIDS
BID FORM**

The undersigned is familiar with the local conditions, regulations and codes affecting the cost of the work, and with the Drawings and Specifications, issued and Addenda, if any thereto.

The penalty for making false statements in any offer is prescribed in 19 U.S.C. 1001.

FILL WITH LEGIBLE BLOCK LETTERS

Amount: _____

Legal Business Name: _____

DBA Name (If Applicable): _____

Business Address: _____

City, State, Zip: _____

Fed. Tax ID: _____

Business SAM.gov Unique Entity ID: _____

Email / Phone No.: _____

Signature: _____

Name: _____

Title: _____

Direct to Section3@cintimha.com any questions regarding CMHA's:

- MBE/WBE Program
- Section 3 Business Concerns

For CMHA use only – Do not write below the line

Responsiveness Check List

Y Bid Form

Y Bid Bond

Y Non-Collusive Affidavit

Y Disclosure of Lobbying Activities

Y Form HUD-2530 Previous Certificate Participation

Y Form HUD-5369A

Initials / Date _____



**INVITATION FOR BIDS
BID BOND SAMPLE**

KNOWN ALL MEN BY THESE PRESENTS, that we:

(Insert full name and address or legal title of Contractor) as

Principal, hereinafter called the Principle, and:

(Insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of:

_____ as Surety, hereinafter called the Surety,

are held and firmly bound unto:

(Insert full name and address or legal title of Owner) hereinafter called

the Oblige, in the sum of (10% of Bid) :

_____ DOLLARS

(In Words)

\$ _____

for payment of which sum, well and truly to be made, we hereby jointly bind ourselves, our heirs, executors, administrators, successors and assigns. The CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the Principal has submitted the accompanying bid, dated:

_____ 20____ for _____



**INVITATION FOR BIDS
BID BOND SAMPLE**

NOW, THEREFORE, if the Obligees shall accept the Bid of the Principal and the Principal shall enter into a Contract with the Obligees in accordance with the terms of such Bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligees the difference between the amount specified in said Bid and such larger amount for which the Obligees may in good faith contract with another party to perform the Work covered by said bond, then this obligation shall be null and void, otherwise to remain in full force and effect.

SIGNED SEALED AND DATED THIS _____ DAY OF _____, 20____

WITNESS

PRINCIPAL

BY _____

SURETY

BY _____

Note: In lieu of such bond, the Bidder shall include with his proposal, a Certified Check, Bank Draft, or U.S. Government Bond at par value, payable to the Obligees.

Certified Check for _____

DOLLARS - ON _____ BANK OF _____

DEPOSITED HERewith

BIDDER

BY _____

TITLE



**INVITATION FOR BIDS
NON-COLLUSIVE AFFIDAVIT**

TO THE CINCINNATI METROPOLITAN HOUSING AUTHORITY (CMHA)

State of _____

County of _____

_____, being first sworn, deposes:

and says that he is ☐ sole owner, ☐ partner, ☐ other _____ of
(Firm Name) _____

the party making the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or sham; that aspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly, or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or of any other bidder, or to fix any overhead, profit or cost element of said bid price, to secure any advantage against the Cincinnati Metropolitan 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 Individual)

Signature of Bidder: (If Partnership)

Signature of Bidder: (If Corporation)

Subscribed and sworn to before me this _____ day of _____, 20_____

_____, My commission expires _____, 20_____ Notary Public



**INVITATION FOR BIDS
DISCLOSURE OF LOBBYING ACTIVITIES**

FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

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 any 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. 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.

Fill with legible block letters

Signature: _____

Name: _____

Title: _____

Date: _____

Covered Action: _____

Type and identify program, project or activity

Previous Participation Certification

OMB Approval No. 2502-0118
(Exp. 05/31/2019)

US Department of Housing and Urban Development Office of Housing/Federal Housing Commissioner

US Department of Agriculture Farmers Home Administration

Part I to be completed by Principals of Multifamily Projects (See instructions)		For HUD HQ/FmHA use only	
Reason for submission:			
1. Agency name and City where the application is filed		2. Project Name, Project Number, City and Zip Code	
3. Loan or Contract amount \$	4. Number of Units or Beds	5. Section of Act	6. Type of Project (check one) <input type="checkbox"/> Existing <input type="checkbox"/> Rehabilitation <input type="checkbox"/> Proposed (New)

7. List all proposed Principals and attach organization chart for all organizations

Name and address of Principals and Affiliates (Name: Last, First, Middle Initial) proposing to participate	8 Role of Each Principal in Project	9. SSN or IRS Employer Number

Certifications: The principal(s) listed above hereby apply to HUD or USDA FmHA, as the case maybe, for approval to participate as principal(s) in the role(s) and project listed above. The principal(s) each certify that all the statements made on this form are true, complete and correct to the best of their knowledge and belief and are made in good faith, including any Exhibits attached to this form. **Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. The principal(s) further certify that to the best of their knowledge and belief:

- Schedule A contains a listing, for the last ten years, of every project assisted or insured by HUD, USDA FmHA and/or State and local government housing finance agencies in which the principal(s) have participated or are now participating.
- For the period beginning 10 years prior to the date of this certification, and except as shown on the certification:
 - No mortgage on a project listed has ever been in default, assigned to the Government or foreclosed, nor has it received mortgage relief from the mortgagee;
 - The principals have no defaults or noncompliance under any Conventional Contract or Turnkey Contract of Sale in connection with a public housing project;
 - There are no known unresolved findings as a result of HUD audits, management reviews or other Governmental investigations concerning the principals or their projects;
 - There has not been a suspension or termination of payments under any HUD assistance contract due to the principal's fault or negligence;
 - The principals have not been convicted of a felony and are not presently the subject of a complaint or indictment charging a felony. (A felony is defined as any offense punishable by imprisonment for a term exceeding one year, but does not include any offense classified as a misdemeanor under the laws of a State and punishable by imprisonment of two years or less);
 - The principals have not been suspended, debarred or otherwise restricted by any Department or Agency of the Federal Government or of a State Government from doing business with such Department or Agency;
 - The principals have not defaulted on an obligation covered by a surety or performance bond and have not been the subject of a claim under an employee fidelity bond;
- All the names of the principals who propose to participate in this project are listed above.
- None of the principals is a HUD/FmHA employee or a member of a HUD/FmHA employee's immediate household as defined in Standards of Ethical Conduct for Employees of the Executive Branch in 5 C.F.R. Part 2635 (57 FR 35006) and HUD's Standard of Conduct in 24 C.F.R. Part 0 and USDA's Standard of Conduct in 7 C.F.R. Part 0 Subpart B.
- None of the principals is a participant in an assisted or insured project as of this date on which construction has stopped for a period in excess of 20 days or which has been substantially completed for more than 90 days and documents for closing, including final cost certification, have not been filed with HUD or FmHA.
- None of the principals have been found by HUD or FmHA to be in noncompliance with any applicable fair housing and civil rights requirements in 24 CFR 5.105(a). (If any principals or affiliates have been found to be in noncompliance with any requirements, attach a signed statement explaining the relevant facts, circumstances, and resolution, if any).
- None of the principals is a Member of Congress or a Resident Commissioner nor otherwise prohibited or limited by law from contracting with the Government of the United States of America.
- Statements above (if any) to which the principal(s) cannot certify have been deleted by striking through the words with a pen, and the relevant principal(s) have initialed each deletion (if any) and have attached a true and accurate signed statement (if applicable) to explain the facts and circumstances.

Name of Principal	Signature of Principal	Certification Date(mm/dd/yyyy)	Area Code and Tel. No.
This form prepared by (print name)		Area Code and Tel. No.	

Previous Participation Certification

Schedule A: List of Previous Projects and Section 8 Contracts. Below is a complete list of the principals’ previous participation projects and participation history in multifamily Housing programs of HUD/FmHA, State and local Housing Finance Agencies. **Note:** Read and follow the instruction sheet carefully. Make full disclosure. Add extra sheets if you need more space. Double check for accuracy. If no previous projects, write by your name, “**No previous participation, First Experience**”.

1. Principals Name (Last, First)	2. List of previous projects (Project name, project ID and, Govt. agency involved)	3.List Principals’ Role(s) (indicate dates participated, and if fee or identity of interest participant)	4. Status of loan (current, defaulted, assigned, foreclosed)	5. Was the Project ever in default during your participation Yes No If yes, explain			6. Last MOR rating and Physical Insp. Score and date

Part II- For HUD Internal Processing Only

Received and checked by me for accuracy and completeness; recommend approval or refer to Headquarters after checking appropriate box.

Date (mm/dd/yyyy)	Tel No. and area code	<input type="checkbox"/> A. No adverse information; form HUD-2530 approval recommended.	C. Disclosure or Certification problem	
Staff	Processing and Control			
		<input type="checkbox"/> B. Name match in system	D. Other (attach memorandum)	
Supervisor	Director of Housing/Director, Multifamily Division		Approved <input type="checkbox"/> Yes <input type="checkbox"/> No	Date (mm/dd/yyyy)

IFB Project Manual Rev. 1 (10/24)

Instructions for Completing the Previous Participation Certificate, form HUD-2530

Carefully read these instructions and the applicable regulations. A copy of those regulations published at 24 C.F.R. 200.210 to 200.245 can be obtained from the Multifamily Housing Representative at any HUD Office. Type or print neatly in ink when filling out this form. Mark answers in all blocks of the form. If the form is not filled completely, it will delay approval of your application.

Attach extra sheets as you need them. Be sure to indicate "Continued on Attachments" wherever appropriate. Sign each additional page that you attach if it refers to you or your record.

Carefully read the certification before you sign it. Any questions regarding the form or how to complete it can be answered by your HUD Office Multifamily Housing Representative.

Purpose: This form provides HUD with a certified report of all previous participation in HUD multifamily housing projects by those parties making application. The information requested in this form is used by HUD to determine if you meet the standards established to ensure that all principal participants in HUD projects will honor their legal, financial and contractual obligations and are acceptable risks from the underwriting standpoint of an insurer, lender or governmental agency. HUD requires that you certify your record of previous participation in HUD/USDA-FmHA, State and Local Housing Finance Agency projects by completing and signing this form, before your project application or participation can be approved.

HUD approval of your certification is a necessary precondition for your participation in the project and in the capacity that you propose. If you do not file this certification, do not furnish the information requested accurately, or do not meet established standards, HUD will not approve your certification.

Note that approval of your certification does not obligate HUD to approve your project application, and it does not satisfy all other HUD program requirements relative to your qualifications.

Who Must Sign and File Form HUD-2530:

Form HUD-2530 must be completed and signed by all principals applying to participate in HUD multifamily housing projects, including those who have no previous participation. The form must be signed and filed by all principals and their affiliates who propose participating in the HUD project. Use a separate form for each role in the HUD project. Use a separate form for each role in the project unless there is an identity of interest.

Principals include all individuals, joint ventures,

partnerships, corporations, trusts, non-profit organizations, any other public or private entity that will participate in the proposed project as a sponsor, owner, prime contractor, turnkey developer, managing agent, nursing home administrator or operator, packager, or consultant. Architects and attorneys who have any interest in the project other than an arm's length fee arrangement for professional services are also considered principals by HUD.

In the case of partnerships, all general partners regardless of their percentage interest and limited partners having a 25 percent or more interest in the partnership are considered principals. In the case of public or private corporations or governmental entities, principals include the president, vice president, secretary, treasurer and all other executive officers who are directly responsible to the board of directors, or any equivalent governing body, as well as all directors and each stockholder having a 10 percent or more interest in the corporation.

Affiliates are defined as any person or business concern that directly or indirectly controls the policy of a principal or has the power to do so. A holding or parent corporation would be an example of an affiliate if one of its subsidiaries is a principal.

Exception for Corporations – All principals and affiliates must personally sign the certificate except in the following situation. When a corporation is a principal, all of its officers, directors, trustees and stockholders with 10 percent or more of the common (voting) stock need not sign personally if they all have the same record to report. The officer who is authorized to sign for the corporation or agency will list the names and title of those who elect not to sign. However, any person who has a record of participation in HUD projects that is separate from that of his or her organization must report that activity on this form and sign his or her name. The objective is full disclosure.

Exemptions – The names of the following parties do not need to be listed on form HUD-2530: Public Housing Agencies, tenants, owners of less than five condominium or cooperative units and all others whose interests were acquired by inheritance or court order.

Where and When Form HUD-2530 Must Be

Filed: The original of this form must be submitted to the HUD Office where your project application will be processed at the same time you file your initial project application. This form must be filed with applications for projects, or when otherwise required in the situations listed below:

- Projects to be financed with mortgages insured under the National Housing Act (FHA).
- Projects to be financed according to Section 202 of the Housing Act of 1959 (Elderly and

Handicapped).

- Projects in which 20 percent or more of the units are to receive a subsidy as described in 24 C.F.R. 200.213.
- Purchase of a project subject to a mortgage insured or held by the Secretary of HUD.
- Purchase of a Secretary-owned project.
- Proposed substitution or addition of a principal or principal participation in a different capacity from that previously approved for the same project.
- Proposed acquisition by an existing limited partner of an additional interest in a project resulting in a total interest of 25 percent or more or proposed acquisition by a corporate stockholder of an additional interest in a project resulting in a total interest of 10 percent or more.
- Projects with U.S.D.A., Farmers Home Administration, or with state or local government housing finance agencies that include rental assistance under Section 8 of the Housing Act of 1937. For projects of this type, form HUD-2530 should be filed with the appropriate applications directly to those agencies.

Review of Adverse Determination: If approval of your participation in a HUD project is denied, withheld, or conditionally granted on the basis of your record of previous participation, you will be notified by the HUD Office. You may request reconsideration by the HUD Review Committee. Alternatively, you may request a hearing before a Hearing Officer. Either request must be made in writing within 30 days from your receipt of the notice of determination.

If you do request reconsideration by the Review Committee and the reconsideration results in an adverse determination, you may then request a hearing before a Hearing Officer. The Hearing Officer will issue a report to the Review Committee. You will be notified of the final ruling by certified mail.

Specific Line Instructions:

Reason for submitting this Certification: e.g., refinancing, change in ownership, change in management agent, transfer of physical assets, etc.

Block 1: Fill in the name of the agency to which you are applying. For example: HUD Office, Farmers Home Administration District office, or the name of a State or local housing finance agency. Below that, fill in the name of the city where the office is located.

Block 2: Fill in the name of the project, such as "Greenwood Apts." If the name has not yet been selected, write "Name unknown." Below that, enter the HUD contract or project identification number, the Farmers Home Administration project number, or the State or local housing finance agency project or contract number. Include **all** project or contract

identification numbers that are relevant to the project. Also enter the name of the city in which the project is located, and the ZIP Code.

Block 3: Fill in the dollar amount requested in the proposed mortgage, or the annual amount of rental assistance requested.

Block 4: Fill in the number of apartment units proposed, such as "40 units." For hospital projects or nursing homes, fill in the number of beds proposed, such as "100 beds."

Block 5: Fill in the section of the Housing Act under which the application is filed.

Block 7: Definitions of all those who are considered principals and affiliates are given above in the section titled "Who Must Sign and File "

Block 8: Beside the name of each principal, fill in the appropriate role. The following are examples of possible roles that the principals may assume: Owner/Mortgagor, Managing Agent, Sponsor, Developer, General Contractor, Packager, Consultant, Nursing Home Administrator etc.

Block 9 : Fill in the Social Security Number or IRS employer number of every principal listed, including affiliates.

Instructions for Completing Schedule A:

Be sure that Schedule A is filled-in completely, accurately and the certification is properly dated and signed, because it will serve as a legal record of your previous experience. All Multifamily Housing projects involving HUD/ FmHA, and State and local Housing Finance Agencies in which you have previously participated **must be** listed. Applicants are reminded that previous participation pertains to the individual principal within an entity as well as the entity itself. A newly formed company may not have previous participation, but the principals within the company may have had extensive participation and disclosure of that activity is required.

Column 2. All previous projects must be listed or your certification cannot be processed. Include the name of all projects, project number, city where it is located and the governmental agency (HUD, USDA-FmHA or state or local housing finance agency) that was involved.

Column 3. List the role(s) as a principal, dates participated and if fee or identity of interest (IOI) with owners.

<p>Column 4. Indicate the current status of the loan. Except for current loan, the date associated with the status is required. Loans under a workout arrangement are considered assigned. For all noncurrent loans, an explanation of the status is required.</p> <p>Column 5. Explain any project defaults during your participation.</p> <p>Column 6. Provide the latest Management Review (MOR) rating and Physical Inspection score.</p> <p>Certification: After you have completed all other parts of</p>	<p>form HUD-2530, including schedule A, read the Certification carefully. In the box below the statement of the certification, fill in the names of all principals and affiliates as listed in block 7. Each principal should sign the certification with the exception in some cases of individuals associated with a corporation (see "Exception for Corporations" in the section of the instructions titled "Who Must Sign and File Form HUD-2530). Principal who is signing on behalf of the entity should attach signature authority document. Each principal who signs the form should fill in the date of the signature and</p>	<p>a telephone number. By providing a telephone number, HUD can reach you in the event of any questions.</p> <p>If you cannot certify and sign the certification as it is printed because some statements do not correctly describe your record, use a pen to strike through those parts that differ with your record, and then sign and certify.</p> <p>Attach a signed statement of explanation of the items you have struck out on the certification. Item 2e. relates to felony convictions within the past 10 years. If you are convicted of</p>	<p>a felony within the past 10 years, strike out 2e. and attach statement of explanation. A felony conviction will not necessarily cause your participation to be disapproved unless there is a criminal record or other evidence that your previous conduct or method of doing business has been such that your participation in the project would make it an unacceptable risk from the underwriting stand point of an insurer, lender or governmental agency.</p>
---	--	---	--

The Department of Housing and Urban Development (HUD) is authorized to collect this information by law (42 U.S.C. 3535(d) and 24 C.F.R. 200.217) and by regulation at 24 CFR 200.210. This information is needed so that principals applying to participate in multifamily programs can become HUD-approved participants. The information you provide will enable HUD to evaluate your record with respect to established standards of performance, responsibility and eligibility. Without prior approval, a principal may not participate in a proposed or existing multifamily project. HUD uses this information to evaluate whether or not principals pose an unsatisfactory underwriting risk. The information is used to evaluate the potential principals and approve only individuals and organizations that will honor their legal, financial and contractual obligations.

Privacy Act Statement: The Housing and Community Development Act of 1987, 42 U.S.C. 3543 requires persons applying for a Federally-insured or guaranteed loan to furnish his/her Social Security Number (SSN). HUD must have your SSN for identification of your records. HUD may use your SSN for automated processing of your records and to make requests for information about you and your previous records with other public agencies and private sector sources. HUD may disclose certain information to Federal, State and local agencies when relevant to civil, criminal, or regulatory investigations and prosecutions. It will not be otherwise disclosed or released outside of HUD, except as required and permitted by law. You must provide all of the information requested in this application, including your SSN.

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

A response is mandatory. Failure to provide any of the information will result in your disapproval of participation in this HUD program.

**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

Table of Contents

Clause	Page
1. Certificate of Independent Price Determination	1
2. Contingent Fee Representation and Agreement	1
3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions	1
4. Organizational Conflicts of Interest Certification	2
5. Bidder's Certification of Eligibility	2
6. Minimum Bid Acceptance Period	2
7. Small, Minority, Women-Owned Business Concern Representation	2
8. Indian-Owned Economic Enterprise and Indian Organization Representation	2
9. Certification of Eligibility Under the Davis-Bacon Act	3
10. Certification of Nonsegregated Facilities	3
11. Clean Air and Water Certification	3
12. Previous Participation Certificate	3
13. Bidder's Signature	3

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.

[x] [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 --

☐ 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.

☐ 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.

☐ 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)

- | | |
|---|---|
| <input type="checkbox"/> Black Americans | <input type="checkbox"/> Asian Pacific Americans |
| <input type="checkbox"/> Hispanic Americans | <input type="checkbox"/> Asian Indian Americans |
| <input type="checkbox"/> Native Americans | <input type="checkbox"/> 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)

**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

Table of Contents

Clause	Page
1. Bid Preparation and Submission	1
2. Explanations and Interpretations to Prospective Bidders	1
3. Amendments to Invitations for Bids	1
4. Responsibility of Prospective Contractor	1
5. Late Submissions, Modifications, and Withdrawal of Bids	1
6. Bid Opening	2
7. Service of Protest	2
8. Contract Award	2
9. Bid Guarantee	3
10. Assurance of Completion	3
11. Preconstruction Conference	3
12. Indian Preference Requirements	3

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.



REQUEST FOR BIDS SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

These conditions are a supplement to the HUD 5369 Instructions to Bidders and provide information to help clarify articles of that document. Any articles or paragraphs not specifically mentioned shall remain as printed in HUD 5369 without change.

1. Add to Paragraph 1, subparagraph b:
 - i. The bid documents required for the complete bid package shall consist of the following (all shall be signed originals):
 1. Bid Form
 2. Bid Bond
 3. Non-Collusive Affidavit
 4. Disclosure of Lobbying Activities
 5. Form HUD-2530
 6. Form HUD-5369A
2. Add to paragraph 2 subparagraph a
 - a. All questions are to be received in writing. Oral questions will not be accepted. Oral clarifications will not be provided.
 - b. Responses to all written questions will be posted as addendum on the CMHA website at www.cintimha.com.
3. Add to paragraph 4 subparagraph b.1.
 - b.1 Bidders shall indicate receipt of addendum on Bid Form. No other acknowledgement is required.
4. Add to paragraph 4, subparagraph a:
 - a. Ability to demonstrate a minimum of 7 years of experience as a general contractor, performing work of like scope and material, for the period immediately preceding commencement of this CMHA Project for work of the size and type of this CMHA Project.



REQUEST FOR BIDS SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

CMHA, in its sole and absolute discretion, will consider a request for a waiver of the 7 years of experience requirement, if the contractor can establish that it has successfully undertaken and completed such a number of projects of similar scope and complexity in a lesser number of years so as to confer upon that contractor the same or more experience as other bidders have achieved in 7 or more years of experience.

5. Add to paragraph 5, subparagraph g:

- g. No bid shall be withdrawn for a time period of ninety (90) calendar days from the bid opening. The foregoing limitation upon withdrawal of bids prior to opening shall be subject to the right of withdrawal of a bid made in error as provided by Section 9.31, Ohio Revised Code, to the extent that such statutory provision is applicable.

6. Add to paragraph 10, subparagraphs a, and b:

- a. All bid bonds shall be issued by Surety Companies licensed to issue bonds in the State of Ohio and listed in Federal Register Circular #570. The current power of attorney for the person who signs for any surety company shall be attached to such bid bond.
- b. The CMHA will have the right to retain the bid security of bidders to whom an award is being considered until either (a) the contract has been executed and bonds, if required, have been executed, (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

7. Add paragraph 13. Minority Business Enterprise:

It is the goal of CMHA to obtain 20 percent minority business participation on this project.

8. Add paragraph 14. Lead Based Paint:

Any contractor awarded a contract for modernization shall comply with 24 CFR (Code of Federal Regulations) Part 35 prohibiting the use of lead-based paint.



REQUEST FOR BIDS SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

9. Add paragraph 15. Sales Tax Exemption:

The contractor shall take whatever steps required by law to relieve the owner from payment of excise tax and Ohio sales tax on materials, specialties and equipment for contractor to take any part of such action shall constitute the responsibility of the contractor to make such tax payments as within the scope of this contract. The owner is tax exempt, and upon request will provide a statement to that effect.

10. Add paragraph 16. Liquidated Damages

This project has liquidated damages, as specified in Clause 33 of HUD General Conditions in this contract, which may be charged against contractors who do not complete work on time.

11. Add paragraph 17. Pre-Bid Conference

A pre-bid conference for all prospective contractors will be held as indicated on the Invitation of Bids. Questions will not be received or answered at the pre-bid conference. All questions are to be submitted in writing and responses will be posted as addendum to the CMHA website at www.cintimha.com.

Before presenting a bid, the contractor is advised to have visited the site and be thoroughly familiar with the scope of work and the conditions under which it will be executed. Failure to do so will not release contractor of his obligation to furnish all material and labor necessary to carry out all provisions of the contract.

Add paragraph 18. Definition

Addenda are written or graphic instruments issued by the CMHA prior to the execution of the Contract, which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

A Bid is a complete and properly signed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.



REQUEST FOR BIDS SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be in Alternate Bids.

An Alternate Bid or Alternate is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted. Any alternates accepted by the owner shall be accepted in the order in which they are listed in the form of Bid.

A Unit Price is an amount stated in the Bid as a price per unit of measure for materials, equipment or services or a portion of the Work as described in the Bidding Documents, and to be utilized at CMHA's sole discretion.

12. Add paragraph 19. Form and Style of Bids

- a. Bids shall be submitted on the form included in the Bidding Documents.
- b. All blanks on the Bid Form shall be filled in by typewriter or manually in ink.
- c. Where so indicated by the makeup of the Bid Form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.
- d. The signer of the Bid must initial interlineations, alterations and erasures.
- e. All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."
- f. Each copy of the Bid shall include the legal name of the Bidder and a statement that the Bidder is a sole proprietor, partnership, corporation or other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

END OF SECTION



**INVITATION FOR QUOTES
CONSTRUCTION CONTRACT SAMPLE**

CONSTRUCTION CONTRACT

**CINCINNATI METROPOLITAN HOUSING AUTHORITY
AND**

CONTRACTOR

This Contract is made and entered into between the Cincinnati Metropolitan Housing Authority, hereinafter referred to as “Owner” and the below named, hereinafter referred to as “CONTRACTOR.”

1. PURPOSE AND BACKGROUND

OWNER is the 17th largest public housing authority in the United States. OWNER’s Asset Management Portfolio of properties are owned and operated by OWNER.

The purpose of this contract is for the Contractor to provide construction services at OWNER’s property further described in *The Scope of Work*.

2. STATEMENT OF WORK

The Contractor shall furnish the personnel, material, and/or services and otherwise do all things necessary for or incidental to the performance of the work set forth in *the Scope of Work*

The General Terms and Conditions of the Construction Contract govern the work to be performed under this contract, the nature of the working relationship between OWNER and the Contractor, and specific obligations of both parties.

3. APPLICABLE DOCUMENTS

This contract includes all relevant terms in Solicitation 2024-3035, the Contractor’s Fee Submission Form and all documents, policies, and documents incorporated by reference. All documents, sections, exhibits, clauses, terms and provisions of this Performance Based Contract shall be read so as to be consistent to all extent practicable. In the event that any document, section, clause, exhibit, term or provision of this Contract conflicts with any provision of any of the above-mentioned applicable document, the provision of the instruments listed below shall take precedence in the following order:

- a) Applicable Federal and State of Ohio statutes and regulations
- b) This Instrument (Performance Based Contract)
- c) Solicitation
- d) The Contractor’s Fee
- e) Other Documents incorporated by reference (if applicable)



INVITATION FOR QUOTES CONSTRUCTION CONTRACT SAMPLE

4. PERIOD OF PERFORMANCE

Subject to other Contract provisions, the period of performance under this Contract shall be from as indicated in the Notice to Proceed, unless sooner terminated or extended as provided herein.

Upon issuance of the Notice to Proceed by Owner, the Contractor shall have two (2) weeks from the issuance of the Notice to submit applications for any required permits. Contractor shall have one (1) week to begin work after receipt of the applicable permits. Failure to meet these deadlines shall constitute a material breach of the terms of this Agreement and shall constitute good cause for the Owner to cancel this contract.

5. COMPENSATION AND PAYMENT

Billing and payment shall be accomplished in accordance with the Contract. OWNER shall pay an amount not to exceed the Fee Amount on item 9 of the *Fee Submission Form*, as breakdown in the Schedule of Values approved by the OWNER, for the performance of all things necessary for, or incidental to the performance of work as set forth in *The Scope of Work*.

Payment shall be contingent upon review and acceptance of the Contractor's Deliverables by OWNER.

OWNER will pay Contractor within 30 days of receipt of properly completed invoices or acceptance of deliverable, whichever is later. Invoices shall be submitted to the Construction Manager or designated not more often than monthly. The invoice shall reference the Contract No., describe and document to OWNER's satisfaction as description of the deliverable accepted by OWNER and the fixed price cost per deliverable. OWNER may, in its sole discretion, withhold payments claimed by Contractor for services rendered if Contractor fails to satisfactorily comply with any term or condition of this Contract. Invoices shall be sent to 1627 Western Ave., Cincinnati, OH 45214

6. WARRANTIES

Contractor warrants that its services and materials provided will be of good quality and consistent with the professional skill and care ordinarily provided by professionals performing the same or similar service and such services and materials shall be provided in accordance with generally accepted industry standards.

At all times Contractor shall comply with all applicable federal, state and local laws, rules, regulations, ordinances and codes and obtain any licenses or permits required to provide the services under this Contract.



**INVITATION FOR QUOTES
CONSTRUCTION CONTRACT SAMPLE**

7. EXECUTIVE REVIEW

This Contract shall be subject to the written approval of OWNER's authorized representative and shall not be binding until so approved.

IN WITNESS WHEREOF, this PROFESSIONAL SERVICES AGREEMENT has been

executed by OWNER and _____
to take effect on _____

Cincinnati Metropolitan Housing Authority
Sign and Date

Contractor
Sign and Date



INVITATION FOR BIDS CONSTRUCTION GENERAL TERMS AND CONDITIONS

1.	ARTICLE I CONTRACTOR'S RESPONSIBILITIES.....	1
1.21.	Emergency	3
2.	ARTICLE II HOUSING AUTHORITY RIGHTS AND RESPONSIBILITIES	4
3.	ARTICLE III A/E'S DUTY, RESPONSIBILITY AND AUTHORITY	5
3.3.	Site Visits and Observation	5
3.4.	Testing and Inspection Services	5
3.5.	A/E Review and Approval of Work.....	5
3.6.	Limitation of A/E's Authority	6
4.	ARTICLE IV PRECONSTRUCTION ACTIVITIES	7
4.1.	Pre-construction Conference.....	7
4.2.	Certificate of Insurance.....	7
4.3.	Building and Trade Permits, Licenses and Codes	7
4.4.	Plan Approval and Permits.....	7
4.5.	Trade Permits and Licenses.....	7
5.	ARTICLE V CONSTRUCTION REQUIREMENTS.....	9
5.1.	Commencement of Work on Site.....	9
5.2.	Environmental Controls	9
5.3.	Construction Procedures	9
5.4.	Utilities	10
5.5.	Construction Supervision	12
5.6.	Construction Progress Schedule	12
5.7.	Progress Meetings	14
5.8.	Project Coordination.....	15
5.9.	Additional Tests and Inspections	15
5.10.	Review of Contract Documents	15
5.11.	Site Investigation and Conditions Affecting the Work.....	16
5.12.	Protection of the Project.....	16
5.13.	General Warranty - Materials, Equipment and Workmanship	18
5.14.	Specifications and Drawings for Construction	21
5.15.	As Built Drawings	22
5.16.	Project Document Maintenance and Submittal	22
5.17.	Temporary Buildings and Transportation of Materials.....	23
5.18.	Facilities	23
5.19.	Progress Cleaning.....	23
5.20.	Use of Premises.....	24
5.21.	Smoking and Tobacco Products	24
5.22.	Correction of the Work	25
6.	ARTICLE VI SUBCONTRACTORS.....	27
6.1.	Evaluation and Approval	27
6.2.	Suspension/Debarment	27
6.3.	Contractor's Responsibility	27
6.4.	Mandatory Contract Provisions/Forms.....	27
6.5.	Replacement of Subcontractors	27
6.6.	Contingent Assignment of Subcontract	27
6.7.	Prompt Payment of Subcontracts.....	28
6.8.	Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms.....	28
7.	ARTICLE VII PAYMENTS.....	30
7.1.	CMHA Obligation	30



INVITATION FOR BIDS
CONSTRUCTION GENERAL TERMS AND CONDITIONS

7.2.	Forms	30
7.3.	Step One – Pencil Application	30
7.4.	Progress Payments	30
7.5.	Allowances	31
7.6.	Unit Prices	31
7.7.	Schedule of Values	31
7.8.	Labor Payments/Retainage	32
7.9.	Material Payments/Retainage	32
7.10.	Payments Withheld	32
7.11.	Payment Request	32
8.	ARTICLE VIII CONTRACT MODIFICATIONS	34
8.1.	Changes in the Work	34
8.2.	Change Order	34
8.3.	Change Order Directive	34
8.4.	Change Order Procedure	35
8.5.	Change Order Proposal	35
8.6.	Differing Site Conditions	36
8.7.	Minor Changes in the Work	36
8.8.	Change Order Cost or Credit Determination	37
8.9.	Time Extension	40
9.	ARTICLE IX CONSTRUCTION CLOSEOUT	41
9.1.	Final Cleaning	41
9.2.	Inspection and Construction of the Work	41
9.3.	Routine Inspections	41
9.4.	Substantial Completion	42
9.5.	Demonstration and Training, Operating Appurtenances	43
9.6.	Acceptance of Defective Work	43
9.7.	Building Commissioning	44
9.8.	Contract Completion	44
10.	ARTICLE X SUSPENSION AND TERMINATION	45
10.1.	Suspension of the Work	45
10.2.	Termination for Convenience	45
10.3.	Termination for Cause/Default	47
10.4.	Contractor Insolvency	48
11.	ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE	50
11.1.	General	50
11.2.	Initiation of a Claim	50
11.3.	Substantiation of Claims General	50
11.4.	Substantiation of Claims for increase of the Contract Sum	51
11.5.	Substantiation of Claims for Extension of the Contract Time	51
11.6.	Certification of a Claim	51
11.7.	Delay and Delay Damage Limitations	51
11.8.	Derivative Claims	52
11.9.	Claim Decision	52
11.10.	Audit of a Claim	52
11.11.	False Certification of a Claim	53
12.	ARTICLE XII WARRANTY	54
12.1.	Warranty of Title	54
12.2.	Warranty of Construction	54



INVITATION FOR BIDS
CONSTRUCTION GENERAL TERMS AND CONDITIONS

12.3.	Warranty Walk-through Contractor	54
13.	ARTICLE XIII BONDS	55
13.1.	Bid Bond/Guaranty	55
13.2.	Payment and Performance Bond	55
14.	ARTICLE XIV INSURANCE	56
14.1.	Contractor's General Insurance Requirements	56
14.2.	Minimum Coverage Requirements	56
14.3.	Waivers of Subrogation	58
15.	ARTICLE XV INDEMNIFICATION	59
16.	ARTICLE XVI DAMAGES.....	60
16.1.	Liquidated Damages.....	60
16.2.	Mutual Waiver of Consequential Damages	61
17.	ARTICLE XVII EQUAL OPPORTUNITY.....	62
17.1.	Prohibition Against Discrimination	62
18.	ARTICLE XVIII SECTION 3.....	64
18.8.	Section 3 Reporting Requirements	64
19.	ARTICLE XIX LABOR STANDARDS.....	65
19.1.	Compliance with Davis Bacon and Related Acts requirements	65
19.2.	Minimum Wages.....	65
19.3.	Withholding of Funds	66
19.4.	Payrolls and Basic Records.....	66
19.5.	Apprentices & Trainees.....	67
19.6.	Compliance with Copeland Act requirements	69
19.7.	Contract Termination; Debarment	69
19.8.	Disputes Concerning Labor Standards	69
19.9.	Certification of Eligibility	69
19.10.	Contract Work Hours and Safety Standards Act	69
19.11.	Subcontracts	69
19.12.	Non-Federal Prevailing Wage Rates.....	700
20.	ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION	71
20.1.	General Contractor Requirements.....	71
20.2.	Notification of Non-Compliance Procedure.....	71
20.3.	Safety Plan	71
20.4.	Safety Data Sheets	71
20.5.	Hazardous Materials	72
20.6.	Fires or Hot-Work	72
20.7.	Explosives and Blasting	72
21.	ARTICLE XXI CONTRACT DOCUMENTS AND CONTRACT RECORDS.....	73
21.1.	Examination and Retention of Contractor's Records	73
21.2.	Examination and Audit of Contractor's Records.....	73
21.3.	Ownership of Contract Documents	74
21.4.	Intent of Contract Documents	74
21.5.	Use of Electronic Files	74
21.6.	Order of Precedence.....	74
22.	ARTICLE XXII MISCELLANEOUS	76
22.1.	Assignment	76
22.2.	Contractor Performance Evaluation	76



INVITATION FOR BIDS
CONSTRUCTION GENERAL TERMS AND CONDITIONS

22.3.	Prohibition Against Liens	76
22.4.	Conflict of Interest	76
22.5.	Limitation on Payments Made to Influence Certain Federal Financial Transactions.....	76
22.6.	Procurement of Recovered Materials.....	77
22.7.	Royalties and Patents.....	77
22.8.	Contract Period	77
22.9.	Other Contracts.....	77
22.10.	Drug-Free Workplace.....	78
22.11.	Energy Efficiency and Sustainability Requirements.....	78
22.12.	Clean Air and Water	78
22.13.	Public Relations.....	78
22.14.	Governing Law	78
22.15.	Written Notice	78
22.16.	Taxes	78
22.17.	Computing Time.....	78
22.18.	Time is of the Essence.....	79
22.19.	Extent of Contract.....	79
22.20.	Severability	79
22.21.	Facsimile/Electronic Mail Signature.....	79
22.22.	No Third Party Interest	79
22.23.	No Waiver	79
22.24.	Assignment of Antitrust Claims	79
22.25.	Survival of Obligations	80
22.26.	Force Majeur.....	80
22.27.	Privacy.....	80
22.28.	Contractor Status	80
23.	ARTICLE XXIII DEFINITIONS AND TERMINOLOGY	81

1. ARTICLE I CONTRACTOR'S RESPONSIBILITIES

- 1.1.** The Contractor shall perform the Work in a workmanlike manner, consistent with the standards of skill and care exercised by entities licensed to perform (where required by Applicable Law) and regularly performing comparable work in the same or similar locality under the same or similar circumstances.
 - 1.1.1.** Furthermore, Contractor agrees to adhere to CMHA's quality standards as outlined in the Contract Documents; this includes, but is not necessary limited to, CMHA's Gold Standards of performance.
- 1.2.** The Contractor shall perform the Work in accordance with the Contract Documents.
- 1.3.** The Contractor shall furnish all labor, services, materials, tools, equipment, superintendence, and transportation necessary for performance of the Work.
 - 1.3.1.** Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by CMHA.
- 1.4.** The Contractor shall perform on the site and with its own organization, work equivalent to at least {12%} (unless otherwise indicated) of the total amount of work to be performed under the order.
 - 1.4.1.** This percentage may reduce by a supplemental agreement to this Construction Contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be the advantage of CMHA.
- 1.5.** At all times during performance of this Construction 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 whose qualifications and experience are satisfactory to CMHA and has authority to act on behalf of the Contractor.
- 1.6.** The Contractor shall be responsible for all damages, including, but not limited to, damages to persons or property, that occur as a result of the Contractor's breach of this Construction Contract, fault or negligence.
 - 1.6.1.** The Contractor shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others.
 - 1.6.2.** The Contractor shall hold and save CMHA, including CMHA's officers, employees, consultants, and agents, free and harmless from damages, claims, demands, suits and liabilities of any nature, including but not limited to, all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, caused by the Contractor's breach of this Construction Contract, fault, negligence or performance of the Work.
 - 1.6.3.** The Contractor shall also be responsible for all storage, protection and cleaning of materials delivered and Work performed on the Project, until Contract Completion and acceptance of the entire Project by CMHA, except for any completed unit of Work which may have not been accepted under the Construction Contract.
- 1.7.** The Contractor shall lay out the work from base lines and bench marks indicated in the drawings and be responsible for all lines, levels, and measurements of all work executed under the Contract Documents.
 - 1.7.1.** The Contractor shall verify the lines, bench marks, figures and dimensions indicated in the Contract Documents before laying out the work and will be held responsible for any resulting errors resulting from its failure to do so.
- 1.8.** The Contractor shall confine all operations (including storage of materials) on CMHA's premises to areas authorized or approved by the Contracting Officer.
- 1.9.** The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials.
 - 1.9.1.** After completing the Work and before final inspection, the Contractor shall:
 - A.** Remove from the premises all scaffolding, equipment, tools, materials (including rejected materials) that are not the property of CMHA and rubbish caused by its work;
 - B.** Leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer;
 - C.** Perform all specified tests; and
 - D.** Deliver the installation in complete and operating conditions.
- 1.10.** The Contractor must perform the Work so as to not interfere with, disturb, hinder, or delay the services of separate consultants or the work of separate contractors.

- 1.10.1.** The Contractor must cooperate and coordinate fully with all separate consultants and separate contractors and must freely share all of the Contractor's Project-related information with them to facilitate the timely and proper performance of the Work and of the services and work of the separate consultants and separate contractors.
- 1.10.2.** The Contractor must afford every separate consultant and separate Contractor proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of their services and work.
- 1.10.3.** If the Contractor damages the property or work of any separate consultant or separate Contractor caused by Contractor or by failure to perform the Work with due diligence, delays, interferes with, hinders, or disrupts the services of any separate consultant or separate Contractor who suffers additional expense and damage as a result, the Contractor is responsible for that damage, injury, or expense.
- 1.10.4.** The intent of 1.10 is to benefit any separate consultants and separate contractors and to demonstrate that the separate consultants or separate contractors are intended third-party beneficiaries of Contractor's obligations under the Contract.
- 1.11.** If the proper execution or result of any part of the Work depends upon work performed or services provided by CMHA, a separate consultant, or a separate Contractor, the Contractor must inspect that other work and appropriate instruments of service, and promptly report to CMHA in writing any defects or deficiencies in that other work or services that render it unavailable or unsuitable for the proper execution and results of the Work.
- 1.11.1.** The Contractor's failure to inspect and promptly report any issues in writing will constitute an acceptance of the other work and services as fit and proper for integration with the Contractor's Work unless in the opinion of CMHA's Project Manager and/or Construction Contract Administrator the defects and deficiencies in the other work and appropriate instruments of service were not reasonably discoverable at the time of the Contractor's inspection.
- 1.12.** The Contractor shall not delay the Work on account of any claim, dispute, or action between the Contractor and CMHA or the Contractor a Separate Consultant or Separate Contractor.
- 1.13.** The Contractor shall complete all portions of Work in the sequence in the Construction Progress Schedule.
- 1.14.** The Contractor shall develop and keep a Construction Progress Schedule and prepare and keep current a schedule of submittals that is coordinated with the Construction Progress Schedule for CMHA's acceptance.
- 1.15.** The Project's regular work hours shall be between 8:00 am and 5:00 pm, or as determined and approved by CMHA.
- 1.15.1.** The Contractor may modify the regular work hours only if Contractor receives written authorization from CMHA's Project Manager and/or Construction Contract Administrator.
- 1.16.** The Contractor shall coordinate the Work with the activities and responsibilities of the Project's architect or engineer ("A/E"), CMHA and Contractor's surety to meet the contractual dates for Substantial Completion and Contract Completion.
- 1.17.** The Contractor shall remove any snow and ice as may be required for reasonably safe access to the Project, including, without limitation, building entries, driveways, parking lots, and sidewalks.
- 1.18.** The Contractor shall keep a daily log containing a record of weather, number of workers on Site for the Contractor, identification of equipment, Work accomplished, problems encountered and other similar relevant data.
- 1.19.** The Contractor hereby represents and agrees that, prior to submitting its bid or quote to perform the Work on the Project, it has had a competent person carefully and diligently review each part of the Contract Documents, including the Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work.
- 1.19.1.** Contractor further represents and agrees that, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors, or omissions in the Contract Documents for which it has not notified CMHA or the A/E.
- 1.19.2.** If there are any such conflicts, inconsistencies, errors, or omissions in the Contract Documents, the Contractor will:
- A.** Provide the labor, equipment, or materials of the better quality or greater quantity of Work; and/or
 - B.** Comply with the more stringent requirements.

- 1.19.3.** The Contractor will not be entitled to any additional compensation for any conflicts, inconsistencies, errors, or omissions that would have been discovered by such careful and diligent review.
- 1.20.** The Contractor hereby represents and agrees that the Project is a public project involving public funds.
- 1.20.1.** The Contractor further understands that CMHA expects and requires that each Contractor adhere to the highest ethical and performance standards.
- 1.20.2.** Accordingly, Contractor hereby pledges and agrees that:
- A.** It will act at all times with absolute integrity and truthfulness in its dealings with CMHA and the A/E;
 - B.** It will use its best efforts to cooperate with CMHA and the A/E and all other contractors and consultants on the Project and at all times will act with professionalism and dignity in its dealings with CMHA, the A/E, and other contractors;
 - C.** It will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her; and
 - D.** It has read, understands and will comply with the terms of the Contract Documents.
- 1.21. Emergency**
- 1.21.1.** In the event of an emergency affecting the safety of the Project, other property, or individuals, the Contractor, without special instructions or authorization, shall act to prevent the threatened damage, injury, or loss.
- 1.21.2.** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of its actions in response to any emergency, the Contractor may request a Change Order by giving written notice no later than 48-hours after the emergency.

2. ARTICLE II HOUSING AUTHORITY RIGHTS AND RESPONSIBILITIES

- 2.1. CMHA shall designate a Project Manager and/or Construction Contract Administrator for the Project.
- 2.2. CMHA shall have access to the Work and Site at all times, whether the Project is in preparation or progress.
- 2.3. CMHA is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.
- 2.4. Upon the date indicated in the Notice to Proceed, CMHA shall provide the Site to the Contractor in a condition to permit the Contractor to perform the Work.
 - 2.4.1. If the Site provided by CMHA is not in a condition to permit the Contractor to perform the Work, Contractor shall notify CMHA's Project Manager and/or Construction Contract Administrator within 48 hours of the Notice to Proceed and identify the conditions which are preventing Contractor from performing the Work.

3. ARTICLE III A/E'S DUTY, RESPONSIBILITY AND AUTHORITY

- 3.1.** The A/E for this Contract and any successor shall be designated in writing by CMHA.
- 3.2.** The A/E's duties and responsibilities may include, but shall not be limited to:
- 3.2.1.** Attend and conduct the Construction Progress Meetings.
 - 3.2.2.** Making periodic visits to the work site and on the basis of his/her on-site inspections, issuing written reports to CMHA which shall include all observed deficiencies.
 - A.** The A/E shall electronically send a copy of the report to CMHA and to the Contractor's designated representative at the site.
 - 3.2.3.** Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of Change Orders and other Contract Modifications for issuance to the Contracting Officer.
 - 3.2.4.** The A/E may authorize minor changes or alterations in the Work that are consistent with the intent of the Contract Documents and do not involve adjustment of the Contract Sum or Contract Times, or both.
 - A.** The A/E has no authority to authorize the Contractor to perform additional or extra Work for which the Contractor may seek adjustment of the Contract Sum or the Contract Time, or both.
 - 3.2.5.** Reviewing and making recommendations with respect to:
 - A.** The Contractor's Construction Progress Schedules;
 - B.** The Contractor's shop and detailed drawings; and
 - C.** The Contractor's price breakdown and progress payment estimates-
 - 3.2.6.** Assisting in inspections, signing Certificates of Substantial Completion and Contract Completion, and making recommendations with respect to acceptance of work completed under the Contract; and
 - 3.2.7.** Approve or certify applicable forms required under the Contract Documents.

3.3. Site Visits and Observation

- 3.3.1.** The A/E shall notify, advise, and consult with CMHA and protect CMHA against Defective Work throughout completion of the Project, which includes the Correction Period, and for such time period CMHA may extend A/E's services.
 - A.** The A/E should designate a field representative, subject to CMHA's approval, to attend meetings, to observe and check the progress and quality of the Work, and to take action as necessary or appropriate to achieve conformity with the Contract Documents.
 - B.** The A/E shall have its consultants attend to the Project at intervals required by its agreement or required by CMHA.
- 3.3.2.** The A/E is authorized to disapprove or reject Defective Work. The A/E shall immediately notify CMHA any time the A/E disapproves or rejects an item of Work.
- 3.3.3.** The A/E is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.

3.4. Testing and Inspection Services

- 3.4.1.** Unless otherwise specified in the Contract Documents, CMHA shall apply for, secure, and pay for the costs of structural testing and special inspections under the Ohio Building Code; testing including geotechnical analysis, environmental testing and analysis, concrete, masonry, structural steel, reinforcing steel, welding, bolts, steel connections, HVAC systems and controls, plumbing and piping, air, and water balancing and testing, or other testing, or approvals required by Applicable Law.

3.5. A/E Review and Approval of Work

- 3.5.1.** Any information the Contractor submits to the A/E is for the sole purpose of determining whether the Work and information is generally consistent with the Contract's intent, and will not relieve the Contractor of its sole responsibility for the performance, preparation, completeness, and accuracy of the Work and information.
- 3.5.2.** By reviewing information submitted by the Contractor, A/E is not taking on responsibility for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work.

3.6. Limitation of A/E's Authority

- 3.6.1.** The A/E shall serve as the technical representative for CMHA with respect to architectural, engineering, and design matters related to the Work performed under the Contract.
- 3.6.2.** Subject to the Contractor's responsibility under ARTICLE I, the A/E may provide direction on Contract performance.
- 3.6.3.** Such direction shall be within the scope of the Contract and may not be of a nature which:
- A.** Institutes additional work outside of the scope of the Contract;
 - B.** Constitutes a change;
 - C.** Causes an increase or decrease in the cost of the Contract;
 - D.** Alters the Construction Progress Schedule;
 - E.** Changes any of the other express terms or conditions of the Contract;
 - F.** Accepts any defective or non-conforming services, Work, or vendor-furnished items;
 - G.** Makes any settlements on CMHA's behalf;
 - H.** Assumes any responsibilities of the Contractor or Subcontractors; or
 - I.** Binds CMHA to any authorizations under, modifications of, or amendments to the Contract Documents other than as expressly provided A/E'S DUTY, RESPONSIBILITY AND AUTHORITY.
- 3.7.** The Contractor acknowledges and agrees that CMHA's legal counsel may from time to time provide legal services to the Project and that in doing so may communicate with the A/E, as CMHA's representative on the Project.
- 3.7.1.** The Contractor agrees that such communications will be privileged communications and, if there is a Claim contemplated or pending, any written communications will be protected by the attorney client privilege and considered confidential work product.

4. ARTICLE IV PRECONSTRUCTION ACTIVITIES

4.1. Pre-construction Conference

- 4.1.1.** Within ten (10) calendar days, unless otherwise indicated by CMHA, of Contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with CMHA representatives; CMHA's A/E, and other interested parties convened by CMHA.
- A.** The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the Contract.
 - B.** CMHA will provide the Contractor with the date, time, and place of the conference.

4.2. Certificate of Insurance

- 4.2.1.** Before commencing work, the Contractor and each Subcontractor shall furnish CMHA with certificates of insurance showing the minimum insurance coverage is in force and will insure all operations under the Contract.

4.3. Building and Trade Permits, Licenses and Codes

- 4.3.1.** The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules, and regulations.
- A.** Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the Contract, all Work installed shall comply with all applicable laws, ordinances, codes, rules, and regulations, as may be amended by any waivers.
 - B.** Before installing the Work, the Contractor shall examine all drawings and the specifications for compliance with applicable laws, ordinances, codes, rules, and regulations bearing on the work and shall immediately report, in writing, any discrepancy it may discover to the CMHA's Project Manager and/or Construction Contract Administrator and the A/E.
 - i.** If required by any governing jurisdiction, CMHA will modify the Contract by change order so that the Work on the Project will conform to the applicable laws, ordinances, codes, rules, and regulations.
 - C.** If the Contractor installs any Work that does not comply with all applicable laws, ordinances, codes, rules, and regulations before providing notice hereunder to CMHA and receiving direction from CMHA, Contractor shall be responsible for all costs resulting from any removal, demolishing, and disposing of any Work that must be replaced or repaired.
- 4.3.2.** Notwithstanding the provisions below, the Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of Work.
- A.** Where CMHA 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.

4.4. Plan Approval and Permits

- 4.4.1.** The A/E shall facilitate the required structural, plumbing, HVAC, and electrical plan reviews during the design phase, as required by the governing jurisdiction for securing an overall building permit to start construction.
- 4.4.2.** The Contractor shall schedule and attend all intermediate and final inspections required for any permit applicable to the Work or any governing jurisdiction.
- 4.4.3.** The Contractor shall schedule with the State Fire Marshal or local fire authority for the life safety inspection for occupancy permits.
- 4.4.4.** The Contractor shall give the A/E and CMHA reasonable notice of the dates and times for any inspections.
- A.** The Contractor shall pay for all initial inspections and re-inspections required as a result of Contractor's failure to receive approval for its Work.

4.5. Trade Permits and Licenses

- 4.5.1.** The Contractor shall secure and pay the fees for any permit, inspection, or license applicable to the Contractor's particular trade.
- 4.5.2.** Local Permits:
- A.** The Contractor shall secure and pay the fees for any permits, inspections, licenses, capacity charges, or tap fees required by local authorities having jurisdiction over the Project.

- i. The Contractor shall give the A/E and CMHA reasonable notice of the date(s) arranged for inspections.
- 4.5.3. [National Pollutant Discharge Elimination System \(NPDES\) Storm Water General Permit:](#)**
- A. The A/E shall secure the NPDES general permit by submitting a [Notice of Intent \(NOI\)](#) application form to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction.
 - i. The Contractor shall be a co-permittee, if required under Applicable Law.
 - B. The A/E shall prepare and certify the storm water pollution prevention plan to provide sedimentation and erosion controls at the Project. The A/E shall prepare and process the required [Notice of Termination \(NOT\)](#) prior to Contract Completion.

5. ARTICLE V CONSTRUCTION REQUIREMENTS

5.1. Commencement of Work on Site

- 5.1.1.** Unless CMHA agrees otherwise in writing, the Construction Stage will commence with CMHA issuing the Notice to Proceed and will terminate upon CMHA issuing a Certificate of Contract Completion to the Contractor. The Certificate of Contract Completion will be issued in accordance with the requirements of the Contract Documents and will not occur until after CMHA issues a Certificate of Substantial Completion, a Certificate of Occupancy is issued for the Project, and the Contractor has completed all items on the punch list delivered to Contractor by CMHA as provided in Article IX. The time period for Contract Completion is provided in Section 9.8.
- 5.1.2.** Notice to Proceed:
- A.** The Contractor shall begin work upon the date indicated in a written Notice to Proceed from CMHA or its designee.
 - i.** The Contractor shall not begin work prior to receiving such notice.
 - B.** Typically, the Notice to Proceed shall be issued within 180 days of CMHA Board of Commissioner Approval.
 - C.** If the Notice to Proceed is not issued within 180 days of CMHA Board of Commissioner Approval, CMHA may, in its sole discretion, terminate the Contract without recourse from the Contractor.

5.2. Environmental Controls

- 5.2.1.** The Contractor shall protect its Work and materials from damage from water, moisture, and other weather, including damage from water run-off from other property or structures, and damage from heat, cold, and humidity.
- 5.2.2.** Contractor is not authorized to use permanent HVAC system without express written authorization from CMHA.
- 5.2.3.** Until the permanent HVAC system is complete and available for use:
- A.** The Contractor shall make arrangements and pay for installation and maintenance of temporary heating, cooling and ventilating systems; and
 - B.** The Contractor shall pay the costs incurred in operating the temporary heating, cooling and ventilating systems.
- 5.2.4.** When the permanent HVAC system is complete and available for use:
- A.** The Contractor shall start up and maintain operation of the permanent HVAC system, including filters, and promptly remove temporary heating, cooling and ventilating systems.
 - B.** If the Project consists entirely of new construction, the Contractor shall pay the costs of energy consumed in operating the permanent HVAC system until Substantial Completion.
- 5.2.5.** From the date of Substantial Completion, CMHA shall pay the cost of operating the permanent HVAC system for the occupied portion of the Project.
- 5.2.6.** Use of the permanent HVAC system during construction shall not change, modify or reduce the Contractor's warranty and service obligations under the Contract Documents.

5.3. Construction Procedures

- 5.3.1.** The Contractor is solely responsible for and has control over all construction means, methods, techniques, sequences, and procedures, for safety precautions and programs in connection with the Work, and for coordinating all portions of the Work.
- 5.3.2.** If the Contract Documents give instructions that affect construction means, methods, manners, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety of them and, except as expressly stated herein, be fully and solely responsible for the jobsite safety of the means, manners, methods, techniques, sequences, or procedures.
- 5.3.3.** If the Contractor determines that the means, methods, manners, techniques, sequences, or procedures specified in the Contract Documents may not be safe, the Contractor shall give timely written notice to CMHA.
- A.** The Contractor shall not proceed with that portion of the Work without further written instructions from CMHA.
- 5.3.4.** Additional Contractor Responsibilities:

- A. The Contractor shall lay out and coordinate all lines, levels, elevations, and measurements for all of the Work, coordinate and verify existing conditions, and notify the A/E and CMHA of discrepancies and conflicts before proceeding with installation or excavation.
- B. The Contractor shall perform all cutting, fitting, or patching required for the Work and shall not endanger the Project by cutting, excavating, or otherwise altering the Project or any part of it.
- C. If the Design requires sleeves for completing the specified Work, the Contractor and all Subcontractors shall coordinate to furnish and install the sleeves.
 - i. The Contractors are responsible for the exact location of and size of all holes and openings required to be formed or built for the Work.
- D. The Contractor's patching shall match and blend with the existing adjacent surfaces.
- E. In addition to the items herein, The Contractor is responsible for all items in REF _Ref449941734 \h CONTRACTOR'S RESPONSIBILITIES.

5.4. Utilities**5.4.1. Availability and Use of Utilities**

- A. If CMHA has existing access to utilities, CMHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and service as specified herein so long as the utility use does not interfere with CMHA's operations.
 - i. 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 CMHA or where the utility is produced by CMHA, at reasonable rates as determined by CMHA.
 - ii. The Contractor shall carefully conserve any utilities furnished by CMHA without charge.
- B. The Contractor, at its expense and in a manner satisfactory to CMHA, 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.
 - i. Before final acceptance of the Work by CMHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

5.4.2. The Contractor shall comply with the requirement of the Ohio Revised Code, including ORC.

- A. In addition, before starting excavation or trenching, the Contractor shall determine the location of any underground utilities and notify any public authority or utility having jurisdiction over the Project and secure any required approval.

5.4.3. The Contractor shall give CMHA at least two (2) business days advance notice of excavation of underground utilities registered with the Ohio Underground Utility Protection Services ("OUPS") and underground utilities shown on the drawings and Specifications who are not registered member of OUPS.

- A. The Owner of an underground utility is required within 48 hours' notice to stake, mark, or otherwise designate the location for its utilities in the construction area together with its approximate depth.
- B. In the event that any underground utility owner fails to timely perform, the Contractor shall notify the A/E and contact CMHA regarding the failure of the underground utility to timely perform its work.

5.4.4. Water and Drainage

- A. The Contractor shall provide water necessary for the Work until the permanent plumbing system is available for use.
- B. The Contractor shall provide all temporary drainage and all dewatering necessary for the Work and shall employ pumps, trenches, drains, sumps, and any other equipment necessary or required to provide satisfactory working conditions for the protection, execution, and completion of the Project. The Contractor shall be responsible for determining the specific means and methods to be used for dewatering.
- C. The Contractor shall make arrangements and pay for installation and maintenance of temporary plumbing systems until the permanent plumbing system is available for use.
- D. When the permanent plumbing system is complete and available for use:
 - i. The Contractor shall start up and maintain operation of the permanent plumbing systems, and make arrangements and pay for removal of temporary plumbing systems.
 - ii. If the Project consists entirely of new construction, the Contractor shall pay the costs of water consumed and sewage charges until Substantial Completion.

- iii. If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, CMHA shall pay the costs of water consumed and sewage charges.

- (a) If separate metering of utilities is available, the Contractor and CMHA will pay the costs of their respective use.

- E. After the date of Substantial Completion, CMHA shall pay the costs of water consumed and sewage charges for the occupied portion of the Project.

- F. Use of the permanent plumbing system during construction shall not change, modify, or reduce the Contractor's warranty and service obligations under the Contract Documents.

5.4.5. Electric Service

- A. The Contractor shall provide temporary light and power; pay the charges for temporary electric service, installation, and removal if required.

- B. If the Project consists entirely of new construction, the Contractor shall pay the cost of energy consumed until Substantial Completion.

- C. If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, CMHA shall pay the cost of energy consumed.

- i. If separate metering of utilities is available, the Contractor and CMHA will pay the costs of their respective use.

- D. From the date of Substantial Completion, CMHA shall pay the cost of energy consumed for the occupied portions of the Project.

- E. Use of the permanent electrical system during construction shall not change, modify, or reduce the Contractor's warranty and services obligations under the Contract Documents.

5.4.6. Payment of Utility Services

- A. Unless otherwise expressly stated in the Contract Documents, Contractor shall reimburse CMHA the cost of utility services during the Construction Period.

- B. Unless otherwise expressly stated in the Contract Documents, payment for reimbursement of CMHA for the cost of utility services during the Contract Period shall be made directly to CMHA.

- i. If payment is not received, CMHA may deduct the cost of utility services from payments otherwise due to the Contractor.

- ii. If the payments otherwise due to the Contractor are not sufficient to fully reimburse CMHA, either Contractor or its surety shall make whatever payments are necessary to fully reimburse CMHA.

- C. Process for Payment:

- i. Reimbursement from the Contractor shall be performed on a quarterly basis unless a more frequent payment schedule is agreed upon between CMHA and the contractor prior to start of the project.

5.4.7. Hoisting Facilities

- A. The Contractor shall erect and maintain any hoisting equipment required for its Work.

- B. If the electric service requirements of hoisting facilities differ from that available at the Site, the Contractor shall provide and pay for all necessary connections.

- C. If a permanent elevator is identified in the Contract Documents to be used for hoisting materials or personnel during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

5.4.8. Interruption of Existing Services

- A. Whenever it becomes necessary to interrupt existing services in use by CMHA or its tenants, including, but not limited to, sewer, water, gas, steam lines, electric, telephone, and cable service, the Contractor shall continue the associated Work on a non-stop 24-hour per day basis until that Work is completed and the service restored, or perform the associated Work at an alternate time as required by and in coordination with CMHA.

- B. Before beginning that Work, the Contractor shall apply in writing to, and receive approval in writing from CMHA to establish a time when interruption of the service will cause a minimum of interference with the activities of CMHA and its tenants.

5.5. Construction Supervision

- 5.5.1.** Unless waived by CMHA in writing, the Contractor shall provide continuous supervision at the Site through a competent project manager or superintendent when any Work is being performed.
- A.** The Contractor's project manager or superintendent shall not be involved with any work for Contractor other than the Project.
- 5.5.2.** The Contractor's project manager and superintendent shall each have responsibility and authority to act on behalf of the Contractor.
- A.** All communication to the Contractor's project manager and superintendent shall be binding as if given directly by the Contractor.
- 5.5.3.** The Contractor shall submit an outline of the qualifications and experience of the Contractor's proposed project manager and superintendent, including references, to CMHA no later than two (2) business days after request from CMHA.
- A.** For all Subcontracts in excess of \$200,000 and for all other Subcontracts requested by CMHA, the Contractor shall submit an outline of the qualifications and experience of the Subcontractor's proposed project manager and proposed superintendent, including references, to CMHA no later than two (2) business days after CMHA's request.
- B.** CMHA may reject the Contractor or Subcontractor's proposed project manager and/or proposed superintendent.
- i.** If CMHA does not notify the Contractor of the rejection within thirty (30) calendar days after receiving the required information, it shall then indicate that CMHA does not have an objection, but does not affect CMHA's rights under the Contract Documents or any other provision relative to the project manager or superintendent.
- C.** If CMHA rejects the Contractor or Subcontractor's proposed project manager or proposed superintendent, the Contractor shall replace, or cause the Subcontractor to replace the project manager or superintendent (as appropriate) with someone acceptable to CMHA at no additional cost.
- 5.5.4.** If CMHA does not object the proposed project manager or superintendent, the Contractor and its Subcontractor shall not replace their respective project managers and superintendents without prior written approval of CMHA.

5.6. Construction Progress Schedule

- 5.6.1.** The Contractor shall, no later than seven (7) calendar days of the issuance of the Notice to Proceed or another period of time determined by the CMHA, prepare and submit to CMHA for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the Work, the dates on which the Contractor contemplates starting and completing the several salient features of the Work (including acquiring labor, materials, and equipment).
- A.** 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.
- i.** The Chart must be in a Critical Path Method (CPM) format.
- B.** If the Contractor fails to submit a schedule, that is acceptable to CMHA, within the time prescribed, CMHA may withhold approval of progress payments or take other remedies under the Contract until Contractor submits the required schedule that is acceptable to CMHA.
- 5.6.2.** The Contractor shall monitor the Work for conformance with the Construction Progress Schedule and shall initiate revisions as required herein.
- 5.6.3.** The Contractor shall enter the actual progress on the Construction Progress Schedule as required by CMHA, and after each update, Contractor shall immediately deliver three copies of the annotated Construction Progress Schedule to CMHA.
- A.** If CMHA determines, upon the basis of inspection conducted, herein that the Contractor is not meeting the approved Construction Progress Schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by CMHA, without additional cost to CMHA.

- B. If the Contractor is not meeting the approved Construction Progress Schedule, CMHA 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 CMHA deems necessary to demonstrate how the approved rate of progress will be regained.
- 5.6.4. Failure of the Contractor to comply with the requirements of CMHA shall be grounds for a determination by CMHA that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract.
 - A. Upon making this determination, CMHA may terminate the Contractor's right to proceed with the work, or any separable part of it.
- 5.6.5. Unless otherwise agreed to in writing, the Contractor shall develop the Construction Progress Schedule using commercially available, personal computer software acceptable to CMHA and shall submit all baseline and updated schedules to CMHA in the schedule's native format.
 - A. This submission shall be in both electronic and paper format.
- 5.6.6. The Construction Progress Schedule shall not exceed the time limits under the Contract Documents, shall provide for reasonable, efficient, and economical execution of the Project and shall relate to the entire project to the extent required by the Contract Documents.
 - A. In the event that a Construction Progress Schedule submitted by Contractor shows a completion date that extends beyond the Contract Time permitted to Contractor in the Contract Documents, such Construction Progress Schedule shall not be deemed to modify the Contract Time permitted in the Contract Documents. The Contract Time can only be changed by a properly executed Change Order.
- 5.6.7. The Contractor shall use the Construction Progress Schedule to plan, organize, and execute the Project, record and report actual performance and progress, and show how it plans to coordinate and complete all remaining work by Contract Completion within applicable Milestones.
 - A. The Project participants shall use the Construction Progress Schedule as a tool for scheduling and reporting sequences and/or the progress of the Work.
 - B. The Contractor shall provide a clear graphics legend and other data including without limitation Milestone dates, constraints, and other items required by the Project and CMHA.
 - C. Each submission shall show CMHA's Project number and Project name, and provide a signature approval and date line for the Contractor.
- 5.6.8. The Contractor shall provide the following in each Construction Progress Schedule:
 - A. Activity identification and description of each activity broken down to a maximum duration that is appropriate for the activity;
 - B. Contractor or Subcontractor performing each task;
 - C. Contractor's resources and crew size for each activity; and
 - D. Provide early start, early finish, late start, late finish dates.
- 5.6.9. Each Construction Progress Schedule shall show predecessor activities and successor activities for each activity, entry free float, total float and percentage of completion, and identify the appropriate predecessors and successors for all related activities.
- 5.6.10. The Construction Progress Schedule shall show all submittal dates, review and approval durations for coordination drawings, Shop Drawings, other action submittals and mock-up Work.
- 5.6.11. The Contractor shall submit the initial and all updates of the Construction Progress Schedule in graphic and tabular form to CMHA.
 - A. With each monthly Construction Progress Schedule update, the Contractor shall include a list of all changes to the previously approved baseline schedule or monthly updated schedule.
- 5.6.12. The Construction Progress Schedule shall be managed using early start dates and early finish dates.
 - A. The Contractor must exhaust all existing float before claiming additional time for a Change Order.
- 5.6.13. The Contractor's failure to submit and properly maintain an approved Construction Progress Schedule may result in withholding payment in accordance with the Contract Documents.
- 5.6.14. For each Progress Meeting, the Contractor shall provide a 2-6 week look-ahead schedule, as appropriate for the Project.
- 5.6.15. On a monthly basis, the Contractor shall prepare and submit to CMHA a written report describing:
 - A. Activities begun or finished during the preceding month;

- B. Activities in progress and expected completion;
- C. Activities to be started or finished in upcoming month including, without limitation, the Contractor's workforce size and total resource hours associated with those activities;
- D. Recommendations for adjusting the Construction Progress Schedule to meet Milestone dates, the Substantial Completion date and the Contract Completion date; and
- E. Other information requested by CMHA.

5.6.16. If it is apparent that the Contractor may be unable to meet Critical Path activities, Milestone completion dates, the Substantial Completion date(s) or the Contract Completion date, CMHA shall direct the Contractor to submit within three (3) business days a Recovery Plan to avoid or minimize a delay in the Project.

5.6.17. A Recovery Plan shall include, without limitation, adjustments to one or more of the following:

- A. Workforce
- B. Hours per shift
- C. Shifts per workday
- D. Workdays per week
- E. Equipment
- F. Activity logic

5.6.18. If CMHA approves the Recovery Plan, the Contractor shall prepare a revised Construction Progress Schedule within three (3) business days to CMHA.

- A. If CMHA rejects the Recovery Plan, the Contractor shall submit, within three (3) days of CMHA's rejection, an alternate Recovery Plan to CMHA in writing for review and in accordance the Contract Documents.

5.6.19. The Contractor shall update the Construction Progress Schedule on a monthly basis, or other interval as approved by CMHA, in accordance with the Contract Documents.

- A. The Contractor shall submit a tabular copy showing all changes to the previously approved schedule including, without limitation, logic, float, and actual start date of activities.
 - i. The original or initially approved Construction Progress Schedule and all subsequent Construction Progress Schedules submitted by the Contractor, and accepted by CMHA, shall serve as an affirmation that the Contractor agrees to meet the applicable requirements and updated Construction Progress Schedule.
- B. The Contractor's failure to timely submit updated Construction Progress Schedules as deemed necessary by CMHA may result in withholding payments in.

5.7. Progress Meetings

5.7.1. Unless otherwise indicated in writing, CMHA shall schedule weekly Progress Meetings for the Contractor and other persons involved in the Project as deemed necessary for coordination of the Work by CMHA, including Contractor's Subcontractors on the Project.

- A. The purpose of the Progress Meeting is to review progress on the Project during the previous week, discuss anticipated progress during the following weeks, review critical operations, and discuss critical problems.

5.7.2. The Contractor shall be represented at every Progress Meeting by a person authorized with signatory authority to make decisions regarding possible modifications of the Contract Documents or Construction Progress Schedule.

- A. CMHA shall notify the Contractor and other persons involved in the Project of the time and place of the Progress Meeting that shall thereafter be the same day and hour of the week for the duration of the Project, unless CMHA notifies the Contractor and other Persons involved in the Project of a different day and hour at least two (2) business days in advance.
- B. The Contractor shall have any of its Subcontractors attend the Progress Meeting as determined by the Contractor, or as requested by CMHA.
- C. Unless otherwise indicated in writing, CMHA shall prepare a written report of each Progress Meeting and distribute the report to the A/E and the Contractor.

- D. If any person in attendance objects to anything in a report of a Progress Meeting, the person shall notify CMHA and any other affected person in writing explaining the objections within seven (7) calendar days of receipt of the Progress Meeting report.
- E. The report of each Progress Meeting shall reflect any objection made to the report of the previous Progress Meeting and any response.

5.8. Project Coordination

- 5.8.1.** If determined needed by CMHA, the Contractor or Subcontractor(s), the Contractor shall prepare Coordination Drawings for any Coordination Area.
 - A. The Contractor shall prepare the Coordination Drawings with Computer-Aided Design ("CAD") or Building Information Modeling ("BIM") software acceptable to CMHA.
 - B. The Coordination Drawings shall show the all affected work, including without limitation, plan and elevation dimensions.
- 5.8.2.** After the Contractor completes the Coordination Drawings, the Contractor shall forward a copy of the Coordination Drawings to CMHA.
 - A. The A/E shall report any concerns in writing to the Coordination Participants within fourteen (14) calendar days after receiving the Coordination Drawings.

5.9. Additional Tests and Inspections

- 5.9.1.** If the A/E or CMHA determines that any portion of the Work requires special inspection, testing, or approval not otherwise required under the Contract Documents, the A/E and/or CMHA shall order such inspection, testing, or approval.
- 5.9.2.** If the special inspection, testing, or approval reveals Defective Work, the Contractor shall pay all associated costs and will not be entitled to any related adjustment of the Contract Times.
 - A. Those costs may include without limitation:
 - i. The cost of special inspection, testing, or approval;
 - ii. The cost of additional special inspections, testing, or approvals, to evaluate Remedial Work;
 - iii. The cost of correcting Defective Work; and
 - iv. All related CMHA-incurred fees and charges of contractors, engineers, architects, attorneys, and other professionals.
- 5.9.3.** CMHA may deduct the costs described under the Contract Documents from payments then or thereafter due the Contractor.
 - A. If payments then or thereafter due to the Contractor are not sufficient to cover those amounts, the Contractor or its surety shall immediately pay the amount of the insufficiency to CMHA.
- 5.9.4.** If the special inspection, testing, or approval reveals that the Work complies with the Contract Documents, and the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of the special inspection, testing, or approval, the Contractor may file a Claim by requesting a Change Order by giving written notice within seven (7) calendar days after the special inspection, testing, or approval.
- 5.9.5.** If the Contractor is aware of the need of an inspection, testing, or approval, or of a need to have any inspection, testing, or approval completed by a particular time to avoid delay, then the Contractor shall timely communicate such information to CMHA.
- 5.9.6.** Except as described in Additional Tests and Inspections, CMHA shall pay for any inspection, testing, or approval that did not become a requirement until after award of the Contract.
- 5.9.7.** The Contractor shall coordinate with and give CMHA reasonable notice of the anticipated dates of all inspections, testing, or approvals.

5.10. Review of Contract Documents

- 5.10.1.** Before starting each portion of the Work, the Contractor shall carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the Site affecting it.
- 5.10.2.** If the Contractor finds any perceived ambiguity, conflict, error, omission, or discrepancy on or between any of the Contract Documents, or between any of the Contract Documents and any Applicable Law, the Contractor, before proceeding with the Work, shall promptly submit a Request for Information ("RFI") to CMHA for an interpretation or clarification.

- A. Before submitting any RFI, the Contractor shall carefully review the Contract Documents to ensure that the Contract Documents do not answer the RFI.
 - B. If Contractor indicates that the information requested in the RFI affects the critical path of the Project's Construction Progress Schedule and attaches the portion of the Project's Construction Progress Schedule that verifies that the information requested in the RFI affects the critical path, CMHA shall make all reasonable efforts to respond to the RFI within seven (7) business days of receiving the RFI.
- 5.10.3.** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of clarifications or instructions issued in response to a RFI, the Contractor may submit a Claim by requesting a Change Order by giving notice within three (3) business days of receiving the RFI response.
- 5.10.4.** If Contractor does not notify CMHA in accordance with 5.10.3 or any other section that addresses adjustments to the Contract Sum and Contract Time, the Contractor will have accepted the RFI response without an adjustment to the Contract Sum or Contract Time and irrevocably waives his right to submit or request an adjustment to the Contract Sum and/or Contract Time.
- 5.10.5. Frivolous RFI**
 - A. If the Contractor submits a frivolous RFI, as determined by CMHA, Contractor shall be liable to CMHA for the costs related to the review and response of the RFI.
 - i. CMHA may deduct the costs described herein from payments then or thereafter due the Contractor.
 - ii. If payments then or thereafter due to the Contractor are not sufficient to cover CMHA's costs, the Contractor or its surety shall immediately pay the amount of the insufficiency to CMHA.
 - B. Frivolous RFIs may be returned unanswered.
- 5.10.6.** Delays caused by improper or frivolous RFI's are the sole responsibility of the Contractor who shall waive the Contractor's right to seek adjustments to the Contract Sum and Contract Time.
- 5.11. Site Investigation and Conditions Affecting the Work**
 - 5.11.1.** 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:
 - A. Conditions bearing upon transportation, disposal, handling, and storage of materials;
 - B. The availability of labor, water, electric power and roads;
 - C. Uncertainties of weather, river stages, tides, or similar physical conditions at the site;
 - D. The conformation and conditions of the ground; and
 - E. The character of equipment and facilities needed preliminary to and during work performance.
 - 5.11.2.** 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 reasonably ascertainable from an inspection of the site, including all exploratory work done by CMHA, as well as from the drawings and specifications made part of this contract.
 - A. Any failure of the Contractor Site Investigation and Conditions Affecting the Work will not relieve the Contractor from responsibility for properly estimating or properly evaluating the difficulty and cost of successfully performing the Work without additional expense to CMHA.
 - 5.11.3.** CMHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by CMHA.
 - A. Nor does CMHA assume responsibility for any understanding reached or representations made concerning conditions which can affect the Work by any of its officers or agents before execution of this Contract, unless that understanding or representation is expressly stated in this Contract.
- 5.12. Protection of the Project**
 - 5.12.1.** The Contractor shall protect the Project from weather and maintain the Work and all materials, apparatus, and fixtures free from injury or damage until Substantial Completion of the Work.
 - A. The Contractor shall at all times cover or protect the Work and materials.
 - B. The Contractor, at its own expense, shall remove, and replace with new, any Work damaged as a result of the Contractor's failure to provide coverage or protection.

- C. After the date of Substantial Completion of the Work, CMHA is responsible for protecting and maintaining all materials, apparatus, and fixtures for the occupied portion of the Project from injury or damage.
- 5.12.2.** The Contractor shall protect the Project and existing or adjacent property from damage at all times and shall erect and maintain necessary barriers, lateral support, furnish and keep lighted necessary danger signals at night, and take reasonable precautions to prevent injury or damage to individuals or property.
- 5.12.3. Temporary Heating**
 - A. The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to protect all Work and materials against damage by dampness and cold, to dry out the Work, and to facilitate the completion of Work.
 - B. Any permanent heating equipment used by Contractor or Subcontractors shall be turned over to CMHA in the condition and at the time required by the specifications.
- 5.12.4.** The Contractor shall not load, or permit any part of the Project to be loaded, in any manner that endangers the Project, or any proportion thereof.
 - A. The Contractor shall not subject any part of the Project or existing or adjacent property to stress or pressure that endangers the Project or property.
- 5.12.5. 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 sites, 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.
 - i. 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 specifically directed by CMHA.
 - 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.
 - i. 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 CMHA, 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.
 - i. 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 plans 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 commencement of any Work.

- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs arising out of or related to the 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 CMHA 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.
 - i. If the Contractor fails or refuses to repair the damage promptly, CMHA may have the necessary Work performed and charge the cost to the Contractor.

5.12.6. Vibration, Noise, and Dust Control

- A. The Contractor shall provide controls/barriers for vibrations, noise, and dust control in occupied buildings as required by the construction operations.
- B. The Contractor will not be permitted to exhaust or release unfiltered air, dust, construction debris, or other undesirable products into the exterior atmosphere or into occupied areas of the building.
 - i. CMHA may limit or stop the Work if the Contractor does not maintain proper air-quality standards.
 - ii. Such stoppage may result in a charge to the Contractor.
- C. In certain occupied buildings, tasks might be of such a nature that noise and vibration cannot be tolerated.
 - i. In such spaces and as approved by CMHA, Work may be scheduled for other than normal working hours.
 - ii. The Contractor is cautioned that weekend or overtime work, if required, shall be performed at no additional cost.
 - iii. Permission to work other than standard hours shall be received from CMHA prior to the occurrence.
 - iv. Weekend or overtime Work shall be reflected in the Construction Progress Schedule.
- D. The Contractor is responsible for vibration control and control of transmission of noise arising from the Work.
- E. Principal considerations that shall be given to noise and vibrations control are:
 - i. Noise control in compliance with Occupational Safety and Health Administration (OSHA) shall be for all areas of the facility, including equipment rooms, boiler rooms, and fan rooms.
 - ii. Vibration control to limit sound produced by construction equipment, and for protection of the equipment existing in the building and the building structure.
 - iii. Vibration control to provide for the maximum usefulness of the facility by keeping levels of vibration within ranges conducive to peaceful enjoyment of residential living or work or other uses for which the facility was designed

5.13. General Warranty - Materials, Equipment and Workmanship

- 5.13.1.** The Contractor warrants to CMHA and A/E that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise.
 - A. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit.
 - B. Work, materials, or equipment not conforming to these requirements may be considered defective.
 - C. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.
 - D. If required by the A/E, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

5.13.2. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or relating to the Contractor's breach of any warranty obligations.

A. The Contractor's obligation shall be joint and several.

5.13.3. Additional Warranties

A. The Contractor gives the Owner the following additional warranties:

- i.** If the Contractor's Work includes all or part of the exterior roofing system, provided that the A/E has designed the roofing system to be weather tight, the Contractor warrants that the roofing system will be weather tight; and
- ii.** If the Contractor's Work includes all or part of the exterior wall system, provided that the A/E has designed the wall system to be weather tight, the Contractor warrants that the wall system will be weather tight.

(a) Weather tight shall mean the roofing and/or wall system does not permit any infiltration of water in any form that would have any adverse effect on the Owner's operations or the Project.

5.13.4. The Contractor shall, prior to Contract Completion and as a condition precedent to final payment to Contractor, assign to CMHA all manufacturer's warranties related to the materials and labor used in the Work and further agrees to perform the Work in such manner as to preserve any and all such manufacturer's warranties and deliver to the A/E the warranties, project manual, operating procedures, and other materials related to each of the building systems and materials included in the Contractor's Work and as required by the Specifications.

5.13.5. Upon notice of the breach of any of the warranties or guarantees identified herein, or any other warranties or guarantees under the Contract Documents, the Contractor, in addition to any other requirements in the Contract Documents, shall commence to correct such breach and all damage resulting therefrom within two (2) business days from written notice thereof, thereafter use its best efforts to correct such breach and damage to the satisfaction of CMHA and A/E, and, except when an extension of time is granted in writing by CMHA, correct such breach and damage to the satisfaction of CMHA within thirty (30) calendar days of such notice, or such other time as provided in the notice; provided, however, that if such notice is given after final payment the 2-day period shall be extended to seven (7) calendar days.

- A.** If the Contractor fails to commence to correct such breach and damage, or to correct such breach or damage as provided above, the Owner, without prejudice to any of its other rights or remedies at law or under the Contract Documents, may correct the breach without further notice to Contractor.
- B.** The Contractor shall pay the Owner's reasonable costs and expenses incurred in connection with the or related to such correction and/or breach, including without limitation the Owner's administrative, legal, and consulting expenses and additional service fees of the A/E.
- C.** The foregoing warranties and obligations of the Contractor shall survive final payment and/or termination of the Contract and shall not be limited by any other terms contained in the Contract Documents.
- D.** If the Contractor fails to pay the Owner any amounts due hereunder, the Contractor shall pay the Owner, in addition to the amounts due, a late payment fee of one and one-half percent (1.5%) per month for each month or part thereof that the payments are not paid when due.

5.13.6. Contractor shall bring to or store at the Site only the materials and equipment required for the Work.

A. If possible, materials and equipment should be installed in their final positions when brought to the Site.

5.13.7. All equipment, material, and articles furnished under this Contract shall be of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Contract.

A. 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.

- B. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by CMHA in writing, is equal to that named in the specifications, unless otherwise specifically provided in this Contract so long as Contractor has submitted a substitution request to CMHA.
- C. If the substituted material has not been approved by CMHA in writing, the substituted material may be considered Defective Work by CMHA or A/E.

5.13.8. Approval of Equipment and materials

- A. The Contractor shall obtain CMHA's approval of the machinery and mechanical and other equipment to be incorporated into the work.
 - i. When requesting approval, the Contractor shall furnish to CMHA 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
 - ii. When required by this contract or by CMHA, the Contractor shall also obtain CMHA's approval of the material or articles which the Contractor contemplates incorporating into the work.
 - iii. When requesting approval, the Contractor shall provide full information concerning the material or articles.
 - iv. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.
- B. When required by the specifications or CMHA, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid.
 - i. 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.
- C. Certificates shall be submitted electronically in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements.
 - i. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.
- D. Approval of a sample shall not constitute a waiver of CMHA's right to demand full compliance with contract requirements.
 - i. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- E. 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.
 - i. CMHA may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples.
 - ii. Check tests will be made on materials delivered for use only as frequently as CMHA determines necessary to insure compliance of materials with the specifications.
 - iii. 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.
- F. After approval, samples will be kept in the Project office until completion of work.
 - i. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.
- G. **Requirements concerning lead-based paint**
 - i. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act.

5.13.9. Substitutions

- A. If the Contractor provides approved Substitutions that require changes to the Contract Documents, the Contractor shall be solely responsible for the additional costs incurred as a result, including without limitation changes to the design by the A/E.

- B. CMHA shall consider Requests for Substitutions after the bid opening only when the Contractor can conclusively demonstrate CMHA the following conditions:
 - i. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions through no fault of the Contractor are not available; or
 - ii. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions will not perform as designed or intended.
- C. The Contractor's incorporation of unapproved Substitutions in the Work shall constitute Defective Work.
- D. If the Contractor provides an unacceptable Component, the Contractor shall be solely responsible for the costs of coordination and modification required.

5.14. Specifications and Drawings for Construction

- 5.14.1.** The Contractor shall keep on the work site a stamped, permit set of the drawings and specifications and shall at all times give CMHA access thereto.
- A. 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.
 - B. In case of difference between drawings and specifications, the specifications shall govern.
 - C. In case of a discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to CMHA, who shall promptly make a determination in writing.
 - D. Any adjustment by the Contractor without such determination shall be at its own risk and expenses.
 - E. CMHA shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.
- 5.14.2.** 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 CMHA is intended.
- 5.14.3.** Where "shown," indicated", "detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this Contract unless otherwise stated, the word "provided" as used herein shall be understood to mean "provide complete in one place" that is "furnished and installed".
- 5.14.4.** "Shop Drawings" means drawings, submitted to CMHA by the Contractor, subcontractor or any lower tier subcontractor, showing in detail, 1) the proposed fabrication and assembly of structural elements and 2) the installations (i.e., form, fit, and attachment details) of materials of equipment.
- A. 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.
 - B. CMHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- 5.14.5.** 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.
- A. Shop Drawings submitted to the A/E without evidence of the Contractor's approval may be returned for resubmission.
 - B. CMHA will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate CMHA's reasons therefore.
 - C. Any Work done before such approval shall be at the Contractor's risk.
 - D. Approval by the A/E 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 approved variations.
- 5.14.6.** 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.
- A. If the A/E approves any such variation and CMHA concurs, CMHA 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.

- 5.14.7.** It shall be the responsibility of the Contractor to make timely requests to CMHA for such large scale and full size drawings, color schemes, and other additional information, not already in possession, which shall be required in the planning and production of the work.
- A.** Such requests may be submitted as the need arises, but each such request shall be filed with ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.
- 5.14.8.** The Contractor shall electronically submit to CMHA for approval (unless otherwise indicated) all shop drawings as called for under the various headings of the specifications.
- A.** As required by CMHA, the Contractor, upon completing the work under this Contract, shall furnish a complete set of drawings as finally approved.
- B.** These drawings show all changes and revisions made up to the time the work is completed and accepted.
- 5.14.9.** Specifications and Drawings for Construction shall be included in all Subcontracts at any tier.
- A.** It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by Subcontractors are submitted to CMHA.

5.15. As Built Drawings

- 5.15.1.** "As-built drawings," 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.
- A.** "As-built drawings" shall be synonymous with "Record Drawings".
- 5.15.2.** As required by CMHA, the Contractor shall provide CMHA accurate information to be used in the preparation of permanent as-built drawings.
- A.** 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.
- 5.15.3.** As Built Drawings shall be included in all subcontracts at any tier.
- 5.15.4.** It shall be the responsibility of the Contractor to ensure that all As-Built Drawings prepared by Subcontractors are submitted to CMHA.

5.16. Project Document Maintenance and Submittal

A. During Construction

- i.** The Contractor shall maintain in good order at a secure location on the Site:
- (a)** A complete copy of all Contract Documents; Shop Drawings, Product Data, samples and similar required submittals; manufacturer operating and maintenance instructions; certificates; warranties; RFIs and responses thereto; and other Project-related documents, all marked currently and accurately to record field changes and selections made during construction and to show actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines; and
- (b)** A set of Drawings as approved by any applicable jurisdiction and Specifications.
- B.** Before submitting each Contract Payment Request, the Contractor shall record all changes on the Contract Documents, neatly in a contrasting color, noting new information not shown on the original Contract Documents.
- i.** Failure to record all changes may cause payment to be withheld or delayed by CMHA.
- C.** The Contractor shall keep a record of changes made to the Specifications, noting particularly any approved variation from manufacturer's installation instructions and recommendations.
- D.** If the Contractor uses Shop Drawings to indicate as-built conditions, the Contractor shall cross-reference the Shop Drawing sheet numbers to the corresponding sheet numbers on the Contract Documents.
- i.** The Contractor shall note related numbers where applicable.

5.16.2. Before Contract Completion

- A.** The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize the As-Built Documents into manageable sets, bind the sets with durable paper cover sheets, and deliver the As-Built Documents to CMHA.
- B.** The Contractor's As-Built Documents submission shall include, but is not limited to:

- i. Certificate of Occupancy;
 - ii. Inspection certificates for pressure piping, elevator, boiler, electrical, plumbing or piping purification, etc.
 - iii. Letter of Approval from the local fire authority or State Fire Marshal for the fire suppression system;
 - iv. Operation and Maintenance Manuals, organized into suitable sets of manageable size;
 - v. Indexed data bound in individual binders, with pocket folders for folded sheet information and appropriate identification marked on the front and the spine of each binder;
 - vi. Neatly and accurately marked sets of As-Built Documents, and other Contract Documents reflecting the actual construction of the Project;
 - vii. Detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems, and components;
 - viii. Assignment to CMHA of all warranties and guarantees, including the most-recent address and telephone number of any Subcontractors or manufacturers;
 - ix. An affidavit to certify that all Subcontractors have been paid in full for all Work performed or materials furnished for the Project;
 - x. A final lien waiver for both the Contractor and all Subcontractors of any tier;
 - xi. Final certified payroll reports; and
 - xii. An affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all requirements of ORC.
- C. By submitting the As-Built Documents to CMHA, the Contractor certifies that its As-Built Documents are complete, correct, and accurate.

5.17. Temporary Buildings and Transportation of Materials

- 5.17.1.** Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of CMHA and shall be built with labor and materials furnished by the Contractor without expense to CMHA.
- A. 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.
 - B. With the written consent of CMHA, the buildings and utilities may be abandoned and need not be removed.
- 5.17.2.** The Contractor shall, as directed by CMHA, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by CMHA.
- A. 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.
 - B. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage.
 - C. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

5.18. Facilities

- 5.18.1.** The Contractor shall provide and maintain in a clean condition:
- A. Suitable facilities, including temporary facilities, equipment, services, and enclosed storage for its use at the Site;
 - B. Adequate space, equipment, and furnishings to conduct progress meetings, and store approved documents and permits; and
 - C. Adequate sanitary facilities for use by all Persons at the Site.

5.19. Progress Cleaning

- 5.19.1.** The Contractor shall remove all waste materials, rubbish, and mud attributable to the Work in accordance with the Specifications, if applicable, and to an appropriate disposal location at, or near, the Site.
- 5.19.2.** The Contractor shall perform weekly broom cleaning of hard flooring surfaces in the area of the Work.
- 5.19.3.** The Contractor shall remove, at the end of each working day or more frequently, as appropriate, for the Project, all waste materials and rubbish from the disposal location at, or near, the Site.

- 5.19.4.** The Contractor shall remove, as appropriate for the Project or as the A/E or CMHA directs, any waste materials or rubbish from areas adjacent to the Project.
- 5.19.5.** The Contractor shall dispose of waste materials, rubbish, and construction debris in a lawful manner in approved recycling facilities or landfills and record of such disposal shall be available upon written request of CMHA.
- 5.19.6.** If the Contractor fails to clean up during the progress of the Work, CMHA may clean up on behalf of the Contractor and at the Contractor's expense.
- A.** If the Contractor fails to maintain the areas adjacent to the Project clean and free of waste materials and rubbish, CMHA may also direct the local jurisdiction responsible for the area to have the area cleaned to its satisfaction at the Contractor's expense.
- B.** CMHA may deduct the cleaning costs from payments then or thereafter due the Contractor.
- i.** If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA.
- 5.19.7.** The Contractor shall remove excavated material and spoil to a suitable off-site location approved by CMHA.
- A.** If CMHA designates a location on its property for disposal or storage of clean topsoil and/or subsoil in the Contract Documents, the Contractor shall remove such materials to the designated location.
- 5.20. Use of Premises**
- 5.20.1.** The Contractor shall use corridors, stairs, and elevators as designated by CMHA and only during those times that are designated by CMHA.
- A.** The Contractor shall exercise extreme care to not exceed the carrying capacity of elevators or damage the cab interior in any way.
- 5.20.2.** Loitering or wandering through interior of buildings or exterior grounds outside the limits of the Work will not be permitted.
- 5.20.3.** The Contractor shall confine its apparatus, materials, and the operations of its workers to the limits indicated by law, ordinances, permits and the directions of CMHA.
- 5.20.4.** Unless expressly required or approved by CMHA, no signs or advertising of any kind will be permitted on or about the Site, except those appearing on trucks and trailers.
- 5.20.5. CMHA Use of Premises / Possession Prior to Completion**
- A.** CMHA shall have the right to take possession of or use any completed or partially completed part of the Work.
- i.** Before taking possession of or using any work, CMHA shall furnish the Contractor a list of items of Work remaining to be performed or corrected on those portions of the Work that CMHA intends to take possession of or use.
- ii.** However, failure of CMHA to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the Contract.
- iii.** CMHA's possession or use shall not be deemed acceptance of Work under the Contract.
- B.** While CMHA has such possession or use, the Contractor shall be relieved of the responsibility for:
- i.** The loss of or damage to the Work resulting from CMHA's possession or use, notwithstanding the terms herein;
- ii.** All maintenance costs on the areas occupied; and
- iii.** Furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore.
- C.** If requested by the Contractor and if prior possession or use by CMHA delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment shall be made in the Contract Sum, the Contract Time, or both, and the Contract shall be modified in writing accordingly.
- 5.21. Smoking and Tobacco Products**
- 5.21.1.** Smoking is not permitted at any property under construction, unless CMHA has a specifically designated area for smoking, and is not permitted within 50 feet of any entrance of a CMHA owned building.
- A.** This prohibition applies to new construction and rehabilitation.

- B. The Contractor shall enforce these restrictions on any individual employed by the Contractor, or a Subcontractor.

5.22. Correction of the Work

5.22.1. Before Substantial Completion

- A. If the Contractor provides Defective Work or fails or neglects to perform the Work in accordance with the Construction Progress Schedule, CMHA or the A/E may issue a written notice to the Contractor and Contractor's Surety directing the Contractor to correct the Defective Work or recover schedule deficiencies.
 - i. Unless otherwise specified in that written notice, the Contractor shall begin to correct the Defective Work and recover the schedule deficiencies within no more than three (3) business days after CMHA issues the written notice.
- B. If the Contractor fails to commence and diligently pursue correction of Defective Work or recovery of schedule deficiencies within three (3) business days of Contractor's receipt of written notice from CMHA or the A/E, CMHA may correct the Defective Work or take action to recover schedule deficiencies without giving further notice to the Contractor or Contractor's Surety.

5.22.2. During the Correction Period

- A. If CMHA issues a notice during the Correction Period, CMHA may correct the Defective Work itself without giving further notice to the Contractor or Contractor's Surety if the Contractor fails to:
 - i. Notify CMHA in writing of the Contractor's intent to correct the Defective Work within three (3) business days after CMHA issues the notice; and
 - ii. Thereafter promptly commence and diligently pursue correction of Defective Work.
- B. *The Correction Period:*
 - i. Commences in accordance with 23.1.41;
 - ii. Relates only to the Contractor's specific obligation and opportunity to correct the Work during the Correction Period;
 - iii. Does not establish a period of limitation with respect to any of the Contractor's other obligations under the Contract Documents;
 - iv. Has no relationship to the time within which CMHA may seek to enforce the Contract; and
 - v. Does not establish a period of limitation with respect to the commencement of litigation to establish the Contractor's liability under the Contract or otherwise.
- C. *After the Correction Period:*
 - i. CMHA may correct, at the Contractor's expense, the Defective Work without giving further notice to the Contractor or Contractor's Surety if the Contractor or Contractor's surety fails to
 - (a) Notify CMHA in writing of the intent to correct the Defective Work; and
 - (b) Promptly commence and diligently pursue correction of Defective Work.

5.22.3. After Substantial Completion

- A. In addition to the Contractor's other obligations under the Contract Documents, if any of the Work is found to be Defective Work after Substantial Completion, the Contractor shall correct it promptly after receipt of written notice from CMHA to do so, unless CMHA has previously acknowledged and accepted the Defective Work in writing.
- B. CMHA may send a copy of the written notice to the Contractor's Surety, but are not obligated to do so.

5.22.4. Emergency Correction of Defective Work

- A. Notwithstanding any other provision of the Contract, if in CMHA's opinion the Defective Work presents a threat of imminent harm or danger to people, property, or the environment, CMHA may order the Contractor to immediately correct Defective Work or CMHA may correct the Defective Work, at Contractor's expense, itself without any prior notice to the Contractor or Contractor's Surety.

5.22.5. Responsibility for Costs of Correction

- A.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the correction of Defective Work and the recovery of schedule deficiencies.
- B.** Those costs and damages may include, but are not limited to:
 - i.** The related fees and charges of contractors, engineers, architects, attorneys, and other professionals; and
 - ii.** The cost of correcting or replacing adjacent work.
- C.** CMHA may deduct those costs and damages from payments then or thereafter due the Contractor.
 - i.** If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA.

6. ARTICLE VI SUBCONTRACTORS

6.1. Evaluation and Approval

- 6.1.1.** When submitting its Bid, the Contractor shall submit a Subcontractor and Material Supplier Declaration form through which the Contractor identifies its Subcontractor.
- A.** Provide list of subcontractors and material supplier and equipment with bid.
- 6.1.2.** Within ten (10) calendar days after the Notice to Proceed, the Contractor shall submit to CMHA, an **updated** Subcontractor and Material Supplier Declaration form.
- 6.1.3.** If CMHA rejects any proposed Subcontractor, the Contractor shall propose a replacement Subcontractor with no adjustment of the Contract Sum.
- A.** The proposed replacement will also be evaluated by CMHA.
- 6.1.4.** The Contractor's failure to timely submit the information regarding a proposed Subcontractor may result in withholding payment to Contractor.

6.2. Suspension/Debarment

- 6.2.1.** 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 program by any agency of the United States Government or the State of Ohio.

6.3. Contractor's Responsibility

- 6.3.1.** 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, and is responsible for scheduling and coordinating the Work of the Subcontractors.
- 6.3.2.** The Contractor is fully responsible for any delay, interference, disruption, or hindrance attributable to the Contractor's Subcontractors.
- 6.3.3.** The Contractors shall require that each of its Subcontractors have a competent supervisor at the Site whenever the Subcontractor is performing Work.
- 6.3.4.** The Contractor shall bind its Subcontractors to the terms and conditions of the Contract Documents, so far as applicable to the Work of the Subcontractor, and shall not agree to any provision, which seeks to bind CMHA with terms inconsistent with or at variance from the Contract Documents.
- 6.3.5.** The Contractor will not be relieved of its full responsibility for Subcontractors and their performance of the Work by:
- A.** The participation of CMHA, HUD, or the A/E in the processes described under ARTICLE VI SUBCONTRACTORS or other related provisions of the Contract Documents; or
- B.** CMHA's rejection of a Subcontractor or failure to reject a Subcontractor.

6.4. Mandatory Contract Provisions/Forms

- 6.4.1.** 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 in the work of Subcontractors.
- 6.4.2.** CMHA reserves the right to reassign accepted agreements
- 6.4.3.** Nothing contained in this Contract shall create any contractual relationship between any Subcontractor and CMHA or between the Subcontractor and HUD.
- 6.4.4.** The Contractor must include in the contract with its Subcontractors the applicable labor provisions and prevailing wages as was provided to the Contractor by CMHA.
- 6.4.5.** No less than ten (10) calendar days before the Work is to be performed by a Subcontractor, or within a shorter period as mutually agreed by the Contractor and CMHA, the Contractor shall submit to CMHA a complete copy of the executed Subcontract between the Contractor and Subcontractor.

6.5. Replacement of Subcontractors

- 6.5.1.** The Contractor shall not replace any Subcontractor after execution of the Subcontract without prior written approval of CMHA.
- 6.5.2.** The Contractor shall not add any subcontractors after the Contract Execution without updating the Material supplier and subcontractor form or prior to written approval of CMHA.

6.6. Contingent Assignment of Subcontract

6.6.1. The Contractor hereby assigns its Agreement with each Subcontractor to CMHA provided that the assignment is effective only after termination of the Contract by CMHA and only for those agreements that CMHA accepts by notifying Contractor and applicable Subcontractor in writing.

6.7. Prompt Payment of Subcontracts

6.7.1. The Contractor shall make payments to the Subcontractor in accordance with Applicable Law, including ORC that include, without limitation, the requirements under 6.7 - Prompt Payment of Subcontracts.

6.7.2. If a Subcontractor requests payment in time to allow the Contractor to include the request in its Contractor Payment Application Request the Contractor, within ten (10) calendar days after receipt of payment from CMHA, shall pay to the:

- A.** Subcontractor, an amount equal to the percentage of completion of the Subcontractors contract allowed by CMHA for the amount of labor or work performed;
- B.** Material Supplier, an amount that is equal to all or a portion of the invoice for materials which represents the materials furnished by the material supplier

6.7.3. The Contractor may reduce the amount paid by any retainage provision contained in the Contract, invoice, or purchase order between the Contractor and Subcontractor and may withhold amounts that may be necessary to:

- A.** Resolve disputed liens or claims involving the Work or labor performed by the Subcontractor; or
- B.** Account for failure of the Subcontractor to perform its obligations under its agreement with the Contractor required under ORC

6.7.4. Labor Payments

A. Within ten (10) calendar days of receipt of payment from CMHA, the Contractor shall pay Subcontractor in the following manner:

- i.** Partial payments to the Subcontractor for labor performed under either a Unit Price or lump sum Subcontract shall be made at the rate of 92 percent of the amount invoiced through the Subcontractor's request for payment that shows the Work of the Subcontractor is 50% complete.
- ii.** After the Work of the Subcontractor is 50 percent complete, as evidenced by payments of at least 50 percent of the total amount due under the Subcontract, no additional funds shall be retained from payments for labor.

6.7.5. Material Payment

A. Required by ORC for payment to Contractor by CMHA

- i.** The Contractor shall pay the Subcontractor at the rate of 95% of the invoice cost, not to exceed the scheduled value in a unit price or lump sum Subcontract, for materials delivered to the Site, or other offsite storage location approved by CMHA, provided the Subcontractor provides the information required with its request for payment.
- ii.** The Contractor shall pay the Subcontractor at the rate of 100% of the scheduled value for materials incorporated into the Project.

6.7.6. If Contractor fails to comply with the payment provisions set forth, the Contractor shall pay to the applicable Subcontractor, in addition to any payment due, interest in the amount of 18 percent per annum of the payment due, beginning the eleventh day following the receipt of payment from CMHA and ending on the date of full payment of the payment due plus interest.

6.7.7. If CMHA receives a Claim Affidavit from a Subcontractor, Subcontractor shall proceed in accordance with Applicable Law, including Ohio Revised Code.

6.7.8. Laborers, Subcontractors, and Material Suppliers may secure payment rights in accordance with Applicable Law, including Ohio Revised Code.

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

6.8.1. 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 solicitations lists;

- B.** Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential resources
- 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;
- 6.8.2.** Establishing delivery schedule, where the requirements of the Contract permit, which encourages participation by small and minority businesses and women's business enterprises; and
- 6.8.3.** 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

7. ARTICLE VII PAYMENTS

7.1. CMHA Obligation

- 7.1.1. CMHA shall pay the Contractor the price as provided in the Contract.

7.2. Forms

- 7.2.1. Unless expressly authorized to the contrary, Contractor must use appropriate CMHA forms.

7.3. Step One – Pencil Application

- 7.3.1. The purpose of a pencil application is assisting the Contractor in identifying any potential error or omission in the pay application.
- A. If submitted timely (as set forth below) CMHA will review and help identify any potential issues. However, the CMHA Construction Administrator's approval or suggestion does not guarantee approval of the payment application by the CMHA.
- 7.3.2. The Contractor shall initially submit a Pencil Application by no later than the 15th of each month.
- A. The CMHA Construction Administrator will review the Pencil Application, and make any suggested corrections and return to the Contractor in approximately two (2) business days.
- 7.3.3. The Contractor shall then submit the final payment application to the CMHA Construction Administrator by the 23rd of each month.
- 7.3.4. Failure to submit a pencil application may result in a significant delay in payment.

7.4. Progress Payments

- 7.4.1. CMHA shall make progress payments approximately every forty-five (45) calendar days as the work proceeds on estimates of Work accomplished which meets the standards of quality established under the Contract, as approved by CMHA.
- A. Subject to CMHA's written determination and approval more frequent payments may be made to contractors which are qualified as small businesses.
- 7.4.2. Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by CMHA, 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.
- A. The breakdown shall be approved by CMHA and must be acceptable to HUD.
- B. If the contract covers more than one Project, the Contractor shall furnish a separate breakdown for each.
- C. 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 Sum.
- D. The Contractor shall prorate its overhead and profit over the construction period of the Contract.
- 7.4.3. The Contractor shall submit, on forms provided by CMHA, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the Contract Sum.
- A. Such estimates shall be submitted not later than nine (9) calendar days in advance of the date set for payment and are subject to correction and revision as required.
- B. The estimates must be approved by the CMHA prior to payment.
- C. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- D. Each payment application should include affidavits for the Contractor, Sub Contractors and Material Suppliers. Lien waivers should be submitted as proof of payment for the prior payment application affidavits.
- 7.4.4. Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made:
- A. I hereby certify, to the best of my knowledge and belief, that:
- i. The amounts requested are only for performance in accordance with the specifications, terms,
- ii. 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

- iii. 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.

7.5. Allowances

- 7.5.1. The Contract Sum includes the Allowances (if any) identified in the Contract.
- 7.5.2. All allowances include the costs to the Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes.

7.6. Unit Prices

- 7.6.1. Where the Contract provides that all or a part of the Work is to be Unit Price Work, initially that Contract Sum will include for all Unit Price Work:
 - A. An amount equal to the sum of the established Unit Prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract.
 - B. The Contractor's fee on that Unit Price Work.
- 7.6.2. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Sum.
 - A. CMHA will determine the actual quantities and classifications of Unit Price Work performed by the Contractor.
- 7.6.3. Before final payment, an appropriate Change Order will be issued to reconcile the Contract Sum so that it reflects actual amount due to the Contractor on account of Unit Price Work actually performed.

7.7. Schedule of Values

- 7.7.1. Within seven (7) calendar days after issuance of Letter of Intent or other period as mutually agreed by the Contractor and CMHA, the Contractor shall submit to CMHA a Schedule of Values on a form provided for by CMHA, with separate amounts shown for labor and materials for each branch of Work.
 - A. The Contractor shall clearly indicate on the Schedule of Values, but is not necessarily limited to, the cost of payment and performance bond(s), permit costs, the amount(s) allocated, including separate items for the Contractor's Fee (Overhead and Profit), and the amount(s) of labor and materials, as appropriate.
- 7.7.2. The grand total shown on the Schedule of Values shall equal the total Contract Sum.
- 7.7.3. CMHA may use the approved Schedule of Values to determine cost or credit to CMHA resulting from any change in the Work.
 - A. The first items shall be a breakdown of the General Conditions Cost.
 - B. The amounts for labor and materials shall accurately reflect the cost for each item.
 - i. The Contractor shall clearly indicate on the Schedule of Values, the amount(s) allocated, including separate items for Contractor's Fee (overhead and profit), for each Section 3 certified Business used in the performance of the Work.
 - ii. Contractor's Fee shall be included in the totals for labor and materials.
 - C. If the material allocation exceeds 55 percent of the Contract Sum, the Contractor shall provide, upon request, sufficient information to support the higher percentage.
 - D. Subcontract Work shall show amounts for labor and materials.
 - i. Fringe benefits shall be shown as a part of labor costs.
 - E. When more than one major structure is included in the Work, the Contractor shall subdivide the Schedule of Values accordingly, with cost details for each structure shown separately.
 - F. The line items shall be coordinated with line items in the Construction Progress Schedule, which may require division of items of Work by area of the Project by floor, phase, or other appropriate area.
 - G. Mechanical and electrical Work shall be included in separate line items for all major pieces of equipment, and group smaller equipment items by type.
 - H. Line items shall be included for each Allowance, Punch List Work, Project Record Document Submittals, delivery of attic stock, and specified demonstrations and training.
- 7.7.4. CMHA may return the Schedule of Values to the Contractor for re-submittal if it does not meet the requirements or contains insufficient items or details of the Work, or approve the Schedule of Values if CMHA determines that it conforms to section 7.7
- 7.7.5. No payment shall be made until the CMHA has approved the Contractor's Schedule of Values.

7.8. Labor Payments/Retainage

- 7.8.1.** Partial payments to the Contractor for labor performed under either a Unit Price or lump sum Contract shall be made at the rate of 90 percent of the amount invoiced through the Contractor Payment Request.

7.9. Material Payments/Retainage

- 7.9.1.** CMHA shall pay the Contractor at the rate of 100 percent of the scheduled value for materials incorporated into the Project.
- 7.9.2.** CMHA shall pay the Contractor at the rate of 90 percent of the invoice cost, not to exceed the scheduled value in a Unit Price or lump sum Contract, for materials delivered to the Site, or other off-Site storage location approved by CMHA provided the Contractor provides the following information with the Contractor Payment Request:
- A.** A list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost; and
 - B.** A certification of materials stored off-site, prepared by the Contractor and signed by CMHA to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for delivery to the Project.
- 7.9.3.** CMHA shall pay the balance of the scheduled value when the materials are incorporated into and become a part of the Project.
- 7.9.4.** When payment is allowed for materials delivered to the Site or other approved off-site storage location but not yet incorporated into the Project, the materials are the property of CMHA.
- 7.9.5.** CMHA may, at its sole discretion, retain any material not ultimately incorporated into the Project or return it to the Contractor for credit of an amount proportionate to the value of the extra materials.
- 7.9.6. Release of Retainage**
- A.** When the Contractor has achieved Substantial Completion of all Work, and there is no other reason to retain funds; upon request of the Contractor, the funds retained in connection with that Work shall be released and paid to the Contractor, withholding only that amount necessary to assure faithful completion in the sole discretion of CMHA, including but not limited to compliance with CLOSEOUT.

7.10. Payments Withheld

- 7.10.1.** CMHA may withhold funds from or may assess Liquidated Damages against a Contractor Payment Request.
- 7.10.2.** CMHA may decline to approve any Contractor Payment Request or part thereof, or nullify any previous Contractor Payment Request, in whole or in part, to the extent necessary in CMHA's sole opinion to protect CMHA from loss because of:
- A.** Defective Work not remedied;
 - B.** Overpayment of any schedule of values line item without prior approval of related change order by Contracting Officer;
 - C.** Overpayment due to calculation error;
 - D.** Damage caused by the Contractor;
 - E.** Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 - F.** Reasonable evidence that the Work will not be completed within the Contract Times, and that the unpaid balance would not be adequate to cover damages under the Contract Documents for the anticipated delay;
 - G.** Failure to comply with Applicable Law including, but not limited to, the requirements of ORC.

7.11. Payment Request

- 7.11.1.** The Contractor and each of its Subcontractors, regardless of tier, shall execute a Payment Release Affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all applicable requirements of ORC, and to certify that all of its Subcontractors have been paid in full for all Work performed or materials furnished under the Contract.
- 7.11.2.** CMHA shall pay Contractor in approximately forty-five (45) calendar days from the date of acceptance of the Payment Request.

- 7.11.3.** The Contractor, as a condition precedent to final payment, shall complete all requirements of the Contract Documents.
- 7.11.4.** Acceptance of final payment by the Contractor or a Subcontractor constitutes the payee's waiver of all claims against CMHA except those previously made in writing and identified by that payee as unsettled at the time of the final Contractor Payment Request.

8. ARTICLE VIII CONTRACT MODIFICATIONS

8.1. Changes in the Work

- 8.1.1.** Except as provided, no order, statement or conduct of CMHA shall be treated as a change or entitle the Contractor to an equitable adjustment.
- 8.1.2.** Only CMHA's Contracting Officer has authority to modify any term or condition of this Contract.
 - A.** Any Contract modification shall be authorized in writing.
- 8.1.3.** The Contracting Officer may modify the contract unilaterally:
 - A.** Pursuant to a specific authorization stated in a Contract clause; or
 - B.** For administrative matters which do not change the rights or responsibilities of the parties.
- 8.1.4.** All other Contract Modifications shall be in the form of supplemental agreements signed by the Contractor and CMHA.
 - A.** If notice of any change affecting the Contract is required by the provision of any Bond, notice is the Contractor's responsibility.
- 8.1.5.** Except as expressly stated herein, the Contractor's failure to obtain prior written authorization from CMHA for a change in the Work constitutes a waiver by the Contractor of an adjustment to the Contract Sum or Contract Time or both.
- 8.1.6.** The Contractor shall perform all changes in the Work under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly with the change unless otherwise provided in the Change Order or order for a minor change in the Work.
- 8.1.7. HUD Approval**
 - A.** When a proposed modification requires the approval of HUD prior to its issuance; such modification shall not be effective until the required approval is received by CMHA.

8.2. Change Order

- 8.2.1.** CMHA may order changes in the Work without invalidating the Contract and such change in Work may be accomplished, by Change Order or an order for a minor change in the Work.
- 8.2.2.** CMHA 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, but not limited to, changes:
 - A.** In the specifications (including drawings and designs);
 - B.** In the method or manner of performance of the Work;
 - C.** CMHA-furnished facilities, equipment, materials, services, or site; or
 - D.** Directing the acceleration of the Work.
- 8.2.3.** If any change 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, CMHA shall make an equitable adjustment and modify the Contract in writing.
 - A.** However, except for an adjustment based on defective specifications, no proposal for any change shall be allowed for any costs incurred more than twenty (20) calendar days before the Contractor gives written notice as required.
 - B.** In the case of defective specifications for which CMHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specification.
- 8.2.4.** The Contractor must assert its right to an adjustment within thirty (30) calendar days after:
 - A.** Receipt of a written change order, or
 - B.** The furnishing of a written notice by submitting a written statement describing the general nature and the amount of the proposal.
- 8.2.5.** If the facts justify it, CMHA may, in its sole discretion, extend the period for submission.

8.3. Change Order Directive

- 8.3.1.** A Change Order Directive is a written order prepared by CMHA directing a change in the Work and may, if necessary, state a proposed basis for adjustment, if any, of Contract Sum or Contract Time, or both.
- 8.3.2.** A Change Directive shall be used to direct a change in the Work in the absence of a total agreement on the terms of a Change Order and shall only be used in the absence of total agreement on the terms of a Change Order concerning the associated change of the Work.

- 8.3.3.** Upon receipt of a Change Directive, the Contractor shall promptly proceed with the change in the Work involved.
- 8.3.4.** Within fourteen (14) calendar days after receiving the Change Directive, the Contractor shall respond with a Change Order Proposal for adjustment of the Contract Sum or Contract Time or both.
- 8.3.5.** If the Contractor does not respond to the Change Directive as required above, CMHA shall determine the adjustments, if any, of the Contract Sum and Contract Times.
- A.** If the Contractor does not agree with CMHA's determination, the Contractor shall initiate a claim within ten (10) calendar days of the date on which CMHA issues the determination, and the Contractor's failure to do so shall constitute an irrevocable waiver the Claim.
- 8.3.6.** If CMHA and the Contractor agree on the adjustment of the Contract Sum and/or Contract Time associated with the Change Order Directive, CMHA shall prepare an appropriate Change Order.

8.4. Change Order Procedure

- 8.4.1.** Any Change Order Request must be in writing and submitted by the Contractor to CMHA in accordance with the Notice Provision.
- 8.4.2.** The Contractor's cost of preparing and providing Proposals is included in the Contract Sum.
- 8.4.3.** If CMHA Agrees with Change Order Proposal:
- A.** CMHA shall prepare each Change Order, attach the supporting documentation, and issue the Change Order to the Contractor for signature.
- B.** Within three (3) business days after issuance of Change Order to Contractor, Contractor must sign the Change Order and resubmit to CMHA.
- C.** Change Order is not approved until CMHA's Contracting Officer signs the Change Order.
- 8.4.4.** If CMHA disagrees with Change Order Proposal or Contracting Officer doesn't Approve Change Order:
- A.** CMHA will notify Contractor in writing with reasons; and
- B.** Contractor has fourteen (14) calendar days to modify the Change Order Request or invoke ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE.
- 8.4.5.** Failure to reach an agreement on any proposal shall be a dispute under ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE herein.
- A.** Nothing in Change Order Procedure, however, shall excuse the Contractor from proceeding with the contract change pursuant to an issued Change Directive.

8.5. Change Order Proposal

- 8.5.1.** 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:
- A. Direct Costs:**
- i.** Materials (list individual items, the quantity and unit cost of each, and the aggregate cost)
 - ii.** Transportation and delivery costs associated with materials
 - iii.** Labor breakdowns by hours or unit costs (identified with specific Work to be performed)
 - iv.** Construction equipment exclusively necessary for the change
 - v.** Costs of preparation and/or revision to shop drawings resulting from the change
 - vi.** Worker's Compensation and Public Liability Insurance
 - vii.** Employment taxes under FICA and FUTA
 - viii.** Bond Costs
- B. Indirect Costs:**
- i.** Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
- C. Profit:**
- i.** The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change.
 - ii.** The allow-ability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms, in effect on the date of this Contract.
 - iii.** The Contractor shall not be allowed a profit on the profit received by any subcontractor.

- iv. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs.
- v. 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.

8.5.2. 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.

8.5.3. CMHA shall act on proposals within thirty (30) calendar days after their receipt, or notify the Contractor of the date such action will be taken.

8.5.4. By signing a Change Order, the Contractor irrevocably certifies that the elements of a Change Order described herein are completely satisfied, and waives all rights, if any, to seek further adjustment of the Contract Sum or Contract Times, or both, at a later date with respect to the associated change in the Work, including without limitation on account of the “cumulative impact” of the associated change in the Work in combination with in one or more of the other changes in the Work.

8.5.5. No Proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior written authorization from CMHA’s Contracting Officer. When the Change Order is signed by the Contractor and CMHA’s Contracting Officer, the fully executed Change Order modifies the Contract Documents and authorizes and directs the Contractor to proceed, and the Contractor shall promptly proceed with the associated change in the Work.

8.6. Differing Site Conditions

8.6.1. The Contractor shall promptly, and before the conditions are disturbed, give a written notice to CMHA of:

- A. Subsurface or latent physical conditions at the site which differ from those indicated in this contract; or
- B. 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.

i. Written notice of the condition shall be given immediately to CMHA.

C. The Contractor’s failure to give notice of the Differing Site Condition as required shall constitute an irrevocable waiver of any associated claim.

8.6.2. CMHA shall investigate the site conditions promptly after receiving the notice.

- A. 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.
- B. If the conditions do materially so differ and cause an increase or decrease in 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 CMHA within ten (10) calendar days after receipt of such instructions and, in any event, before proceeding with the work.
- C. An equitable adjustment in the Contract price, the delivery schedule, or both shall be made under this.

8.6.3. No request by Contractor for an equitable adjustment to the Contract under Differing Site Conditions shall be allowed, unless the Contractor has given the written notice required; provided that the time prescribed for giving written notice may be extended by CMHA.

8.6.4. If CMHA determines that the Contractor has not encountered a Differing Site Condition and the Contractor does not agree with that determination, the Contractor must initiate a Claim within ten (10) calendar days of the date that CMHA issues its determination.

8.7. Minor Changes in the Work

8.7.1. CMHA may order minor changes in the Work not involving adjustment of the Contract Sum or extension of the Contract Times and not inconsistent with the intent of the Contract Documents.

- A. Those changes shall be effected by written order issued to the Contractor.

- 8.7.2.** The Contractor shall promptly carry out each order for a minor change in the Work if the Contractor agrees that the order does not involve adjustment of the Contract Sum and Contract Times.
- 8.7.3.** If the Contractor reasonably believes that it would be entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of an order for a minor change in the Work, the Contractor, within three (3) business days after receiving the order, shall give CMHA written notice of the Contractor's position, and not proceed with the subject Work without first receiving a Change Order related to it.
- 8.7.4.** The Contractor waives its right to an adjustment of the Contract Sum or Contract Times on account of an order for a minor change in the Work by:
- A.** Starting the Work that is the subject of the order for a minor change in the Work; or
 - B.** Failing to give the notice described within three (3) business days after receiving the order for a minor change in the Work.

8.8. Change Order Cost or Credit Determination

8.8.1. General

- A.** The maximum cost or credit resulting from a change in the Work shall be determined as described below.
 - i.** Proposals shall include the information required.
 - ii.** A Unit Price Proposal shall only be valid when incorporated into the Contract by Change Order.
 - iii.** The maximum cost or credit includes all compensation for impact costs.
 - (a)** Additional costs for impacts shall not be allowed.
- B.** The Contractor shall not assign any portion of the Work to another Person whereby the Contractor would benefit directly or indirectly from the double application of charges for overhead or profit.
- C.** CMHA may require notarized invoices for material costs and may audit the records of the Contractor and Subcontractors.
- D.** For each change in the Work, the Contractor shall furnish a detailed Proposal itemized on the Proposal Worksheet Summary Form published by CMHA through which the Contractor shall document the related changes in the Contract Sum.
 - i.** Any Subcontractor pricing shall also be itemized on the Proposal Worksheet Summary Form.
- E.** Section 8.8.2 Pricing Criteria establishes the exclusive and maximum amount that CMHA shall pay for any Change Order, including, but not limited to, all amounts for interference with, delay, hindrance, disruption, or impact of the Work
 - i.** These Pricing Criteria also govern the value of deduct Change Orders and the Contractor's entitlement to additional compensation or damages through the Claims and dispute resolution processes on account of changes in the Work.
 - ii.** In order to expedite the review and approval process, Proposals shall be prepared in the categories and order listed in - Pricing Criteria.

8.8.2. Pricing Criteria

A. Contractor Personnel Costs

- i.** The Contractor's on-Site management (including supervision and administrative personnel) are not subject to State or Federal Prevailing Wage Rates.
- ii.** These costs will be calculated on an hourly basis according to the rates acceptable to CMHA.
- iii.** In no event will the Contractor be entitled to an increase in the Contract Sum on account of Contractor Personnel Costs unless the Contractor actually incurs additional Contractor Personnel Costs solely on account of the associated change in the Work.

B. Labor

- i.** Field labor directly involved in the Work based upon the actual rate of pay to the worker.
- ii.** If the Project is subject to payment of prevailing wage rates, field labor shall be paid according to the applicable classification of labor as established in the applicable prevailing wage determination.
- iii.** In no event will the Contractor be entitled to an increase in the Contract Sum on account of labor costs unless the Contractor actually incurs additional labor costs solely on account of the associated change in the Work.

- iv. Under no conditions will the increase exceed those additional labor costs the Contractor actually incurs.
 - v. The cost for supervision above the level of working forepersons (such as general forepersons, superintendent, project manager, etc.) is included in the adjustment Contractor Personnel Costs.
- C. Fringes**
- i. Fringe benefit credit for labor is only allowable for prevailing wage fringe benefits including, but not limited to, Health and Welfare, vacation, apprenticeship training, and certain types of pension plans.
 - ii. Each fringe benefit for which credit is requested shall be calculated on an hourly basis and listed as a separate line item.
 - iii. The Contractor shall submit documentation supporting the calculation of the amounts for each fringe benefit for each worker classification, including labor provided by Subcontractors.
- D. Allowable Payroll Expenses**
- i. Allowable payroll expenses for labor including payroll taxes as well as other benefits that are required by Applicable Law, shall each be a separate line item.
- E. Equipment Rentals**
- i. All charges for certain non-owned heavy or specialized equipment at up to 100 percent of the documented rental cost
 - ii. No rental charges shall be allowed for hand tools, minor equipment, simple scaffolds, etc. Downtime due to repairs, maintenance and weather delays shall not be allowed.
 - iii. Contractor shall submit copies of actual paid invoices to substantiate rental costs.
- F. Owned Equipment**
- i. All charges for certain heavy or specialized equipment owned by the Contractor or Subcontractor performing the Work at up to 100 percent of the cost listed by the current edition of the Associated Equipment Distributors' *AED Green Book* heavy equipment rental rates.
 - ii. No recovery shall be allowed for hand tools, minor equipment, simple scaffolds, etc.
 - iii. The longest period of time that the equipment is to be required for the Work shall be the basis for the pricing.
 - iv. Downtime due to repairs, maintenance, and weather delays shall not be allowed.
- G. Trucking**
- i. A reasonable delivery charge or per-mile trucking charge for delivery of required materials or equipment
 - ii. Charges for use of a pick-up truck shall not be allowed.
- H. Materials**
- i. The actual cost (including all discounts, rebates or related credits) of all materials incorporated into the changed Work
 - ii. Documentation shall show costs, quantities, or Unit Prices of all items, as appropriate.
 - iii. The cost or credit for reusable materials shall be limited to 33 percent of the material cost for each use.
- I. Contractor's General Conditions Costs**
- i. The Contractor's General Conditions Costs to the extent attributable to an associated change in the Contract Time for achievement of Final Acceptance resulting from the change in Work
 - ii. In no event shall the Contract Sum adjustment per day of Contract Time adjustment exceed an amount equal to **(1)** the sum of the General Conditions Costs line items in the Contractor's Schedule of Values approved by CMHA, **(2)** divided by the total number of days of the original Contract Time for achievement of Final Acceptance.
 - iii. The Contractor shall:
 - (a)** Exclude the bond premium from the Schedule of Values for the purposes of the calculation; and
 - (b)** Include the actual adjustment of the Bond Premium attributable to an associated change in the Contract Sum.
 - iv. If the Contractor purchases Builder's Risk insurance for the Project, the Contract shall:

- (a) Exclude the Builder's Risk insurance premium from the Schedule of Values for the purposes of the calculation; and
- (b) Include the actual adjustment of the Builder's Risk insurance premium attributable to an associated change in the Contract Sum.

J. Subcontractor Overhead and Profit

- i. Adjustment of the Contract Sum on account of a change in Subcontractor-performed Work shall include the Subcontractor's aggregate overhead and profit allowance equal to 15 percent of the sum of the Subcontractor's costs that are associated with that changed Work.
- ii. The allowance applies to each Subcontractor tier.
- iii. The allowance covers:
 - (a) The costs required to schedule and coordinate the Work
 - (b) Telephone
 - (c) Telephone charges
 - (d) Facsimile
 - (e) Telegrams
 - (f) Postage
 - (g) Photos
 - (h) Photocopying
 - (i) Hand tools
 - (j) Simple scaffolds (one level high)
 - (k) Tool breakage
 - (l) Tool repairs
 - (m) Tool replacement
 - (n) Tool blades
 - (o) Tool bits
 - (p) Home office estimating and expediting
 - (q) Home office clerical and accounting support
 - (r) Home office labor (management, supervision, engineering)
 - (s) All other home office expense, legal services, travel, and parking expenses
- iv. An exception is allowed for shop or engineering labor, which shall not be subject to Prevailing Wage rates for steel fabricators, sheet metal fabricators, and sprinkler system fabricators performing work off-site.
 - (a) Recovery for these matters shall be allowed on an hourly basis.
- v. An exception is allowed for field supervision labor, for those portions of the Change Order Work that will be performed, or was performed, at times when the superintendent is not required to be on site, including but not limited to overtime hours due to acceleration and\ extensions of the Contract Times.
 - (a) Recovery for this matter will be allowed on an hourly basis.

K. Contractor's Fee

- i. Adjustment of the Contract Sum on account of a change in the Work shall include an allowance for the Contractor's Fee equal to 10 percent of the sum of the costs that are associated with that changed Work.

L. Miscellaneous

- i. Adjustment of the Contract Sum on account of a change in Work may include the following costs with no allowance for Contractor's Fee or Subcontractor overhead and profit.
- ii. The premium portion only for approved overtime (labor and fringes)
- iii. The straight time portion is included.

8.8.3. Costs that shall not be reimbursed for Change Order Work include the following

- A. Voluntary employee deductions including, but not limited to, deductions for charitable donations or U.S. savings bonds
- B. Employee profit sharing

8.9. Time Extension

- 8.9.1.** Every adjustment of the Contract Times associated with any change in the Work shall be determined as provided herein, which establishes the Contractor's maximum entitlement for any change in the Work, including without limitation all adjustments for interference, delay, hindrance, or disruption of the Work.
- 8.9.2.** This also governs time adjustments for deduct Change Orders and the Contractor's entitlement to additional time through the claims and dispute resolution processes on account of changes in the Work.
- 8.9.3.** The Contractor shall substantiate all changes in the Contract Times with:
- A.** A written description of the nature of the interference, disruption, hindrance or delay;
 - B.** Identification of Persons and events responsible for the interference, disruption, hindrance or delay;
 - C.** Date, or anticipated date, of commencement of the interference, disruption, hindrance or delay;
 - D.** Identification of activities by schedule activity number and name on the Construction Progress Schedule, which may be affected by the interference, disruption, hindrance or delay, or new activities created by the interference, disruption, hindrance or delay and the relationship with existing activities;
 - E.** Anticipated duration of the interference, disruption, hindrance or delay and of any remobilization period;
 - F.** Specific number of days of extension requested and specific number of days for remobilization requested;
 - G.** Recommended action to avoid or minimize any future interference, disruption, hindrance or delay; and
 - H.** A detailed written proposal for an increase in the Contract Sum which would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, if any.
- 8.9.4.** A Change Order may authorize extension of the Contract Time for specific elements, while maintaining milestone dates for unaffected elements.
- A.** Such a Change Order may also authorize an appropriate adjustment to Liquidated Damages.
- 8.9.5. Critical Path**
- A.** Time extensions shall depend upon the extent to which the Work on the critical path of the Construction Progress Schedule is affected.
- 8.9.6.** A Change Order granting a time extension may provide that the Contract Times shall be extended for only elements so interfered with, disrupted, hindered, or delayed and related remobilization and that shall not be altered and may further provide for adjustment of Liquidated Damages.

9. ARTICLE IX CONSTRUCTION CLOSEOUT

9.1. Final Cleaning

- 9.1.1. Before requesting the Substantial Completion inspection of the Work, the Contractor shall clean the Site, remove waste materials and rubbish attributable to the Project, and restore the property to an acceptable condition so that upon Substantial Completion, the premises are ready for occupancy by CMHA.
- 9.1.2. If the Contractor performs any Work after final cleaning, the Contractor shall clean the affected area as provided above so that upon Substantial Completion, the premises are ready for occupancy by CMHA.
- 9.1.3. Final cleaning shall be done to the reasonable satisfaction of CMHA.

9.2. Inspection and Construction of the Work

- 9.2.1. 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.
 - A. All work is subject to CMHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract.
- 9.2.2. CMHA inspections and tests are for the sole benefit of CMHA and do not:
 - A. Relieve the Contractor of responsibility for providing adequate quality control measures;
 - B. Relieve the Contractor of responsibility for loss or damage of the material before acceptance;
 - C. Constitute or imply acceptance; or
 - D. Affect the continuing rights of CMHA after acceptance of the completed work.
- 9.2.3. The presence or absence of the CMHA 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.
 - A. All instructions and approvals with respect to the work shall be given to the Contractor by CMHA.
- 9.2.4. 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 CMHA.
 - A. CMHA 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 re-inspection or retest necessary.
 - B. CMHA 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.

9.3. Routine Inspections

- 9.3.1. CMHA may conduct routine inspections of the construction Site on a daily basis.
- 9.3.2. The Contractor shall, without charge, replace or correct Work found by CMHA not to conform to contract requirements, unless Contracting Officer decides that it is in its interest to accept the Work with an appropriate adjustment in Contract Sum.
 - A. The Contractor shall promptly segregate and remove rejected material from the premises.
- 9.3.3. If the Contractor does not promptly replace or correct rejected Work, CMHA may:
 - A. By Contract or otherwise, replace or correct the Work and charge the cost to the Contractor; or
 - B. Terminate for default the Contractor's right to proceed.
- 9.3.4. If any work requiring inspection is covered up without approval of CMHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor.
 - A. If at any time before final acceptance of the entire work, CMHA 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.
 - B. 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.
 - C. 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.

9.4. Substantial Completion**9.4.1. Contractor's Punch List**

- A.** When the Contractor considers the Work, or a designated portion thereof, Substantially Complete the Contractor shall inspect the Work and prepare a list of Defective Work and incomplete or unacceptable Work ("Contractor's Punch List").
- B.** The Contractor shall list all items of Work not in compliance with the Contract Documents, including items the Contractor is requesting to be deferred.
 - i.** The Contractor shall proceed to correct all items listed on the Contractor's Punch List and certify that the incomplete items listed on the Contractor's Punch List are to its knowledge an accurate and complete list by signing the Contractor's Punch List.
 - ii.** The Contractor's failure to include an item on the Contractor's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
 - iii.** The Contractor shall submit the signed Contractor's Punch List to CMHA together with a request for a Substantial Completion inspection of the Work.

9.4.2. Substantial Completion Inspection

- A.** The Contractor shall notify CMHA, 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.
 - i.** If CMHA and/or the A/E determine that the state of preparedness is as represented, CMHA will promptly arrange for the inspection.
 - ii.** Unless otherwise specified in the Contract, CMHA shall accept, as soon as practicable after completion and inspection, all work required by the Contract or that portion of the Work that CMHA determines and designates can be accepted separately.
 - iii.** Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or CMHA's right under any warranty or guarantee.
- B.** Within three (3) business days after receipt of the request for the Substantial Completion inspection of the Work, CMHA shall notify the Contractor of acceptance or rejection of the request, stating reasons for any rejection.
 - i.** Within seven (7) calendar days after its acceptance of the Contractor's request, CMHA and/or the A/E shall conduct the Substantial Completion inspection to determine whether the Work, or designated portion, is in conformity with the Contract Documents and Substantially Complete.
 - ii.** If CMHA and/or the A/E determines that the Work is Substantially Complete, within three (3) business days after the Substantial Completion inspection, CMHA and/or the A/E shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and include a list of Defective, incomplete, or unacceptable Work ("CMHA's Punch List").
 - iii.** CMHA's Punch List shall include:
 - (a)** The items on the Contractor's Punch List that are not yet completed or corrected as of the date of the Substantial Completion inspection; and
 - (b)** Comments from CMHA regarding the Punch List and other issues related to the Project.
 - iv.** CMHA shall submit the Certificate of Substantial Completion to the Contractor for their written acceptance.
 - (a)** Upon their acceptance and consent of the Contractor's Surety, and subject to CMHA's right to withhold payment, CMHA shall release retainage.
 - v.** CMHA and/or the A/E's failure to include an item on CMHA's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
 - vi.** If CMHA subsequently determines that the Work is not Substantially Complete, CMHA may request compensation for related expenses.
 - (a)** CMHA may deduct the additional expenses from payments then or thereafter due the Contractor.

- (b) If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the failure of the Contractor to timely and properly complete the Punch List items.

9.4.3. Completion of Punch List Items

- A. The Contractor shall complete all items on the CMHA's Punch List prior to date for Contract Completion.
- B. After completing all items on the CMHA's Punch List, the Contractor shall provide a written request for Final Inspection of the Work.
- i. If Work on the Punch List cannot be timely completed, the Contractor shall submit a change order request MODIFICATIONS.
- ii. Within three (3) business days after receipt of the request for the Final Inspection of the Work, CMHA and/or the A/E shall complete a Final Inspection of the Work for compliance with the Contract Documents.
- iii. If multiple inspections of items on CMHA's Punch List are required due to the Contractor's failure to properly and timely complete them, the Contractor shall pay any additional costs incurred by the A/E and CMHA resulting from any attendant delay.
- (a) CMHA may deduct those additional costs from payments then or thereafter due the Contractor.
- (b) If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, related to multiple inspections by CMHA of items on the Punch List due to the Contractor's failure to properly and timely complete the Punch List.

9.5. Demonstration and Training, Operating Appurtenances

- 9.5.1. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall perform demonstration and training of CMHA's maintenance personnel as specified in the Contract Documents.
- 9.5.2. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize and submit operating appurtenances and loose items related to operation and maintenance of the completed Project to CMHA, including, but not limited to:
- A. Keys to door and window hardware, panels, and other devices not directly provided to CMHA from the manufacturer;
- B. Operating handles, levers, cranks, specialized wrenches or drivers, remote controls, and similar items; and
- C. Extra materials (e.g., attic stock).

9.6. Acceptance of Defective Work

- 9.6.1. Defective Work may only be knowingly accept by CMHA in writing instead of CMHA requiring its removal or correction, in which case the Contract Sum must be equitably reduced to account for the reduction in benefit of the Work received by CMHA on account of the Defective Work.
- A. CMHA may only accept Defective Work though a deduct Change Order that makes explicit reference to Acceptance of Defective Work
- 9.6.2. None of the following will constitute acceptance of Defective Work, a release of the Contractor's obligation to perform the Work in accordance with the Contract, or a waiver of any rights set forth in the Contract or otherwise provided by Applicable Law:

- A. Observations or inspections by CMHA or the A/E;
- B. The making of any payment;
- C. Substantial Completion or the issuance of a Certificate of Substantial Completion;
- D. Partial Occupancy and CMHA's use or occupancy of the Work or any part of it;
- E. Contract Completion or the issuance of a partial or final Certificate of Contract Completion;
- F. Any review or approval of a submittal;
- G. Any inspection, test, or approval by other Persons; or
- H. Any correction of Defective Work by CMHA.

9.7. Building Commissioning

- 9.7.1. If the Project scope includes building commissioning, the Contractor shall participate in the Commissioning Process, as prescribed in the Contract Documents.
- 9.7.2. The Contractor shall permit the A/E, CMHA, or a third-party Commissioning Agent ("CxA") if applicable, access to commission performance based equipment, fixtures, and/or systems (e.g., HVAC, fire protection, smoke evacuation, fume hoods, emergency power, etc.), prior to Substantial Completion.
- 9.7.3. The A/E, CMHA, or CxA if applicable, shall promptly notify, in writing, the Contractor of any deficiency identified during the Commissioning Process.
- 9.7.4. To facilitate the Commissioning Process, the Contractor shall submit 4 sets of Operation and Maintenance manuals for dynamic and engineered systems to CMHA and CxA, if applicable, for approval. This submission shall occur within 30 days of obtaining approval of all related Contractor submittals required by the Contract Documents.

9.8. Contract Completion**9.8.1. Partial Contract Completion**

- A. When items of Work cannot be completed until a subsequent date, CMHA shall prepare a partial Certificate of Contract Completion that shall include a detailed list of the deferred Work and the date(s) by which the Contractor will complete that Work.
- B. CMHA shall submit the partial Certificate of Contract Completion to Contractor for their written acceptance. Upon their acceptance of the partial Certificate of Contract Completion and consent of the Contractor's Surety, CMHA may release payment to the Contractor, as determined in the sole discretion of CMHA.

9.8.2. Final Contract Completion

- A. Contract Completion shall occur no later than 30 calendar days from the date of Substantial Completion.
- B. When all items on CMHA's Punch List have been completed to the satisfaction of CMHA, all requirements of the Contract Documents have been completed, and the provisions have been fulfilled, CMHA shall prepare and recommend execution of final Contract payment.
- C. The date that CMHA executes the final Certificate of Contract Completion or issues Contract payment, whichever is later, is the date of Contract Completion.
- D. Nothing in Contract Completion shall constitute a waiver of CMHA's ability to pursue damages as the result of any breach of the Contract by the Contractor or Liquidated Damages.

10. ARTICLE X SUSPENSION AND TERMINATION**10.1. Suspension of the Work**

- 10.1.1.** 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 CMHA.
- 10.1.2.** If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of CMHA in the administration of this Contract, or by CMHA'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.
- A.** However, no adjustment shall be made 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.
- 10.1.3.** A Claim shall not be allowed:
- A.** For any costs incurred more than twenty (20) calendar 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
- B.** 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 no later than the date of final payment under the Contract.
- 10.1.4.** If CMHA suspends the Work under ARTICLE X SUSPENSION AND TERMINATION and the Contractor submits a proper Payment Request, subject to all other provisions of the Contract Documents, the Contractor shall be entitled to payment of compensation due under the Contract Documents for the Work performed before the suspension based upon the Schedule of Values.
- 10.1.5.** CMHA, without prejudice to any other right or remedy it may have, may order the Contractor in writing to suspend, delay, or interrupt the performance of the Work in whole or in part for such period as CMHA may determine for any of the following reasons:
- A.** Defective Work;
- B.** The Contractor is causing undue risk of damage to any part of the Project or adjacent area;
- C.** The Contractor fails to furnish or perform the Work in such a way that the complete Work will conform to the requirements of the Contract Documents; or
- D.** Any other cause CMHA reasonably believes justifies suspension.
- i.** CMHA's exercise of its right to suspend the Work shall not entitle Contractor to any adjustment of the Contract Sum, Contract Time or both.
- 10.1.6.** Upon receipt of the notice of suspension, the Contractor shall cease Work on the suspended activities and take all necessary or appropriate steps to limit disbursements and minimize respective costs.
- A.** The Contractor shall furnish a report to CMHA within five (5) business days of receiving the notice of suspension, describing the status of the Work, including, but not limited to, results accomplished, resulting conclusions, and other information as CMHA may require.
- 10.1.7.** CMHA's right to stop the Work shall not give rise to any duty to exercise the right for the benefit of the Contractor or any other party, and CMHA's exercise or failure to exercise the right shall not prejudice any of CMHA's other rights including the right to suspend the Work in the future under the same or similar circumstances.
- 10.2. Termination for Convenience**
- 10.2.1.** CMHA, through 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 CMHA.
- A.** 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 termination becomes effective.

- 10.2.2.** Upon delivery of the notice of termination for convenience, the Contractor shall immediately proceed with performance of the following duties in accordance with instructions from CMHA:
- A.** Cease operations as specified in the notice;
 - B.** Place no further orders and enter into no further subcontracts for materials, labor, services, or facilities, except as necessary to complete continued portions of the Project;
 - C.** Terminate all subcontracts and orders to the extent they are related to the Work terminated;
 - D.** Proceed with Work not terminated; and
 - E.** Take actions that may be necessary, or that CMHA may direct, for the protection and preservation of the terminated Work.
 - i.** Failure to do so may lead to Contractor's liability for actual damages as a result of Contractor's failure to protect the Work.
- 10.2.3.** If the performance of the work is terminated, either in whole or in part, CMHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by CMHA of a properly presented claim setting out in detail:
- A.** The total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor;
 - B.** The cost 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 CMHA to the Contractor or by the Contractor to the Subcontractor or supplier;
 - C.** The cost of preserving and protecting the work already performed until CMHA or assignee takes possession thereof or assumes responsibility therefore; and
 - D.** An amount constituting a reasonable profit on the value of the work performed by the Contractor.
- 10.2.4.** CMHA will act on the Contractor's claim within sixty (60) calendar days (unless CMHA deems in writing that additional time is needed for review) of receipt of the Contractor's claim.
- 10.2.5.** Any disputes are expressly made subject to the provisions of this Contract.

10.2.6. If CMHA terminates the Work the termination shall not affect the rights or remedies of CMHA against the Contractor then existing or which may thereafter accrue.

10.2.7. Notwithstanding, if CMHA terminates the Work but there exists an event of Contractor's default, the Contractor shall be entitled to receive only such amounts as it would be entitled to receive following the occurrence of an event of default as provided for below.

10.3. Termination for Cause/Default

10.3.1. If the Contractor materially breaches this Contract, including without limitation, 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, CMHA 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.

- A.** In this event, CMHA 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.
- B.** The Contractor and its sureties shall be liable for any damage to CMHA 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.
 - i.** This liability includes any increased costs incurred by CMHA in completing the Work.
- C.** Other examples of material breaches of the Contract include but are not limited to:
 - i.** Refusal to remedy defective work;
 - ii.** Failure to supply enough properly skilled workers or proper materials;
 - iii.** Failure to provide revised Construction Progress Schedule or Recovery Plan;
 - iv.** Failure to properly make payment to Subcontractors or Consultants; or
 - v.** Disregarding laws, ordinances, or rules, regulations, or orders of a public authority with jurisdiction over the Project.

10.3.2. If CMHA intends to exercise its termination right, CMHA shall issue not less than five (5) business days written notice to the Contractor and the Contractor's Surety in accordance with ORC.

- A.** Notwithstanding any provision of the Contract to the contrary, the issuance of a 3-Day Notice is not a condition precedent to CMHA's exercise of its rights and CMHA's decision to not issue a 3-Day Notice will not prejudice CMHA's rights under this.

10.3.3. If the Contractor fails to satisfy the requirements set forth in the 5-Day Notice within fifteen (15) calendar days of receipt of the 5-Day Notice or as otherwise specified in the notice, CMHA may declare the Contractor in default, terminate the Contract, and employ upon the Work the additional force or supply materials or either as appropriate, and remove Defective Work.

10.3.4. 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 CMHA.

10.3.5. If the Contract is terminated, the Contractor's Surety may perform the Contract.

- A.** If the Contractor's Surety does not commence performance of the Contract within ten (10) calendar days of the date of Contract termination, CMHA may complete the Work by means that CMHA deems appropriate.
 - i.** CMHA may take possession of and use all materials, facilities, and equipment at the Site or stored off-site, for which CMHA has paid.
- B.** If CMHA notifies the Contractor's surety that the Contractor is in default or terminates the Contract, the surety will promptly and in not less than twenty-one (21) calendar days investigate the claimed material default or termination.
 - i.** If CMHA gives a notice of default and then terminates the Contract, the surety shall complete its investigation within twenty-one (21) calendar days of the notice of default.
 - (a)** As part of such investigation, the surety shall visit the offices of the Contractor, A/E and CMHA to review the available project records.

- ii. If the surety proposes to take over the Work, the surety shall do so no later than the expiration of such 21-day period or ten (10) calendar days after the date CMHA terminates the Contract, whichever is later.
 - iii. If CMHA terminates the Work, and the surety proposes to provide a replacement contractor, the replacement contractor shall be fully capable of performing the Work in accordance with the Contract Documents, including meeting all the requirements of the Contract Documents.
 - (a) If the Contractor is terminated, the replacement contractor shall not be the Contractor.
 - iv. The surety will provide the Owner with the results of its investigation, including any written report or documents.
- C. Termination for Cause/Default is in addition to CHMA's other rights under the Contract Documents and is not intended to create any rights of the surety, including but not limited to the right to take over the Contractor's obligations.

10.3.6. If the Contract is terminated for cause, the Contractor shall not be entitled to further payment.

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related the costs incurred by CMHA to finish the Work following termination of the Contractor for cause.
- B. If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including without limitation the fees and charges of engineers, architects, attorneys, and other professionals and court costs, and other damages incurred by CMHA and not expressly waived, the Contractor or Surety shall immediately pay the amount of insufficiency to CMHA.
- C. This obligation for payment shall survive termination of the Contract.

10.3.7. If the Contractor's Surety performs the Work, the provisions of the Contract Documents govern the Surety's performance, with the Surety in place of Contractor in all provisions including, but not limited to, provisions for payment for the Work, and provisions of the right of CMHA to complete the Work.

10.3.8. If CMHA terminates the Contract, the termination shall not affect any rights or remedies of CMHA against the Contractor then existing or which may thereafter accrue.

- A. CMHA's retention or payment of funds due to the Contractor shall not release the Contractor or the Contractor's Surety from liability for performance of the Work in accordance with the Contract Documents.

10.4. Contractor Insolvency

10.4.1. Bankruptcy of Contractor

- A. If the Contractor files a voluntary petition in bankruptcy or has an involuntary petition in bankruptcy filed against it, the Contractor, the Contractor as the debtor-in-possession, or the trustee of the Contractor's bankruptcy estate shall notify CMHA in writing within five (5) days of such filing and file a motion to assume or reject the Contract within twenty (20) calendar days after the filing of the petition and shall diligently prosecute that motion to conclusion so as to obtain an order granting or denying that motion within forty-five (45) calendar days after the filing of the petition.
- B. The failure of the Contractor to file and prosecute that motion Contractor shall constitute a material breach of the Contract by the Contractor as time is of the essence with respect to Contractor's performance of all terms of this Contract.
- C. The Contractor agrees to the granting of relief from the automatic stay of the Bankruptcy Code, to permit CMHA to terminate the Contract for cause in such instance and issue and serve all notices necessary to terminate the Contract or arising out of termination of the Contract and to take any other action necessary to terminate the Contract.

10.4.2. Receivership or Assignment for the Benefit of Creditors

- A.** If the Contractor makes a general assignment for the benefit of creditors or if a receiver is appointed for all or a substantial part of Contractor's business or property, CMHA shall serve written notice to the Contractor and Contractor's Surety stating that any failure of the Contractor to provide adequate assurance of continued performance shall be considered a rejection of the Contract, which shall result in termination of the Contract for cause.
- B.** Termination of the Contract need not be evidenced by an order of any court.

11. ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE**11.1. General**

- 11.1.1.** "Claim," as used in ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE, 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, additional time, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract.
- 11.1.2.** 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.
- 11.1.3.** A voucher, invoice, application for payment, or other routine request for payment that is permitted under the Contract Documents and is not in dispute when submitted, is not a Claim.
- 11.1.4.** The submission may be converted to a Claim by complying with the requirements of ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- 11.1.5.** Except for disputes arising under ARTICLE XIX LABOR STANDARDS, 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 ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE.
- 11.1.6.** All Claims by the Contractor shall be made in writing and submitted to CMHA for a written decision.
- A.** A claim by CMHA against the Contractor shall be subject to a written decision by the Contracting Officer.

11.2. Initiation of a Claim

- 11.2.1.** Every Claim shall accrue upon the date of occurrence of the event giving rise to the Claim.
- 11.2.2.** Except as provided, the Contractor shall initiate every Claim by giving written notice of the Claim to CMHA within ten (10) calendar days after occurrence of the event giving rise to the Claim, with the following exceptions:
- A.** The 10-day time limit on initiating a Claim arising from the response of an RFI by CMHA begins to run on the date of the response.
- B.** The 10-day time limit on initiating a Claim arising from CMHA's determination concerning a Differing Site Condition begins to run on the date of the determination .
- 11.2.3.** The Contractor's written notice of a Claim shall provide the following information:
- A.** Nature and anticipated amount of the impact, including all costs for any interference, disruption, hindrance, or delay, which shall be calculated and be a fair and reasonably accurate assessment of the damages suffered or anticipated by the Contractor;
- B.** Identification of the circumstances responsible for causing the impact, including, but not limited to, the date or anticipated date, of the commencement of any interference, disruption, hindrance, or delay;
- C.** Identification of activities on the Construction Progress Schedule that will be affected by the impact or new activities that may be created and the relationship with existing activities;
- D.** Anticipated impacts and anticipated duration of any interference, disruption, hindrance, delay, or impact, and any remobilization period; and
- E.** Recommended action to avoid or minimize any interference, disruption, hindrance, delay, or impact.
- 11.2.4.** The Contractor's failure to initiate a Claim as and when required shall constitute the Contractor's irrevocable waiver of the Claim.

11.3. Substantiation of Claims General

- 11.3.1.** Within thirty (30) calendar days after the initiation of a Claim, the Contractor shall submit three (3) copies of all information and statements required to substantiate a Claim and all other information that the Contractor believes substantiates the Claim.
- 11.3.2.** The Contractor shall substantiate all of its Claims by providing the following minimum information:
- A.** A narrative of the circumstances, which gave rise to the Claim, including without limitation the start date of the event or events and the actual or anticipated finish date;
- B.** Detailed identification of the Work affected by the event giving rise to the Claim;
- C.** Copies of the Contractor's daily log for each day of impact;

- D. Copies of relevant correspondence and other information regarding or supporting Contractor's entitlement;
- E. Copies of any and all information related to the Contractor's costs, including all job cost reports, bid take offs, and other financial information related to the Contractor's Claim;
- F. The notarized Certification of a Claim

11.4. Substantiation of Claims for increase of the Contract Sum

11.4.1. In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an increase of the Contract Sum with:

- A. Written documentation of the actual additional direct and indirect costs to the Contractor due to the event giving rise to the Claim;
- B. A written statement from the Contractor that the increase requested is the entire increase in the Contract Sum associated with the Claim; and
- C. The general substantiation documentation.

11.5. Substantiation of Claims for Extension of the Contract Time

11.5.1. In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an extension of the Contract Times with:

- A. Written documentation of the actual delay to the critical path of the Construction Progress Schedule due to the event giving rise to the Claim;
- B. A detailed written Proposal for an increase in the Contract Sum that would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, A written statement from the Contractor that the extension requested is the entire extension of the Contract Times associated with the Claim; and
- D. The general substantiating documentation.

11.5.2. In addition, if adverse weather conditions are the basis for a Claim for additional time, the Contractor shall document the Claim with data substantiating that weather conditions were abnormal for the period, could not have been reasonably anticipated, and had an adverse effect on a critical element of the scheduled construction.

11.6. Certification of a Claim

11.6.1. The Contractor shall certify each Claim within thirty (30) calendar days after initiating the Claim or before Contract Completion, whichever is earlier, by providing the notarized Certification of a Claim specified below, signed and dated by the Contractor:

- A. *"The undersigned Contractor certifies that the Claim is made in good faith; that the supporting data is accurate and complete to the best of the Contractor's knowledge and belief; that the amount requested is a fair, reasonable, and necessary adjustment for which the Contractor believes that CMHA is liable; and that the undersigned is duly authorized to certify the Claim on behalf of the Contractor."*

11.7. Delay and Delay Damage Limitations

11.7.1. Subject to other provisions of the Contract, the Contractor will be entitled to an extension of the Contract Times on account of delay in the commencement or progress of Work on the critical path of the Construction Progress Schedule caused by acts of unforeseeable Nature or the public enemy, acts of the government not arising from the Contractor's failure to comply with Applicable Law, fires, floods, epidemics, weather, and labor disputes beyond the Contractor's control.

11.7.2. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum, or an extension of the Contract Times, or both:

- A. On account of the impact of any normal adverse weather on any of the Work or on account of the impact of any abnormal adverse weather on Work not on the critical path;
- B. To the extent that a delay occurs concurrently with a delay attributable to the Contractor; or
- C. On account of the delay of any Work not on the critical path.
 - i. When the Contractor is prevented from completing any part of the Work on the critical path within the Contract Time due to weather conditions, provided the Contractor properly initiates a Claim, the Contract Time will be extended by one (1) day for each work day lost due to weather that delays Work on the critical path in excess of those in the following table:

Month	Number of Workdays Lost Due To Weather
January	8
February	8
March	7
April	6
May	5
June	4
July	4
August	4
September	5
October	6
November	6
December	6

11.7.3. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages on account of a delay in the commencement or progress of Work on the critical path unless:

- A. The delay is caused by CMHA; and
- B. The delay was not authorized or permitted under the Contract.

11.7.4. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages arising from a delay in the commencement or progress of any the Work caused by the occurrence or non-occurrence of an event beyond CMHA's control such as acts of Nature or the public enemy, acts of the government, fires, floods, epidemics, labor disputes, unusual delivery delays, weather, or damages caused by the Contractor.

11.8. Derivative Claims

11.8.1. Notwithstanding any other provision of the Contract to the contrary, if CMHA prosecutes a claim, suit, or appeal against a Separate Consultant or Separate Contractor to recover damages the Contractor suffers on account of the acts or neglects of a Separate Consultant or Separate Contractor or person or entity for whom either is legally responsible, CMHA's liability to the Contractor shall not exceed the amount CMHA actually recovers from the Separate Consultant or Separate Contractor on account of those damages less the costs CMHA incurs recovering them. CMHA is not obligated to prosecute any such claim, suit, or appeal.

11.9. Claim Decision

11.9.1. CMHA shall, within sixty (60) calendar days (unless otherwise requested), decide Claims submitted by Contractor or notify the Contractor of the date by which the decision will be made.

11.9.2. The Contracting Officer's decision shall be final with respect to Claims by Contractor unless the Contractor:

- A. Appeals in writing to a higher level at CMHA in accordance with the CMHA's policy and procedures;
- B. Refers the appeal to an independent mediator or arbitrator; or
- C. Files suit in a court of competent jurisdiction. Such suit must be filed within fifteen (15) calendar days (unless a different time period is identified in the Claim Decision) after receipt of CMHA's decision.

11.9.3. 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 CMHA.

11.10. Audit of a Claim

11.10.1. All Claims submitted by Contractor shall be subject to audit at any time following filing of the Claim by Contractor, whether or not the Claim is part of any lawsuit.

11.10.2. The audit may be performed by employees of CMHA or by a consultant engaged by CMHA.

11.10.3. The audit may begin upon 10-days' notice to the affected Contractor or affected Subcontractor.

11.10.4. The Contractor shall cooperate with the request.

11.10.5. **Failure of the Contractor or Subcontractor to produce sufficient records to allow CMHA to audit and verify a Claim shall constitute an irrevocable waiver of the Claim or portion of the Claim that could not be completely audited.**

- 11.10.6.** The Contractor shall make available to CMHA all Contractor and Subcontractor documents related to the Claim including, without limitation, the following documents:
- A.** Daily time sheets and superintendent's daily reports;
 - B.** Union agreements, if any, and employer agreements;
 - C.** Insurance, welfare, fringes, and benefits records;
 - D.** Payroll tax returns;
 - E.** Material invoices, purchase orders, Subcontracts, and all material and supply acquisition contracts;
 - F.** Material cost distribution worksheets;
 - G.** Equipment records (list of Contractor equipment, rates, etc.);
 - H.** Vendor rental agreements and Subcontractor invoices;
 - I.** Subcontractor payment certificates;
 - J.** Canceled checks (payroll and vendors);
 - K.** Job cost report;
 - L.** Job payroll ledger;
 - M.** General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
 - N.** Cash disbursements journal;
 - O.** Financial statements for all years reflecting operations on the Project;
 - P.** Income tax returns for all years reflecting operations on the Project;
 - Q.** Depreciation records on all equipment utilized whether the records are maintained by the Contractor, its accountant, or others;
 - R.** If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all other source documents;
 - S.** All documents that reflect the Contractor's actual profit and overhead during the years the Project was being performed;
 - T.** All documents related to the preparation of the Contractor's Bid, including the final calculations on which the Bid was based, unless the documents are placed in escrow under provisions of the Instructions to Bidders;
 - U.** All documents that relate to the Claim together with all documents that support the amount of damages as to the Claim;
 - V.** Worksheets used to prepare the Claim establishing the cost components for items of the Claim including, but not limited to, labor, fringes, benefits and insurance, materials, equipment, Subcontractors, and all documents that establish the periods of time, individuals involved, the hours and rate of pay for the individuals; and
 - W.** All other documents required by CMHA to reasonably review the Claim.
- 11.11. False Certification of a Claim**
- 11.11.1.** If the Contractor falsely certifies all or any part of a Claim, the portion of the Claim falsely certified shall be denied, and may be sufficient cause for CMHA to exclude Contractor from future contracting opportunities as permitted by law.
- 11.11.2.** The Contractor shall not knowingly present or cause to be presented to the Owner a false or fraudulent Claim.
- A.** Knowingly shall have the same meaning as in [the Federal False Claims Act](#).
- 11.11.3.** If the Contractor knowingly presents or causes to be presented a false or fraudulent Claim, then the Contractor shall be liable to the Owner for the same civil penalty and damages as the United States Government would be entitled to recover and shall also indemnify and hold the Owner harmless from all costs and expenses, including Owner's attorneys' and consultants' fees and expenses incurred in investigating and defending against such Claim and in pursuing the collection of such penalty, damages and fees and expenses.

12. ARTICLE XII WARRANTY**12.1. Warranty of Title**

- 12.1.1.** 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.

12.2. Warranty of Construction

- 12.2.1.** In addition to any other warranties in this Contract, the Contractor warrants 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.
- A.** Work not conforming to those requirements, including Substitutions not properly approved and authorized, may be considered Defective Work.
- B.** If required by CMHA, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- 12.2.2.** The Contractor shall remedy, at the Contractor's expense, any Work that does not conform to the requirements of the Contract Documents, or any Defective Work.
- A.** In addition, the Contractor shall remedy, at the Contractor's expense, any damage to CMHA-owned or controlled real or personal property when the damage is the result of:
- i.** Any action or inaction by Contractor;
 - ii.** The Contractor's failure to conform to Contract requirements; or
 - iii.** Any defects of equipment, material, workmanship or design furnished by the Contractor.
- 12.2.3.** The Contractor shall restore any work damaged in fulfilling the terms and conditions of Warranty of Construction.
- A.** The Contractor's Warranty with respect to work repaired or replaced shall be extended for a period of not less than one year, beyond the original Warranty period required under the Contract, of repair or replacement.
- 12.2.4.** CMHA shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- A.** If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, CMHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- 12.2.5.** 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:
- A.** Obtain all warranties that would be given in normal commercial practice;
 - B.** Require all warranties to be executed in writing, for the benefit of CMHA; and
 - C.** Enforce all warranties for the benefit of CMHA.
- 12.2.6.** If the Contractor or a Subcontractor recommends a particular product, material, system, or item of equipment for incorporation into the Project and CMHA accepts that recommendation, the above Warranty shall include a warranty from the Contractor to CMHA that the recommended product, material, system, or item of equipment is fit and appropriate for the associated purpose.
- 12.3. Warranty Walk-through Contractor**
- 12.3.1.** At CMHA's request, Contractor shall perform a walkthrough of the property no earlier than three months prior to the expiration of any Warranty.
- A.** If Contractor is unavailable for the Warranty walk-thru, the Warranty shall be extended until the time Contractor is available.

13. ARTICLE XIII BONDS**13.1. Bid Bond/Guaranty**

13.1.1. The Contractor shall provide to CMHA a Bid Guaranty in the form of either:

- A.** A Bond for 10% of the Bid; or
- B.** A certified check, cashier's check or letter of credit revocable only at the option of CMHA and shall be in the amount of 10% of the Bid.

13.1.2. The Bid Guaranty shall be conditioned to:

- A.** Provide that Contractor will, after award, enter into a contract with CMHA in accordance with the bid, plans, details, and specifications.
- B.** If the Bidder fails to enter into the Contract and CMHA awards Contract to next lowest bidder, the Bidder and the Surety on the Bidder's Bid are liable to CMHA for the lesser of either:
 - i.** The difference between the Bidder's Bid amount and the bid amount of the next lowest bidder; or
 - ii.** For a penal sum of the Bond in the amount of 10% of the Bidder's Bid.
- C.** If CMHA does not award the Contract to the next lowest bidder but resubmits the Project for bidding, the Bidder failing to enter into the Contract and the Surety on the Bidder's Bond are liable to CMHA for a penal sum on the Bond not to exceed 10% of the amount of the Bidder's Bid amount.

13.1.3. Where CMHA accepts a Bid but the Bidder fails or refuses to enter into a Contract in accordance with the Contract Documents included with the Bid, including the plans, details, and specifications, within ten (10) calendar days after Notice of Intent, the Bidder and Surety on any Bond are liable for the amount of the difference between the amount of the Bidder's Bid and the amount of the Bid from next lowest Bidder.

13.1.4. All Bid Guaranties shall be payable to CMHA, be for the benefit of CMHA and be deposited with CMHA.

13.2. Payment and Performance Bond

13.2.1. In addition to any other requirements in the Contract Documents, Contract Commencement does not occur until CMHA receives a Payment and Performance Bond.

13.2.2. Contractor shall, within ten (10) calendar days of CMHA's delivery of signed Contract to Contractor, unless otherwise specified by CMHA in writing, deliver to CMHA a payment and performance bond with a penal sum in the amount of 100% of the Contract Sum (which includes all acceptable alternates).

13.2.3. The Payment and Performance Bond shall contain the following a condition that indemnifies CMHA against all damages suffered by CMHA as a result of the failure of Contractor to perform the Work in accordance with the requirements of the Contract Documents, including, the plans, details, and specifications, and the Payment and Performance Bond shall state that Contractor shall pay all lawful claims of Subcontractors, material suppliers, and laborers for labor performed or material furnished in carrying forward, performing or completing the Contract.

13.2.4. All Bonds requirement by the Contract shall be obtained from companies holding certificates of authority as acceptable sureties and shall be listed on the U.S Treasury Circular 570 (T-List).

- A.** Each company shall be licensed to do business in Ohio and satisfactory to CMHA.

13.2.5. The Contractor shall submit with each executed Bond:

- A.** A certified copy of the authority to act (power of attorney) of the agent signing the Bond on behalf of the Surety, and
- B.** A current signed Certificate of Compliance issued by the Ohio Department of Insurance demonstrating that Surety is licensed to do business in Ohio.

13.2.6. If the Contract Sum increases at any time such that it exceeds the sum of the Bond, the Contractor shall cause the penal sum of the Bond to be increased such that the sum equals one-hundred percent of the increased Contract Sum.

13.2.7. Any time Contractor increases the sum of the Bond, the Contractor shall deliver to CMHA written consent of the affected Surety confirming the increased penal sum of the Bond.

- A.** CMHA's receipt of that written consent is a condition precedent to CMHA's obligation to pay the Contractor for any portion of the Work associated with the increase.

13.2.8. If notice of any change affecting the Contract is required by any Surety or by the provision of any Bond, the Contractor shall provide that notice.

14. ARTICLE XIV INSURANCE

14.1. Contractor's General Insurance Requirements

- 14.1.1.** Throughout the performance of the Work or longer as may be described below, the Contractor and each Subcontractor shall obtain, pay for and keep in force, the minimum insurance coverage.
- 14.1.2.** On a case-by-case basis, CMHA and Contractor may mutually agree to adjust the insurance requirements for any particular subcontractor.
- 14.1.3.** All insurance shall be carried with companies which are financially responsible and admitted to do business in the State of Ohio.
 - A.** If any such insurance is due to expire prior to Contract Completion, the Contractor (including Subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer.
 - B.** 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 thirty (30) calendar days prior written notice has been given to CMHA.

14.2. Minimum Coverage Requirements

14.2.1. Workers' Compensation:

- A.** In accordance with the State of Ohio Workers' Compensation laws

14.2.2. Commercial General Liability

- A.** With a combined single limit for bodily injury and property damage of not less than \$1,000,000 per occurrence unless otherwise specified by CMHA in writing, to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others.
- B.** This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability.
- C.** If the Contractor has a "claims made" policy, then the following additional requirements apply:
 - i.** The policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and
 - ii.** The extended reporting period may not be less than five years following the completion date of the Contract.

14.2.3. Employers Liability Coverage

- A.** Unless otherwise specified by CMHA in writing, the Contractor shall maintain employer's liability coverage with:
 - i.** An each accident limit of not less than \$1,000,000;
 - ii.** A disease each-employee limit of not less than \$1,000,000; and
 - iii.** A disease policy limit of not less than \$1,000,000.

14.2.4. Automobile Liability

- A.** 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 \$ 1,000,000 per occurrence.

14.2.5. Builder's Risk Insurance

- A.** Before commencing Work, the Contractor shall furnish CMHA 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.
 - i.** The Builder's Risk Insurance shall be for the benefit of the Contractor and CMHA as their interests may appear and each shall be named in the policy or policies as an insured.
 - ii.** The Contractor if installing equipment supplied by CMHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by CMHA.
 - iii.** 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.
 - iv.** It need not be carried on landscape work.

- v. 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 CMHA.
 - vi. The Contractor may terminate this insurance on buildings as of the date CMHA issues a Certificate of Contract Completion.
- B. The amount of Builder's Risk coverage shall not be less than the total completed value of the Project, including the value of permanent fixtures and decorations, with a deductible of not more than \$25,000 per occurrence.
 - i. Contractor shall be responsible for paying all deductibles for any and all claims made under the Builder's Risk policy; and,
 - ii. Any deductible over the amount specified in this provision shall be authorized in writing by CMHA.
- C. Coverage shall include a provision to pay the reasonable extra costs of acceleration and expediting temporary and permanent repairs to, or permanent replacement of, damaged property.
 - i. This shall include overtime wages and the extra costs of "express" or other means of expedited transportation and/or delivery of supplies necessary to the repair or replacement.
- D. Coverage shall include "soft costs endorsement" including, but not limited to, the reasonable extra costs of the A/E and reasonable Contractor extension or acceleration costs.
- E. Coverage shall include material in transit or stored in off-site and identified for the Project.
- F. Coverage shall waive all rights between CMHA, Contractor, and Subcontractors at any tier, for damages caused by fire or any other perils to the extent of actual recovery of any insurance proceeds under the policy.
- G. Coverage shall include appropriate sub-limits for installation coverage.
- H. Coverage shall include provisions for mechanical or electrical breakdown, or boiler system testing.
- I. Coverage shall include temporary structures and scaffolding, along with collapse coverage.
- J. Coverage shall be primary to all other applicable insurance.
- K. The Builder's Risk policy shall specifically permit partial occupancy by CMHA prior to Contract Completion and coverage shall remain in effect until CMHA issues a Certificate of Contract Completion.
- L. The Contractor's tools and equipment shall not be covered under the Builder's Risk policy.
 - i. It is the Contractor's sole responsibility to maintain insurance coverage for tools and equipment used on the Project, which shall be included in its Overhead (a component of Contractor's Fee) and not included as a separate item in Contractor's Schedule of Values.
- M. If Contractor is involved solely in the installation of material and equipment and not in new building construction, the Contractor shall purchase and maintain a Builder's Risk, Builder's Risk-renovations, or installation floater insurance policy that complies with the requirements of Article XIV.

14.2.6. Umbrella/Excess Liability

- A. The Contractor may employ an umbrella/excess liability policy to achieve the above required minimum coverage.
- B. Unless otherwise specified by CMHA in writing, for Construction Contracts in excess \$1,000,000, the Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$2,000,000 (in addition to the above-required limits) if the Work (or Work to be performed by the Subcontractor) includes any of the following:
 - i. Brick/block masonry;
 - ii. Exterior caulking/sealant;
 - iii. Cast-in-place or precast concrete;
 - iv. Damp proofing/waterproofing;
 - v. Electrical;
 - vi. Elevator;
 - vii. Exterior glass and/or glazing;
 - viii. Exterior marble, granite, and/or other stonework;
 - ix. Miscellaneous metals;
 - x. Plaster/stucco;



- #### 14.2.7. Professional Liability – Contractor

- #### 14.2.8. Additional Property Insurance

- #### 14.2.9. Equipment Coverage

- ### 14.3. Waivers of Subrogation

- A.** All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

- Page 95

15. ARTICLE XV INDEMNIFICATION

- 15.1.** To the fullest extent permitted by Applicable Law, the Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals, and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with the Project.
- 15.2.** The Contractor's indemnification obligation under ARTICLE XV INDEMNIFICATION exists regardless of whether or not and the extent to which the claim, damage, loss, fine, penalty, or expense is caused by a party indemnified under ARTICLE XV INDEMNIFICATION.
- 15.2.1.** Nothing in ARTICLE XV INDEMNIFICATION obligates the Contractor to indemnify any individual or entity from and against the consequences of that individual or entity's own negligence.
- 15.3.** The Contractor's obligations under ARTICLE XV INDEMNIFICATION shall not extend to the liability of the A/E, A/E's consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and other responsibilities of the A/E, except to the extent covered by the Contractor's insurance.
- 15.4.** In claims against an Indemnified Party by any direct or indirect employee (or the survivor or personal representative of that employee) of the Contractor or a person or entity for whom the Contractor may be liable, the indemnification obligation under ARTICLE XV INDEMNIFICATION will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefits acts.
- 15.5.** The Contractor's indemnification obligation under ARTICLE XV INDEMNIFICATION will survive termination of the Contract and Date for Contract Completion.
- 15.6.** CMHA may deduct from the Contract Sum any claims, losses, fines, penalties, and expenses for which the Contractor is liable under ARTICLE XV INDEMNIFICATION.
- 15.6.1.** If those claims, damages, losses, fines, penalties and expenses exceed the unpaid balance of the Contract Sum, the Contractor shall immediately pay the difference to CMHA.

16. ARTICLE XVI DAMAGES

16.1. Liquidated Damages

- 16.1.1.** If the Contractor fails reach Substantial Completion within the Contract Time for Substantial Completion, including any properly approved extension for the Contract Time for Substantial Completion, the Contractor shall pay to CMHA as Liquidated Damages, the sum of **\$400.00** for each day of delay.
- A.** Liquidated Damages for the Date for Contract Completion and any Milestone Dates in the Contract, not including Substantial Completion, shall be assessed on in accordance
 - B.** To the extent that the Contractor's delay or non-performance is excused under another clause in this Contract, Liquidated Damages shall not be due CMHA.
 - C.** The Contractor remains liable for damages caused other than by delay.
- 16.1.2.** If CMHA terminates the Contractor's right to proceed, the resulting damage will consist of Liquidated Damages incurred until the Date of Contract Completion, together with any increased costs incurred by CMHA in completing the Work.
- 16.1.3.** If CMHA does not terminate the Contractor's right to proceed, the resulting damage will consist of Liquidated Damages incurred until the Date of Contract Completion.
- 16.1.4.** If the Contractor fails to achieve a Milestone Date, excluding the Date for Substantial Completion, within the associated Contract Time, the Contractor shall (at CMHA's option) pay to or credit CMHA the Liquidated Damages per day sum determined according to the following schedule for each day that the Contractor fails to achieve a Milestone within the associated Contract Time.

Contract Sum	Liquidated Damages per day
Less than \$100,000	\$200
From \$100,000 to \$500,000	\$400
From \$500,000.01 to \$1,000,000	\$500
From \$1,000,000.01 to \$3,000,000	\$750
More than \$3,000,000	\$1,000

- 16.1.5.** If the Contractor simultaneously fails to achieve two or more Milestones, including the Date for Substantial Completion, CMHA shall be entitled to recover the sum of the associated Liquidated Damages per day rates.
- 16.1.6.** The Liquidated Damages described are only intended to compensate CMHA for the direct damages it incurs as a result of the Contractor's failure to achieve the Milestones, including the Date for Substantial Completion, within their associated Contract Times.
- 16.1.7.** The Liquidated Damages described are not intended to compensate CMHA for any damages CMHA incurs on account of:
- A.** Any claims attributable to the Contractor that are brought by others including Separate Consultants and Separate Contractors; or
 - B.** Any failure of the Contractor to timely, properly, and completely perform the Contract other than the failure to achieve the Milestones, including the Date for Substantial Completion, within their associated Contract Times.
- 16.1.8.** The parties acknowledge that the above-listed Liquidated Damages per day sums are not penalties, and they each irrevocably waive the right (if any) to challenge the validity and enforceability of those Liquidated Damages per day sums.
- A.** Notwithstanding any other provision of the Contract Documents to the contrary, if a court determines that the Liquidated Damages per day sums or their application are void and unenforceable, CMHA shall be entitled to recover the actual damages that it incurs on account of the Contractor's failure to achieve the Date for Substantial Completion and/or one or more of the Milestones within the applicable Contract Times.
- 16.1.9.** In addition to other rights that CMHA may have relative to the Liquidated Damages, CMHA may deduct the Liquidated Damages from the Contract Sum as the damages accrue.

- A. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the failure of the Contractor to timely and properly reimburse CMHA for any Liquidated Damages.

16.2. Mutual Waiver of Consequential Damages

- 16.2.1.** Except as provided Liquidated Damages, CMHA and Contractor each waive against the other all Claims for consequential damages that may arise out of or relate to this Contract.

- A. CMHA's waiver includes Claims for loss of use, income, profit, revenue, financing, cost of capital, business and reputation, management and employee productivity, and consequential damages arising from termination of the Contract or related to insolvency.
- B. The Contractor's waiver includes:
 - i. Claims for unabsorbed home-office overhead;
 - ii. Any other form of overhead in excess of that specifically provided for;
 - iii. Delay damages except as otherwise specifically provided for;
 - iv. Increased cost of funds for the Project;
 - v. Lost opportunity to work on other projects;
 - vi. Losses of financing, business, and reputation;
 - vii. Loss of profit except anticipated profit, arising directly from properly performed Work;
 - viii. Loss of bonding capacity; and
 - ix. Consequential damages arising from termination of the Contract or related to insolvency.

16.2.2. Notwithstanding Section 16.2.1, this Section 16.2:

- A. Does not apply to any damages that would be covered by insurance provided in connection with the Project if the Contract did not include Section 16.2.1 ;
- B. Does not apply to the Contractor's indemnity obligations for third-party claims against the Indemnified Parties even if those claims are for damages that Section 16.2.1 would otherwise preclude;
- C. Does not preclude CMHA's recovery of Liquidated Damages; and
- D. Does not apply to Claims for damages arising from CMHA's or the Contractor's gross negligence or willful misconduct.

16.3. This ARTICLE 16 shall survive termination of the Contract.

17. ARTICLE XVII EQUAL OPPORTUNITY

17.1. Prohibition Against Discrimination

17.1.1. During the performance of this Contract, the Contractor agrees as follows:

- A. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- B. The Contractor 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, national origin, or handicap.
 - i. Such action shall include, but not be limited to:
 - (a) Employment;
 - (b) Upgrading;
 - (c) Demotion;
 - (d) Transfer
 - (e) Recruitment or recruitment advertising;
 - (f) Layoff or termination;
 - (g) Rates of pay or other forms of compensation; and
 - (h) Selection for training, including apprenticeship.
- C. The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by CMHA that explain ARTICLE XVII EQUAL OPPORTUNITY.
- D. The Contractor shall, 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, color, religion, sex, national origin, or handicap.
- E. The Contractor 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 ARTICLE XVII EQUAL OPPORTUNITY, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- F. The Contractor shall comply with [Executive Order 11246, as amended](#), and the rules, regulations, and orders of the Secretary of Labor.
- G. The Contractor shall furnish all information and reports required by [Executive Order 11246, as amended](#), [the Rehabilitation Act of 1973, as amended](#), and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto.
 - i. The Contractor 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 determination that the Contractor is not in compliance with ARTICLE XVII EQUAL OPPORTUNITY or any rule regulations, or order of the Secretary of Labor, this contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government Contracts, or Federally assisted construction contracts under the procedures authorized, in [Executive Order 11246, as amended](#).
 - i. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in [Executive Order 11246, as amended](#), the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law, including the following as provided by ORC:
 - (a) In the event Contractor fails to comply with these nondiscrimination provisions, CMHA shall deduct from the amount payable to the Contractor a forfeiture of the statutory penalty pursuant to ORC for each person who is discriminated against or intimidated.
 - (b) The Contract may be terminated or suspended in whole or in part by CMHA and all money due hereunder may be forfeited in the event of a subsequent violation of the foregoing nondiscrimination provisions.
 - (c) The Contractor shall include the terms and conditions of ARTICLE XVII EQUAL OPPORTUNITY in every Subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor under [Executive Order 11246, as amended](#), so that these terms and conditions will be binding upon each Subcontractor or vendor.

- (d) The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into the litigations to protect the interests of the United States.
- I. Compliance with the requirements of ARTICLE XVII EQUAL OPPORTUNITY shall be to the maximum extent consistent with, but not in derogation of compliance with the Indian Self-Determination and Education Assistance Act and the Indians Preference clause of this Contract.
- J. The Contractor shall cooperate fully with the States Equal Opportunity Coordinator (EOC), with any other official or agency of the state or federal government that seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Contract.

18. ARTICLE XVIII SECTION 3

- 18.1.** In order to promote Employment, Job Training and Contracting Opportunities to low- and very low-income persons, the Contractor shall adhere to HUD's and CMHA's Section 3 Program requirements.
- 18.2.** The Work to be performed under this Contract is subject to the provisions of Section 3 of the Housing and Urban Development Act of 1968, as amended.
- 18.2.1.** The purpose of Section 3 is to ensure that employment and other economic opportunities generated by Federal financial assistance for housing and community development programs 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.
- 18.3.** The parties to this Contract agree to comply with HUD's regulations in [24 CFR](#) § 75, which implement Section 3.
- 18.3.1.** As evidence by the execution of the Contract, the parties to this Contract certify that they are under no contractual or other impediments that would prevent them from complying with the regulations.
- 18.4.** 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 narrative advising the labor organization or workers' representative of the Contractor's commitments, and will post copies of this notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice.
- 18.4.1.** The notice shall describe the 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 will begin.
- 18.5.** The Contractor agrees to include ARTICLE XVIII SECTION 3 in every subcontract subject to compliance with regulations in [24 CFR](#) § 75, and agrees to take appropriate action, as provided in an applicable provision of the Subcontract or in ARTICLE XVIII SECTION 3, upon a finding that the Subcontractor is in violation of the regulations in [24 CFR](#) § 75.
- 18.5.1.** 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](#) § 75.
- 18.6.** 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](#) § 75 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under [24 CFR](#) § 75.
- 18.7.** Noncompliance with HUD's regulations in [24 CFR](#) § 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.
- 18.8. Section 3 Reporting Requirements**
- 18.8.1.** Monthly Section 3 Compliance Reports are required and are to be submitted to the Economic Inclusion Coordinator.
- 18.8.2.** These reports should include a listing of the Contractor's current local workforce, any new hiring or subcontracting that has occurred, along with total labor hours and section 3 worker labor hours on all new hires and all subcontractors permanent employees working on the project.
- 18.9.** The Contractor shall cooperate fully with requests for additional Section 3 information and documentation as needed by CMHA or the Contracting Authority.

19. ARTICLE XIX LABOR STANDARDS**19.1. Compliance with [Davis Bacon and Related Acts](#) requirements**

19.1.1. All rulings and interpretations of the [Davis Bacon and Related Acts](#) contained in 29 CFR are herein incorporated by reference in this Contract.

19.2. Minimum Wages

19.2.1. 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, 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.

- A.** Contributions made or costs reasonably anticipated for bona fide fringe benefits under 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](#); 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.
- B.** 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](#).
- C.** 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.
- D.** The wage determination (including any additional classification and wage rates conformed under [29 CFR](#) and the [Davis-Bacon poster \(WH-1321\)](#) shall 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.

19.2.2. 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.

- A.** HUD shall approve any additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:
 - i.** The work to be performed by the classification requested is not performed by a classification in the wage determination;
 - ii.** The classification is utilized in the area by the construction industry; and
 - iii.** The proposed wage rate, including bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- B.** 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.
 - i.** The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within thirty (30) calendar 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.
- C.** 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.

- i. The Administrator or an authorized representative, should issue a determination within thirty (30) calendar 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 was necessary.
- D. The wage rate (including fringe benefits where appropriate) 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.

19.2.3. 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.

19.2.4. 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.

- A. 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.

19.3. Withholding of Funds

19.3.1. 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.

- A. 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.
- B. HUD or its designee may, after written notice to the Contractor or Subcontractor, issue payment to the respective employees to whom they are due.

19.4. Payrolls and Basic Records

19.4.1. 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.

- A. Such records shall contain:
 - i. The name, address, and social security number of each such worker;
 - ii. His or her correct classification
 - iii. Hourly rates of wages paid
 - (a) Including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in the [Davis-Bacon Act](#);
 - iv. Daily and weekly number of hours worked;
 - v. Deductions made; and
 - vi. Actual wages paid.
- B. Whenever the Secretary of Labor has found, under [29 CFR](#), 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 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.

- i. 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.

19.4.2. The Contractor shall submit 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.

- A. The payrolls submitted shall set out accurately and completely all of the information required to be maintained.
- B. This information may be submitted in any form desired.
 - i. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
- C. 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).
 - i. 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 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 from the full wages earned, other than permissible deductions as set forth in [29 CFR](#); 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 in to the Contract.
 - ii. 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".
 - iii. The falsification of any of the above certifications may subject the Contractor or Subcontractor to civil or criminal prosecution under Title 18 and Title 31 of the United States Code.

19.4.3. Records

- A. The Contractor or Subcontractor shall make the records 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.
- B. 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.
- C. 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](#).

19.5. Apprentices & Trainees

19.5.1. Apprentices will be permitted to work at less than 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 ninety (90) calendar 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.

- A. 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.

- i. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.
- ii. 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.
- B. Where a Contractor is performing construction on a project in a locality other than that in which 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.
- C. 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.
 - i. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program.
 - ii. 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.
 - iii. 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.
- D. 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.

19.5.2. Trainees

- A. Except as provided for in [29 CFR](#), 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.
- B. 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.
- C. 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.
 - i. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program.
 - ii. 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.
 - iii. 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.
 - iv. 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.
- D. 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 until an acceptable program is approved.

19.5.3. Equal Employment Opportunity

- A. The utilization of apprentices, trainees, and journeymen shall be in conformity with the equal employment opportunity requirements of [Executive Order 11246, as amended](#) and [29 CFR](#).

19.6. Compliance with Copeland Act requirements

19.6.1. The requirements of [29 CFR](#), which are hereby incorporated by reference in this Contract

19.7. Contract Termination; Debarment

19.7.1. A breach of ARTICLE XIX LABOR STANDARDS may be grounds for termination of the Contract and for debarment as a Contractor and a subcontractor.

19.8. Disputes Concerning Labor Standards

19.8.1. Disputes arising out of the labor standards provisions of Disputes Concerning Labor Standards shall not be subject to ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE of this contract.

A. Such disputes shall be resolved in accordance with the procedures of the Department of Labor.

19.8.2. Disputes within the meaning of Disputes Concerning Labor Standards include disputes between the Contractor (or any of its Subcontractors) and CMHA, HUD, the U.S. Department of Labor, or the employees or their representatives.

19.9. Certification of Eligibility

19.9.1. 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 virtue of the [Davis-Bacon Act](#) or [29 CFR](#).

19.9.2. 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 the [Davis-Bacon Act](#) or [29 CFR](#).

19.9.3. The penalty for making false statements is prescribed in the U. S. Criminal Code [18 U.S.C.](#)

19.10. Contract Work Hours and Safety Standards Act

19.10.1. As used in 19.10 - Contract Work Hours and Safety Standards Act, the terms "laborers" and "mechanics" include watchmen and guards.

19.10.2. Overtime Requirements

A. 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 pay for all hours worked in excess of 40 hours in such workweek.

19.10.3. Violation; liability for unpaid wages; Liquidated Damages

A. In the event of any violation, the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages.

B. 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.

C. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation, 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.

19.10.4. Withholding for unpaid wages and liquidated damages

A. 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.

19.11. Subcontracts

19.11.1. The Contractor or Subcontractor shall insert in any Subcontracts all the provisions contained in Subcontracts, 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.

19.11.2. The prime Contractor shall be responsible for the compliance by any Subcontractor or lower tier Subcontractor with all these provisions.

19.12. Non-Federal Prevailing Wage Rates

19.12.1. 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:

- A.** The applicable wage rate determined by the Secretary of Labor pursuant to the [Davis-Bacon Act \(40 U.S.C.\)](#) 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.

20. ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION**20.1. General Contractor Requirements****20.1.1.** In performing this Contract, the Contractor shall:

- A. Take reasonable precautions to ensure safety of individuals on the Project;
- B. 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;
- C. Protect the lives, health, and safety of other persons;
- D. Prevent damage to property, materials, supplies, and equipment; and
- E. Avoid work interruptions.

20.1.2. For these purposes, the Contractor shall:

- A. Comply with regulations and standards issued by the Secretary of Labor .
 - i. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act; and
- B. Include the terms of ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION in every Subcontract that such terms will be binding on each Subcontractor.
- C. The Contractor shall be responsible for its Subcontractors' compliance with the provisions of ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION.
 - i. The Contractor shall take such action with respect to any Subcontract as CMHA, the Secretary of Housing or Secretary of Labor shall direct as a means of enforcing such provisions.
- D. 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 diseases or damages to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by [29 CFR](#);
- E. The Contractor shall pay any fine or cost incurred because of Contractor's violation, or alleged violation, of any Applicable Law.

20.2. Notification of Non-Compliance Procedure**20.2.1.** To the extent CMHA is aware of Contractor's noncompliance with the safety requirements in the Contract, CMHA shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. However, CMHA's failure to notify Contractor of noncompliance with any applicable safety requirements, does not relieve Contractor of any obligation to comply with safety requirements for the Project.

- A. 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.

20.2.2. After receiving the notice, the Contractor shall immediately take corrective action.**20.2.3.** If the Contractor fails or refuses to take corrective action promptly, CMHA may issue an order stopping all or part of the work until satisfactory corrective action has been taken.**20.2.4.** The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under Section 20.2.**20.3. Safety Plan****20.3.1.** The Contractor is responsible for designing and implementing its own site-specific safety plan, including compliance with OSHA regulations and such plan shall meet or exceed CMHA's site-specific safety plan (if any).**20.3.2.** Before starting any Work, the Contractor shall submit to CMHA a copy of the Contractor's site-specific safety plan and safety manuals.**20.4. Safety Data Sheets****20.4.1.** The Contractor shall identify any material it uses at the Site with a Safety Data Sheet ("SDS") meeting the requirements of OSHA's Hazardous Communication Standard.**20.4.2.** The Contractor shall maintain a notebook containing all of its applicable SDSs.

- A. This notebook shall be kept at the Site for the duration of the Project.

20.5. Hazardous Materials**20.5.1. Prohibition Against Hazardous Materials**

- A. The Contractor shall not introduce Hazardous Materials to the Project

20.5.2. Work Stoppage Due to Hazardous Materials

- A. If the Contractor encounters material the Contractor reasonably believes to be, or contain, a Hazardous Material that has not been rendered harmless, the Contractor shall immediately stop Work in the affected area and verbally report the condition to CMHA, and within one (1) business day deliver written notice of the condition to CMHA.
- B. CMHA will promptly determine the necessity of CMHA retaining a qualified environmental consultant to evaluate the suspected Hazardous Material and to issue a related written report.
- i. Where appropriate, CMHA will engage a licensed abatement contractor to remove the material or render it harmless as directed.
- C. The Contractor shall resume Work in the affected area upon written notice from CMHA that:
- i. The suspect material was evaluated and found not to be or contain a Hazardous Material; or
- ii. The suspect material has been removed or rendered harmless.
- D. If the Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless, the Contractor shall be solely responsible for all related claims, damages, losses, and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performing the Work in the affected area. Further, to the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless.
- E. The term "rendered harmless" means that the level of exposure is less than any applicable exposure standards set forth in Applicable Law.

20.6. Fires or Hot-Work**20.6.1. Contractor shall not burn any fires on the Site(s).**

- A. The Contractor shall notify the Project Manager twenty-four (24) hours before the start of non-routine or non-recurring hot-work.
- i. Use of sources of fire, flame or sparks and flammable materials shall be kept to an absolute minimum.
- ii. At the beginning of the Project, the Contractor shall inform the Project Manager of its intent to use blowtorches, welding apparatus or similar exposed flame and sparking devices.
- iii. Similar notice shall be given in regard to the use of flammable liquids, adhesives, and cleaners.
- B. The Contractor shall furnish an appropriate number of fire extinguishers (minimum of 1), which shall be within the immediate areas where work is being done at all times.
- i. The extinguisher shall be adequate and suitable for the class of fire likely to be caused by the Contractor's operations.

20.7. Explosives and Blasting

20.7.1. The Contractor shall not conduct blasting on, or bring explosives to the Work Site without written approval of CMHA and other authorities with jurisdiction.

20.7.2. The Contractor shall perform all blasting, storing, and handling of explosives as required under Applicable Law.

20.7.3. The Contractor shall carry appropriate liability insurance coverage, as required by the Contract Documents, for its blasting and explosives storage and handling operations.

- A. Immediately upon request, the Contractor shall deliver evidence of that insurance to CMHA.

21. ARTICLE XXI CONTRACT DOCUMENTS AND CONTRACT RECORDS**21.1. Examination and Retention of Contractor's Records**

- 21.1.1.** CMHA, HUD, or the Comptroller of the United States, or any of their duly authorized representatives shall, until three (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.
- 21.1.2.** The Contractor agrees to include in first-tier Subcontracts under this Contract a clause substantially the same as 21.1.1.
- A.** "Subcontract," as used in Examination and Retention of Contractor's Records, excludes purchase orders not exceeding \$10,000.
- 21.1.3.** The periods of access and examination for records relating to (1) appeals under ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE 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 CMHA, 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.
- 21.1.4.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related to any dispute regarding what Person or Persons should be given access to the documents under Section 21.1.
- 21.1.5.** The right of inspection, audit, and reproduction extends to all documents necessary to permit CMHA, or its agents, to perform a complete evaluation of all of the Contractor's costs related to the Project, including, but not limited to, the cost of pricing data submitted along with the computations and projections used therein.
- 21.1.6.** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to CMHA for a period of six (6) years from the date of termination.

21.2. Examination and Audit of Contractor's Records

- 21.2.1.** CMHA may examine all books, records, documents and other data of the Contractor and its Subcontractors related to the bidding, pricing, or performance of the Work for any purpose, including, but not limited to, evaluating any Contractor Payment Request, Proposal, Modification, or Claim.
- 21.2.2.** The above referenced materials shall be made available at the office of the Contractor or Subcontractor, as applicable, at all reasonable times for inspection, audit, and reproduction until the expiration of six (6) years after the date of Substantial Completion of all Work.
- A.** The Contractor shall maintain, and require its Subcontractors to maintain, complete and accurate business records at its principal place of business.
- i.** If the principal place of business is greater than 50 miles from the Site, the Contractor shall timely make records available, and shall require its Subcontractors to timely make records available, at the office of CMHA upon request for the records.
- B.** To the extent that the Contractor or Subcontractor, as applicable, informs CMHA in writing that any documents provided to CMHA are trade secrets, CMHA shall treat these documents, to the extent permitted by law, as trade secrets of the Contractor or Subcontractor, as applicable.
- i.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related to any dispute regarding what Person or Persons should be given access to the documents under Section 21.2.
- 21.2.3.** The right of inspection, audit, and reproduction extends to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.
- 21.2.4.** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to CMHA for a period of six (6) years from the date of termination.

21.2.5. Records that relate to disputes, litigation, or settlement of Claims arising out of the performance of the Work shall be made available until the dispute, litigation or Claims have been finally decided or settled.

21.3. Ownership of Contract Documents

21.3.1. CMHA shall have exclusive ownership of, all proprietary interest in, and the right to full and exclusive possession of all information, materials and documents discovered or produced by Contractor pursuant to the terms of this Contract, including but not limited to reports, memoranda, drawings or letters concerning the research and reporting tasks of this Contract.

21.3.2. For data other than computer software, the Contractor grants to CMHA and others acting on its behalf, a paid-up, nonexclusive, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly by or on behalf of CMHA.

21.3.3. CMHA alone owns the Contractor's Documents and the Contract Documents and every right, title, and interest therein.

21.3.4. The Contractor must execute and deliver and cause its agents and subcontractors to execute and deliver, to CMHA any transfers, assignments, documents or other instruments necessary to vest in CMHA the complete right, title, interest in and ownership of the Contractor's Documents.

21.3.5. The Contractor may retain copies of the Contractor's Documents and the Contract Documents for information, reference, and performance of the Work.

21.3.6. The submission or distribution of the Contractor's Documents or the Contract Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not a waiver of CMHA's reserved rights in the Contractor's Documents.

A. Any unauthorized use of the Contractor's Documents or the Contract Documents shall be at the sole risk of the entity making the unauthorized use.

21.4. Intent of Contract Documents

21.4.1. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of Work by the Contractor.

21.4.2. The Contract Documents are complementary, and what is required by one is binding as if required by all.

21.4.3. The Contractor shall provide all labor materials necessary for the entire completion of the Work described in the Contract Documents and reasonably inferable to produce the intended results.

21.4.4. The Drawings govern dimensions, details, and location of the Work.

A. The Specifications govern the quality of materials and workmanship.

21.4.5. The organization of the Specifications in divisions, sections, and articles, and the arrangement of Drawings shall not restrict the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

21.4.6. Unless otherwise defined in the Contract Documents, words that have well known technical or construction industry meanings are used within those recognized meanings.

21.5. Use of Electronic Files

21.5.1. CMHA and Contractor reasonably expect that they will provide Electronic Files to each other to facilitate the design and construction of the Project consistent with current practices and customs in the construction industry.

21.5.2. CMHA and Contractor acknowledge that the use of Electronic Files involves risks not generally associated with the use of paper documents.

A. Those risks may include, but not be limited to, alteration (inadvertent or intentional) and deterioration, both of which may not be apparent through casual observation.

21.5.3. In the event of a discrepancy between information contained in a paper version of a document and the Electronic File of that document, the paper will govern.

21.5.4. Use of Electronic Files does not relieve the Contractor of its responsibility for the preparation, completeness, or accuracy of the Contractor's Documents.

21.6. Order of Precedence

21.6.1. In the event of any inconsistency or conflict within any of the Contract Documents, the Contractor shall provide the better quality of Work and comply with the stricter requirement.

21.6.2. 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.

A. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

22. ARTICLE XXII MISCELLANEOUS**22.1. Assignment**

22.1.1. The Contractor shall not assign or transfer any interest in this Contract; except that Claims for monies due or to become due from CMHA under the Contract may be assigned to a bank, trust company, or other financial institution.

- A.** Such assignments of claims shall only be made with the written concurrence of CMHA.
- B.** 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 CMHA.

22.1.2. Assignment of Antitrust Claims:

- A.** By signing the Agreement, the Contractor assigns, conveys and transfers to CMHA any right, title, and interest to any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to CMHA pursuant to the Contract.

22.1.3. CMHA and Contractor each bind themselves, their successors, assigns and legal representatives, to the other party to this Contract and to the successors, assigns, and legal representatives of the other party with respect to the Contract.

22.2. Contractor Performance Evaluation

22.2.1. CMHA may evaluate the Contractor's Performance at any time including without limitation during the progress of the Work, at the completion of a phase of the Project, and/or completion of the Project.

22.2.2. CMHA shall retain the evaluation.

- A.** The Contractor may request a copy of the completed evaluation(s).
 - i.** If the Contractor wishes to comment or take exception to any rating or remark, the Contractor must send a response in writing to CMHA within thirty (30) calendar days of Contract Completion and/or Termination.
- B.** CMHA may use the evaluation(s) in determining the responsibility of the Contractor for award of future contracts.
- C.** Poor evaluations may lead to a determination that Contractor is not responsible and therefore ineligible for award of future contracts for a period of not less than one year.
- D.** CMHA may request information from the Contractor for use in evaluating the A/E's performance.
 - i.** If information is requested, the Contractor shall comply in a timely and responsive manner.
- E.** If a breach of the Contract is committed by the Contractor or is attributable to a Subcontractor, that breach will be used in the responsibility analysis of the Contractor and Subcontractor (where applicable) for future contracts or subcontracts for a period of five (5) years after the date of the breach unless said breach results in Contractor being placed on debarment list, then for the period provided therein.

22.3. Prohibition Against Liens

22.3.1. The Contractor is prohibited from placing a lien on CMHA's property.

- A.** This prohibition shall apply to all Subcontractors at any tier and all materials suppliers.

22.4. Conflict of Interest**22.4.1. Interest of Members of Congress**

- A.** 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.

22.4.2. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

- A.** No member, officer, or employee of CMHA, 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 CMHA 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.

22.5. Limitation on Payments Made to Influence Certain Federal Financial Transactions

22.5.1. The Contractor agrees to comply with 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:

- A. The awarding of any Federal contract;
- B. The making of any Federal grant;
- C. The making of any Federal loan;
- D. The entering into of any cooperative agreement; or
- E. The modification of any Federal Contract, grant, loan, or cooperative agreement.

22.5.2. 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.

22.6. Procurement of Recovered Materials

22.6.1. In accordance with 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) [40 CFR](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

- A. 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:
 - i. Are not reasonably available in a reasonable period of time;
 - ii. 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
 - iii. Are only available at an unreasonable price.

22.6.2. 22.6.1 shall apply to items purchased under this contract where:

- A. The Contractor purchases in excess of \$10,000 of the item under this contract; or
- B. During the preceding:
 - 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.

22.7. Royalties and Patents

22.7.1. The Contractor shall pay all royalties and license fees and assume all costs incident to the use, in the performance of the Work or the incorporation in the Work, of any design, inventions, process, product, or devise that is the subject of patent rights or copyrights held by others.

- A. Contractor shall defined all suits or claims for infringement of any patent rights or copyrights and shall save CMHA harmless from loss on account thereof; except that CMHA 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 infringements.
- B. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent or copyright, the Contractor shall promptly notify the Contracting Officer.
 - i. Failure to give such notice shall make the Contractor responsible for resultant loss.

22.8. Contract Time for Substantial Completion

22.8.1. The Contractor shall have the Work Substantially Complete as established in the Notice to Proceed issued by CMHA. If a Notice to Proceed is not issued, the date for commencement of the Work shall be the effective date of the Contract.

22.9. Other Contracts

22.9.1. CMHA may undertake or award other contracts for additional work at or near the site of the Work under this contract.

22.9.2. The Contractor shall fully cooperate with the other contractors and with CMHA 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 CMHA.

22.9.3. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by CMHA employees.

22.10. Drug-Free Workplace

22.10.1. Each contractor shall be enrolled in and in good standing and shall require all subcontractors with whom the Contractor is in contract for the public improvement to be enrolled in and be in good standing in the Bureau of Workers' Compensation's Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in the Revised Code prior to a subcontractor providing labor at the Project site of the public improvement.

22.11. Energy Efficiency and Sustainability Requirements

22.11.1. 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 for the State in which the work under the contract is performed.

22.11.2. If the Project is designed and constructed under the Leadership in Energy and Environmental Design ("LEED") Rating System developed by the U.S. Green Building Council or another rigorous rating system used to facilitate achievement of sustainability goals for the Project, the Contractor shall provide submittals certifying achievement of sustainable designed rating system criteria for verification by the Green Building Certification Institute or other third party in accordance with the Contract Documents.

22.12. Clean Air and Water

22.12.1. The Contractor shall comply with the Clean Air Act, as amended [42 USC](#), the Federal Water Pollution Control Water Act, as amended [33 U.S.C.](#), and standards issued pursuant thereto in the facilities in which this Contract is to be performed.

22.13. Public Relations

22.13.1. Public relations or publicity about the Project shall be solely within the control of and consent of CMHA.

22.13.2. Contractor shall submit to CMHA all advertising and publicity related matter relating to this Contract, including without limitation, information provided in social media, wherein CMHA's name is mentioned or language used from which the connection of CMHA's name may, in CMHA's judgment, be inferred or implied.

A. Contractor shall not publish or use such advertising and publicity matters without prior express written consent of CMHA.

22.14. Governing Law

22.14.1. This Contract shall be governed and construed exclusively by its terms and by the laws of the State of Ohio and any suit filed to enforce any term of this Contract shall be filed only in a court of competent jurisdiction in Hamilton County, Ohio.

22.14.2. The parties to this Contract shall comply with applicable law.

22.15. Written Notice

22.15.1. Notice under the Contract Documents shall be validly given if:

A. Delivered personally to a member of the organization for whom the notice is intended.

22.16. Taxes

22.16.1. Parties acknowledge that CMHA is a tax exempt entity and Contractor must use tax exemption status for all purchases made for the Project in which tax exemption is permitted under law.

22.17. Computing Time

22.17.1. When the Contract Documents refer to a period of time by a number of days, the period shall be computed to exclude the first and include the last day of the period.

A. If the last day of the period falls on a Saturday or Sunday, or a legal holiday, that day shall be omitted from the computation and the period shall end on the next business day.

22.17.2. Except as excluded, the Contract Times and all other periods referred to in the Contract Documents includes Saturdays, Sundays, and all days defined as legal holidays below.

22.17.3. The standard workdays for the Work are Monday through Friday, excluding legal holidays.

22.17.4. The Legal Holidays are as follows:

- A. New Year's Day
- B. Martin Luther King Jr. Day
- C. President's Day
- D. Memorial Day
- E. Independence Day
- F. Labor Day
- G. Columbus Day
- H. Veterans Day
- I. Thanksgiving Day
- J. Christmas Day

22.18. Time is of the Essence**22.18.1.** All time limits set forth in the Contract Documents are of the essence.

- A. By signing this Contract, Contractor acknowledges that the Contract Times are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.
- B. By signing the Construction Progress Schedule, the Contractor acknowledges that the specified Milestone dates and the Date for Substantial Completion are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.

22.18.2. The Notice to Proceed establishes the date for commencement of the Work.**22.18.3.** The Contractor acknowledges that it may be subject to interference, disruption, hindrance, or delay in the progress of the Work from any cause.

- A. The sole remedy for such interference, disruption, hindrance, or delay shall be an extension of the Contract Time MODIFICATIONS, unless otherwise required by law.

22.19. Extent of Contract**22.19.1.** The Contract Documents represent the entire and integrated agreement between CMHA and the Contractor and supersede all prior negotiations, representations, or agreement, either written or oral.**22.19.2.** This Contract may be executed in any number of counterparts, each of which shall be regarded as original and all of which constitute but one and the same instrument.**22.19.3.** The captions and headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any of the provisions or sections hereof.**22.20. Severability****22.20.1.** If any provision of this Contract is determined by a court having jurisdiction to be unenforceable to any extent, the rest of the provisions of this Contract will remain enforceable to the fullest extent permitted by law.**22.21. Facsimile/Electronic Mail Signature****22.21.1.** Any party hereto may deliver a copy of its counterpart signature page of any Contract Documents via email, fax, or web-based project management software.**22.21.2.** Each party shall be entitled to rely upon a scanned or facsimile signature of the other party in such a manner as if such a signature were an original.**22.22. No Third Party Interest****22.22.1.** Except as expressly provided herein, no person or entity, other than CMHA and Contractor, will have any right or interest under the Contract, and the Contract does not create a contractual relationship of any kind between any persons or entities other than CMHA and the Contractor.**22.23. No Waiver****22.23.1.** The failure of CMHA or Contractor to insist on anyone or more instances upon strict performance of any one or more of the provisions of the Contract or to exercise any rights under the Contract or provided by law will not be construed as a waiver or relinquishment of that provision or of the right to subsequently demand strict performance or exercise the right and the rights will continue unchanged and remain in full force and effect.**22.24. Assignment of Antitrust Claims**

22.24.1. By signing this Contract, the Contractor conveys, assigns and transfers to CMHA any right, title, and interest in any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to CMHA pursuant to this Contract.

22.25. Survival of Obligations

22.25.1. All representations, indemnity obligations, warranties, guarantees, and other expressed continuing obligations under the Contract, will survive final payment, completion and acceptance of the Work, and termination or completion of the Contract.

22.26. Force Majeure

22.26.1. Neither party shall be liable for failure to perform if such failure is caused by conditions beyond its control including, but not limited to, Acts of God, Government restrictions (including the denial or cancellation of any export or other necessary license), wars, and/or insurrections.

22.27. Privacy

22.27.1. The Contractor agrees to Comply with the [Privacy Act of 1974](#) (the Act) and the agency rules and regulations issued under the Act and any Personal information collected, used, or acquired in connection with this Contract shall be protected against unauthorized use, disclosure, modification or loss.

22.27.2. Contractor shall ensure that its directors, officers, employees, subcontractors or agents use personal information solely for the purposes of accomplishing the services set forth herein.

22.27.3. Contractor agrees not to release, divulge, publish, transfer, sell or otherwise make known to unauthorized persons personal information without express written consent of CMHA or otherwise required by law.

22.27.4. Contractor agrees to indemnify and hold harmless CMHA for any damages related to Contractor's unauthorized use of personal information.

22.28. Contractor Status

22.28.1. It is understood that the Contractor is an independent contractor and is not to be considered an employee of CMHA, or assume any right, privilege or duties of an employee.

23. ARTICLE XXIII DEFINITIONS AND TERMINOLOGY

23.1. Whenever used in the Contract Documents, the terms listed below will have the meanings meaning ascribed which are applicable to both the singular and the plural and the male and female gender thereof:

23.1.1. Abandonment

- A. A willful decision by the Contractor suspending the progress of the work for an uninterrupted period of three (3) or more consecutive days (excluding weekends and holidays) and such suspension was not requested by CMHA and not caused by natural occurrences or acts of God.

23.1.2. Acceptable Component

- A. A component listed in the Specifications after the Basis of Design Component.

23.1.3. Addenda

- A. Written or graphic instruments issued prior to the opening of Bids that clarify, correct, or change the Bidding requirements or the Contract Documents.

23.1.4. Agreement

- A. The form provided by CMHA, including all of its exhibits, that, when completed and signed by the Contractor and CMHA is evidence of the execution of the Contract.

23.1.5. Allowance

- A. An amount budgeted for during the Bidding process for an item that has yet to be specified or defined and for which no exact dollar amount is available.

23.1.6. Alternate

- A. A change in the proposed Project scope, which may include alternate materials or methods of construction and an amount stated on the Bid form to be added or deducted from the Base-Bid if the corresponding Alternate is incorporated into the Contract.

23.1.7. Applicable Law

- A. All federal, state, and local codes, statutes, ordinances, and regulations that apply to the performance of the Work.

23.1.8. Architect/Engineer (A/E)

- A. The person or other entity engaged by the CMHA to perform architectural, engineering, design, and other services related to the work as provided for in the Contract.
- B. When CMHA uses an engineer to act in this capacity, the terms “architect” and “engineer” shall be synonymous.

23.1.9. Asbestos

- A. Any material that contains more than one percent (1%) asbestos fiber and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA

23.1.10. As-Built Documents

- A. Drawings, addenda, Specifications, executed Change Orders and other elements of the Contract Documents which the Contractor annotates and otherwise modified to indicate changes made during the construction process, the location of concealed and buried items, and other information useful to CMHA throughout the life of the completed Project.

23.1.11. Base-Bid

- A. The amount stated in a Bid as the sum for which the Bidder offers to perform the Work in a particular trade or other category, which is described in the Contract Documents, excluding Alternates.

23.1.12. Basis of Design

- A. A document that records the concepts, calculations, decisions, and product selections used to meet CMHA’s Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines.
- B. The document includes both narrative descriptions and lists of individual items that support the design process.

23.1.13. Basis of Design Component

- A. A component listed first in the Specifications.

23.1.14. Bid

- A. The written offer of a Bidder submitted on the prescribed CMHA Bid Form setting forth the prices for the Work to be performed.

23.1.15. Bidder

- A. The person that submits a Bid.

23.1.16. Bid Form

- A. A form furnished by CMHA with the proposed Contract Documents that is to be completed, signed, and submitted containing the Bidder's Bid.

23.1.17. Bid Guaranty

- A. A bid bond or other instrument of security authorized by [24 CFR](#) submitted with the Bid to provide assurance that the Bidder will execute the Agreement.

23.1.18. Bond

- A. Bid, performance and payment bonds and other instruments of security submitted by the Contractor to assure that the Contractor will perform the Work of the Contract, including making payment to Subcontractors and Material Suppliers.

23.1.19. Building Information Model (BIM)

- A. A digital representation of physical and functional characteristics of a facility and a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.
 - i. It describes the process of designing a building collaboratively using one coherent system of computer models rather than as separate sets of drawings.

23.1.20. Building Permit

- A. The term building permit as used in the Contract Documents shall mean any and all permits required to comply with local and state building codes.

23.1.21. Certificate of Completion or Certificate of Contract Completion

- A. A form, issued by CMHA, that documents the Contractors achievement of Contract Completion.

23.1.22. Certificate of Substantial Completion

- A. A form, issued by CMHA, which is used to document:
 - i. That the Contractor has achieved Substantial Completion of the Work or a designated portion of the Work; and
 - ii. The date on which the associated Substantial Completion of the Work was achieved.

23.1.23. Change Order

- A. A document recommended by the A/E and executed by CMHA and the Contractor that modifies the Contract and authorizes an addition, deletion, or revision in the work and an adjustment in the Contract Sum or the Contract Time or both.

23.1.24. Change Order Request

- A. A CMHA prescribed form issued after execution of the Contract requesting a Change Order from the Contractor(s), which may initiate a Change Order to modify the Contract.

23.1.25. Claim

- A. A demand or assertion, initiated by written notice as prescribe in the Contract Documents, by the Contractor or CMHA seeking an adjustment of Contract Sum or Contract Time or both, or other relief with respect to the terms of the Contract.

23.1.26. Claim Affidavit

- A. A sworn document used in conjunction with filing a lien, which contains a claim on the funds that are due to a Contractor, in favor of a person supplying labor, materials or services for the value of labor, materials, or services supplied.

23.1.27. Construction

- A. The term used to include new construction, reconstruction, renovation, restoration, rehabilitation, major repair, demolition and all similar work upon buildings and ancillary facilities, including any draining, dredging, grading or similar work upon real property.

23.1.28. Construction Progress Schedule

- A. The critical path schedule for performance of the Contract; showing the time for completing the Work within the Contract Times; the planned sequence for performing the various components of the Work; the interrelationship between the activities of the Contractor, A/E, and CMHA; and the Contractor's resource and cost loading information; as periodically updated during the performance of the Work.

23.1.29. Contract

- A. The contract entered into between the Contractor and CMHA.
- B. It includes:
 - i. The Bid;
 - ii. The Bid Bond;
 - iii. The Performance and Payment Bond or Bonds or other assurance of completion;
 - iv. The Certifications, Representations, and Other Statements of Bidders;
 - v. The HUD General Conditions of the Contract for Construction;
 - vi. The CMHA Construction Contract General Terms and Conditions;
 - vii. The applicable wage rate determinations from the U.S. Department of Labor;
 - viii. Any special conditions included elsewhere in the contract;
 - ix. The specifications; and
 - x. Drawings
- C. It includes all formal changes to any of those documents by addenda, Change Order or modification.

23.1.30. Contract Documents

- A. Collectively, the documents that constitute the substance of the Contract including, but not limited to:
 - i. The Bid;
 - ii. The Bid Bond;
 - iii. The Performance and Payment Bond or Bonds or other assurance of completion;
 - iv. The Certifications, Representations, and Other Statements of Bidders;
 - v. The HUD General Conditions of the Contract for Construction;
 - vi. The CMHA Construction Contract General Terms and Conditions;
 - vii. The applicable wage rate determinations from the U.S. Department of Labor;
 - viii. Any special conditions included elsewhere in the contract;
 - ix. The specifications; and
 - x. Drawings
- B. It includes all formal changes to any of those documents by addenda, Change Order or modification.

23.1.31. Contract Commencement Date

- A. The date established in the Notice to Proceed issued by CMHA to the Contractor to mark the start of the Work and the beginning of the running of the Contract Time. If a Notice to Proceed is not issued, the Contract Commencement Date shall be the effective date of the Contract.

23.1.32. Contract Completion Date

- A. The date by which the Work must be finally complete
- B. The Contract Completion Date is established in Section 9.8 herein.

23.1.33. Contract Sum

- A. The Contractor's entire compensation for the Contractor's proper, timely, and complete performance of the Work and is subject to adjustment as provided in the Contract.

23.1.34. Contract Time

- A. The periods stipulated in the Agreement for the achievement of associated Milestones and Substantial Completion, in consecutive days, beginning on the date established by the Notice to Proceed, including adjustments authorized by executed Change Orders.

23.1.35. Contractor

- A. The person or other entity entering into the Contract with CMHA to perform all of the work required under the Contract.

23.1.36. Contractor Payment Application Request

- A. The form furnished by CMHA that is to be used by the Contractor in requesting payments and which, when signed by the Contractor, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values.

23.1.37. Contractor's Documents

- A. All Project-related documents, including those in electronic form, prepared by the Contractor and its Subcontractors.

23.1.38. Contractor's Fee

- A. The portion of the Contract Sum attributable to the aggregate of the Contractor's profit and home-office overhead related to the Contractor's proper, timely, and complete performance of the Work.

23.1.39. Contractor's Punch List

- A. A document prepared by the Contractor that consists of a list of items of Work to be completed or corrected by the Contractor as a condition precedent to Contract Completion.

23.1.40. Coordination Drawings

- A. Drawings and Electronic Files prepared by the Contractor to demonstrate how multiple-system and interdisciplinary work will be coordinated.
- B. Clash reports generated by BIM authoring software may be included in the Coordination Drawing submittals if applicable.

23.1.41. Correction Period

- A. A period of one-year commencing on the date of Substantial Completion of the Work or a designated portion of the Work which CMHA has agreed to take Partial Occupancy.

23.1.42. Day

- A. A calendar day of twenty-four (24) hours measured from midnight to midnight, unless otherwise expressly specified to mean a business day.

23.1.43. Defective Work

- A. Work that:
 - i. Does not conform to the Contract Documents;
 - ii. Does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval;
 - iii. Has been damaged prior to the A/E's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by CMHA; or
 - iv. That is not free from defects in workmanship, materials or equipment during the period of any warranty or guarantee

23.1.44. Differing Site Condition

- A. Subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract; or
- B. 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 Documents.

23.1.45. Drawings

- A. The drawings enumerated in the schedule of drawings contained in the Specifications and as described in the Contract Documents; and
- B. Graphic portions of the Contract Documents, showing the design, type of construction, location, dimension, and character of the Work to be provided by the Contractor, which generally includes plans, elevations, sections, details, schedules, diagrams, notes, and text.

23.1.46. Electronic File

- A. Information maintained in a computer system or format that is intended to facilitate a Person's use and manipulation of the information including but not limited to Word, Excel, PDF, Primavera, CAD, and BIM files all in their native format.

23.1.47. Enclosure, Permanent

- A. The condition in which the permanent exterior walls and roofs are in place, insulated, weatherproof and weather-tight, and permanent windows and entrances are in place

23.1.48. Enclosure, Temporary

- A. The condition in which the permanent exterior walls and roofs are in place, insulated, weatherproof and weather-tight, and windows and entrances are provided with suitable temporary enclosures

23.1.49. Estimated Construction Cost

- A. The sum of the Estimated Contract Cost amounts published in the Solicitation, as modified by Addenda, for a phase of the Project.

23.1.50. Estimated Contract Cost

- A. The estimated amount for the Contract published in the Solicitation, including the Base Bid estimate and the estimates of selected Alternates, if any, as modified by Addenda.

23.1.51. Extra Materials

- A. Materials required by the Contract Documents that are not incorporated into the Project but are given to CMHA to be used for future maintenance or repairs.

23.1.52. Final Inspection

- A. The final review of the Work of the Contractor by the A/E and CMHA to determine whether issuance of the Certificate of Contract Completion will be issued by CMHA.

23.1.53. Frivolous RFI

- A. RFI's that request information that is evident in the Contract Documents and/or RFI's that do not comply with the definition of an RFI as indicated below.

23.1.54. General Conditions

- A. CMHA's General Conditions currently in effect, which may be modified by the CMHA from time to time.

23.1.55. General Conditions Costs

- A. General Conditions Costs include only the Contractor's costs to provide the general conditions Work including without limitation the costs of all of the following Site related items:
 - i. Scheduling and coordinating the Work;
 - ii. Telephone;
 - iii. Telephone charges;
 - iv. Facsimile;
 - v. Telegrams;
 - vi. Postage
 - vii. Photos
 - viii. Photocopying;
 - ix. Hand tools;
 - x. Simple scaffolds (one level high);
 - xi. Tool breakage;
 - xii. Tool repairs;
 - xiii. Tool replacement;
 - xiv. Tool blades;
 - xv. Tool bits; and
 - xvi. Pre-approved travel, lodging, and parking costs
- B. General Conditions Costs also include:
 - i. Bond premiums; and
 - ii. Premiums for Builder's Risk insurance, if the Contractor is required to purchase Builder's Risk insurance policy for the Project.

23.1.56. Hazardous Materials

- A. Any material, substance, pollutant, or contaminant that is defined, regulated, referenced, or classified in the Comprehensive Environmental Response, Compensation and Liability Act, Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, Clean Air Act, Hazardous Materials Transportation Uniform Safety Act, Toxic Substances Control Act, or any other Applicable Law relating to any hazardous, toxic, or dangerous waste, substance, or material.
- B. Any substance or material that, after release into the environment or upon exposure, ingestion, inhalation, or assimilation, either directly from the environment or directly by ingestion through food chains, will, or may reasonably be anticipated to, cause death, disease, behavior abnormalities, cancer or genetic abnormalities and specifically includes but is not limited to asbestos, polychlorinated biphenyls ("PCBs"), radioactive materials, including radon and naturally occurring radio nuclides, natural gas, natural gas liquids, liquefied natural gas, synthetic gas, oil, petroleum and petroleum-based derivatives and urea formaldehyde.

23.1.57. HUD

- A. 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.
- B. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to CMHA, which includes assistance in financing the work to be performed under this Contract.
- C. As defined elsewhere in Contract Documents, the determination of HUD may be required to authorize changes in the work or for release of funds to CMHA for payment to the Contractor.
- D. Notwithstanding HUD's role, nothing in this Contract shall be construed to create any contractual relationship between Contractor and HUD.

23.1.58. Indemnified Parties

- A. CMHA, the A/E, other Separate Consultants, and their respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities.

23.1.59. Install

- A. Put into use or place in final position, complete and ready for intended service or use.

23.1.60. Liquidated Damages

- A. A sum established in the Contract Documents, pursuant to the statutory delay forfeiture authorized under ORC and federal regulations, to be paid to CMHA due to the Contractor's failure to complete the Work within the Contract Time for achievement of Substantial Completion, or any applicable portion of the Work on or prior to any Milestone date stated on the Contract Documents.

23.1.61. Material Supplier

- A. A Person under a contract with the Contractor to furnish materials or supplies in furtherance of the Work, including all such Persons in any tier.
- B. Material Supplier does not include any Separate Contractor unless expressly assigned in writing to the Contractor by CMHA and accepted by the Contractor.

23.1.62. Milestone

- A. A principal event specified in the Contract relating to an intermediate completion date or time prior to Substantial Completion of all Work.

23.1.63. Modification

- A. A written amendment to the Contract signed by both parties;
- B. A Change Order;
- C. A Change Directive; or
- D. An order for a minor change in the Work.

23.1.64. Notice of Commencement

- A. A notice prepared by CMHA identifying the Project, the Contractors, the Surety for each Contractor, and the name CMHA's representative upon whom a Claim Affidavit may be served.

23.1.65. Notice of Intent to Award

- A. A written notice provided by CMHA to the apparent successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of a Contract within the time specified CMHA intends to execute a Contract with the Bidder.

23.1.66. Notice to Proceed

- A. A written notice provided by CMHA authorizing the Contractor to proceed with the Work and establishing the date(s) for commencement and completion of the Work.

23.1.67. ORC

- A. The Ohio Revised Code.

23.1.68. Owner

- A. The Cincinnati Metropolitan Housing Authority or its instrumentality or affiliate for whom the Project is being constructed.

23.1.69. Owner's Project Requirements

- A. A written document that details the functional requirements of the Project and the expectations of how it will be used and operated
- B. These include project goals, measureable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.

23.1.70. Partial Occupancy

- A. The condition that occurs when CMHA occupies or uses a portion of the Project prior to Contract Completion, partial occupancy is approved by authorities having jurisdiction, and items of Work cannot be completed until a subsequent date.

23.1.71. Person

- A. An individual, corporation, business trust, estate, partnership, association, or other public or private entity.

23.1.72. Phase

- A. A separation in the Work of the Project by sequence or time intervals, which may include separate contractors for each Phase.

23.1.73. Plan Holder

- A. A prospective Bidder that received a set of Contract Documents prior to the bid opening.

23.1.74. Product Data

- A. Manufacturer's standard illustrations, schedules, diagrams, performance charts, instructions, and brochures that illustrate physical appearance, size, and other characteristics of materials and equipment.

23.1.75. PHA

- A. A Public Housing Authority which at all times shall mean the Cincinnati Metropolitan Housing Authority unless otherwise specified in the Contract Documents.

23.1.76. Project

- A. The entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under the Contract Documents.

23.1.77. Project Manager

- A. An employee of CMHA assigned to the Project and authorized to perform specific responsibilities.
- B. A Project Manager may also be referred to as a Construction Manager or Construction Contract Administrator.

23.1.78. Project Record Documents

- A. Electronic files and printed documents of all nature prepared by the A/E, which incorporate the information shown on the Contractor's As-Built Documents.
- B. They consist of:
 - i. The "Record Drawings";
 - ii. Certificate of Substantial Completion;
 - iii. Certificate of Contract Completion (as complete);
 - iv. Contractor's Warranty;
 - v. Manufacturers' Warranties, certificate(s) of occupancy, approved shop drawings and other action submittals;
 - vi. Proposal Requests;
 - vii. Requests for Interpretation;
 - viii. Addenda;
 - ix. Change Orders;
 - x. Balancing Reports; and
 - xi. The final version of the approved Construction Progress Schedule

23.1.79. Proposal

- A. The offer of a Contractor to perform the Work set forth in a Proposal Request.

23.1.80. Provide

- A. Furnish and install, complete and ready for intended use.

23.1.81. Punch List

- A. A document listing items of Work requiring correction or completion by the Contractor as a condition precedent to Contract Completion.

23.1.82. Record Drawings

- A. Synonymous to As-Built Drawings; and,

- B. The Drawings, which have been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the Contractor.

23.1.83. Request for Interpretation/Information (RFI)

- A. A written request to CMHA or the A/E seeking an interpretation or clarification of the Contract Documents.

23.1.84. Samples

- A. Physical examples, color selection items, field samples, and mock-ups furnished by the Contractor to illustrate functional and aesthetic characteristics of products, materials, equipment, or workmanship and establish criteria by which the Work shall be judged.

23.1.85. Schedule of Values

- A. A full, accurate, and detailed statement furnished by the Contractor reflecting a defined breakdown of the Contract Sum.

23.1.86. Separate Consultant

- A. A Person engaged by CMHA to provide Project-related professional services other than the services under this Contract.
- B. The term includes the Separate Consultant's authorized representatives, successors, assigns, and sub-consultants regardless of tier.

23.1.87. Separate Contract

- A. The contract between CMHA and a Separate Consultant or a Separate Contractor.

23.1.88. Separate Contractor

- A. A Person under contract CMHA to provide Project related work other than the Work under this Contract.
- B. The term includes the Separate Contractor's authorized representatives, successors, assigns, and subcontractors regardless of tier.

23.1.89. Shop Drawings

- A. Drawings, diagrams, illustrations, and schedules specifically prepared for the Project provided by the Contractor or a Subcontractor to illustrate some portion of the Work.
- B. Shop Drawings are not Contract Documents.
- C. Shop Drawings on equipment shall include a written statement from the manufacturer of the equipment certifying the equipment is in compliance with the Contract Documents.

23.1.90. Site

- A. The location designated for the Project.

23.1.91. Specifications

- A. The written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.

23.1.92. Stage

- A. A distinct period in the life cycle of a facility from concept through construction, to use and deconstruction or demolition.
- B. Typical Stages include Program Verification, Schematic Design, Design Development, Construction Documents, Bidding and Award stages; and the Construction, which includes Construction and Closeout activities.

23.1.93. Subcontract

- A. Any contract or agreement between the Contractor and a Subcontractor for performance of a portion of the Work.

23.1.94. Subcontract Form

- A. The Subcontract Form prescribed CMHA and required for use by Contractor when engaging Subcontractors.

23.1.95. Subcontractor

- A. A Person who undertakes to perform any part of the Work on the Project under a contract with a Contractor or with any Person other than the State, including all such Persons in any tier.
- B. The term "Subcontractor" includes Material Suppliers, but does not include any Separate Contractor unless expressly assigned in writing to the Contractor by CMHA and accepted by the Contractor.

23.1.96. Supplementary Conditions

- A. Amendments to the CMHA Construction Contract General Terms and Conditions, issued as a separate document, prescribed by CMHA, which describes conditions of the Contract unique to a particular Project, which may include:
 - i. Provisions regarding the assignment of responsibility for refuse removal;
 - ii. Safety and security precautions and programs;
 - iii. Temporary Project facilities and utilities;
 - iv. Weather and fire protection;
 - v. Scaffolding and equipment;
 - vi. Materials and services to be used commonly by the Contractor and Subcontractors and requiring the Contractor to provide assistance in the utilization of any applicable equipment system;
 - vii. Preparation of operation and maintenance manuals; and
 - viii. Training of CMHA personnel for operation and maintenance of the Project
- B. The CMHA Construction Contract General Terms and Conditions shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions.

23.1.97. Surety

- A. A Person providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify CMHA against all direct and consequential damages suffered by failure of the Bidder to execute the Contract, or of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

23.1.98. Substantial Completion

- A. The stage in the progress of the Work when the Work (or designated portion of the Work for which CMHA has agreed to take Partial Occupancy) is sufficiently complete in accordance with the Contract that CMHA can utilize the Work for its intended use, as determined by CMHA.
- B. The issuance of a certificate of occupancy or partial certificate of occupancy (if applicable) is a condition precedent to the achievement of Substantial Completion.

23.1.99. Substitution

- A. An article, device, material, equipment, form of construction, or other item, proposed by a prospective Bidder prior to the bid opening and approved by the A/E by Addendum, for incorporation or use in the Work as being functionally and qualitatively equivalent to essential attributes of a Basis of Design or Acceptable Component specified in the proposed Contract Documents.

23.1.100. Unit Price

- A. The cost of providing a unit of Work including labor, materials, services, and associated expenses.

23.1.101. Work

- A. The labor, materials, workmanship, manufacture or fabrication of components, equipment, and services, individually or collectively which are required by the Contract Documents, to be performed, installed, or provided by the Contractor for the Project.
- B. The furnishing of all material, labor, detailing, layout, supplies, plants, tools, scaffolding, transportation, temporary construction, superintendence, demolition, and all other services, facilities and items reasonably necessary for the full and proper performance and completion of the requirements of the Project as set forth in the Contract Documents, and items reasonably inferable therefrom and consistent therewith for the proper execution and completion of the construction and other services required by the Contract Documents, whether provided or to be provided by the Contractor or a Subcontractor, or any other entity for whom the Contractor is responsible, and whether or not performed or located on or off of the Site.



**INVITATION FOR BIDS
MBE / WBE PARTICIPATION REPORT**

PARTICIPATION REPORT

MINORITY BUSINESS ENTERPRISE (MBE) WOMEN BUSINESS ENTERPRISE (WBE)

Contract / PO#: _____

Please list below the names of all firmly committed MBE and WBE subcontractors that will work on the project, their MBE/WBE Status, the dollar amount, and the percentage of total contract amount that will be performed by the entities. The MBE/WBE participation can include subcontracts or purchases of services, materials and supplies directly related to the contract.

(Please check one) _____ Proposed _____ Amended _____ Final

	MBE	WBE	Name of Subcontractor(s)	Contract Amount \$ Amount	% Percentage
1	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
2	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
3	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
4	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
5	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
6	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
7	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
8	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
9	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
10	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
11	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
12	<input type="checkbox"/>	<input type="checkbox"/>	_____	\$ _____	_____ %
Total MBE Dollar Amount and Percentage of Contract				\$ _____	_____ %
Total WBE Dollar Amount and Percentage of Contract				\$ _____	_____ %

Fill with legible block letters

Signature: _____

Contact Person: _____

Company Name: _____

Date: _____



INVITATION FOR BIDS SECTION 3 RESIDENTS AND BUSINESS CONCERNS

S3 RESIDENTS AND BUSINESS CONCERNS

MINORITY BUSINESS ENTERPRISE (MBE) & WOMEN BUSINESS ENTERPRISE (WBE)

Prospective Business Vendor:

Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968 that helps foster local economic development, neighborhood economic improvement, and individual self-sufficiency. The Section 3 program requires that recipients of certain HUD financial assistance, to the greatest extent feasible, provide job training, employment, and contracting opportunities for low- or very low-income residents in connection with projects and activities in their neighborhoods.

Anyone claiming to be a Section 3 Business Concern shall be required, as set forth by procedure, to provide evidence of such status. Section 3 Business Concerns claiming Section 3 Preference status must meet that status at the time the bid, Bid or proposal is submitted to CMHA.

If you need any assistance or help regarding Section 3, feel free to contact us at Section3@cintimha.com

Section 3 Clause

- 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 75, 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 75 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 notices 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.



INVITATION FOR BIDS

SECTION 3 RESIDENTS AND BUSINESS CONCERNS

- D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 75, 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 75. 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 75.
- 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 75.9 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 75.9
- F. Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- G. In the event of a determination by the Executive Director or his/her designee that the Contractor is not in compliance with the section 3 clause or any rule, regulation, or report submission requirements of the CMHA, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further CMHA contracts for a period of one to three years.
- H. Section 3. The work to be performed under this Agreement is subject to the requirements of Section 3. The Parties agree to comply with HUD's regulations in 24 C.F.R. part 75, which implement Section 3 and hereby certify to the best of their knowledge that they are under no contractual or other impediment that would prevent them from compliance. The Authority shall monitor the Developer's compliance from time to time during the Project. The Developer agrees to require all Subcontractors to the greatest extent feasible to comply with Section 3 and the regulations promulgated in 24 C.F.R. part 75, and agrees to take appropriate action upon a finding that the Subcontractor is in violation of the regulations in 24 C.F.R. part 75. The Developer will not contract with any Subcontractor where the Developer has notice or knowledge that the Subcontractor has been found in violation of the regulations in 24 C.F.R. part 75.
- I. Number. The Developer agrees to meet the following Section 3 benchmarks of 25/5 (25% Section 3 Total Labor Hours / 5% Targeted Section 3 Total Labor Hours) and the stated percentages when selecting Subcontractors for the Project: (i) at least twenty percent (20%) of the general construction Subcontractors to qualify as a MBE Subcontractor; (ii) at least five percent (5%) of the general construction to qualify as a MBE Subcontractor (iii) at least ten percent (10%) of the construction contract Subcontractors to qualify as Section 3 Subcontractors. Additionally, any hiring or training opportunities generated should be provided to Section 3 and Targeted Section 3 workers to the greatest extent feasible. The list of proposed Subcontractors, including the MBE, WBE and Section 3 Subcontractors, shall be submitted to the Authority for approval prior to the Closing.



INVITATION FOR BIDS SECTION 3 RESIDENTS AND BUSINESS CONCERNS

- J. CMHA is committed to fostering neighborhood economic improvement and the self-sufficiency of its residents. This is done through taking proactive steps to hire local low-income persons and to award contractors to business that are registered Section 3 businesses. Therefore, CMHA strives to ensure that at least fifteen percent (15%) of all subcontracts are awarded to Section 3 businesses.
- K. In accordance with the findings of the Congress, as stated in section 3, that other economic opportunities offer an effective means of empowering low-income persons, a recipient is encouraged to undertake efforts to provide to low-income persons economic opportunities other than training, employment, and contract awards, in connection with section 3 covered assistance.
- L. The Developer shall require all Subcontractors to send to each labor organization or representatives of workers with which such Subcontractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Developer's and/or Subcontractor's commitments under Section 3, 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. Each Subcontractor shall certify to the Developer that any vacant employment positions, including training positions, that are filled (i) after a Subcontractor is selected but before the relevant contract is executed and (ii) with persons other than those to whom the regulations of 24 C.F.R. Part 75 require employment opportunities to be directed, were not filled to circumvent the Subcontractor's obligations under 24 C.F.R. Part 75 and the Developer shall certify to the Authority that it has obtained all such certifications.
- M. 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).

Assurance of Compliance Training, Employment, and Contracting Opportunities

The project assisted 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. 170u. Section 3 requires that to the greatest extent feasible, newly created opportunities that are generated by the awarding of this contract be given to:

- Section 3 Workers (25% minimum goal of labor hours) upon their qualifications.
- Section 3 Targeted Workers (5% Minimum of labor hours)

Notwithstanding any other provision of this contract, the applicant shall carry out the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary set forth in 24 CFR Part 75, and all applicable rules and orders of the Secretary issued thereunder prior to the execution of this contract. The



INVITATION FOR BIDS SECTION 3 RESIDENTS AND BUSINESS CONCERNS

requirements of said regulations include but are not limited to development and implementation of a Section 3 Action Plan/Strategy for utilizing Section 3 Business Concerns; the making of a good faith effort, as defined by the regulation, to provide training, employment and business opportunities required by Section 3; and incorporation of the “Section 3 Clause” specified by Section 75.9 and 75.17 of the regulations in all contracts for work in connection with the project. The applicant and recipient agency, certifies and agrees that it is under no contractual or other disability which would prevent it from complying with these requirements.

Compliance with the provision of Section 3, the regulations set forth in 24 CFR Part 75, and all applicable rules and orders of the Secretary issued thereunder prior to approval by the Government of the application of this contract, shall be a condition of the Federal financial assistance provided to the project, binding upon the applicant, its contractors and subcontractors, its successors, and assigns to the sanctions specified by the contract, and to such sanctions as are specified by 24 CFR Section 75.

Action Plan Submission

The Section 3 Action Plan is a requirement for contracting opportunities with CMHA. The Section 3 Action Plan must indicate/describe the proposed strategies for achieving the Section 3 training and/or employment goals, and subcontracting numerical goals, when and if newly created opportunities are generated upon awarding of contracts. Failure to submit the Section 3 Action plan may jeopardize the proposal/bid up to and including the possibility of said proposal/bid being deemed non-responsive.

Please review and complete the Section 3 Action Plan - Opportunities Strategies in the *Bid*. All Sections need to be completed. This information will help to assist you in formulating your Section 3 Action Plan. You will need to address each question and check the appropriate boxes in regards to how your company will strive to achieve Section 3 Compliance to the “greatest extent feasible”. Please identify individual(s) responsible for planning, implementing and tracking the projects’ Section 3 training, employment and/or contracting goals.



INVITATION FOR BIDS PREVAILING WAGES CLAUSE

TO THE CINCINNATI METROPOLITAN HOUSING AUTHORITY (CMHA)

In submitting this Bid, I acknowledge that:

- A. The Prevailing Wages shall be paid for a legal day's work to laborers, workmen or mechanics engaged in work under this Contract, at the site of the Project, in the trade or occupation listed.
- B. The Wage Determinations provided shall be closely monitored by the contractor/bidder/Proposer for any modifications until the actual construction work begins locking in the wage determination for the duration of the contract. Wage determinations and modifications can be monitored and obtained at www.wdol.gov. Failure to include the current wage determination will not relieve the contractors of potential wage liabilities.
- C. It shall be the Prime Contractor's responsibility to verify the accuracy of the reported wages, including his subcontractors.
- D. It shall be the Contractors responsibility to be certain that all the classifications needed to accomplish the contract fall underneath one of the classifications listed on the Wage Determination provided in the scope of work.
- E. In the event that a required classification is not listed, a contractor may submit a request for an additional classification. Remember the request is not valid unless the Department of Labor approves it. There will be no justification for an adjustment to a contract price due to an increased wage rate. The contractor should have been aware of any particular skilled trades that were not included in the original wage determination and thus accepted any risk that DOL would "conform" a pay rate higher than what they estimated when they priced their proposal. The contractor is responsible to propose wage/benefit rates that "bear a reasonable relationship" to the other classifications and rates listed on the wage determination.
- F. The following pages are the Prevailing Rates of Wages as ascertained by the State or other Agency for this Project.
- G. Listed below is a checklist of items required for Wage and Hour Compliance.
- H. Remember, prompt correction of deficiencies is essential. Failure to correct in a timely manner will be the withholding of payments on your contract until the deficiencies are corrected.



INVITATION FOR BIDS PREVAILING WAGES CLAUSE

I. For your convenience listed below is a checklist of items required:

- ☐ Appointment of Paymaster
- ☐ Equal Employment Opportunity Affirmative Action Policy Statement (*EEOAAPS*)
- ☐ Equal Employment Opportunity Compliance Certificate (*EEOCC*)
- ☐ Letter of Understanding
- ☐ General and Subcontractors form (*if applicable*)
- ☐ Employment Utilization Report (*upon completion*)
- ☐ Section 3 Form (*if applicable*)
- ☐ Weekly certified payrolls that include:
 - ☐ Contractor's Name
 - ☐ Contractor's Address
 - ☐ Payroll #
 - ☐ Week Ending Date
 - ☐ Project and Location
 - ☐ Contract or Purchase Order No.
 - ☐ Name of Employee
 - ☐ Social Security Number
 - ☐ Address of Employee
 - ☐ No. of Exemptions
 - ☐ Work Classification
 - ☐ Calendar Days
 - ☐ Hours Worked
 - ☐ Total Hours
 - ☐ Rate of Pay
 - ☐ Gross Amount Earned
 - ☐ Taxes or Write 1099 across columns if employee files his own taxes
 - ☐ Statement of Compliance (back page of the payroll sheet)
 - ☐ One of the boxes checked indicating if fringes benefits are paid in cash or approved program
 - ☐ Contract's Signature Certifying Payroll

Fill with legible block letters

Signature: _____

Contact Person: _____

Company Name: _____

Date: _____



INVITATION FOR BIDS SCOPE OF WORK

PART 1 ADMINISTRATIVE

1.1 GENERAL

A. Gold Standard

In 2012, CMHA established its Gold Performance Standards which consist of the principles and values by which the Agency performs and how our partners, vendors, contractors and consultants are measured.

The Gold Performance Standards are: Respect, Timely, Exceptional, Initiative, Excellent, Quality, Accurate, Integrity, Value, Creativity, Accountability and Professionalism. It's very imperative that our partners, vendors, contractors and consultants abide by these standards that has been establish.

B. CMHA's Vendor Registration

1. The Contractor shall register as a CMHA's Vendor if not one already. To complete CMHA's vendor registration packet visit www.cintimha.com under Business Opportunities / Vendor Registration.

C. Prevailing Wages

1. The Contractor is responsible to consider the Prevailing Wage determination. The Attached Wage Determination can be subject to change from the time of contractor walk through to the date the bid is due. Typically, the wage rates are updated/revised/modified on Friday's every week. To monitor the Wage Determination visit: www.wdol.gov

D. Permits

1. The Contractor Shall Obtain all necessary permits for construction activities in accordance with Federal, State and Local Jurisdiction.

E. Existing conditions

1. The contractor shall field verify all existing condition prior to quoting. Contractor is responsible to examine the job conditions and field measurement, distances, elevations, clearances, etc. and base their quote and work on verified conditions. No Change Order will be approved for modifications/alterations required to existing conditions that are

apparent on the drawings and specifications and visible during the walk through.

F. Drawings and Specifications

1. The Contractor is responsible for comprehending the specifications, plans and becoming familiar with the site location and performing/completing all the work in the specifications at high standards in a professional manner.

G. Contract Management

1. The Contractor shall provide a Construction Schedule and all applicable insurances at the Pre-Construction meeting before starting construction.
2. The contractor shall furnish all labor, materials, tools, equipment and devices to complete the work as specified in scope of work.
3. The contractor is responsible pay all utilities during construction ie. electric power, natural gas and water. The contractor shall provide those not available on the property and needed for construction.

H. Site Management

1. The Contractor shall provide the Construction Project Manager and the Property Manager (PM) with 48-hour advance notice prior to the start of work.
2. The Unit will be
☐ vacant during construction. ☒ occupied during construction.
3. The Building will be
☐ vacant during construction. ☒ occupied during construction.
4. Construction working hours are 8:00 a.m. - 4:00 p.m. Monday thru Friday. Weekend work is prohibited if not approved in writing.
5. The Contractor shall coordinate and cooperate with surrounding residents who currently reside in the houses and buildings to minimize conflicts. The contractor is fully responsible for properly securing the house at the end of the work day.
6. The Contractor shall keep areas under construction clean on a daily basis. All un-used construction material shall be removed from site at the end of each work day. The contractor is prohibited from using any dumpsters and/or totters that are on site. The contractor shall clean all areas that are affected by the renovation (i.e. mechanical room,



INVITATION FOR BIDS SCOPE OF WORK

- public walk ways, driveway, etc.)
7. The Contractor shall secure the construction site. The Contractor shall secure and protect all materials, tools and equipment stored on site and all work completed. CMHA assumes no liability for these material, tools and equipment that may become missing and/or damaged and not guarantees that the property's video surveillance captures the incident, if available.
 8. The contractor may store materials, tools and equipment on site if approved in writing and as instructed by the owner.
 9. The contractor shall have at least one person in charge and on site during the duration of the project. This person shall be familiar with the project scope and daily construction activities and other persons in the work area.
 10. The contractor shall maintain all lawns/sites within the area contracted for the duration of the project. Lawns shall be cut a minimum of once every 10 days from March through October. The contractor shall also be responsible for the removal of all rubbish, debris limbs, leaves, etc., within the area.
 11. The Contractor shall coordinate with owner location of barriers and separations as necessary to protect occupied areas from noise, dust or other disruptive activities.
 12. The Contractor shall perform the work with a minimum of disruption by noise, odors, dust or other disruptive causes to owner's normal operations.
 13. The contractor is responsible for any damages that may occur to the existing exterior and interior finish (i.e. landscaping, exterior façade, grass, concrete walks, asphalt/concrete paving, drywall, flooring materials, wall base, wall/door finishes, etc.) during the construction duration.
 14. Protect all adjacent surfaces or finishes during all work. Restore affected surfaces if damaged during construction.
 15. CMHA does not furnish janitorial supplies. However, the contractor is encouraged to contact the CMHA Materials Controls Department or Field Representative to get a list of janitorial products commonly used by CMHA.
 16. The contractor is responsible for all trash and debris in the units, and in the front, sides

and rear yards.

I. End of Construction

1. The contractor is to submit an Operation and Maintenance manual at the end of the project, one hard copy and one digital copy in PDF format. The Operation and Maintenance manual shall include manufacturer manual and warranty of all equipment and/or devices used/purchased for this project.
2. The Contractor shall warranty all material and workmanship for a period of one year after acceptance.
3. The contractor shall perform all tests, adjustments, etc. as required by equipment manufacturer.
4. The Contractor shall perform all tests, adjustments, etc. as required on all new installed devices. The equipment and devices are to be 100% operable/functional after installation.

PART 2 CONTRACTOR RESPONSABILITIES

1. The Contractor shall:
 - i. Verify quantities to successfully complete the project.
 - ii. Coordinate with building operations and residents to minimize the interference of day to day activities.
 - iii. Coordinate with building manager location of dumpster.
 - iv. Coordinate with any other contractor working in the building. CMHA has several projects ongoing in this building.
 - v. The contractor or any of its personnel shall not enter any unit, at any time. No exceptions.
 - vi. Smoking is not permitted inside the building or its surrounding areas.
 - vii. Keep all areas clean and free of debris during construction activities and after hours.
 - viii. The contractor, subcontractors, material men, or suppliers shall use only unmanufactured articles, materials, and supplies that have been mined or produced in



INVITATION FOR BIDS SCOPE OF WORK

the United States; and manufactured articles, materials, and supplies that have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured in the United States.

PART 3 MAKE READY PROCEDURES



APPLY



DO NOT APPLY

3.1 GENERAL (All units expect as noted)

A. Preparation and Finishing

2. Remove all hangers, hooks, mails, tape, contact paper, wall paper, borders, etc.
3. Remove any obvious imperfections in walls or ceilings.
4. Remove any imperfections around fixtures of any sort and outlets. Do not paint electrical fixtures, switches, outlets or cover plates.
5. Wipe debris off all surfaces. This includes but is not limited to webs, dust, dirt, insect eggs and feces.
6. Paint all walls, ceilings, doors, window sills, trim, etc.
7. Drywall should be prepped for level 4 drywall finish. This will require drywall to be skim coated to provide smooth finish prior to painting.
8. In the kitchen, wash all surfaces of excessive smoke or grease damage. Special care shall be given to cleaning the area behind the range and refrigerator.
9. Properly use drop clothes.
10. Remove excessive debris and dust from heat registers before painting them.
11. Caulk all edges of countertops, window frames, door frames, kitchen cabinets, the base of all walls that connect apartments and public spaces, etc.
12. Cleaning of paint and drywall utensils and tools of any kind are not permitted in the apartment unit(s).
13. The contractor shall inspect all surfaces requiring painting to verify the work has been completed before turning over the unit as PAINTED.
14. Paint to use:
 - i. Primary wall paint: Promar 200 Interior Latex Eggshell, SW 7015
 - ii. Bathroom paint: Promar 200 Interior Latex Semi-Gloss, SW 7015



INVITATION FOR BIDS SCOPE OF WORK

iii. Ceiling paint: Promar 200 Interior Latex Flat, SW 7006

iv. Door and trim paint: Promar 200 Interior Latex Eggshell, SW 7006

3.2 MAINTENANCE (All units expect as noted)

A. Leaking Faucets

1. All faucets and toilets shall be operable and without leaks.
2. All drains shall be open and without leaking waste lines.
3. Laundry station(s) shall be operable, open and without leaks.

B. Windows

1. Clean all windows, doors, frames and seals, including front and back storm doors, and including handles and knobs. They should open, close and be able to lock.
2. Remove and repair any damage from any old hardware remaining from previous blinds and shades no longer in use.
3. Windows shall have vinyl 1" mini-blinds in working condition.
 - i. All screens should be cleaned and in place without any rips or holes.
4. All missing screen shall receive new matching screens.

C. Doors

1. Make sure that all storm and prime doors are in place and operable (open, close and are able to lock).
2. All doors (interior, exterior, closets and cabinets) must be able to open and close properly without any missing hardware.
3. Replace or repair wheels, tracks, hardware, door knobs, etc. so that doors are operable and function properly.
4. Exterior Doors must be cleaned both on the inside and outside, including screen doors/storm doors.
5. Exterior doors must be painted as necessary.
6. Interior doors must be painted or shellacked as necessary.
7. Check door sweeps and weather stripping. Replace where needed.
8. Install doorstops throughout the unit.



INVITATION FOR BIDS SCOPE OF WORK

9. Busted doors must be replaced. A busted door may consist of veneer coming off, excessive holes, cracks, or anything beyond repair. If the replacement of the door is in question, the property manager will have the final say in determining whether or not to replace it. It is the contractor's responsibility to ensure a proper fit within the frame, the holes are accurately drilled for hinges, door knob and lockset. Should the contractor damage the door during this process, they will be held financially responsible and/or required to replace the door with new like-kind door.
10. Do not paint door hardware, if painted previously paint must be removed.

D. Cover Plates

1. Replace (provide where missing) all cracked or damaged electrical/cable/telephone cover plates.
2. Do not paint cover plates.

E. Stair Treads

1. All stair treads shall be securely in place and without any cracks, chips, breaks or tripping hazards. No tripping hazards.
2. All stair treads must be cleaned thoroughly.

F. Electric Fixtures and Outlets

1. Clean all interior and exterior light fixtures, light shades, globes and switch plates and switches.
2. Fixtures shall be free of fingerprints, marks, dust and insects.
3. All switches shall be operable.
4. All outlets (including GFCI) shall be operable.
5. All exterior light fixtures, doorbells, etc. shall be operable.

G. Smoke Alarms/Detector

1. Remove all smoke alarms/detectors and install new per all applicable codes and regulations.
2. All smoke alarms/detectors should be properly installed and working.
3. Smoke alarms should not be painted or have stickers or other decorations present.
4. Smoke alarm/detector location guidelines



INVITATION FOR BIDS SCOPE OF WORK

- i. If mounted on the ceiling, it must be more than 4 inches from the wall.
- ii. It cannot be closer than 4 inches or more than 12 inches from the ceiling if mounted on the wall.
- iii. Smoke alarms should not be installed near windows, doors, or ducts where drafts might interfere with their operation.

H. Carbon Monoxide (CO) Alarms/Detector

1. Remove all smoke alarms/detectors and install new per all applicable codes and regulations.
2. Carbon Monoxide Detection shall be installed in dwelling units containing a fuel-burning appliance or fireplace.
3. Carbon Monoxide detection shall be included in any dwelling units with attached private garages.
4. Carbon Monoxide detectors shall be installed in dwelling units outside each sleeping area and within 10 ft. of the bedroom. If a fuel-burning appliance is installed in the bedroom, a CO detector must be installed in the bedroom.

I. LVT / VCT Floors

1. In locations where the floor tile terminates between rooms, provide a transition strip.
2. Remove/replace all damaged, missing and/or defective wood/vinyl baseboards, toe strips or transition strips.

J. Ceramic Tile

1. Replace any damaged drywall/green board behind ceramic wall tile.
2. Repair or replace any loose, broken or missing ceramic wall tile. Replace all loose, broken or missing grout (match existing). Remove/replace or provide caulk at all tub/ceramic tile locations that terminate at wall surfaces.

K. Water Heater(s)

1. Inspect water heater(s) for proper operation and exhaust venting. Report any problems to the Owner's Field Representative.
2. Furnace(s) and Boiler(s)



INVITATION FOR BIDS SCOPE OF WORK

3. Inspect furnace(s) for proper operation and exhaust venting. Report any problems to the Owner's Field Representative.
4. Inspect boiler(s) for proper operation and exhaust venting. Report any problems to the Owner's Field Representative.
5. Inspect thermostat(s) for proper operation. Report any problems to the Owner's Field Representative.
6. Vacuum clean all heating and air conditioning equipment, grills, registers, etc. Report any problems (damaged or missing items) to the Owner's Field Representative.

L. Appliances

1. Range Hood – Inspect the range hood for proper operation (fan, light and exhaust venting if required). The hood should have all of its parts and hardware such as filters, knob, etc. Report any problems to the Owner's Field Representative.
2. Range and Refrigerator – The existing ranges and refrigerators on site shall be unwrapped and installed (put in place) and made ready for use (i.e. plugged-into outlet, connected to gas supply piping, etc.). Report any problems to the Owner's Field Representative.
3. Must operate properly with all parts and hardware on it.
4. Gaskets should seal properly
5. All lights must be working

M. Exterior and Unit Entry Doors

1. All doors must open and close securely. All doors shall have proper and functioning hardware. Report any problems to the Owner's Field Representative.
2. Inspect all doors for proper door sweeps and weather stripping. Remove/replace and/or provide new door sweeps and weather stripping where required.
3. Remove/replace and/or provide new door stops throughout all units.

N. Closets

1. Inspect all closets and verify the proper installation of shelving and clothes rods. If any are damaged or missing, report the information to the Owner's Field Representative.
2. Make sure all closet poles and shelves are installed.



INVITATION FOR BIDS SCOPE OF WORK

3. Closets shall be cleaned and free of debris.

O. Stoppers/Strainers

1. Provide a stopper or strainer in every sink.

P. Bathroom Fixtures

1. Inspect all bathrooms to ensure that they have in place a soap dish, towel bars and a medicine cabinet. If any of these items are missing, report this information to the Owner's Field Representative.

Q. Bathroom, Laundry, and Kitchen Cabinetry

1. All elements should be inspected when evaluating cabinets, including doors, drawers, hinges, knobs, drawer guides or slides, shelves, and cases or boxes.

R. Caulking / Sealing of the Unit

1. Caulk where needed on counter tops, window frames, door frames, kitchen cabinets etc.
2. In apartments caulk the base of all walls that connect two units.
3. Caulk around breaker box.
4. IPM (Integrated Pest Management) practices must be followed:
5. Seal all openings, cracks, and voids where possible including but not limited to around conduits and pipes
6. Caulk all baseboards.
7. Caulk between kitchen cabinet trim and cabinets if your I.D. badge can slide between the trim and the cabinet.
8. Secure all loose material to prevent harborages (e.g., loose trim boards, loose hinges, uncaulked trim).
9. Clear silicone must be used inside all cabinets/drawers and where cove base/baseboard meets floor.
10. Paintable caulking must be used where cabinets meet wall and where cove base/baseboard meets wall.
11. All caulking color should match surrounding surface.
12. Any voids larger than ¼" cannot be caulked, additional support is needed, examples:
 - i. ¼" round wood trim

- ii. Luan board
- iii. Expandable foam
- iv. Expanded foam must be trimmed or sanded
- v. Various types of wood trim
- vi. Heat tape (range hoods).

S. Painting/Preparation and Finishing

1. Remove all hangers, hooks, nails, tape, contact paper, wallpaper, borders etc.
2. Take out any obvious imperfections in wall or ceilings.
3. Take out imperfections around fixtures of any sort and outlets.
4. DO NOT PAINT electrical fixtures, switches, outlets, cover plates, sprinkler heads, and escutcheon plates.
5. Remove debris and dust from within the heater registers and ductwork.
6. Use caulk where needed on counter tops, window frames, door frames, kitchen cabinet etc.
7. Inspect entire unit before you request approval for painting.

T. Painting

1. All painted surfaces will be repainted to provide a uniform finish and shall be free from runs. Work shall be performed in accordance with all the manufacturer's recommendations. The Contractor will be responsible for correcting at his/her expense any work not accepted by the Authority Staff.
2. Contractor shall scrape off all flaking and/or loose paint from ceiling, walls and trim, interior and exterior doors, and exterior windowsill surfaces. Where chipped paint exists, sanding will be performed by use of various grades of sandpaper to featheredge chipped areas to allow a smooth flow of paint and prevent further chipping.
3. Contractor shall perform surface preparation throughout unit on all walls and surfaces requiring painting for the application of paint; surfaces shall be prepared to be consistent with the existing surface. Contractor will paint the unit in accordance with the terms of this proposal and scope of work.



INVITATION FOR BIDS SCOPE OF WORK

4. All nails, screws, brackets, debris, etc., shall be removed. All holes in the walls, ceilings, doors, trim, etc., as well as cracks, will be properly filled, floated or caulked flush with existing surface. Finish will match all other existing finish work.
5. All doors and window trim must be painted. **DO NOT PAINT BUSTED DOORS.** Busted doors must be replaced, previously described. Doors include but are not limited to interior, exterior, and screen doors.
6. Each unit shall include a painted accent wall in the living room.
7. If range hoods are currently painted, and range hood paint is peeling, flaking or bubbling, paint with heat-retardant paint, or replace range hood. **DO NOT** paint range hoods if not currently painted. Touch up any nicks or scrapes to appliances with appliance paint.
8. **DO NOT** paint electric boxes, breaker boxes, or cover plates unless previously painted.
9. Properly use drop cloths. Improper use could lead to termination of the contract and you will also be held liable for costs to restore floors, stairs, hardwood floors, VCT tile, ceramic tile, etc. Properly clean paint equipment and wall repair materials. Do not clean paint equipment in units. Protect all drains from clogging. Contractor may be held accountable for plumbing costs incurred due to Contractor's actions. **DO NOT** dispose of paint in trash chutes.

3.3 JANITORIAL (All units expect as noted)

A. Bathroom(s)

1. Clean ceramic tile walls and grout.
2. Clean ceramic tile floors and grout where applicable.
3. Clean and disinfect all bathroom fixtures including but not limited to: faucets, sink, toilet, bathtub, grab bars, knobs, medicine cabinet.

B. VCT Floors

1. Stripping Floors:
 - i. Use buffer to strip tile floors.
 - ii. Clean all corners under and/or around heat registers and vents.

- iii. Clean baseboards and cove base.
- 2. Sealing/Waxing:
 - i. Provide two coats of sealer and two coats of wax to the floors.

C. Carpet

- 1. Contractor shall furnish necessary equipment and materials/supplies to perform any carpet cleaning.
- 2. Contractor shall vacuum carpets both prior to and after cleaning carpets.
- 3. Carpet cleaning includes, but is not limited to, cleaning the carpet, spot treatment, moving furniture (if applicable), stain removal and carpet stretching (if required due to the water).

D. Wood floor

- 1. Clean wood floors and apply polyurethane.

E. Light Fixtures and Globes/Shades

- 1. Clean all light fixtures, light globes/shades, etc.

F. Windows/Frames and Doors/Frames

- 1. Clean all windows and frames.
- 2. Clean all doors and frame.

G. Kitchen

- 1. Stove
 - i. Clean the outside of the stove with degreasing soap or all-purpose cleaner.
 - ii. Use the degreaser or all-purpose cleaner on the knobs and handles as well.
 - iii. Use oven cleaner for the inside of oven door, inside of broiler, the pan and the oven interior.
 - iv. Clean drip pans and vent filters
 - v. Clean range hood.
- 2. Walls
 - i. Kitchen walls must be cleaned for excessive smoke or grease damage.
 - ii. The area behind the range must be cleaned as well.
- 3. Refrigerator



INVITATION FOR BIDS SCOPE OF WORK

- i. Contractor shall defrost, clean and dry refrigerator.
 - ii. Clean refrigerator using an all-purpose cleaner or any other cleaner that does not harm coating or gaskets.
 - iii. Clean excess dust from bottom and rear coil of refrigerator.
4. Cabinets/Sinks/Countertops
 - i. Clean all cabinets inside and outside.
 - ii. Clean sink and countertops.
 - iii. Cabinets, drawers and hinges shall be cleaned and free of debris.
5. Miscellaneous
 - i. Clean the outside of water heater.
 - ii. Contractors must ensure that units with basements are cleaned.
 - iii. Pressure wash garages, both interior and exterior.

3.4 PROTECTION AND CAUTIONS

1. Protect all adjacent surfaces or finishes during all work. Restore affected surfaces if damaged during construction.
2. CMHA does not furnish janitorial supplies. However, the contractor is encouraged to contact the CMHA Materials Controls Department or Field Representative to get a list of janitorial products commonly used by CMHA.
3. The contractor is responsible for all trash and debris in the units, and in the front, sides and rear yards.

PART 4 UFAS STANDARDS



APPLY

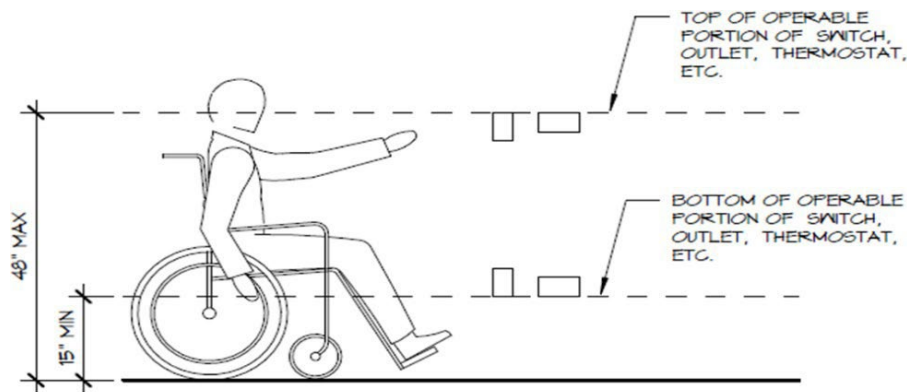


DO NOT APPLY.

4.1 Follow all dimensions and clearances for American National Standard Institute (ANSI) ICC A117.1-2009 code compliance.

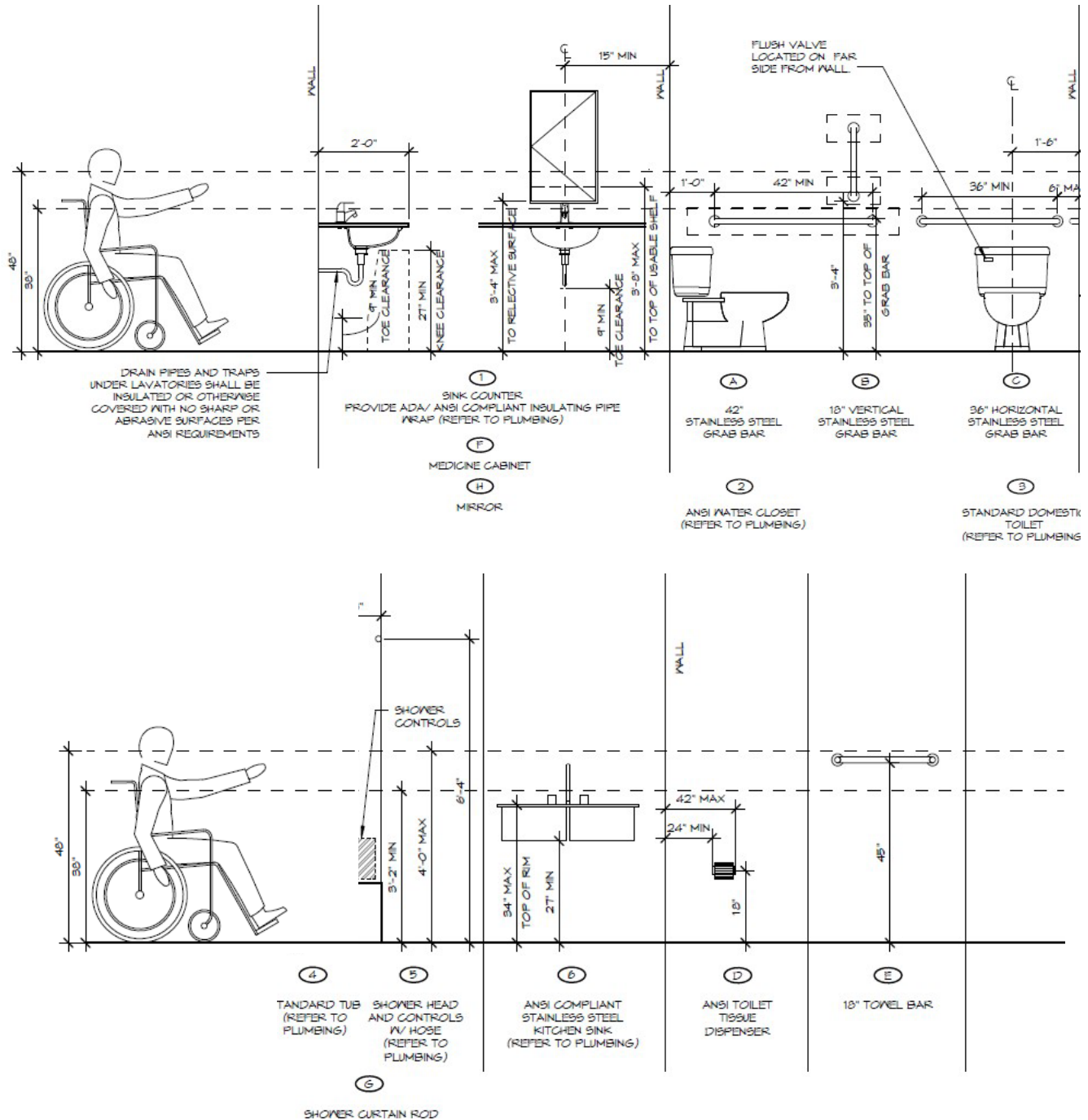
1. **Bathtub & Shower Controls:** Install controls within the space indicated.
2. **Sinks:** Install all bathroom sinks at or below, as approved, the maximum mounting heights and with floor clearances as indicated.
3. **Closets:** Install double hardware for shelving at 42" and 68". Install shelf at 42".

4. **Blocking for grab bar installation:** Install as indicated on detail. Blocking must be able to support 250 lb. of force applied to the grab bar.
5. **Controls outlets, switches, etc.:** Locate all controls, electrical panels, switches, receptacles and other operable equipment as indicted.
6. **Fixtures:** Mounting heights shall be as indicated.
7. **Kitchen Cabinets:** Install upper cabinets so that the lowest shelf is at a maximum of 48" A.F.F. The countertop height and the rim of the sink height shall be at a maximum of 34" A.F.F.
8. **Kitchen cabinet door pulls & handles:** Install Door pulls or handles for the upper cabinets as close as possible from the bottom of the cabinet door. Install Door pulls or handles for the lower cabinets as close as possible from the top of the cabinet door.
9. Mount all equipment's, fixtures, receptacles, outlets, switches, thermostats and controls as shown.
10. Diagrams below are not to scale.



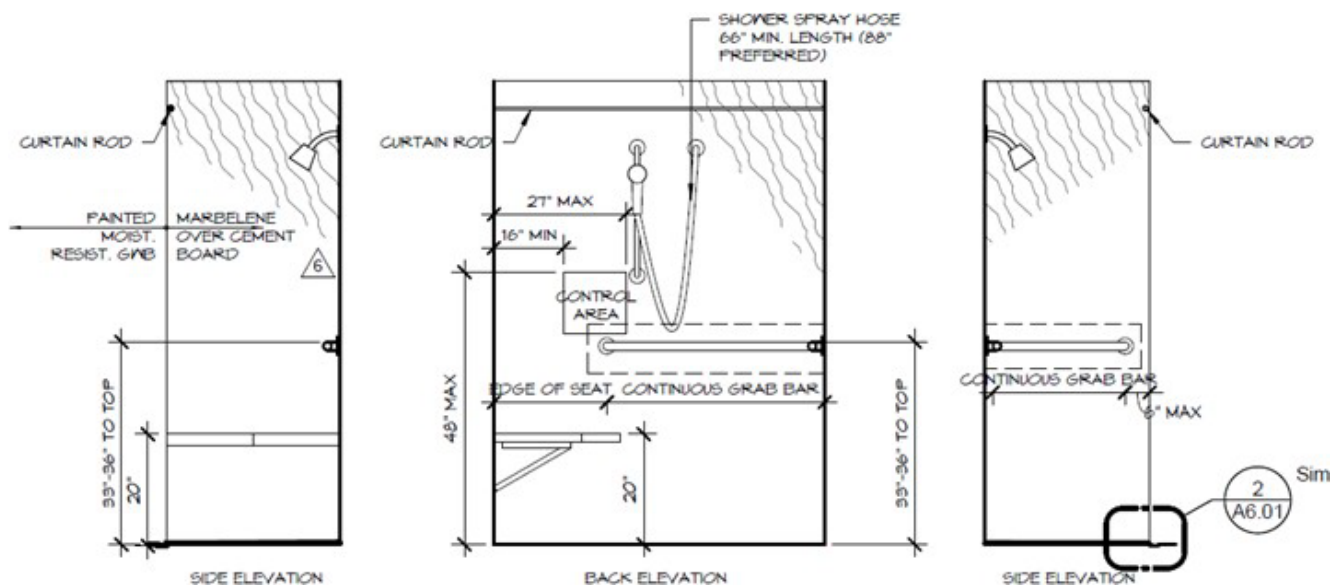
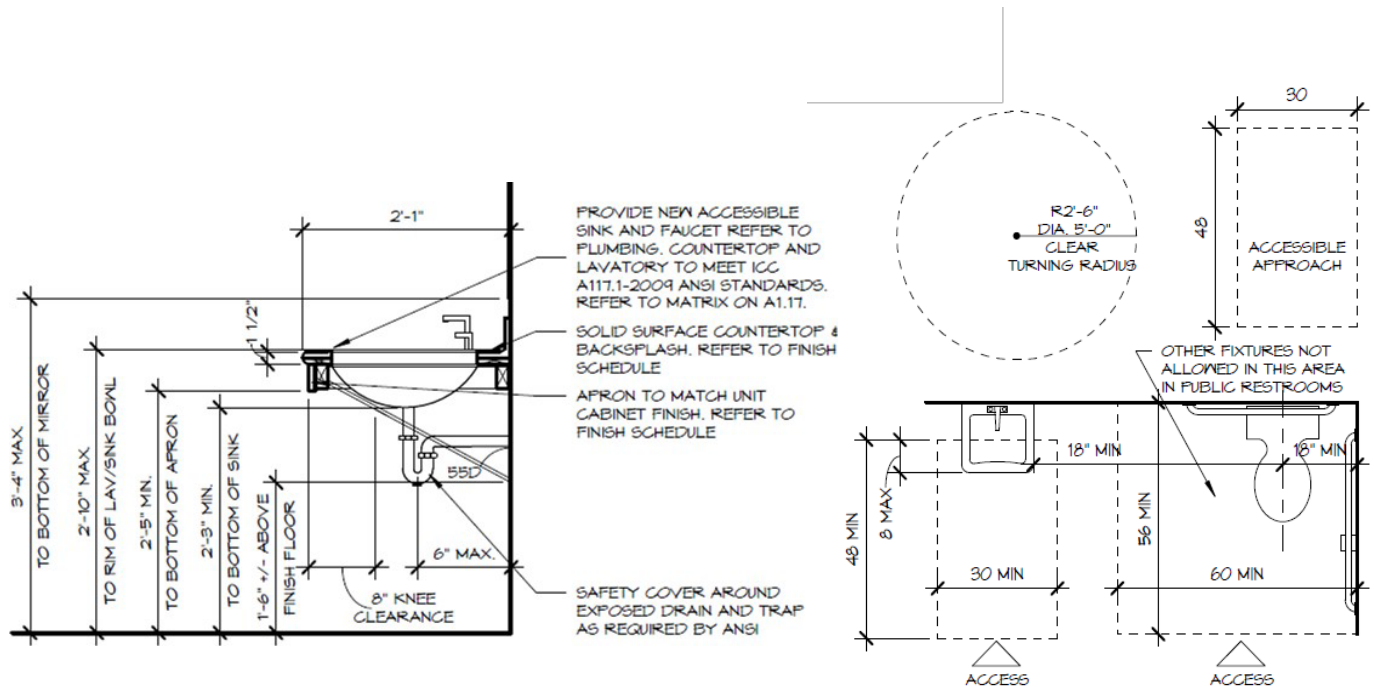
Reach Ranges

INVITATION FOR BIDS SCOPE OF WORK



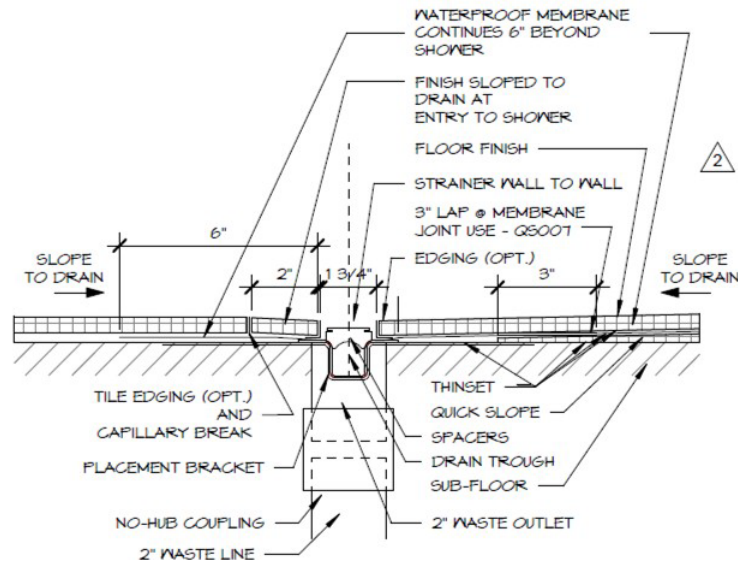
Bathroom Clearances

INVITATION FOR BIDS SCOPE OF WORK

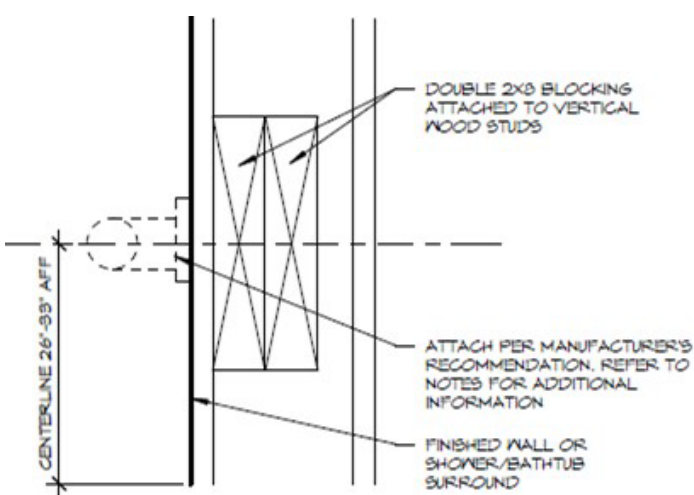


Bathroom Clearances

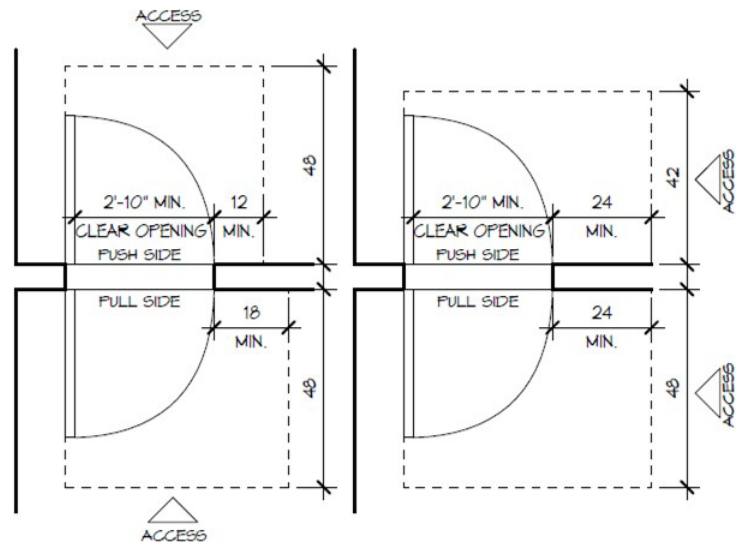
INVITATION FOR BIDS SCOPE OF WORK



Shower Trench Detail

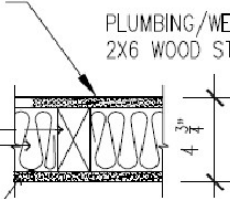


Grab Bar Blocking Detail



Door Clearances

$\frac{5}{8}$ " FIRE-SHIELD GYP. BD. ON
 2x4 WD. STUDS @ 16" O.C.
 W/ 2x4 TOP & BOTTOM
 PLATES
 3 $\frac{1}{2}$ " MINERAL WOOL OR
 GLASS FIBER FOR STC 50
 $\frac{5}{8}$ " FIRE-SHIELD
 GYPSUM WALLBOARD

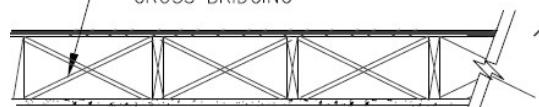


WALL DETAIL 1 @ DEMISING WALLS / UL-U305 GA WP 3605 (1HR) STC35

EXISTING T & G WOOD FINISHED FLOOR
 ON $\frac{3}{4}$ " PLYWOOD SUBFLOOR ON EXISTING
 2x8 WD JOISTS @ 16" O.C. WITH METAL
 CROSS BRIDGING

NOTE: CROSS BRIDGING IS MISSING IN
 SOME LOCATIONS- INSTALL 2"x1 $\frac{1}{2}$ " WOOD
 CROSS BRIDGING AT CENTER SPAN

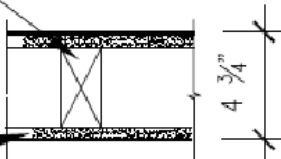
AFTER REMOVAL OF ORIGINAL $\frac{1}{2}$ " GYPSUM BOARD- LAMINATE 2-
 LAYERS OF $\frac{1}{2}$ " TYPE "X" DRYWALL APPLIED AT RIGHT ANGLES WITH 6d
 NAILS, 1 $\frac{7}{8}$ " LONG, .0915" SHANK, $\frac{1}{4}$ " HEADS 6" O.C.



CEILING DETAIL 1

$\frac{5}{8}$ " GYP. BD. ON
 2x4 WD. STUDS @ 16" O.C.
 W/ 2x4 TOP & BOTTOM
 PLATES
 $\frac{5}{8}$ " GYPSUM BOARD.

PLUMBING/WET WALL SHALL BE
 2X6 WOOD STUDS



WALL DETAIL 2 @ INTERIOR WALLS

APPLY GYP. BD. EITHER HORIZONTALLY OR VERTICALLY. INNER LAYER ATTACHED TO STUDS W/ 1
 $\frac{7}{8}$ " NAILS @ 6" O.C.; OUTER LAYER ATTACHED TO STUDS OVER INNER LAYER W/ 2 $\frac{3}{8}$ " LONG NAILS
 @ 8" O.C.. VERTICAL JOINTS LOCATED OVER STUDS. STAGGER ALL JOINTS IN FACE LAYER.
 NAILS 6 D CEMENT COATED NAILS.

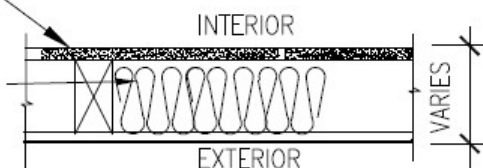
NOTE: AT ALL PLUMBING WALLS- USE MOLD TOUGH FIRECORE TYPE "X"
 GYPSUM BOARD IN THICKNESS AS INDICATED FOR PARTITION

NEW $\frac{5}{8}$ " GYPSUM BD. ON EXISTING
 2X WOOD STUDS

REPORT ANY WATER OR TERMITE
 DAMAGED FRAMING TO THE ARCHITECT

PROVIDE NEW 3 $\frac{1}{2}$ "
 FIBERGLASS BATT INSUL.

REMOVE EXISTING EXT.
 FINISH (SIDING OR STUCCO)
 & SHEATHING-PROVIDE NEW
 $\frac{1}{2}$ " APA RATED EXT. GRADE
 PLYWOOD & FINISH AS
 SHOWN ON ELEVATIONS



EXISTING 2X WOOD FRAMING
 TO REMAIN-UNLESS ON WET
 WALLS-REPLACE ALL
 FRAMING AT WET WALLS

KITCHEN EXTERIOR WALL 2X6 WOOD STUDS WITH EXTERIOR
 FINISH AS INDICATED ON ELEVATIONS -PROVIDE NEW 3 $\frac{1}{2}$ "
 BATT INSULATION AND $\frac{5}{8}$ " GYPSUM BOARD AT INTERIOR.

WALL DETAIL 3 @ PERIMETER WALLS

THIS SHEET LEFT INTENTIONALLY BLANK

"General Decision Number: OH20250010 08/15/2025

Superseded General Decision Number: OH20240010

State: Ohio

Construction Type: Residential

County: Hamilton County in Ohio.

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 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 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	02/07/2025

2	02/14/2025
3	06/06/2025
4	07/18/2025
5	07/25/2025
6	08/15/2025

BROH0018-007 06/01/2024

	Rates	Fringes
BRICKLAYER.....	\$ 35.00	17.13

ELEC0212-004 06/02/2025

	Rates	Fringes
ELECTRICIAN.....	\$ 38.05	22.97

ENGI0018-027 05/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Bulldozer).....	\$ 37.02	15.20

ENGI0066-026 06/01/2023

	Rates	Fringes
POWER EQUIPMENT OPERATOR Crane.....	\$ 36.92	24.01

LAB00265-004 06/01/2024

	Rates	Fringes
LABORER (Mason Tender-Brick).....	\$ 25.90	18.40

PAIN0707-001 05/01/2025

	Rates	Fringes
PAINTER (Brush and Roller).....	\$ 33.95	20.20

* PLAS0109-006 06/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.48	24.81

* SFOH0669-007 06/01/2025

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 48.28	28.08

SHEE0033-016 06/01/2025

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 20.40	16.50

SUOH2012-009 07/20/2012

	Rates	Fringes
CARPENTER.....	\$ 27.29	0.00
LABORER: Common or General.....	\$ 23.40	0.00
OPERATOR: Backhoe/Excavator.....	\$ 25.25	9.38
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 29.49	11.16
PLUMBER.....	\$ 20.00	5.52
ROOFER.....	\$ 19.22	0.00

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

=====

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

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

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

=====

END OF GENERAL DECISION"

Specifications for:

Roof Replacement and Building Enclosure Improvements 1431 Linn Street – City West

Prepared for:



Cincinnati Metropolitan Housing Authority

1627 Western Avenue
Cincinnati, Ohio 45214
513.721.4580

Prepared by:



Solicitation # 2025-3026 – Linn St. Roof and Structural Repair

Bid / Construction Set

September 8, 2025

The documents contained herein are for use solely with respect to this project. Documents shall only be reproduced by the Client or participants in the bidding/construction activities on this project. Documents are not to be provided to any other party or used in whole or part on any other project without written consent from RDA Group Architects, LLC, COPYRIGHT 2025 UNAUTHORIZED REPRODUCTIONS OR USE MAY RESULT IN PENALTIES.

THIS SHEET LEFT INTENTIONALLY BLANK

DOCUMENT 00 01 10 - TABLE OF CONTENTS

Section Title

GENERAL / CONTRACT REQUIREMENTS

00 01 10 Table of Contents

TEHCNICAL SPECIFICATIONS

01 10 00 Summary
01 20 00 Price and Payment Procedures
01 25 00 Substitutions
01 30 00 Administrative Procedures
01 40 00 Quality Requirements
01 45 23 Testing
01 50 00 Temporary Facilities and Controls
01 60 00 Product Requirements
01 73 00 Execution
01 77 00 Closeout Requirements
01 78 00 Operation and Maintenance Data
02 41 16 Selective Demolition
06 10 00 Rough Carpentry
06 10 53 Rough Carpentry for Roofing
07 01 50 Preparation for Reroofing
07 01 51 Silicone Roof Coating System
07 46 00 Fiber Cement Siding
07 62 00 Sheet Metal Flashing, Trim and Specialties
07 62 10 Sheet Metal Flashing and Trim
07 90 00 Joint Protection
08 11 15 Pre-Assembled Metal Doors and Frames
08 71 00 Door Hardware
09 90 00 Painting and Coating

DRAWINGS

G1.1 PROJECT TITLE SHEET
D1.1 EXISTING / DEMOLITION ROOF PLANS AND ELEVATIONS
A1.1 PROPOSED ROOF PLANS
A1.2 ROOF MATRIX / ENLARGED PLAN / SCHEDULE
A2.1 EXTERIOR ELEVATIONS
A3.1 DETAILS
A3.2 DETAILS
A3.3 DETAILS

END OF DOCUMENT

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 10 00 - SUMMARY

PART 1 GENERAL

1.1 DESCRIPTION OF THE PROJECT DOCUMENTS / SCOPE OF WORK

- A. The work covered by these specifications consists of furnishing all labor, materials, and equipment necessary in connection with a Roof Replacement and Building Enclosure Repair Project at 1400 Jone Street at City West for Cincinnati Metropolitan Housing Authority.
 - 1. Work includes items as shown, subject to the terms and conditions of the contract, specifications and the drawings as listed.
- B. Provide all materials and labor for work as noted herein for a complete project.
 - 1. **IMPORTANT:** Field verify all existing conditions, and coordinate all applicable requirements as related to the scope of the work.
 - 2. Drawings indicate general diagrammatic areas/extent of work, but in no way indicate the intricate nature of the work required for the successful completion of the project.
- C. Provide any and all ancillary work related to the above work scope including repair of any Contractor damaged finishes within the work area.
- D. Perform Work of Contract under a stipulated sum contract with Owner in accordance with Conditions of Contract.

1.2 CONTRACT / TEAM IDENTIFICATION

- A. Project Identification: Roof Replacement and Building Enclosure Repair Project
- B. Project Location: 1431 Linn Street
Cincinnati, OH 45214
- C. Owner: Cincinnati Metropolitan Housing Authority [CMHA]
1627 Western Avenue
Cincinnati, OH 45214
513.721.4580 phone
- D. Property Manager: Oberer Management Services
3445 Newmark Drive
Miamisburg, OH 45342
937.278.0851 phone
- E. Architect: RDA Group Architects, LLC
7662 Paragon Road
Dayton, OH 45459
937.610.3440 phone

1.3 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.
- B. The term 'RDA' or 'Architect' as referenced in these contract documents is RDA Group Architects.
- C. The term 'Owner' as referenced in this specification is Cincinnati Metropolitan Housing Authority.

1.4 SCOPE OF WORK

- A. Work of the Project includes the roof replacement and building enclosure improvements to the 1431 Linn Street as outlined.

1. All specific scope items shall be coordinated and reviewed on the drawings and specifications as applicable.

1.5 CONTRACTOR'S USE OF SITE[S] / SITE CONTROL

- A. All units included in this project are currently occupied and will remain occupied throughout the duration of the project. Take all measures necessary to minimize the impact on the residents, provide protective measures at areas of work.
 1. Take all measures necessary to minimize the impact on the adjacent residents / neighbors.
 2. Provide protective measures at areas of work as appropriate for the conditions, in particular at all exterior / site work.
- B. Coordinate work to allow continued Occupancy of all adjacent dwelling units, adjacent parking lots, driveways, access points, etc. throughout the duration of the project. Minimize impact to Owner / Residents.
- C. Coordinate with Owner any activities which have the potential to affect continued operations of the facilities or impact life safety, security, etc.
- D. Work Schedules: Perform all work between the hours of 8 AM and 4 PM Monday through Friday, unless work outside these hours and days is requested and granted.
 1. No work outside these hours is permitted without explicit Owner approval.
 2. Coordinate and schedule all aspects of the work, including how various disciplines work together, are sequenced, etc.
 3. Weekend and overtime work or increasing crew size may be required by the Owner at no additional cost if the Contractor fails to meet projected dates as prescribed in the contract and the progress schedule.
 4. Coordinate schedule / activities so as not to inconvenience the Owner unnecessarily.
 5. Coordinate schedule / activities with holidays, etc. so as not to inconvenience the Owner or Residents unnecessarily over holidays, weekends, etc.
- E. Provide appropriate notification of Owner and Residents prior to starting work and throughout the duration of the project.
- F. Staff project every day with a full crew capable of timely completion of work. Confirm that all materials, accessories, and other components are on-site and ready for installation prior to beginning work for each work day. Advise project team if there are issues with scheduling prior to starting of work.

1.6 CONTRACT PERIOD / TIME OF COMPLETION

- A. Notice to Proceed: anticipated award October 2025.
 1. Owner will issue notice to proceed with the agreed upon dates / contract period.
- B. Date of Commencement: to be confirmed, intent is to mobilize as soon as possible after contract award.
 1. Owner-Contractor Agreement or Notice to Proceed will be issued establishing the agreed upon construction start date.
 2. Final schedule will be coordinated with the Contractor.
- C. Contract Period: **NINETY [90] Calendar Days** from Date of Commencement.
 1. Provide a work start date within [7] calendar days upon issuance of the Owner-Contractor Agreement. A start date and completion date will be negotiated and a notice to proceed will be issued stating those dates.
 2. Consideration of material lead-times and fire alarm permit issuance will be given for establishing the NTP dates as applicable.
 3. Notify the Architect, in writing, upon determination of any delay in material delivery or the issuance of building permits.
 4. Coordinate schedule, phasing, and implementation of the work.

- D. A contract will be issued in **October 2025**, after approval of the project by the Owner.
 - 1. The Contractor will be responsible to execute the project to allow shop drawings and product submittals to be prepared as quickly as possible such that the materials can be ordered with sufficient lead time to permit the work to be executed as scheduled prior to the date of substantial completion.
- E. Notify Owner in writing fourteen [14] days prior to the Contract Completion date if an extension of contract time is necessary with a request for the extension and the reasoning for such request.
- F. Liquidated Damages will be enforced for the failure to complete work in the specified contract period per Owner requirements.

1.7 WORK BY THE OWNER

- A. Owner will separately contract for the following: **None / Not Applicable**
- B. Coordinate any / all aspects of Work by Owner as they interface with Work.

1.8 PERMITS

- A. Architect will apply for applicable building and zoning permits with the Authority Having Jurisdiction.
- B. Pickup and pay for all applicable building and zoning permits once approved.
 - 1. Refer to Project Allowances for applicable permit allowance.
- C. Furnish all required contractor trade permits as well as any other required permits for work in the right of way, etc.

1.9 APPLICABLE REFERENCES AND CODES

- A. References will be found in each section that applies to that section.
- B. Conform to reference standards by date of issue current as of date of Contract Documents.
- C. When specified reference standard conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with the Ohio Building Code requirements as they relate to the work.

1.10 CONTRACTOR / GENERAL REQUIREMENTS

- A. Protect all finishes and equipment scheduled to remain.
- B. Commence and complete work as noted in the contract.
- C. Coordinate equipment delivery and equipment staging with Owner prior to start of project. Anticipate no on-site storage being provided by Owner.
- D. Pre-determine work phases with Owner to minimize disruption to operations.
- E. Furnish labor, materials, equipment, and management required to complete the project.
- F. Furnish all required logistics required to accomplish the work – including lifts, scaffolding, ladders, trash chutes, safety equipment, temporary protection, daily night seals / weather protection, etc.
 - 1. Coordinate and receive Owner approval for all staging and laydown areas, contractor parking, etc. prior to the start of work.
 - 2. Provide protection of all existing pavement, turf, landscaping, etc. from damage during construction. Restore site to original / like new condition upon completion of the work.
- G. Visit the site to become thoroughly familiar with all working conditions, check and verify all dimensions, and site conditions. Any dimensions given or referred to in the specification or drawing are to be used purely as approximate and not as a basis for exact amounts for

- bidding. Promptly advise Architect of any discrepancies, errors with the specifications and drawings before bidding the work.
- H. Provide a valid Certificate of Insurance, follow all Workman's Compensation requirements and regulations.
 - I. Provide all bonds, payment schedule, insurance as noted in the contract documents.
 - J. Pay for all building permits, trade permits, ROW permits, and any other required permits and inspections necessary to complete all work related to these specifications. Comply with Federal, State, and Local Codes.
 - K. Provide dumpsters or trash containers needed for construction purposes. Do not use Owner dumpsters or trash containers at any time for removal of materials, trash, or debris related to the Contractor's work. Remove debris from the site regularly and be placed within appropriate trash receptacles. Keep all work areas neat at all times. Take all considerations for safety. Do not leave trash or debris on the ground / around the project site.
 - 1. Run magnet around work areas daily to pickup stray nails, etc. when appropriate.
 - L. Take special care not to allow dust and debris to fall onto any equipment, material, personnel, or any room below the deck.
 - M. Safety: Take all safety precautions necessary or directed to ensure public safety.
 - 1. Neither Architect nor Owner are safety consultants. Any and all safety provisions shall be managed and coordinated by the Contractor.
 - 2. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.
 - 3. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.
 - 4. Maintain job site in a neat and orderly fashion at all times.
 - N. Conduct all work according to OSHA recognized safe work practices. **COMPLY WITH APPLICABLE OSHA STANDARDS, INCLUDING 1926 – REGULATIONS FOR CONSTRUCTION.**
 - 1. Non-compliance shall be a basis for making a bid non-responsive.
 - 2. If Contractor or sub-contractor is found to be in **VIOLATION (NON-COMPLIANCE) AT ANY TIME**, this could be a basis for termination of the purchase order/contract.
 - O. **IMPORTANT: Failure to show or mention petty details shall not be warranted for the omission of anything necessary for the proper completion of the work.**
 - P. The plans and specifications are intended to depict the general scope, layout and quality of workmanship required. The documents are not an "instruction manual" to execute the work nor are they intended to show or describe in detail every item necessary for the proper installation of the work. The means and methods required to execute the work described is the sole responsibility of the Contractor. The Contractor shall include the ancillary work required, whether explicitly stated or not, for the proper completion of the work as intended. The Contractor is required to meet or exceed building code requirements, applicable industry standards, ASTM standards, and/or manufacturer installation requirements as they relate to the work.
 - Q. The plans and specifications represent a single complete design package indicating the intended scope of the project in its entirety. As such, the project is structured to be awarded to a single Prime Contractor. The documents do not delineate bid packages or assign responsibilities to any subsequent subcontractors, dictate construction sequencing, nor provide coordination between any "trades". Such activities are the responsibility of the holder of the construction contract. In the event of a discrepancy

within the drawings or between the drawings and the specifications, the more stringent requirement represented in the documents shall prevail.

- R. Do not take advantage of any clerical errors, omissions, contradictions, or conflicts that may develop in plans, specifications, or details. Report such errors, ambiguities and discrepancies to the Architect immediately for clarification, revision, or correction prior to the submission of bids. If no notification is given, it shall be assumed that all specifications and conditions will be met.
- S. Submission of a bid shall be considered the Contractor's Certification that the bid is based upon equipment and/or materials that meet or exceed the standards set forth by specification or equipment and/or materials identification. Should a Contractor's product be determined not equal to that specified, the Contractor shall be required to provide and install a product acceptable as equal by the Architect at no additional cost to the Owner.
- T. The submission of a bid shall indicate that the Contractor has visited the project site and is familiar with the conditions as they exist, and the modifications that may be necessary to provide a complete and professional finished project.
- U. There is a strict **NO SMOKING** policy for all work. Any worker found smoking on the jobsite will be subject to removal from the project. No exceptions. Habitual offenders may be subject to a fine in the amount of \$500 per occurrence.
- V. Security: Contractor's Liability for Vandalism
 - 1. Secure and protect the project which is under the control of the Contractor. Include all such expenses for the securement and protection of the project, and for the repair and replacement of the work until that portion of the work is accepted as complete by the Owner. Take all measures necessary to provide such security.
 - 2. Promptly repair or otherwise remedy any and all damages, at Contractor's expense, to said portion of the project and of the accepted construction work caused by vandalism.
 - 3. Indemnify and hold the Owner harmless from and against all damages, liabilities, costs and expenses, including, without limitation, reasonable attorney fees, which may be imposed upon or incurred by the Owner as a result of the Contractor's failure to comply with the requirements of this section.
- W. Insurance: Contractor shall be required to carry and submit evidence of manufacturer's and contractor's public liability insurance with bodily injury or death and property damage limits of not less than \$1,000,000/\$1,000,000/\$1,000,000 to protect against claims for personal injury or death or damage to property of others and 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 \$1,000,000 per occurrence. Also comply with the insurance provisions set forth in HUD form 5370, Section 36.
 - 1. Provide copy of Certificate of Insurance to Owner.
 - 2. Submit evidence of Worker's Compensation Insurance coverage
 - 3. Submit evidence of Builder's Risk Insurance.
- X. Damages: Any and all damages to Owner Property or resident property shall be repaired equivalent to the existing by the Contractor at no cost to Owner. NO EXCEPTIONS.

1.11 CONTRACTOR QUALIFICATIONS

- A. Establish and provide qualifications to Owner for their ability to complete this type of work. Qualifications may be established by:
 - 1. Provide references of similar projects, past performance, financial disclosures, etc. in the interest of selection of the lowest and best bidder for the project.
 - 2. Provide a letter of approval for the installation of the products from the manufacturer.
 - a. Contractor must be properly trained and approved by the manufacturer for the installation of the products.
 - 3. Provide a recommendation from the supplier of the products.

4. Demonstrating to Owner the capability to do the work. Contractor must have a minimum of five years documented experience in similar work.
- B. Contractor is responsible for all work performed by the Sub-contractors.
- C. Owner has the final authority to request a particular sub-contract not be engaged in the project. If this occurs, Owner and Contractor shall determine if there is an impact to the Contract amount, and negotiate, if necessary, to an adjustment in the Contract amount.
 1. No change to the Contract amount will be permitted if there is a change to the sub-contractor due to them utilizing alternate manufacturers or products that were not approved substitution requests.

1.12 JOB SUPERINTENDENT/EMPLOYEES

- A. Each prime contractor and subcontractor shall have a qualified foreman on the project at all times when work is being accomplished.
- B. Refrain from fraternization with building occupants other than specifically designated Owner's representatives.
- C. Furnish the Owner with a list of personnel with phone numbers that will be working on the project and emergency contacts names and numbers that has the authority to handle emergencies on a 24 hour/seven days a week.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Follow all applicable requirements of HUD-5370 General Conditions for Construction Contracts and Owner's Terms and Conditions. If there should be a conflict between the Owner Requirements and those herein, the higher standard shall apply.

PART 3 EXECUTION

3.1 CONTRACT ADMINISTRATION

- A. Architect is providing contract administration services for this project to the Owner. However, it shall be the responsibility of the Contractor and Owner to coordinate the proposed work, schedules, installations, permits, inspections, etc. as Architect is not on-site every day.
- B. Contact Architect for clarification should there be questions regarding the interpretation or intent of the documents, field discovery, etc. that would impact or affect the work as proposed. Architect shall not be liable for deviations, field changes, and Owner changes during construction.
- C. Field confirm all existing conditions, proposed installations and how they interface to ensure the systems can be installed per the intent of the documents and to meet applicable building and zoning codes, local requirements, Owner requirements, provide a watertight detail, meet aesthetic requirements, etc.
- D. Meet all applicable building and zoning codes requirements whether specifically noted herein or not. Building codes represent the minimum acceptable standard.
- E. Install all products, materials, installations, and the like in accordance with applicable industry standards, applicable manufacturer's details and instructions, in accordance with best practices, and building code provisions. The manufacturer details / requirements are the minimum acceptable standard, Architect's drawings may require additional work.

3.2 GENERAL PROJECT REQUIREMENTS

- A. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.
- B. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.
- C. Job sites will be maintained in an orderly and neat fashion at all times.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Change procedures.
- D. Unit prices.
- E. Alternates.
- F. Project Allowances.
- G. Defect assessment.

1.2 PREVAILING WAGE / PAYROLL REPORT REQUIREMENTS

- A. The work of this project is subject to Davis-Bacon Prevailing Wages and applicable reporting requirements. Include in the bid amount all applicable prevailing wages.
- B. Refer to the Prevailing Wage Rates included with the Bid documents. Certified Payroll Reports will be required.
- C. Provide Certified payroll reports indicating compliance to the Owner on a monthly basis.
 - 1. Pay Applications will not be processed without approved payroll reports submitted to the Owner.
- D. Employee interviews to confirm compliance with the prevailing wage requirements may be accomplished at any time by the Owner. Do not obstruct or otherwise prevent employee interviews.

1.3 TAXES

- A. Pay all applicable taxes, including applicable sales and use taxes, and other taxes as required by governing law.
 - 1. Owner is a tax-exempt entity.
 - 2. Owner will provide tax exempt forms upon request.
 - 3. Owner will not compensate or reimburse Contractor for any taxes paid on the project.

1.4 RETAINAGE

- A. Owner will withhold retainage in the amount of ten percent [10%] from the payment otherwise due [for both labor and materials] of each progress Application for Payment up to a total project completion of 50%, after which no further retainage will be withheld providing work is performing satisfactorily. Refer to HUD Form 5370.
- B. Retainage will be released in accordance with the Terms of HUD Form 5370.

1.5 STORED MATERIALS [ON OR OFF SITE]

- A. Owner will pay for materials stored on-site.
- B. Owner will pay for materials stored off-site providing proper documentation of the stored materials is provided, including documentation of location of stored materials, supporting invoices, shipping / bill of lading, photo documentation, and proper insurance [paid for by the Contractor] is in place at the location of stored materials.

1.6 SCHEDULE OF VALUES

- A. Submit schedule of values on HUD Form 51000 or AIA G702 / G703 forms.
- B. Submit Schedule of Values three [3] days prior to the Pre-Construction meeting for approval by Architect and Owner.
- C. Approved Schedule of Values will be signed at the Pre-Construction meeting.
- D. Format:
 - 1. Utilize Table of Contents of this Project Manual [CSI Divisions].
 - 2. Identify each line item with number and title of major specification Section.
 - 3. Identify each applicable CSI division / defined work scope / component.
 - 4. Identify site mobilization, general conditions, bonds and insurance.
 - 5. Identify separate line item for each allowance and alternate [as applicable]
- E. Schedule of values should be broken down by building / address.
- F. Revise schedule to list approved Change Orders, with each Application for Payment.

1.7 APPLICATIONS FOR PAYMENT

- A. Submit each application for payment on HUD Form 51001 or AIA G702/G703 forms.
 - 1. Provide an invoice number on the application for payment, or provide a cover letter invoice on company letterhead with an invoice number.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
 - 1. Complete every entry, notarize and execute by a person authorized to sign document on behalf of the Contractor. Include amounts for work completed following previous Application for Payment whether or not payment has been received, include amounts of Change Orders issued before last day of construction period covered by application.
 - 2. Stored materials included in application must have supporting documentation that verifies amount required, do not include overhead and profit on stored material.
 - 3. Each application for payment following the initial Application for Payment shall be consistent for payment with previous applications.
- C. Payment Period: Monthly.
- D. “Pencil Copy”: Submit one week prior to application for payment for review and approval by Architect and Owner. Submit Electronically to Architect in PDF format unless directed otherwise.
- E. “Application for Payment”: Upon acceptance of the “Pencil Copy”, submit the “Application for Payment. Submit Electronically to Architect in PDF format unless directed otherwise. Architect will review, certify for payment, and submit to Owner.
 - 1. Submit updated construction schedule with each Application for Payment as applicable to the work.
 - 2. Submit all required waivers of lien / partial release of lien [including applicable subcontractors] in accordance with Owner requirements.
 - 3. Submit certified payroll reports for all contractors.
- F. Failure to submit required paperwork, including supporting documents can delay the processing of the Application for Payment.

1.8 CHANGE PROCEDURES

- A. Construction Bulletin: Architect / Owner may issue a Construction Bulletin [Proposal Request] including a detailed description of proposed change with supplementary or revised Drawings and specifications. Prepare and submit estimate within 7 days.

- B. Stipulated Sum/Price Change Order: Based on Proposal Request / Construction Bulletin and Contractor's fixed price quotation.
- C. Unit Price Change Order: For contract unit prices and quantities, the Change Order must be executed prior to beginning any work. The Change Order will be based on fixed unit price basis provided in the Bid Form.
- D. Architect will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on Architect's approved forms.
- E. Architect will issue a Change Order for all changes to Contract Sum and for all changes to the Contract Time upon Owner's approval of a proposal from Contractor.
- F. Change Order Forms: HUD / AIA G701 or other approved forms with all required backup documentation.
 - 1. No "change order" will be prepared for costs expended from project allowances which do not require a change to contract sum or time.
- G. Correlation Of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
 - 2. Promptly revise construction progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.
- H. **Important: All change orders must be fully executed prior to beginning any work. Failure to comply will result in contractor request being denied and completed at no cost to Owner.**

1.9 UNIT PRICES

- A. Document unit price quantities. Architect / Owner will confirm quantities as required. Contractor may not be paid for unit cost work without documentation of the work accomplished.
- B. Unit Price Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.
- C. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect / Owner multiplied by unit price for Work incorporated in or made necessary by the Work.

1.10 UNIT PRICE SCHEDULE

- A. Remove / replace 1/2" OSB roof sheathing [per 4x8 sheet] on a per sheet [EA] basis.
- B. Remove / replace 1/2" OSB wall sheathing [per 4x8 sheet] on a per sheet [EA] basis.
- C. Remove / replace 3/4" T&G subfloor [per 4x8 sheet] on a per sheet [EA] basis.

1.11 ALTERNATES

- A. Alternates listed on Bid Form will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work.

1.12 SCHEDULE OF ALTERNATES

- A. Alternate Deduct #1: Provide a silicone coating system in lieu of removal and replacement of the EPDM roof system at Roof Areas C-1 and C-2.

1.13 PROJECT ALLOWANCES

- A. Contingency Allowance:
 - 1. Provide in bid a draw down allowance in the amount of **\$25,000 [twenty five thousand dollars]** for use as a project contingency allowance.
- B. Building Permit Allowance:
 - 1. Provide in bid a draw down allowance in the amount of **\$5,000 [five thousand dollars]** for securing applicable building permits.
- C. Material Replacement Allowances:
 - 1. Provide in bid removal and replacement of [70] seventy 4'x8' sheets of 1/2" OSB roof sheathing to address existing deteriorated / rotted / soft sheathing. Include allowance for supplemental 2x blocking as required to support panel edges as applicable. Unit prices will be utilized to adjust the allowance to the actual work accomplished [add / deduct as appropriate]
 - 2. Provide in bid removal and replacement of [40] forty 4'x8' sheets of 1/2" OSB wall sheathing to address existing deteriorated / rotted / soft sheathing. Include allowance for supplemental 2x blocking as required to support panel edges as applicable. Unit prices will be utilized to adjust the allowance to the actual work accomplished [add / deduct as appropriate]
 - 3. Provide in bid removal and replacement of [14] fourteen 4'x8' sheets of 3/4" T&G OSB subfloor to address existing deteriorated / rotted / soft sheathing. Include allowance for supplemental 2x blocking as required to support panel edges as applicable. Unit prices will be utilized to adjust the allowance to the actual work accomplished [add / deduct as appropriate]
- D. Contractor's costs for Products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit are included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- E. Do not expend or proceed with work outside of the scope of the project which utilizes the contingency allowance without authorization and approval of Architect and Owner.
- F. Identify and track actual expenditures as they occur over the duration of the project not afterward. Any work commenced without Owner approval is at Contractor's risk. Maintain a running tally of the remaining balance of each allowance.
- G. Credit back to the Owner any unused funds at the end of the project via a Change Order.

1.14 FINAL APPLICATION FOR PAYMENT

- A. Refer to provisions in Section 01 77 00 for Application for Payment at Substantial Completion.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.

- B. If, in the opinion of the Architect / Owner, it is not practical to remove and replace the Work, the Architect / Owner will direct appropriate remedy.
- C. Authority of Architect / Owner to assess defects and identify payment adjustments is final.
- D. Non-Payment For Rejected Products: Payment will not be made for rejected products.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 25 00 – SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Includes administration and procedural requirement for Substitutions.
 - 1. Substitutions' for Cause: Changes due to project conditions, such as unavailable of product.
 - 2. Substitutions' for Convenience: Changes that may offer advantages to the Owner.

1.2 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: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions / Approved Equal: Submit request for substitution as outlined in this section for manufacturers not named.
 - 1. Architect / Owner is the decision maker if the proposed "approved equal" is in fact equal and approved. Any decision rendered is final.
 - 2. Any Contractor, Sub-contractor, or Supplier who makes their own judgement as to "approved equal" and includes within their bid without a formal approval is doing so at their own risk.

1.3 SUBSTITUTIONS PROCEDURES

- A. The materials, products, and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. The burden of proof of the merit of the proposed substitution is upon the Bidder. Absolutely no substitutions shall be considered after the Contract award unless specifically noted in the Contract Documents. All substitution requests must come from a bidding Contractor [not materials suppliers, etc].
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that the 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 Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- D. Substitution Procedure
 - 1. **Submit copy of request for Substitution for consideration to Architect no later than seven [7] days before bid opening date.**
 - 2. Submit shop drawings, product data, and applicable certified test results attesting to proposed product equivalence. Burden on proof is on proposer.
 - 3. Architect will notify Contractor in writing of decision to accept or reject request within five [5] days of receipt of request or request additional information or documentation for evaluation.
 - 4. Limit each request to one proposed Substitution.
 - 5. Requests shall include the name of the material or equipment for which it is to be substituted and a completed description of the proposed substitution.
 - 6. Architect/Owner will notify Contractor in writing of decision to accept or reject request.
 - 7. Substitution requests shall only be submitted by registered bidders for the project.

- E. Substitutions will not be considered when they are indicated or implied on Submittals, without written request or when acceptance will require revision to the Contract Documents.
- F. If the Substitution requires modifications to the Contract / Bidding Documents, the cost for updating the documents shall be paid by the Contractor making the request.
- G. Substitutions will not be considered after award of the project without justification.
- H. Approved substitutions will be identified by Addenda.
 - 1. Bidders shall not rely upon approvals made in any other manner.
- I. In submission of substitutions to Products specified, Bidders shall include in their Bid, changes required in the Work and Contract Price to accommodate such approved substitutions. Later claims by the Bidder for an addition to the Contract Time or Contract Price because of changes in Work necessitated by use of substitutions will not be considered.

END OF SECTION

SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Construction Progress Schedules
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Pre-installation meetings.
- F. Daily Job Logs.
- G. Cutting and patching.
- H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Project Manual / Specifications and Drawings to ensure efficient and orderly sequence of installation of interdependent construction elements.
- 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.
 - 1. Coordination Drawings: Prepare as required to coordinate all portions of Work.
 - 2. Coordination Meetings: In addition to other meetings specified, hold coordination meetings with personnel and subcontractors to ensure coordination of Work.
- D. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements. Coordinate rough in locations for accessibility, clearances, maneuvering, etc.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD VERIFICATION

- A. Prior to ordering materials, verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work. Verification that new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

1.4 CONSTRUCTION PROGRESS SCHEDULES

- A. Illustrate order and interdependence of activities and sequence of work; how start of given activity depends on completion of preceding activities, and how completion of activity may restrain start of subsequent activities. Illustrate complete sequence of construction by activity.

Arrange schedule on a weekly basis identifying the first work day of each week. [Critical Path Schedule]

1. Work Sequences, order of operations, constraints, and milestones for the project, including all applicable Subcontract Work.
 2. Material / equipment lead times.
 3. Punchlist Activities
 4. Substantial Completion and Contract Completion Dates.
 5. Move-in and other preliminary activities.
 6. Equipment and equipment system test and startup activities.
 7. Project closeout and cleanup.
- B. Submit initial progress schedule within seven [7] days after date of Owner-Contractor Agreement for Architect / Owner review.
1. Include written certification that major subcontractors have reviewed and accepted proposed schedule.
- C. Submit revised and updated schedules with each Application for Payment and as appropriate throughout the duration of the project.
1. Indicate estimated percentage of completion for each item of Work at each submittal.
- D. Review and Evaluation
1. Participate in joint review and evaluation of schedules with Architect / Owner at each submittal.
 2. Evaluate Project status to determine Work behind schedule and Work ahead of schedule.
 3. Indicate changes required to maintain Date of Substantial Completion.
 4. After review, revise schedules incorporating results of review, and resubmit within three [3] days.
- E. Distribute copies of updated schedules to Subcontractors, suppliers, Architect, Owner, and other concerned parties.

1.5 PRECONSTRUCTION MEETING

- A. Architect / Owner will schedule preconstruction meeting after Notice of Award for affected parties.
- B. Attendance: Architect, Owner, Contractor Project Manager, Foreman / Superintendent
- C. Agenda:
1. Execution of Owner-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.
 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 7. Scheduling.
 8. Use of premises by Owner and Contractor.
 9. Owner requirements for procedures and inspections
 10. Construction facilities and controls provided by Owner.
 11. Security and housekeeping procedures.
 12. Application for payment procedures.
 13. Procedures for maintaining record documents.
 14. Requirements for start-up of equipment.
 15. Inspection and acceptance of equipment put into service during construction period.

- D. Architect will record minutes and distribute copies via email after meeting to participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

- A. Architect will be providing periodic observation of the work. Architect will issue field reports at each site visit. Architects will be observing the work for compliance with the specifications and will not be responsible for the ways, means and methods of constructing the project or managing the day to day operations.
- B. Schedule and administer meetings throughout progress of the Work at bi-weekly intervals.
 - 1. Provide suitable accommodations for holding meetings on-site with a layout table, chairs, etc.
- C. Architect will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- D. Attendance Required: Job superintendent, major subcontractors and suppliers, Architect, Owner, as appropriate to agenda topics for each meeting.
- E. 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.
- F. Architect will record minutes and distribute copies via email after meeting to participants and those affected by decisions made.

1.7 PRE-INSTALLATION MEETINGS

- A. Determine any and all necessary pre-installation meetings and schedule the same.
- B. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.
- C. Require attendance of parties directly affecting, or affected by, Work of specific section.
- D. Notify Architect / Owner one week in advance of meeting date.
- E. Prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- F. Record minutes and distribute to participants after meeting, and those affected by decisions made.

1.8 DAILY JOB LOGS

- A. Maintain a daily job log that indicates the personnel on-site and activities performed (including all sub-contractors)

- B. Indicate any safety concerns and incidents.
- C. Indicate weather conditions.
- D. Indicate any visitors or other personnel visiting the project site.
- E. Job log shall be accessible to Architect / Owner upon request.
- F. Coordinate activities / work progress with Architect / Owner.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching; restore Work with new Products.
- 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 Owner 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 adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- H. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- J. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated materials, to full thickness of penetrated element. Follow applicable UL assemblies.
- K. Refinish surfaces to match adjacent finishes.
 - 1. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
 - 2. For painted surfaces, paint entire wall from corner to corner, floor to ceiling.
- L. Identify hazardous substances or conditions exposed during the Work to Architect for decision or remedy.

3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new 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. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.
- H. Refinish existing visible surfaces to remain in renovated rooms and spaces, to renewed condition for each material, with neat transition to adjacent finishes.
- I. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- J. 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 for review.
- K. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- L. Finish surfaces as specified in individual product sections.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Proposed products list.
- C. Product data.
- D. Shop drawings.
- E. Samples.
- F. Safety Data Sheets
- G. Manufacturer's Instructions
- H. Manufacturer's Certificates
- I. Construction Photographs

1.2 SUBMITTAL PROCEDURES

- A. Submit product data and shop drawings for all applicable components of the project. Refer to individual sections for additional requirements.
 - 1. Provide a submittal log at the beginning of the project for review by Architect / Owner. Identify proposed submittals by Spec Section.
 - 2. Architect / Owner review of the submittals will be general in nature and does not relieve the Contractor in any way of the responsibility in compliance with the contract requirements, manufacturer requirements, and/or applicable codes.
- B. Accomplish all submittals in a digital [PDF format].
 - 1. Any hard copies received will be scanned and returned electronically.
 - 2. Provide those submittals required to maintain orderly progress of the work and those required for early lead time for manufacturer fabrication.
 - 3. Do not simply download information directly from a manufacturer's website without a review of the information and **identifying the particular products being utilized**.
 - 4. Mark each component to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project. Non-identified submittals will be rejected.
- C. Provide a Submittal form / cover sheet to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
 - 1. Allow space on submittal form / cover sheet for Contractor and Architect review stamps.
 - 2. Sequentially number transmittal forms.
 - 3. Mark revised submittals with original number and sequential alphabetic suffix.
 - 4. Sign off on submittals indicating Contractor review of the data provided.
- D. Apply Contractor's stamp, signed or initialed, certifying that review, 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. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.
- F. Revise and resubmit submittals as required; identify changes made since previous submittal.
- G. Schedule / complete all submittals at the beginning of the project / with adequate time to allow the proper ordering of materials for the project.

1. Failure by the Contractor to provide submittals in a timely fashion does not change the project start date nor contract period.
2. Failure by the Contractor to order materials timely is not a reason for selection of an alternate material.
- H. Any materials on the job site that have not been reviewed as part of the submittal process are subject to rejection / removal from the job-site. Any work undertaken without review of the submittal data is at the Contractor's risk and subject to rejection or replacement at no cost to the Owner if submittals are not in conformance with the project documents.
- I. For each submittal for review, allow seven [7] days excluding delivery time to and from Contractor.
- J. Architect will return the annotated submittal file via email as PDF electronic files.
- K. Submittals will be marked as follows:
 1. NO EXCEPTIONS TAKEN: Distribute copies to subcontractors and related trades.
 2. NOTE MARKINGS: Final Release; Proceed with fabrication, taking into account the necessary corrections on submittal and with Contract Documents.
 3. NOTE MARKINGS/RESUBMIT: Proceed with fabrication, taking into account the necessary corrections. Resubmit corrected shop drawings before fabrication of this work is complete to obtain a different action marking. Do not allow drawings marked "Resubmit" to be used in connection with installation of the Work.
 4. REJECTED: Resubmit shop drawings in their entirety. No fabrication or installation shall be started until shop drawings so marked have been completely revised, resubmitted, and marked by Architect according to preceding Paragraphs.
- L. Distribute copies of reviewed submittals as appropriate [electronically as appropriate]. Instruct parties to promptly report inability to comply with requirements.

1.3 PROPOSED PRODUCTS LIST

- A. Within fourteen [14] 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.

1.4 SUBMITTALS / PRODUCT DATA / SHOP DRAWINGS

- A. Product Data/Shop Drawings:
 1. Submitted to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 2. All shop drawings shall be to scale, submit drawings on sheets no larger than 24-inch x 36 inch, all other product data can be on 8 ½ X 11-inch sheets.
- B. Samples for Review:
 1. Submitted to Architect for review and selection for aesthetic, color, or finish.
 2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Owners selection.
 3. Submit samples to illustrate functional and aesthetic characteristics of Product.
- C. Personnel/Other Contractors
 1. Submit a list of all subcontractors and on-site personnel with the list of lead contact and associated phone numbers.
 2. Submit emergency contact sheet with contacts for an emergency – 24/7 call list.
- D. Contract Items:

1. Submit Certificate of Insurance, Worker's Comp Certificates as required by Owner.
 2. Submit bonds if applicable to the contract.
 3. Submit a written Construction Schedule / Implementation and Sequencing Plan outlining starting points and length of time to complete work in each section.
- E. Site Specific Safety Plan
1. Provide to Owner for their Review.
- F. Site Logistics Plan
1. Provide to Owner for their Review.

1.5 SAMPLES

- A. Physical Samples: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
1. Physical samples are required to allow Architect to make selections for color and finish. Electronic images of colors/finishes, etc. are not sufficient.
- B. Samples For Selection as Specified in Product Sections:
1. Submit to Architect for aesthetic, color, or finish selection.
 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect 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 2 copies of each sample, Architect will retain 1 copy.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.

1.6 SAFETY DATA SHEETS

- A. Submit Safety Data Sheets [SDS] on all products directly to the Owner – DO NOT submit to Architect.
1. Safety Data Sheets [SDS] shall not be submitted to the Architect for review.
 2. Any SDS submitted to Architect will be returned with no action taken. Architect does not review / approve any SDS sheets. Any submittals provided to Architect with SDS will be rejected, or have the SDS removed / crossed out from the submittal.
- B. Safety Data Sheets relate directly to construction safety, which is the sole responsibility of the Contractor.
- C. In compliance with the OSHA Hazard Communication Standard (1910.1200, 08-24-1987), Post at the site SDS [Safety Data Sheets] for ALL products classified as hazardous that their firm has knowledge that they will be furnishing, using, or storing on the jobsite during the duration of this Project in accordance with OSHA standards.

1.7 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, [start-up,] adjusting, and finishing, in quantities specified for Product Data.
- B. Indicate special procedures, conditions requiring special attention, and special environmental criteria required for application or installation.

1.8 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to Owner, 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 Products, but must be acceptable to Architect / Owner.

1.9 CONSTRUCTION PHOTOGRAPHS

- A. Provide digital photographs of construction throughout progress of Work as taken by project superintendent as applicable to document the existing conditions, work in progress, completed work, project wrap up, etc. It is in the best interest of the contractor to document the conditions as this is an occupied unit project.
- B. Deliver photographs to Architect / Owner upon request. Catalog and index in chronological sequence with date indexed.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 ELECTRONIC CAD FILES OF PROJECT DRAWINGS

- A. Electronic CAD Files of Project Drawings: May only be used to expedite production of Submittal / Shop Drawings for the Project. Use for other Projects or purposes is not allowed.
- B. Electronic CAD Files of Project Drawings: Distributed only under the following conditions:
 - 1. Use of files is solely at receiver's risk. Architect does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions, and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy, or conflict between information on electronic media and that in Contract Documents, notify Architect of discrepancy and use information in hard-copy Drawings and Specifications.
 - 2. CAD files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
 - 3. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
 - 4. Receiver shall not hold Architect responsible for data or file clean-up required to make files usable, nor for error or malfunction in translation, interpretation, or use of this electronic information.
 - 5. Receiver shall understand that even though Architect has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
 - 6. Receiver shall not hold Architect responsible for such viruses or their consequences, and shall hold Architect harmless against costs, losses, or damage caused by presence of computer virus in files or media.
 - 7. Architect reserves the right to assess a fee for the release of the electronic CAD files. Coordinate with Architect as appropriate.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Construction Procedures
- C. Tolerances
- D. References.
- E. Labeling
- F. Mock-up requirements.
- G. Examination & Inspection.
- H. Testing and Inspection Services [Special Inspections]

1.2 QUALITY CONTROL

- 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 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 CONSTRUCTION PROCEDURES

- A. Architect / Owner intends to routinely monitor the Contractor's work and progress. Quality control is an important element which is the responsibility of the Contractor. Provide full cooperation with all inspection steps through the construction process and include such coordination in the base bid of the project.
- B. Provide accessibility to the work, including but not limited to ladders, scaffolding, hoisting, etc in order to make all areas of the work available to Architect / Owner. Provide staffing to support these operations.
- C. Inspect the Work prior to requesting a punchlist inspection. Address / correct any deficiencies and provide written confirmation of such with the request to schedule the punchlist inspection by the Architect / Owner. Refer to Section 01 77 00.
- D. Owner will coordinate and schedule an anniversary inspection for the one year interval following acceptance of the project.

1.4 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 before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 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 of Contract Documents, 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 before proceeding.
- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.6 LABELING

- A. Attach label from agency approved by Authority having Jurisdiction for products, assemblies, and systems required to be labeled by Applicable Code.
- B. Label information: include manufacturer's or fabricator's identification, approved agency information, and the following information, as applicable, on each label.
 - 1. Model number
 - 2. Serial number
 - 3. Performance characteristics
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.7 MOCK-UP REQUIREMENTS

- A. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes as directed by Architect / Owner.
- B. Accepted mock-ups shall be comparison standard for remaining Work follow requirements of individual sections.
- C. Where mock-up has been accepted by Architect / Owner and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

1.8 TESTING AND INSPECTION SERVICES [SPECIAL INSPECTIONS]

- A. Owner will employ and pay for specified services of on an independent firm to accomplish Third Party Special Inspections as outlined on the Drawings.
- B. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify independent firm **24** hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.

- C. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- D. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Architect. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum.
- E. Agency Reports: After each test, promptly submit an electronic copy of report to Architect, Contractor, and Owner. When requested by Architect, provide interpretation of test results.
- F. Limits on Testing Authority:
 - 1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency or laboratory may not approve or accept any portion of the Work.
 - 3. Agency or laboratory may not assume duties of Contractor.
 - 4. Agency or laboratory has no authority to stop the Work.

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.
- E. Contact Utility Protection Services [Call 811] a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
 - 1. Contact private utility locating services as required by the conditions. Locate all public and private utilities that may be impacted by the work.

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

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 45 23 - TESTING

PART 1 - GENERAL

1.1 PULL / UPLIFT RESISTANCE TESTING:

- A. Obtain independent third party firm to accomplish field pull testing [uplift resistance] of the existing OSB roof sheathing. Provide documentation to Owner and Architect for review.
- B. Results of the pull tests may result in changes to the fastening rates in accordance with the manufacturer's requirements.

1.2 MOISTURE SURVEY

- A. No moisture survey was conducted for this project.
- B. As part of Alternate Deduct #1: include a third party infrared moisture survey to document existing roof system conditions at Roof Areas C-1 and C-2. As part of the bid, include an allowance of 20% of removal and replacement of existing insulation. Roof deck replacement will be accomplished as necessary based upon the field conditions and the applicable material allowances.

1.3 ROOF MOUNTED EQUIPMENT

- A. Anchor all existing roof-mounted equipment or provide new support stands to resist, uplift, sliding and overturning in accordance with building code requirements [includes equipment supports to the deck and equipment attachment to supports].

1.4 DRAINAGE TESTING

- A. Prior to start of work, test each roof drain / scupper / downspout or other drainage component for proper water flow. Notify Architect / Owner of any clogged, leaking drainage and roof drains that cannot have the roof membrane secured to the existing clamping ring [broken, bolts, etc] or the drain bowl is cracked or bowl pipe connection is leaking/not watertight or piping below drain is leaking, blocked or otherwise not functioning [refer to the drawings]. The contractor shall identify any corrective actions and location of deficiencies. Commencement of work without notification shall constitute acceptance of drainage devices and any costs to unclog or repair these items shall be borne by the Contractor.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities
- B. Construction Facilities
- C. Temporary Controls
- D. Removal of utilities, facilities, and controls

1.2 TEMPORARY ELECTRICITY

- A. Utilize existing utilities at the building as required to facilitate work. Owner will pay for the cost of electricity. Maintain existing utilities operational throughout the duration of the project. If systems need to be out of service, schedule this work for off-hours, coordinate with Owner. DO NOT use Resident utilities.
- B. Supplement with portable generators as necessary to perform work. Pay for use of generators and energy consumed.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide temporary lighting for construction operations as required by conditions and where existing lighting has been removed to facilitate work.

1.4 TEMPORARY HEATING / COOLING / VENTILATION

- A. Provide temporary heating / cooling to facilitate the project. Owner will pay for the cost to maintain temporary heating / cooling. Existing systems may remain in place until new systems are installed to the extent feasible.
- B. Provide winter time heating / additional protection as required to facilitate work.
- C. Shut down HVAC systems during dusty activities. Provide and maintain filtration media at all HVAC systems.
- D. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- E. Provide temporary fan units as required to maintain clean air for construction operations.

1.5 TEMPORARY WATER SERVICE

- A. Connect to existing water source for construction operations. Owner will pay for cost of water used.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.6 TEMPORARY PROTECTION OF FIRE SPRINKLER / FIRE ALARM SYSTEMS

- A. Coordinate with fire sprinkler system and fire alarm system / monitoring company to maintain systems operational. This includes temporary protection and coordination of monitoring company to put system in test mode as applicable to the work.
 - 1. Provide and maintain a proper fire watch within the building at any time when systems are in test mode.

1.7 TEMPORARY SANITARY FACILITIES

- A. Provide temporary sanitary facilities for use during construction. Maintain daily in clean and sanitary condition.
 - 1. Do not use building toilet facilities for temporary facilities unless specifically authorized.
 - 2. Do not use new plumbing fixtures for temporary facilities.
 - 3. Do not use other Owner facilities without explicit approval.
 - 4. Protect temporary facilities from vandalism.
- B. Provide potable drinking water for workers.

1.8 TEMPORARY BARRICADES

- A. Erect temporary barricades as applicable to the work to maintain security, dust control, protect residents, etc.
- B. Provide additional barricades, barriers, or protection necessary to protect work areas at traffic lanes, parking lots, etc.
- C. Provide all applicable signage to limit non-construction personnel from entering the construction area.
- D. Provide temporary emergency egress and exit signage as required by conditions and where existing has been temporarily removed to facilitate work.

1.9 STAGING AREA / MATERIAL STORAGE

- A. Coordinate with Owner on acceptable location of project staging and material storage area.
- B. Do not anticipate any space for storage of materials in the building / work areas or adjacent building areas.
- C. Provide secured, portable storage containers for temporary / construction storage as required by the Contractor.
 - 1. Do not anticipate any space for storage of materials in the building / work areas or adjacent building areas.
 - 2. Coordinate location of storage containers with Owner.
 - 3. Protect / restore site as applicable to the conditions to original conditions.
- D. Owner will make reasonable effort to provide suitable space on the site for the Contractor to set up operations. Moving from this space may be necessary when instructed by the Owner and shall be accomplished without charge to the Owner. Cooperate with Owner to minimize conflict from Owner's operations.

1.10 FIELD OFFICE

- A. Provide securable on-site space for storage as required by the Contractor. Coordinate with Owner for approved location of such storage space.
- B. Provide field office for construction operations as deemed necessary by Contractor. Pay for field offices and related expenses.

1.11 VEHICULAR ACCESS

- A. Utilize existing street parking / driveways / parking areas for construction activities. Do not block or prohibit vehicular access to adjacent buildings / parking areas. Do not allow driving/parking in turf areas.
- B. Provide unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.

1.12 CONSTRUCTION ACCESS DRIVE

- A. Not Applicable.

1.13 PARKING

- A. Park Contractor vehicles in areas designated by the Owner.
- B. Use of designated existing on-site driveways, parking areas, and / or street parking used for construction traffic is permitted. Tracked vehicles not allowed on paved areas.
 - 1. Do not block access to existing parking lots, driveways, etc. with construction equipment, material laydown, or storage areas.
 - 2. Do not block resident vehicles or those of adjacent buildings with a shared driveway.
- 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 and permanent facilities damaged by use, to original or specified condition.

1.14 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition to the satisfaction of the Owner. Clean up shall occur on a DAILY basis.
 - 1. Failure to provide routine and daily cleanup may result in a back charge from the Owner to accomplish this work.
- 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 daily and dispose off-site. Sort and recycle as applicable.
- E. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work. Keep all work areas and project sites neat and free of trash and clutter at all times. Project site consists of occupied apartment units. Do not leave trash around the project site. Take all considerations necessary for safety.

1.15 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections. Restore any damaged work to new condition.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Protect finished pavement, concrete, stairs, finish flooring, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces, finished surfaces, etc as is applicable to the work. When traffic or activity is necessary, obtain recommendations for

protection from the material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.

- E. Prohibit traffic from landscaped areas.

1.16 FIRE PREVENTION FACILITIES

- A. Prohibit smoking within building or on site under construction. **NO SMOKING IS PERMITTED ON HUD PROPERTY [INTERIOR OR EXTERIOR]. NO EXCEPTIONS.**
 - 1. Contractor / Crew found to be smoking will be subject to a \$500 fine per occurrence. Any habitual offenders will be dismissed from the project.
- B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- C. Portable Fire Extinguishers: NFPA 10; 10 pound capacity, 4A-60B: C UL rating.
 - 1. Provide one fire extinguisher at each building under construction.
 - 2. Provide minimum one fire extinguisher in storage shed.
 - 3. Supplement as necessary per the local fire department requirements for construction operations.

1.17 BARRIERS

- A. Provide barriers [construction fencing] to prevent unauthorized entry to construction areas.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- C. Protect Work existing premises from theft, vandalism, and unauthorized entry.

1.18 SECURITY

- A. Security Program:
 - 1. Protect Work and existing premises from theft, vandalism, and unauthorized entry.
 - 2. Maintain program throughout construction period until Owner occupancy
- B. Entry Control:
 - 1. Restrict entrance of persons into Project site.
 - 2. Allow entrance only to authorized persons with proper identification.
 - 3. Maintain log of workers and visitors, make available to Owner on request.

1.19 DAILY JOB LOGS

- A. Maintain a daily job log that indicates the personnel on-site and activities performed (including all sub-contractors)
- B. Indicate any safety concerns and incidents.
- C. Indicate weather conditions.
- D. Indicate any visitors or other personnel visiting the project site.
- E. Job log shall be accessible to Owner and Architect upon request.

1.20 DUST CONTROL

- A. Execute work by methods to minimize raising dust from Construction operations.
- B. Provide positive means to prevent air-borne dust from dispensing into atmosphere and to other areas of the project as applicable.
- C. Provide temporary visqueen dust control measures to minimize the spread of dust and debris. Provide drop cloths, protective coverings as necessary.

- D. Provide protection of existing HVAC / distribution systems.

1.21 POLLUTION AND ENVIRONMENTAL 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. Provide dust control, erosion and sediment control, etc. to allow for proper execution of the Work.
- C. Provide protective coverings, etc. as necessary to protect work.

1.22 EROSION AND SEDIMENT CONTROL

- A. Not Applicable.

1.23 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove existing utilities, connections, finishes, etc. as applicable to the work. Remove back to the nearest termination, junction box, etc. as applicable to the work. Coordinate with requirements on the drawings.
- B. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. 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

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Product requirements.
- B. Product options and substitution procedures.
- C. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
 - 1. All products used on this project shall be new, unless otherwise noted on the drawings or as specified herein as salvaged or reused.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Provide interchangeable components of same manufacturer for components being replaced.
- D. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- E. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- F. Furnish interchangeable components from same manufacturer for components being replaced.
- G. **Order Products in the first 30 days of the contract. Provide documentation of orders upon request.**
- H. **It shall be solely the Contractor's responsibility to order products to allow timely delivery for installation. The failure to order materials early in the project shall not be a reason for a contract time extension or additional costs related to expedited shipping and/or delivery. Nor shall this be a reason for a product substitution.**

1.3 BUILD AMERICA, BUY AMERICA [BABA] REQUIREMENTS

- A. BABA is the Build America, Buy America Act. BABA requires any "infrastructure project" funded by any "Federal Financial Assistance" (FFA) apply a domestic content procurement preference, meaning that all iron, steel, manufactured products, and construction materials used in the infrastructure project have been produced in the United States, unless the awarding agency has issued a waiver of this requirement. This is called the "Buy American Preference" (BAP)
- B. HUD Hyperlink:
https://www.hud.gov/program_offices/general_counsel/build_america_buy_america
- C. BAP is not applicable to projects less than \$250,000.

1.4 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.

2. Serial number.
3. Performance characteristics.

1.5 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.
- D. Coordinate material delivery to minimize Owner involvement.

1.6 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
 1. Remove any damaged materials from the site.
- 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. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Secure all products to prevent blow off / blow over during weather events, wind, etc.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.7 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: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions / Approved Equal: Submit request for substitution as outlined in this section for manufacturers not named.
 1. Architect / Owner is the decision maker if the proposed "approved equal" is in fact equal and approved. Any decision rendered is final.
 2. Any Contractor, Sub-contractor, or Supplier who makes their own judgement as to "approved equal" and includes within their bid without a formal approval is doing so at their own risk.

1.8 PRODUCT SUBSTITUTION PROCEDURES – REFER TO SECTION 01 25 00

PART 2 PRODUCTS

2.1 EXTRA MATERIALS

- A. Provide attic stock of finish materials as applicable to the work and as requested by Owner.

- B. Provide minimum of [1] gallon of each finish paint color.
- C. Coordinate turnover of extra materials to Owner, assist in placing materials in a location suitable to the Owner.

2.2 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Owner and place in location as directed; obtain receipt prior to final payment. Items shall be boxed and labeled with contents.

2.3 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.

2.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply fully with manufacturer's tolerances.
- C. Adjust products to appropriate conditions. Position before securing products in place.

PART 3 EXECUTION

Not Used.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 73 00 - EXECUTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Construction Safety / Safety Program
- B. Construction Layout
- C. General Installation of Products
- D. Starting of Systems
- E. Demonstration and Training
- F. Removals and Cleanup
- G. Protection of Installed Construction

1.2 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this project in material, design, and extent.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturers written recommendations and instructions for installation of products and equipment.

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/job-site conditions.
- B. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
- C. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water service piping.
 - 2. Verify the location of underground electrical services, natural gas piping and other utilities.
 - 3. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

- D. Contact OUPS a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
 - 1. Contact private utility locating services as required by the conditions. It is the Contractor's responsibility to locate all public and private utilities that may be impacted by the work.
- E. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- F. Examine and verify specific conditions described in individual specification sections.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Architect / Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a RFI request to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.
- E. Clean substrate surfaces prior to applying next material or substance.
- F. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 FIELD VERIFICATION

- A. Prior to ordering materials, Contractor shall verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work. Verification that the new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

3.4 CONSTRUCTION SAFETY / SAFETY PROGRAM

- A. Develop, implement, and maintain a written safety program for all operations/ work performed on this project. Keep these documents at the job site and make available to the Architect / Owner upon request.
- B. Assume all responsibility for project safety, ways, and means and methods of constructing the project. Engage safety consultant as may be necessary for the execution of the work.
- C. In addition, the Owner may require special safety requirements to be performed by the Contractor, these requirements will be provided prior to commencement of work.

3.5 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect / Owner promptly.
 - 1. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction. Do not change or relocate benchmarks or control

- points without prior written approval. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
- 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- B. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish permanent benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Verify setbacks and easements.
 - 3. Establish limits on use of Project Site.
 - 4. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 5. Inform installers of lines and levels to which they must comply.
 - 6. Check the location, level and plumb, of every major element as the Work progresses.
 - 7. Notify Architect / Owner when deviations from required lines and levels exceed allowable tolerances.
 - 8. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- C. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

3.6 INSTALLATION, GENERAL

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance, coordinate with Architect.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Contract Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Coordinate with Architect as applicable.
 - 2. Allow for building movement, including thermal expansion and contraction.

3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
4. Electrical wiring and associated metallic conduit shall not be embedded within roof assemblies or placed directly below roof decks. Electrical wiring or metallic conduit located near roof assemblies shall be positioned and supported at least 10 inches away from the bottom side of the metal roof deck or other substrate to which a roof system has been or will be applied.
5. Suspension wires, straps, chains, and metal framing such as those used to support the following shall not be attached to or through steel roof decks.
 - a. Bulkheads.
 - b. Suspended ceilings.
 - c. Fire-suppression systems.
 - d. Ductwork.
 - e. Lighting.
 - f. Similar items.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

3.7 PROTECTION

- A. Accomplish all work in accordance with the provision of Federal, State American Standard Safety Code for Building Construction and OSHA safety requirements.
 1. Provide all aspects of project safety including protective railings and guards, tie-offs, fall protection, and other safety measures as required by OSHA, even if not specified. Fall protection is required. Architect is not a safety consultant and as such does not direct the means and methods of compliance with safety regulations.
- B. Protect and maintain all building entrances, interior contents, building exterior and grounds.
 1. Return all surfaces to their original condition after all work is complete.
- C. Replace / Repair any damages [including interior or exterior equipment / finishes] at no expense to the Owner in the event of damages of any kind caused by improper protection.
- D. Comply with all regulations of the Local Fire Department and the Owner's requirement regarding storage and handling of flammable materials, etc. Comply with the safety provisions of the National Fire Code pertaining to such hot work. Contractor is responsible for all damage or fines resulting from failure to comply.

3.8 STARTING OF SYSTEMS

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify Architect / Owner seven [7] days prior to startup of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- G. Adjust operating components for proper operation to ensure smooth and unhindered operation in accordance with manufacturer requirements.

- H. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

3.9 TESTING, ADJUSTING, AND BALANCING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 DEMONSTRATION AND TRAINING

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled times, at equipment location.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
 - 1. Prepare and insert additional data into the operations and maintenance manuals when the need for additional data becomes apparent during instruction.

3.11 REMOVALS AND CLEANUP

- A. Remove and demolish of items that are required for proper completion of the work as applicable in each section. All debris resulting from the work not designated for reuse becomes the property of the Contractor unless stated otherwise.
- B. Keep all work areas and project sites neat and free of trash and clutter at all times.
- C. Maintain the work areas, including all subcontractor's work, clean of all debris to the satisfaction of the Owner at the completion of each work day [daily cleanup].
- D. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work.
 - 1. No Debris, materials, etc. may be left unprotected on the grounds.
 - 2. All exterior staging / dumpster areas must be fenced / protected.

3.12 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Contract Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished pavement, concrete, floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces, finished surfaces, etc as is applicable to the work. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.
- G. Prohibit traffic from landscaped areas.

3.13 CORRECTION OF WORK

- A. Repair or remove and replace damaged, defective, or nonconforming work. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Repair work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Restore permanent facilities used during construction to their specified condition.
- D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION

SECTION 01 77 00 - CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Punchlist Requirements
- B. Substantial Completion
- C. Final Contract Completion
- D. Project Record Documents
- E. Warranties
- F. Final Cleaning
- G. Repair of Work

1.2 PUNCHLIST REQUIREMENTS

- A. Review and inspect all Work prior to notifying Architect / Owner for a Punchlist inspection of the work.
 - 1. Provide seven [7] day notice prior to work being complete to establish desired inspection date. Architect / Owner will either proceed with the inspection or notify Contractor of unfulfilled requirements.
 - 2. 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 punch list inspection.
- B. Architect / Owner will inspect the completed project and notify the Contractor of any deficiencies. Deficiencies will form 'punch list' for final acceptance.
- C. **If work is clearly not complete, the Punchlist will be suspended until such time that it is evident that the Contractor has completed and reviewed / inspected their own work.**
 - 1. Architect anticipates [1] punchlist inspection and [1] back-punch / final inspection as part of services to the Owner.
 - 2. Failures by the Contractor to complete the work, complete punchlists, etc. may result in a backcharge to the Contractor for the additional time to closeout the project.
- D. Review and provide the noted repairs and corrective work necessary at each of the Punchlist inspections to allow project close out.
 - 1. Back-punch walk through may result in additional punchlist items which need to be addressed by the Contractor.
- E. Provide / allow adequate time in the construction schedule to accomplish punchout work within the overall contract period indicated within the bid documents.
- F. The failure to identify any punchlist item during a walk through / inspection does not release the Contractor from contractual responsibility to address any item during the warranty period.

1.3 SUBSTANTIAL COMPLETION

- A. A Certificate of Substantial Completion [AIA Form G704] will be issued upon completion of all the work. Certificate of Substantial Completion will set forth the date of warranty commencement, work yet to be completed, timeline for completion of that incomplete work, and value of that incomplete work.

1.4 FINAL CONTRACT COMPLETION

- A. Provide the following items to the Owner prior to acceptance and final payment
 - 1. Evidence that any open claims or disputes are resolved.

2. Notarized affidavit of waiver of liens [contractor of record], sub-contractors and material suppliers
3. Final Permit approval / inspection / Certificate of Occupancy from authorities having jurisdiction
4. Final Application for Payment.
 - a. Submit a final Application for Payment according to Section 01 29 00, Payment Procedures.
5. Documented evidence of completing 'punch list' as applicable.
6. Manufacturer's original warranties, including contractor maintenance agreements and warranties as applicable.
7. O+M Manuals
8. Manufacturer's maintenance and repair instructions.
9. As-Built / Record Drawings.
10. Final cleaning.
11. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

1.5 PHOTOGRAPHIC DOCUMENTATION

- A. When requested by the Owner, photos of the completed punch list along with any supporting documentation can be submitted, in lieu of a final walkthrough.

1.6 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. Construction Bulletins / 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 Owner.
- 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 as follows:
 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
 2. Include locations of concealed elements of the Work.
 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
 5. Identify and locate existing buried or concealed items encountered during Project.
 6. Measured depths of foundations in relation to finish first floor datum.
 7. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
9. Field changes of dimension and detail.
10. Details not on original Drawings.

G. Submit documents to Architect / Owner upon completion of Work.

1.7 WARRANTIES AND GUARANTEES

- A. Refer to Owner Contract Requirements / Terms and Conditions for Additional information and requirements.
- B. General: The warranty and guarantee provisions of the General Conditions apply to all work of the contract, including but not limited to the following specific categories related to individual units of work specified in various sections of these specifications:
 1. Special Project Warranty (Guarantee): A warranty specifically written and signed by the Contractor for a defined portion of the work, and, where required, countersigned by sub-contractor, installer, manufacturer, or other entity engaged by the Contractor.
 2. Specified Product Warranty: A warranty which is required by the contract documents, to be provided for a manufactured product incorporated in the Work, regardless of whether manufacturer has published a similar warranty without regard for specific incorporation into the work, or has written and executed a special project warranty as a direct result of contract document requirements.
 3. Coincidental Product Warranty: A warranty which is not specifically required by the Contract Documents (other than as specified in this Section); but which is available on a product incorporated into the work, by virtue of the fact that the manufacturer of the product has published a warranty in connection with purchases and users of the product without regard for specific applications except as otherwise limited by terms of the warranty.
- C. All work undertaken as part of the project shall be warranted for a period of not less than [1] year. Individual sections / products may have specific additional warranty requirements.
- D. Provide notarized copies of warranty documents to the Owner.
 1. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- E. Original warranties are required to be provided to the Owner prior to final payment.

PART 2 PRODUCTS

Not Required

PART 3 EXECUTION

3.1 FINAL CLEANING AND SITE REPAIR

- A. Provide final cleaning of all work areas:
 1. Execute final cleaning prior to final inspection.
 2. Clean Project site, yard, and grounds in areas disturbed by Construction activities.
 3. Sweep paved areas broom clean. Remove all spills, stains, and foreign deposits.
 4. Rake grounds that are neither planted or paved to a smooth, even textured surface.
 5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 6. Remove debris and surface dust from roofs, plenums, values, attics, and similar spaces.
 7. Sweep concrete floors broom clean in non-occupied spaces.
 8. Vacuum carpet and soft surfaces to remove debris. Shampoo if conditions warrant.

9. Clean transparent materials including glass in doors and windows. Remove glazing compounds.
 10. Remove all labels which are not permanent.
 11. Clean plumbing fixtures to sanitary condition, free of all stains.
 12. Replace air filters.
 13. Clean ductwork if utilized during construction without proper protection.
 14. Clean light fixtures, globes, reflectors.
 15. Clean interiors of all cabinetry.
 16. Remove waste and surplus materials, rubbish, and construction facilities from site.
- B. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Contract Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

END OF SECTION

SECTION 01 78 00 – OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Operation and Maintenance Manuals.

1.2 OPERATION AND MAINTENANCE MANUALS

- A. Organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system.
- B. Binder cover: printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project. Label on the front and spine of the binder.
- C. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for all Sub-Contractors.
 - 7. Name and contact information for all Major Suppliers.
 - 8. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- E. Manual Organization:
 - 1. Organize into sets of manageable size. Arrange contents by CSI division. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
 - 2. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.
- F. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents.
- G. Submit O+M manuals prior to Contract Completion.
 - 1. Bind one [1] hard copy in 8-1/2 x 11 inch text pages, three D side ring binders with durable plastic covers.
 - 2. Create [2] digital copies in PDF format in a format and organization to match the hard copy.
- H. Content:
 - 1. Title Page
 - 2. Table of Contents
 - 3. Permit and Inspection Information
 - 4. Project submittals, organized by CSI division
 - 5. Operation and maintenance instructions, arranged by CSI division and system.
 - a. Building Products, Equipment, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.

- b. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- c. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.
- d. 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.
- e. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; service schedule, disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- f. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- g. Spare Parts List and Source Information.
- h. Maintenance Service Contracts.
- 6. Project documents and certificates.
 - a. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers.
- 7. Colors / finishes / samples
- 8. Other documentation required.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 02 41 16 - SELECTIVE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolishing designated building equipment and fixtures.
 - 2. Demolishing designated construction.
 - 3. Cutting and alterations for completion of the Work.
 - 4. Removing designated items for salvage by Owner.
 - 5. Protecting items designated to remain.
 - 6. Removing demolished materials.

1.2 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of capped utilities, concealed utilities discovered during demolition and any subsurface obstructions or conditions that require noting.

1.3 QUALITY ASSURANCE

- A. Conform to applicable code for demolition work, dust control, protection, products requiring electrical disconnection and re-connection

1.4 SCHEDULING

- A. Schedule Work to coincide with improvements of the building.
- B. Coordinate utility and building service interruptions with Owner.
- C. Do not disable or disrupt site fire or life safety systems without three days prior written notice to Owner.
- D. Schedule tie-ins to existing systems to minimize disruption.

1.5 PROJECT CONDITIONS

- A. Cease operations immediately if structure appears to be in danger and notify Architect. Do not resume operations until directed.

PART 2 PRODUCTS

NOT APPLICABLE

PART 3 EXECUTION

3.1 PREPARATION

- A. Notify affected utility companies before starting work and comply with their requirements.
- B. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Mark location and termination of utilities.
- D. Erect, and maintain temporary barriers and security devices including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.

- E. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.
- F. Do not close or obstruct building egress path.
- G. Protect existing structure / items to remain.

3.2 SALVAGE REQUIREMENTS

- A. Coordinate with Owner to identify building components and equipment required to be removed and delivered to Owner.
- B. Tag components and equipment Owner designates for salvage.
- C. Protect designated salvage items from demolition operations until items can be removed.
- D. Carefully remove building components and equipment indicated to be salvaged.
- E. Disassemble as required to permit removal from building.
- F. Package small and loose parts to avoid loss.
- G. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.
- H. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.
- I. Deliver salvaged items to location identified by SMHA. Obtain signed receipt from SMHA.

3.3 RECYCLING AND WASTE REDUCTION

- A. Implement measures to reduce waste going to Landfills by creating a recycling and waste reduction plan for all demolition activities.
- B. Sort demolition debris as applicable to separate different salvageable and recyclable materials.
- C. Provide necessary hauling and coordination to such facilities.
- D. Identify materials to be recycled as part of the project and submit an itemized list to the Architect/Owner along with the location. Submit proposed documentation prior to the start of work.
- E. Continuous recycling and waste reduction throughout the course of construction.
- F. Provide area designated for sorting of materials in an effort to maximize the potential recycling efforts.
- G. Maintain a log of waste refuse by type/weight/volume and of recycling efforts by the same.

3.4 DEMOLITION

- A. Provide all demolition and removals necessary for the proposed work. Work includes abandoned furnishings, equipment, building components that are required to be removed to render rent ready.
- B. Conduct demolition to minimize interference with adjacent and occupied buildings/units.
- C. Maintain protected egress from and access to adjacent existing buildings/units at all times.
- D. Do not close or obstruct roadways or sidewalks without permits.
- E. Demolish in orderly and careful manner. Protect existing improvements.
- F. Carefully remove building components indicated to be reused.
- G. See drawings for items to be salvaged and turned over to Owner.

- H. Confirm with Owner prior to demolition to verify any items to be salvaged and turned over to Owner.
- I. Disassemble components as required to permit removal.
- J. Box and label contents for all items scheduled to salvage. Obtain sign off.
- K. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- L. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- M. Remove temporary Work.

3.5 CLEAN UP

- A. Remove demolished materials from site as work progresses.
- B. Leave areas of work in clean condition.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 06 10 00 - ROUGH CARPENTRY

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes structural wall and roof framing, built-up structural members, wall and roof sheathing; subfloor sheathing; flashings; preservative and fire retardant treatment; blocking and related furring and framing materials.

1.2 REFERENCES

- A. American National Standards Institute:
 - 1. ANSI A135.4 - Basic Hardboard.
 - 2. ANSI A208.1 - Mat-Formed Wood Particleboard.
- B. American Wood-Preservers' Association:
 - 1. AWP A M4 - Standard for the Care of Preservative-Treated Wood Products.
 - 2. AWP A U1 - Use Category System: User Specification for Treated Wood.
- C. ASTM International:
 - 1. ASTM C1396/C1396M - Standard Specification for Gypsum Board.
 - 2. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 3. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 - 4. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
- D. Forest Stewardship Council:
 - 1. FSC Guidelines - Forest Stewardship Council Guidelines.
- E. Green Seal:
 - 1. GS-36 - Aerosol Adhesives.
- F. National Lumber Grades Authority:
 - 1. NLGA - Standard Grading Rules for Canadian Lumber.
- G. Northeastern Lumber Manufacturers Association:
 - 1. NELMA - Standard Grading Rules for Northeastern Lumber.
- H. South Coast Air Quality Management District:
 - 1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.
- I. Southern Pine Inspection Bureau:
 - 1. SPIB - Standard Grading Rules for Southern Pine Lumber.
- J. U.S. Department of Commerce National Institute of Standards and Technology:
 - 1. DOC PS 1 - Construction and Industrial Plywood.
 - 2. DOC PS 2 - Performance Standard for Wood-Based Structural-Use Panels.
 - 3. DOC PS 20 - American Softwood Lumber Standard.
- K. West Coast Lumber Inspection Bureau:
 - 1. WCLIB - Standard Grading Rules for West Coast Lumber.
- L. Western Wood Products Association:
 - 1. WWPA G-5 - Western Lumber Grading Rules.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by DOC PS 20.

2. Wood Structural Panel Grading Agency: Certified by EWA - The Engineered Wood Association.
 3. Plywood Grading Agency: Certified by APA.
 4. Lumber: DOC PS 20.
 5. Wood Structural Panels: DOC PS 1 or DOC PS 2.
- B. Perform Work in accordance with Ohio Building Code.
- C. Apply label from agency approved by authority having jurisdiction to identify each preservative treated and fire retardant treated material.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

- A. Lumber Grading Rules: SPIB, ASLS.
- B. Beam Framing: southern yellow pine species, No. 1 grade, 2" and wider size classification, 19 percent maximum moisture content.
- C. Joist Framing: southern yellow pine species, No. 1 grade, 2" and wider size classification, 19 percent maximum moisture content.
- D. Columns: southern yellow pine species, No. 2 grade, 4" and wider size classification, 19 percent maximum moisture content.
- E. Non-structural Light Framing: Stress Group D, spruce, pine, fir species, 19 percent maximum moisture content.
- F. Studding: Stress Group D, spruce, pine, fir species, 19 percent maximum moisture content.
- G. Sill Plate: AWPAC2 Lumber, Stress Group D, spruce, pine, and fir species, and 19 percent maximum moisture content, pressure preservative treated.

2.2 SHEATHING MATERIALS

- A. Wall Sheathing: ANSI A208.1, Oriented Strand Board [OSB]; wood chips set with waterproof resin binder; unsanded faces; 1/2 inch thickness; 48x96 inch sized sheets [match existing conditions]
- B. Roof Sheathing: ANSI A208.1, Oriented Strand Board [OSB]; wood chips set with waterproof resin binder; unsanded faces; 1/2 inch thickness; 48x96 inch sized sheets [match existing conditions]
- C. Subfloor Sheathing: APA Rated Sheathing Structural I, Span Rating 24/16, Exposure Durability 1, unsanded; 3/4 inch thickness; 48x96 inch sized sheets [match existing conditions]

2.3 UNDERLAYMENT

- A. Not Applicable.

2.4 FIREBLOCKING AND FIRESTOPPING

- A. Fireblocking: Solid lumber, structural wood panel, or particleboard.
1. Solid lumber nominal 2 inches thick.
 2. Structural wood panel 23/32 inch thick with joints backed by structural wood panel.
- B. Draftstopping: Gypsum board or OSB
1. Gypsum board: 1/2 inch thick.
 2. OSB: 7/16 inch thick.

2.5 ACCESSORIES

- A. Fasteners and Anchors:
 - 1. Fasteners: ASTM A153/A153M, hot dipped galvanized steel for high humidity and treated wood locations, unfinished steel elsewhere.
 - 2. Nails and staples: ASTM F1667.
- B. Die Stamped Connectors: galvanized steel, specific type/profile as applicable
- C. Structural Framing Connectors: Galvanized steel, sized to suit framing conditions.
 - 1. Simpson or Equal.
- D. Anchors: Toggle bolt type for anchorage to hollow masonry. Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Powder actuated fasteners into slab. Hilti or Equal. All anchors sized to suit application and loads.
- E. Sill Gasket: Plate width, closed cell foam strip.
- F. Sill Flashing: Polyethylene Sheet or Galvanized Steel.
- G. Subfloor Glue: ASTM D3498, water base, waterproof.
- H. Weather Resistive Barrier / Building Paper: ASTM D226; spun bonded polyethylene, Tyvek or Equal. Coordinate with existing conditions as appropriate.
- I. Self Sealing, Flexible Flashing: 40 mil thick, self-adhesive, cold applied flashing. GCP Applied Technologies, Vycor Flashing or Equal.

2.6 WOOD TREATMENT

- A. Wood Preservative (Pressure Treatment): AWWA U1, Commodity Specification A-Sawn Products or F-Wood Composites using water-borne preservative with .25 pcf retention.
- B. Fire Retardant Treatment: Chemically treated and pressure impregnated, having flame spread of 25 or less when tested in accordance with ASTM E 84 and showing no evidence of significant progressive combustion when test is continued for an additional 20 minute period, Exterior or Interior Type.
- C. Moisture Content After Treatment: Kiln dried (KDAT).
 - 1. Lumber: Maximum 19 percent.
 - 2. Structural Panels: Maximum 15 percent.

PART 3 EXECUTION

3.1 FRAMING

- A. Set structural members level and plumb, in correct position.
- B. Fasten framing in accordance with Ohio Building Code.
- C. Place horizontal members crown side up.
- D. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in alignment until completion of erection and installation of permanent bracing.
- E. Provide all required shoring and temporary bracing required to support structure prior to removing any load-bearing components.
- F. Construct load bearing framing members full length without splices.
- G. Double members at openings. Space short studs over and under opening to stud spacing.

- H. Place full width continuous sill flashings under framed walls on cementitious foundations. Lap flashing joint 4 inches.
- I. Place sill gasket directly on cementitious foundation. Puncture gasket clean and fit tight to protruding foundation anchor bolts.
- J. All exterior framing intended to be left exposed to weather shall be pressure treated and anchored with galvanized fasteners and appropriate connectors.
- K. All framing in contact with concrete shall be treated. Interior or exterior walls.
- L. Frame new walls, partitions, and openings to suit conditions and as designed.
- M. Install solid 2x bearing at each end of beams and headers. Ensure that blocking is positioned with full support/blocking under to existing bearing conditions. Install supplemental blocking as required between joists, framing, etc.
- N. Bridge joists at mid-space with solid 2x blocking.

3.2 SHEATHING

- A. Install sheathing over framing members in full size sheets in accordance with APA Construction Guide.
- B. Fasten sheathing in accordance with Ohio Building Code.
- C. Install subfloor sheathing with longer edge perpendicular to floor framing with end joints staggered. Secure sheet edges over firm bearing. Attach sheathing with subfloor glue and appropriate fasteners.
- D. Install underlayment in accordance with APA Construction Guide.
- E. Secure wall sheathing with ends staggered, over firm bearing.
- F. Install new underlayment at areas of wood framed floor systems where required for new finish flooring. Remove all existing underlayment down to original subfloor as required.
- G. Place WRB/building paper over wall sheathing, weather lap joints and end laps, staple in place. Coordinate flashing installation to ensure continuous water resistant barrier.

3.3 FIREBLOCKING AND DRAFTSTOPPING

- A. Install fireblocking to cut off concealed draft openings as required.
 - 1. Concealed Framed Wall and Furred Spaces: Install fireblocking vertically at floor and ceiling levels and horizontally.
 - 2. Connections Between Horizontal and Vertical Spaces: Install fireblocking between vertical walls and partitions and the following:
 - a. Horizontal floor and roof framing.
 - b. Soffits, dropped ceilings, cove ceilings and other horizontal concealed spaces.

3.4 SITE APPLIED WOOD TREATMENT

- A. Treat site sawn cuts. Brush apply one coat of preservative treatment on untreated wood in contact with cementitious materials.
- B. Allow preservative to cure prior to erecting members.

3.5 TOLERANCES

- A. Framing members: ¼ inch from indicated position, maximum.

END OF SECTION

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY FOR ROOFING

PART 1 - GENERAL

1.1 WORK INCLUDES, BUT NOT LIMITED TO:

- A. Miscellaneous sized new wood nailers/blocking, curbs, fascia/trim boards, roof framing members, plywood and associated fasteners, bolts and adhesives as required for installation of the roofing system and sheet metal.
- B. Secured existing or new wood members that meet the requirements of Section 07 01 50 can remain in place as per conditions/guidelines and attachment as specified herein. All existing sound decking to be refastened as outlined herein. Review the existing fastening on all remaining wood nailers/blocking and upgrade if necessary to meet the attachment requirements as outlined herein. Any new replacement nailers must be minimum of 1-1/2 inch x 5-1/2 inch [nominal 2x6] unless otherwise noted or conditions dictate otherwise. New nailers shall be elevated/ blocked up to match thickness of new insulation, as applicable.

1.2 APPLICABLE REFERENCES

- A. The following references form a part of this specification.
 - 1. NFPA - National Forest Products design specifications.
 - 2. Factory Mutual Research Corporation, Loss Prevention Data Sheet 1-49, Perimeter Flashings.
 - 3. APA - American Plywood Association.
 - 4. Lumber Grading Agency.
 - 5. American Wood Preservers Association
 - 6. State Building Code
 - 7. ANSI/SPRI/FM 4435 ES-1 Edge Systems.
 - 8. WWP - Western Wood Products Association
 - 9. SPIB - Southern Pine Inspection Bureau
 - 10. ASTM C476 Standard Specification for Grout for Masonry.
 - 11. AWWA - American Wood Protection Association
- B. Perform work in accordance with Local Building Code.

PART 2 - PRODUCTS

2.1 DIMENSIONAL LUMBER

- A. Board Stock: Graded in accordance with NFPA and Lumber Grading Agency, board class number 2, structural grade, kiln-dried Douglas fir or Southern yellow pine. Moisture content for all lumber shall not exceed 19% by weight at time of installation, including any lumber that can remain in place. Lumber will be removed if moisture content exceeds 19%. Provide fire retardant treated blocking in combustible buildings according to ASTM E84. Sizes as shown are standard nominal sizes. Provide dressed lumber, S4S, unless otherwise noted.
 - 1. Any lumber intended to be left exposed shall be appearance grade, suitable for a painted finish or finish as specified.
 - 2. Where fire retardant treated lumber/materials are indicated, use product with flame spread index of 25 or less in accordance with ASTM E 84.
- B. Preservative treated: AWWA, asphaltic, creosote or copper additive [CA & ACQ] type treated lumber is not acceptable for use on this project. Use MQC or CCA [wolmanized] water borne treated lumber complying with C2 and C5 standards for use as nailers on top of concrete or masonry wall surface and other above grade applications. Use treatment that does not promote corrosion of metal fasteners.
- C. Plywood decking: Refer to Section 06 10 00.

2.2 FASTENERS

- A. General: Contractor to determine the required length for each application in accordance with manufacturer data and Factory Mutual Data Sheet 1-49 recommendations.
 - 1. Minimum embedment:
 - a. Steel-3/4 inch unless otherwise noted.
 - b. Wood-1 1/4 inch unless otherwise noted.
 - c. Concrete/concrete block [masonry] -1 1/4 inch unless otherwise noted.
 - 2. Comply with the fastening requirements of the Local Building Code and State requirements, whichever is more stringent.
 - 3. All fasteners to anchor wood members shall be corrosion-resistant steel unless exposed to weather, pressure preservatives or in high humidity areas, provide fasteners of Type 304 Stainless steel, compatible for the conditions or other requirements stated herein [as noted].
 - 4. Refer to roofing section for additional fastener data.
 - 5. Notify Owner if deteriorated substrate conditions exist.
- B. Lag Bolts: ANSI/ASME B18.2.1
- C. Steel Bolts: ASTM A 307, Grade A
- D. Decking Nails: ASTM F 1667 [RSRS-01], 10d, 9 gauge, 0.121-inch diameter [or larger if required by code], ring-shank, corrosion resistant by coating [ASTM A 641 Class 1], flat head.
- E. Wood Screws: ANSI/ASME B 18.6.1-81 [2016] or ASTM A 153, corrosion resistance by coating, galvanization or stainless steel.
- F. Expansion Anchors: Steel, corrosion resistant, 3/8-inch diameter.

2.3 ADHESIVES

- A. Standard wood adhesive, caulk grade.
- B. ITW Red Head, A7 acrylic adhesive.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect fastening of existing wood members left in place for conformance to requirements specified herein, upgrade as necessary to meet performance criteria outlined.
- B. Examine surfaces for satisfactory conditions and do not use materials that are warped, bowed, twisted or unsound.

3.2 INSTALLATION

General: Installation shall be in accordance with Factory Mutual Loss Prevention Data Sheet 1-49 perimeter flashing recommendations and details, Local Building Code, ANSI/SPRI/FM 4435 ES-1, other standard industry framing methods and as shown.

- A. Attachment withdrawal resistance criteria for nailers/wood blocking is 250 P/F for perimeter, 300 P/F for corners onto substrate with margins of safety applied from printed values, as follows: Steel, Wood, Structural Steel 2:1, Concrete, 4:1, Gypsum 3:1. No power actuated fasteners or pin drive fasteners allowed. Fastener spacing as outlined below is the maximum allowable, unless otherwise shown on the plans, exception: maximum spacing shall be 18 inches on center in the perimeter and 12 inches on center in the corners [see below].
- B. Install members true, plumb and level, secure in place. Provide all required shoring and temporary bracing required.
 - 1. Use members of continuous possible lengths. Do not use materials with defects or pieces that are too small [optimum joint arrangement].

2. # 8 screws or 10d nails used to secure fascia and top nailers [stacked] to other wood members shall penetrate 1-1/2 inch, apply stacked nailers in two rows at 24 inches on center at perimeters and 12 inches in corners, staggered if feasible.
 3. Wood nailers/blocking shall have a ¼ inch space between boards.
- C. Metal/Metal and Wood Decks: Wood nailers on deck at perimeter/corners shall be fastened to the deck with two rows of #14 steel, wood to metal deck [Tek] fasteners [wafer head] or #14 HD steel roofing fastener or appropriate #14 wood screw at **24*** inches on center staggered in perimeters and **12*** inches staggered in corners. Start fasteners 3 inches from each end of the board, staggered fasteners 2 inches from edge if nailer is wider than 5 1/2 inches [if existing or stacked wood nailers exceed 6 inches in thickness height consult RDA for fastener selection]. An alternative method, when nailers/blocking are parallel to deck ribs, the nailers can be attached to the structural members [joists] with 3/8-inch steel bolts/nuts or Tek/5 self-tapping fasteners, 7 feet on center max. spacing. All fasteners must penetrate the top flange of the deck and be driven flush or countersunk, if necessary.
- D. Steel Members: Wood nailers at perimeter/corners shall be fastened to a steel member with one row of #14 or 1/4-inch steel, wood to metal deck [Tek/5 self-tapping fasteners] at 18 inches on center, centered, stagger fasteners 2 inches from edge if nailer is wider than 6 inches; pre-drill holes and countersink, if necessary. Fasteners shall start 3 inches from each end of the boards and shall be spaced **16*** inches on center each way from the corner.
- E. Concrete Block/Concrete, Stone and Concrete Decking: Wood nailers at perimeter/corners or on top of parapet wall shall be fastened with one row [two rows if nailer is over 5 1/2 inches wide] of 1/4-inch self-tapping fasteners at **24*** inches on center [offset or staggered] in perimeters and **16*** inches [offset or staggered] in corners-each way. Fasteners shall be spaced 2 inches from edge if nailer is wider than 5 1/2 inches; pre-drill holes and countersink, if necessary. Fasteners shall start 3 inches from each end of the boards [if existing or stacked wood nailers exceed 6 inches in height consult Architect for fastener selection] or use a 3/8-inch diameter treaded rod placed into a pre-drilled hole with adhesive injected for a solid substrate, bolt boards to rod. Rods placed at 3 feet on center in the perimeter and 2 feet on center in corners-each way. Cores of hollow block must be completely filled with grout [forming a bond beam] where rods are located. Embed rods 5 inches minimum into filled block cores or solid block/concrete.
- F. Plywood Sheathing. Install replacement sheathing in full sheet onto existing rafters/joists/trusses. End joints should be directly over center of rafters/joists/trusses and be attached with 10d ring shank nails spaced 6 inches on center at the perimeter and 12 inches on center at field of each panel at each rafter/joist/truss [nail penetration into rafters/joists/trusses, 2 inches]. All existing sound decking shall be refastened to ensure a fastener is spaced no further than 6 / 12 inches. Joints in the next board should not occur in the same structural member space. No decking boards shall be used that are not long enough to span over two structural members, if applicable. Steep Sloped Application: Allow a two-inch space on each side at the ridges for proper ventilation to occur from the ridge vents, if ridge vents are required. In addition, provide u-shaped expansion clips between sheets that are not nailed in place.

3.3 SURFACE TREATMENT

- A. All exposed to view newly installed wood members shall be primed and painted to match surrounding adjacent surfaces colors, unless otherwise noted.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 07 01 50 – PREPARATION FOR REROOFING

PART 1 – GENERAL

1.1 WORK INCLUDES, BUT IS NOT LIMITED TO:

General: Roof Membrane Removals and Other Removal Summary [Refer to section 01 45 23 for deck testing requirements]:

Roofs A-1, A-2, C-1 and C-2: Remove the entire roof system down to the structural wood deck. Removal includes EPDM membrane, insulation, fasteners, flashings, and other rooftop components, see other removals below. [Note: coordinate with applicable scope of work as part of Alternate Deduct #1 at Roof Areas C-1 and C-2]

Roofs B-1, B-2, B-3, B-4, B-5, B-6, and B-7: Remove the entire roof system down to the structural wood deck. Removal includes EPDM membrane, tapered insulation, fasteners, flashings, and other rooftop components, see other removals below.

- A. Removal of existing perimeter base flashing [metal, EPDM / single ply as applicable] and associated equipment supports and related items.
 - 1. Removal and reinstall existing electrical conduits, cable lines and associated wall attachments.
- B. Removal of wood nailers and blocking. Wood members that are securely bolted or adequately fastened or can be adequately fastened to the structure per the specifications and are in a dry good condition can remain in place as a base for new members or sheet metal items. Remove deteriorated and damaged wood members. [Refer to section 06 10 53 for anchoring requirements].
- C. Removal of sheet metal items such as copings, edges, scuppers, conductor heads, downspouts, skirt flashings, counter-flashings, penetration pockets, pipe flashings, equipment supports and like components necessary for application of new membrane.
- D. Removal of existing unused curbs, membrane repairs, abandoned equipment as noted in the drawings.
- E. Removal of existing curbs, vents and covering of associated openings as noted on the drawings.
- F. Removal of defective existing roof drains and replacing/reworking drain components.
- G. Other removals are necessary to accomplish the new work.

1.2 QUALITY ASSURANCE

- A. Work shall be performed in strict accordance with the terms and conditions of all municipal and state regulations and local codes.
- B. Demolition shall comply with the requirements of ANSI - American National Standard Safety Requirements for Demolition.
- C. Conduct demolition work in a manner that will minimize disruption of Owner's normal operations. Coordinate work activities daily with Owner.
- D. Properly protect all facility surfaces and associated landscaping from damage due to normal demolition operations. Return all areas to their original condition at no charge to the Owner.
- E. Drainage Testing: The contractor shall test each roof drain, downspouts/scuppers and other drainage elements for proper water flow before commencement of work. Commencement of work shall constitute acceptance of drainage device and any costs to unclog or repair these items shall be borne by the Contractor.

- F. Do not remove existing roofing membrane or components when weather conditions threaten the integrity of building contents.
- G. Field pull testing is required prior to commencing with work. All test results must meet the design pressures, manufacturer's requirements [deck/membrane resistance], requirements by the state building codes.

1.3 OCCUPATIONAL SAFETY and HEALTH ADMINISTRATION [OSHA]:

- A. Walking working surfaces and fall protection standards, 29 CFR 1926.501 [b][1].

1.4 COORDINATION

- A. All utilities and mechanical rooftop equipment will remain active during normal work hours, unless approved otherwise by the Owner.
- B. All removals shall be legally disposed of, except those indicated to be reinstalled, salvaged or to remain Owner's property. Comply with hauling and disposal regulations of authorities having jurisdiction and EPA notification regulations.

1.5 FIELD CONDITIONS

- A. Do not overload the structure with storage of materials, verify roof deck weight capacity and location of structural supports; only items needed that day shall be stored on the roof. Limit loads on roof to 25 pounds per square foot for uniformly distributed loads for metal / wood decks, 75 pounds per square for concrete decks. **Provide temporary securement of existing membrane to prevent membrane blow off while installing new roof system, if applicable.**
- B. Do not apply the roofing system during inclement weather or when the chance of precipitation is 40% or greater, as listed on www.weather.com for the local area, when read at 7 AM local time or at time of work commencement. Proceed with roofing and associated work when weather conditions permit unrestricted use of materials and quality control of the work being installed.
- C. Building space underneath roof work is utilized by on-going operations. Coordinate all work with the Owner including material storage and contractor parking. Owner's approval required before proceeding with the work. **Contractor must provide overhead protection for Owner's workers, public, visitors, etc from falling materials/debris at building entry points.**

1.6 ALLOWANCES.

- A. Refer to Section 01 20 00.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 ROOF REPLACEMENT PREPARATION/EXAMINATION

- A. All Roof Areas. Removal of all moisture, and other materials/debris from existing decking that inhibits new roofing materials from conforming to substrate, including power blowing of deck surfaces.
- B. Verify that surfaces and site conditions are ready to receive work. Verify that deck is clean and smooth, free of depressions, irregularities, or projections and properly leveled, and the condition of the wood decking is suitable for re-roofing. Replace all damaged, deteriorated, rotted, or soft decking. Start of work constitutes acceptance of conditions.
- C. Verify that all wood blocking, nailers are securely anchored in place.

3.2 DECK PREPARATION/REPAIRS

- A. Wood Deck: Refer to Section 06 10 00.

3.3 DUST / FUME CONTROL

- A. Take measures to avoid dust, dirt and debris from entering the building.
- B. Throwing material off the roof is prohibited; provide an enclosed chute, crane or raised dump truck to remove roofing materials.
- C. Provide a tarp and any or all other protection of walls / finish surfaces where material is being removed.
- D. Take special precautions around deck penetrations, including but not limited to installation and removal of reinforced visqueen below the roof deck to protect property below.
- E. Special precautions shall be taken to prevent fumes from entering the facilities through air intakes. Provide charcoal filters or other filtration media as necessary.

3.4 TRAFFIC

- A. Conduct demolition operations and the removal of debris to ensure minimum interference with streets, walk and other adjacent facilities. Do not close or obstruct streets or walks, without permission from Owner and authorities having jurisdiction.

3.5 DISPOSAL OF MATERIALS

- A. Remove from the site all debris, rubbish and other materials resulting from the demolition operations, are not being reused as soon as possible. The landfill used for disposal shall be approved for the type of materials being disposed of. Comply with local laws and EPA regulations when transporting materials from the site.
- B. All materials that are to be reused in the new work shall be removed, cleaned and stored in a safe place until reinstallation, as applicable.

3.6 ASBESTOS REMOVAL / NOTIFICATION

- A. If asbestos is found during the course of work, all removals shall be in accordance with written guidelines provided by OSHA Asbestos Construction Standard [29 CFR 1926.1101], and State, County and EPA guidelines as applicable. The contractor must be OSHA trained meeting the requirements of 29 CFR 1926.1101 for the removal, handling and monitoring of removed material. Transport and disposal of asbestos shall follow 40 CFR 61, Subpart A, 49 CFR 171 and 49 CFR 172. **No asbestos was found in the existing roof membranes.**
- B. When applicable, indicate receipt and acceptance of hazardous wastes, such as asbestos containing materials, by a landfill licensed to accept such materials. Notify and provide all documentation to the Owner for disposal of asbestos. All costs for asbestos removal, permitting and handling will be included in the bid if noted herein. The owner will engage with an approved firm to provide an asbestos containing survey for the roof membranes that are to be removed in accordance with the contract documents. The results of this survey will be provided to the bidders prior to the bid due date.
- C. All asbestos removals shall be done in a manner that does not cause the roofing fibers to become crumbed, pulverized, or airborne, these materials shall be handled as Category I and II non-friable asbestos. Should asbestos be encountered noted or not, that has become friable due to the actions of the Contractor or the condition of the material, the Contractor shall secure the services of an abatement contractor to remove the material and an independent firm to monitor removal activities and procedures [removal plan required]. The contractor shall pay for this abatement contractor if asbestos became friable due to their removal procedures. Notify Owner's rep if asbestos has been encountered that was not noted, prior to removal.

3.7 UTILITIES / EQUIPMENT

- A. Where electrical lines, refrigerant line sets, equipment, controls, etc. interface with the performance of the work, they shall be temporarily removed, replaced and made fully operational as soon as possible, a 48-hour notice and approval from Owner is required before any removals can take place. The Contractor has the responsibility to verify the operational status of all equipment before removals take place.
- B. The Contractor must notify the Owner of any non-operational items prior to removal; commencement of work constitutes acceptance of equipment and any costs to make operational shall be borne by the Contractor.

END OF SECTION

SECTION 07 01 51 – SILICONE ROOF COATING SYSTEM

PART 1 – GENERAL

1.1 WORK INCLUDES, BUT IS NOT LIMITED TO:

General: Remedial coating system for application of pre-existing weathered EPDM membrane roofing systems:

Roofs C-1 and C-2: Prep existing EPDM roof systems in accordance with the manufacturer requirements, including removal and replacement of deteriorated insulation, damaged wood deck, and the repair of EPDM roof membrane resultant from such work.

- A. Removal of associated equipment supports and related items.
- B. Removal and reinstall existing electrical conduits, cable lines and associated wall attachments.
- C. Removal of wood nailers and blocking. Wood members that are securely bolted or adequately fastened or can be adequately fastened to the structure per the specifications and are in a dry good condition can remain in place as a base for new members or sheet metal items. Remove deteriorated and damaged wood members. [Refer to section 06 10 53 for anchoring requirements].
- D. Removal of sheet metal items such as copings, edges, scuppers, conductor heads, downspouts, skirt flashings, counter-flashings, penetration pockets, pipe flashings, equipment supports and like components necessary for application of new roof coating system.
- E. Removal of existing unused curbs, membrane repairs, abandoned equipment as noted in the drawings.
- F. Removal of existing curbs, vents and covering of associated openings as noted on the drawings.
- G. Other removals are necessary to accomplish the new work.
- H. Coordinate with Section 07 01 50.

1.2 QUALITY ASSURANCE

- A. Work shall be performed in strict accordance with the terms and conditions of all municipal and state regulations and local codes.
- B. Demolition shall comply with the requirements of ANSI - American National Standard Safety Requirements for Demolition.
- C. Conduct demolition work in a manner that will minimize disruption of Owner's normal operations. Coordinate work activities daily with Owner.
- D. Properly protect all facility surfaces and associated landscaping from damage due to normal demolition operations. Return all areas to their original condition at no charge to the Owner.
- E. Drainage Testing: The contractor shall test each roof drain, downspouts/scuppers and other drainage elements for proper water flow before commencement of work. Commencement of work shall constitute acceptance of drainage device and any costs to unclog or repair these items shall be borne by the Contractor.
- F. Do not remove existing roofing membrane or components when weather conditions threaten the integrity of building contents.
- G. Field adhesion testing is required prior to commencing with work. All test results must meet the design pressures, manufacturer's requirements [deck/membrane resistance], requirements by the state building codes.

1.3 SUBMITTALS

- A. **PRODUCT DATA:** Submit manufacturer's submittal package including specification, installation instructions and general information for each waterproofing material.
- B. **APPLICATOR QUALIFICATIONS:** Submit current Letter of Good Standing from the specified waterproofing manufacturer. Applicator must be approved by the roof coating manufacturer for a minimum of [5] five years, and have never been terminated for workmanship.
- C. **SUBSTRATE CONDITIONS:**
 - 1. Provide inspection report verifying substrate condition and any noted defects not specifically addressed in regard to the installation of the coating.
 - 2. Surface shall be free from loose dirt, stone, debris, moisture, and shall be in stable condition. Any work on the area to receive this application shall be completed prior to the installation of the coating.
 - 3. Complete a substrate inspection prior to the start of the installation of the coating. The Architect / Owner and Contractor shall accept the substrate. Start of the work constitutes acceptance.

1.4 QUALIFICATIONS

- A. Primary waterproofing materials shall be the products of a single manufacturer. Secondary materials shall be recommended by the primary manufacturer. The manufacturer shall have a minimum of [10] ten years' experience in the manufacturing of materials of this type.
- B. Applicators shall have a minimum of [5] five years' experience in the application of waterproofing materials of the type specified, be approved for the application of the roof coating specified, able to obtain the specified warranty, and have never been terminated by the manufacturer due to workmanship. The Applicator shall possess a current Letter of Good Standing from the specified waterproofing manufacturer.

1.5 PRE-INSTALLATION CONFERENCE

- A. Attendees: Applicator, Coating Manufacturer Representative, Contractor, Architect, Owner.
- B. Review methods and procedures for installation, including verification of substrate conditions, scheduling, and safety.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Owner/owner's representative shall reject damaged or non-conforming materials. Rejected materials must be removed immediately from the job site.
- B. Store the coating materials as recommended by the manufacturer and conforming to applicable safety regulatory agencies: town or city, state, and federal. Refer to all applicable data including, but not limited to: Safety Data Sheets, Product Data Sheets, product labels, and specific instructions for personal protection.
- C. Provide adequate ventilation, protection from hazardous fumes, and overspray potential to workers and associated trades in close proximity of the site application.

1.7 ALLOWANCES.

- A. Refer to Section 01 20 00.

1.8 WARRANTY

- A. Manufacturer warrants that the material supplied will meet or exceed physical properties as published. The Applicator guarantees that workmanship will be free of defects in coating application. Since performance of previously applied coatings is beyond the control of Manufacturer and Applicator, requests for additional warranty coverage shall be subject to prior approval by Manufacturer.

- B. A TWENTY (20) YEAR LABOR AND MATERIAL WARRANTY MUST BE OBTAINED THROUGH THE MANUFACTURER.
- C. PROTECTION OF BUILDING AND OCCUPANTS:
 - 1. All surfaces not to receive the coating specified shall be protected from overspray hazard, e.g., windows, doors, exterior surfaces and facades, parking lots, and vehicles. Protective coverings shall be secured against wind and shall be vented if used in conjunction with applications preventing collection and moisture.
 - 2. Applicator to post signs noting potential overspray hazard within 400 ft of applications.
 - 3. All air intake ventilation equipment shall be turned off to prevent fumes from entering building.
 - 4. Surfaces damaged during application shall be restored at no expense to the owner.
 - 5. No smoking signs to be posted as mandated by local fire officials.
- D. SUBSTRATE: Proceed with work as specified only after substrate construction, preparation, and detail work has been completed.
- E. EQUIPMENT: All equipment used during operations shall be located so as not to adversely affect the daily operations or endanger occupants, structure, or materials on-site. All spray equipment must be grounded during operations.

PART 2 – PRODUCTS

2.1 SILICONE ROOF COATING SYSTEM

- A. Manufacturers:
 - 1. Gaco [GacoFlex S42 Series, Silicone Roof Coating] – Basis of Design
 - 2. Henry Company, Carlisle
 - 3. Garland Company
 - 4. Sherwin Williams Uniflex Silicone 44
 - 5. Approved Equal
- B. Materials
 - 1. CLEANER: GacoFlex GacoWash Concentrated Cleaner
 - 2. PRIMER: GacoPrime LVOC Primer; GacoFlex E5320 2-Part Epoxy Primer/Filler
 - 3. FLASHING:
 - a. GacoFlex 66S Reinforcing Polyester Mesh Tape
 - b. GacoFlex SF4200 SeamSeal
 - c. GacoPatch Silicone Roof Sealant
 - d. GacoFlex UF9022 – GacoMastic™
 - e. ERsystems® H.E.R.
 - 4. SILICONE COATING
 - a. GacoFlex S42 Elastomeric Silicone Roof Coating
 - 1) Tensile Strength: ASTM D2370, 275 psi
 - 2) Elongation: ASTM D2370, 196%
 - 3) Solids Content: ASTM D2697, 95% by volume
 - 4) VOC: EPA Method 24, <50 g/L
 - 5) Reflectance: ASTM C1549, Initial 0.87
 - 6) Water Vapor Permeability: ASTM E96-B, 6.4 perms

PART 3 - EXECUTION

3.1 PROTECTION OF BUILDING AND OCCUPANTS:

- A. All surfaces not to receive the coating specified shall be protected from overspray hazard, e.g., windows, doors, exterior surfaces and facades, parking lots, and vehicles. Protective coverings shall be secured against wind and shall be vented if used in conjunction with applications preventing collection and moisture.

- B. Applicator to post signs noting potential overspray hazard within 400 ft of applications.
- C. All air intake ventilation equipment shall be turned off to prevent fumes from entering building.
- D. Surfaces damaged during application shall be restored at no expense to the owner.
- E. No smoking signs to be posted as mandated by local fire officials.

3.2 SUBSTRATE

- A. Proceed with work as specified only after substrate construction, preparation, and detail work has been completed.

3.3 EQUIPMENT

- A. All equipment used during operations shall be located so as not to adversely affect the daily operations or endanger occupants, structure, or materials on-site. All spray equipment must be grounded during operations.

3.4 EXAMINATION

- A. A nuclear or infrared scan must be performed, and any wet roofing materials must be removed and replaced.
- B. Repair to the structural components of the roof should be completed.
- C. Verify that the drains, vents, ducts, gutters, metal cap flashing or other penetrations have been replaced or modified.
- D. An aged reinforced single-ply membrane exhibiting significant millage loss to the point that the reinforcement scrim is exposed must be disqualified as a suitable substrate to receive a coating system. Aged thermoplastic membranes that shrink or have become brittle due to plasticizer loss must be disqualified as suitable substrates to receive a coating system.

3.5 PREPARATION

NOTE: IT IS EXTREMELY IMPORTANT FOR THE ROOF TO BE CLEAN AND DRY.

- A. First, remove heavy deposits of dirt, leaves, and other debris from the roof using a stiff broom or air broom, then inspect the entire roof surface and flashings for any open seams, tears, cuts, etc., including any damage that may have occurred during the Repair these defects using “like” materials recommended by the membrane manufacturer so water does not enter the roofing system during the cleaning process. Pressure wash roof with water and allow to dry completely.
- B. After the roof is dry from initial cleaning, apply GacoWash Concentrated Cleaner according to label instructions with sprayer of choice, using a 3 ft - 4 ft arc pattern. A Hudson-type agricultural sprayer, conventional pressure sprayer or airless sprayer is recommended. Allow solution to stand for 10 - 15 minutes, adding a light mist of water to prevent drying. While it sets, lightly agitate any heavily soiled areas with a broom or brush. Do not allow dirt to settle in low areas. Use a commercial power washer >3,000 psi to remove debris and continue rinsing until all suds are gone. Start at the highest point of the roof and work towards the lowest point. For low-sloped roofs, work away from and then back towards, roof drains. It is important to keep the surface wet until all the GacoWash and other residue has been completely rinsed off and the surface is clean. After cleaning and rinsing the roof, ensure no dirt or debris is present. NOTE: Up to three (3) passes with GacoWash may be necessary to ensure the membrane has been sufficiently cleaned. Wet and dry adhesion tests are strongly recommended prior to proceeding with the coating application process.
- C. BIOLOGICAL CONTROL: Areas of algae, mildew or fungus on the roof membrane or the existing coating should be treated with a solution of 1-part household bleach to 3 parts water, followed by a power washer rinse using clear water.

- D. **DRYING:** Allow surfaces to thoroughly dry to prevent blistering of the GacoFlex S42 Series Elastomeric Silicone Roof Coating. Examine roof, paying attention to areas of physical damage to determine that residual water has in fact dried before applying GacoFlex S42 Series Elastomeric Silicone Roof Coating. NOTE: Drying time depends on weather conditions such as temperature, humidity, and air movement. The above drying times assume good weather (70 °F daytime temperature) and no rain. Conditions of lower temperature and rain will require a longer period for drying

3.6 INSTALLATION

- A. **TECHNICAL ADVICE:** The installation of this system shall be accomplished with the advice of, the manufacturer's technical representative.
- B. **REPAIRS:**
1. Inspect the roofing system for open seams, open T-Joints, open corner patches or flashing voids and perform repairs with like materials as recommended by the membrane manufacturer.
 2. Repair or replace any areas of delaminated, warped, bowed, or displaced insulation utilizing materials and methods recommended by the membrane manufacturer.
 3. Repair or replace defective edge attachments or base tie-ins and bridged or tented wall or penetration flashings utilizing materials and methods recommended by the membrane manufacturer.
 4. Remove defective pitch pan filler, metal flashing sealants or termination caulking and replace with appropriate materials.
 5. Areas of wet roofing materials must be removed down to the structural decking and replaced utilizing materials and methods recommended by the membrane manufacturer. NOTE: All areas repaired with new membrane must be primed GacoPrime LVOC only, prior to installation of GacoFlex S42 Series Elastomeric Silicone Roof Coating. C.
- C. **PRIMER:**
1. **COVERAGE RATE - GACOPRIME LVOC PRIMER:** If adhesion testing indicates the need for a primer, apply GacoPrime LVOC Primer at an approximate rate of 200 - 250 ft² / gal. Avoid puddling of primer on the surface. Target Wet Film Thickness (WFT) is 6 - 8 mils. Apply through one of the following methods:
 - a. **BRUSH:** Use solvent resistant brush and apply.
 - b. **ROLLER:** Apply GacoPrime with a solvent resistant short nap roller (standard 3/8 in nap recommended).
 - c. **SPRAY:** Do not thin. Use pressure pot or airless sprayer to apply primer. Avoid puddling of primer on surface when spraying.
 2. **COVERAGE RATE - GACOFLEX E5320 PRIMER:** If adhesion testing indicates the need for a primer, Apply one coat at the rate of 1 gal / 500 ft² a total Dry Film Thickness (DFT) of 1 – 2 mils. NOTE: Combined material will need to be thinned 10 – 20 % with clean water to achieve this spread rate.:
 - a. **BRUSH:** Use solvent resistant brush and apply.
 - b. **ROLLER:** Apply GacoFlex E5320 primer with a solvent resistant short nap roller (standard 3/8 in nap recommended).
 - c. **SPRAY:** Use pressure pot or airless sprayer to apply primer Avoid puddling of primer on surface when spraying.
 3. **CURING TIME – GACOPRIME LVOC PRIMER:** Allow appropriate amount of cure time before applying base / topcoats (approximately 2 hours depending on ambient temperature). The primer will dry to a slightly tacky film. Test the primer film by pressing firmly with a finger and removing. Properly dried film will be well bonded to the substrate. If the film is removed from the substrate allow for further drying time.
 4. **CURING TIME – GACOFLEX E5320 PRIMER:** Allow appropriate amount of cure time before applying base / topcoats (approximately 6 hours minimum depending on ambient

temperature). Dry time is dependent upon temperature and humidity. Apply GacoFlex topcoat within 72 hours.

- D. AT ALL FLASHING SEAMS, CORNERS AND LAPS, CHOOSE ONE OF THE FOLLOWING:
1. Apply GacoFlex S42 Series Elastomeric Silicone Roof Coating by brush or roller at a minimum width of 6 in (152.4 mm) centered on the seam at a minimum rate of 1.5 gal / 100 ft² (5.7 L / 9.3 m²) to achieve 24 wet mils – approximately 200 LF (60 LM). Immediately embed a 4 in (102 mm) strip GacoFlex 66S Reinforcing Polyester Mesh into the wet coating until the Polyester Mesh is completely saturated. The Polyester Mesh must be smoothly applied without wrinkles, “fish mouths,” blisters, or pin holes. Once the Coating with embedded Polyester Mesh is firm to the touch, apply another coat of GacoFlex S42 Series Elastomeric Silicone Roof Coating at a minimum rate of 1.5 gal / 100 ft² to completely encapsulate the Polyester Mesh. Allow to cure for a minimum of 24 hours (longer in overcast or low humidity conditions) before applying GacoFlex S42 Series Elastomeric Silicone Roof Coating topcoat.
 2. Apply GacoFlex SF4200 SeamSeal applied at a minimum of 4 in wide, crested and centered at the seam, with a minimum thickness at the center of 64 wet mils (approximately 70 LF / gal. Allow to cure for a minimum of 4 hours (longer in overcast or low humidity conditions)
 3. Apply GacoPatch Silicone Roof Sealant at a minimum of 4 in wide, crested and centered at the seam, with a minimum thickness at the center of 64 wet mils (approx. 70 LF / gal). Allow to cure for a minimum of 4 hours (longer in overcast or low humidity conditions).
 4. Apply GacoFlex UF9022 – GacoMastic at the approximate rate of 70 LF / gal and 4 in wide, crested and centered at the seam. Achieve an average minimum WFT of 64 mils when measured at center at all areas to receive flashing. Allow to dry a minimum of forty (40) hours at 75 °F and 55 % R.H. to achieve full cure. Low humidity and low temperature will result in longer cure times.
 5. Apply ERSYSTEMS H.E.R. Sealant at the approximate rate of 70 LF / gal and 4 in wide, crested and centered at the seam. Achieve an average minimum WFT of 64 mils when measured at center at all areas to receive flashing. Allow to dry a minimum of twelve (12) to twenty-four (24) hours at 75 °F and 45 % R.H. Weather-related conditions such as frost, dew, mist, condensation, humidity, and temperature must be taken into consideration prior to coating. Temperature should be above 40 °F more than 5 °F above the dew point and rising, for best application results.
 6. NOTE: Refer to manufacturer’s product instructions and/or data sheet for important information regarding drying times and other important factors to consider regarding application.
- E. HVAC / ELECTRICAL: Existing HVAC Units and other equipment on curbs with a membrane flashing: The membrane flashing must be coated up to the bottom of the metal cap of the unit and sealed underneath with a 100% silicone sealant. Curbs must be a minimum of 8 in above the roofing membrane.
- F. SLEEPERS: Any units that are sitting on 4 x 4 in wooden sleepers will be lifted so that the membrane underneath the units can be cleaned, primed, and coated. An approved slip sheet shall be placed under the sleepers to protect the coating system. If the units are not lifted off the deck to be able to accomplish this procedure, the untreated area will be excluded from the warranty.
- G. SILICONE COATING: Apply one (1) coat of GacoFlex S42 Series Elastomeric Silicone Roof Coating at the average rate of 2.25 gal / 100 ft² to obtain 36 mil Wet Film Thickness (WFT) / 34 mil Dry Film Thickness (DFT). Coat all surfaces including expansion joint covers and flashings. At all edges and penetrations, an extra pass must be applied.

3.7 FIELD QUALITY CONTROL

- A. Any variations from the specified limits found by the Applicator or owner's representative shall be corrected by the Applicator.
- B. MINIMUM DRY FILM THICKNESS (DFT) REQUIREMENT: Gaco recommends adding a 10% variance factor to meet the minimum Dry Film Thickness (DFT) mil requirement to qualify as a warrantable application. It is the Applicator's responsibility to calculate the amount of coating needed to obtain the minimum Dry Film Thickness (DFT) mil thickness.
- C. No traffic shall be permitted on the coated surface for a minimum of three (3) days. Damage to the surface by other trades shall not be the responsibility of the Applicator.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 07 46 00 - FIBER CEMENT SIDING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes fiber cement lap siding, fiber cement sheet siding, fiber cement trim, composite trim, flashings, accessories, and fastenings.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating materials, component profiles, fastening methods, jointing details, sizes, surface texture, finishes, and accessories.
- B. Samples: Submit two samples illustrating surface texture and color.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum of 3 years' experience with installation of similar products.
- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Remodel mock-up area as required to produce acceptable work.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.5 PROJECT CONDITIONS

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

1.6 WARRANTY

- A. Limited product warranty against manufacturing defects for 30 years, non pro-rated

PART 2 PRODUCTS

2.1 FIBER CEMENT SIDING

- A. Non-asbestos fiber-cement siding to comply with ASTM C1186, Grade II, Type A; ASTM E 136, non-combustible materials.
 - 1. Hardie Artisan HZ5 lap siding.
- B. Manufacturers:
 - 1. James Hardie [basis of design]
 - 2. Approved Equal.
- C. Siding to meet the following building code compliance National Evaluation Report NER 405; US Department of Housing and Urban Development Materials Release 1263. Non-asbestos fiber cement siding to be non-combustible when tested in accordance with ASTM E136.
- D. Lap Siding:

1. Hardie Plank Lap Siding HZ5 lap siding as manufactured by James Hardie Building Products, Inc.
 2. Width: 8-1/4 inches with 7 inch exposure.
 3. Length: 12 feet.
 4. Finish: Smooth
- E. Panel / Sheet Siding:
1. Hardie HZ5 Panels as manufactured by James Hardie Building Products, Inc. A non-combustible fiber-cement panel.
 2. Product Composition: Grade II, Type A, fiber-cement sheets as defined by ASTM C1186. manufactured by the Hatschek process and cured by high pressure steam autoclaving.
 3. Size and Profile: 48 inch x 96 inch sheets x .312 inch thickness
 4. Finish: Smooth
- F. Trim: Hardie HZ5 boards
1. Width: as noted on drawings.
 2. Thickness: 3/4 inch and 1 inch as noted on drawings.
 3. Finish: Smooth
- G. Trim Accessories: As applicable to the installation

2.2 COMPOSITE TRIM

- A. Exterior synthetic/composite trim, ASTM C 1185
1. Manufactured by Boral TruExterior Trim or Equal
- B. Properties:
1. Density, ASTM C 1185, 40 to 50 pcf.
 2. Water Absorption, ASTM D 570: Less than 1.5 percent.
 3. Fungi Rot, AWPA E10:
 - a. White Rot: Negligible Loss.
 - b. Brown Rot: Negligible Loss.
 4. Termite Resistance, AWPA E1: Greater than 9.0 with 10 being impervious.
 5. Flexural Strength, ASTM C 1185: Greater than 1,600 psi
 6. Nail Withdraw, ASTM D 1761: Greater than 50 lbf/in.
 7. Coefficient of Linear Expansion, ASTM D 6341: 1.40E-05 in/in/degree F
 8. Flame Spread, ASTM E 84: Between 25 and 29.
 9. Smoke Developed, ASTM E 84: Less than 450.
- C. Trim Sizes: Coordinate with drawings as applicable.
1. Exposed Texture: Smooth.

2.3 PRE-FINISHING

- A. Factory applied primer system.
- B. Field applied final paint coating, Refer to Section 09 90 00.

2.4 FASTENERS

- A. Wood Framing: 16 gauge, galvanized ring shank nails or screws as applicable to the installation and meeting manufacturer requirements.

2.5 ACCESSORIES

- A. Flashings: 26 gauge thick metal to match siding color.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify framing conditions are within allowable tolerances without twists, bows, waves, etc.

- B. Verify weather resistive barrier is installed and wall surfaces are ready to receive siding.
- C. Nominal 2 x 4 wood framing selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches face and straight, true, of uniform dimensions and properly aligned.
 - 1. Install water-resistive barriers and claddings to dry surfaces.
 - 2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
 - 3. Protect siding from other trades.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Install water-resistive barrier.
- D. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.
- E. Install Weather Barrier in accordance with local building code requirements.
- F. Install Seam Tape at joints, penetrations, and laps.
- G. Install flashing where applicable in accordance with manufacturer's requirements.

3.3 INSTALLATION

- A. Install materials in strict accordance with manufacturer's installation instructions.
- B. Install over braced wood. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- C. A water-resistive barrier (WRB) is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.
- D. When installing horizontally, a WRB with min. 90 percent drainage efficiency shall be used.
- E. Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6 inches. in the first 10 ft
- F. Do not install that product remains in contact with standing water.
- G. Installed on flat vertical wall applications only.
- H. Install flashing around wall openings, etc.
- I. Trim/Fascia and Rake
 - 1. Fasten through trim into structural framing or code complying sheathing. Fasteners must penetrate a minimum of 3/4" into framing or full thickness of sheathing. Additional fasteners may be required to ensure adequate installation. Place fasteners no closer than 3/4" and no further than 2" from side edge of trim.
 - 2. Trim inside corners with a single board.
 - 3. Install single board at outside corner then align second corner board to outside edge of first board. Do not fasten trim board to trim board.
 - 4. Allow 1/8" gap between trim and siding.
- J. Siding:
 - 1. Install materials in strict accordance with manufacturer's installation instructions.
 - 2. Install metal Z flashing and provide a 1/4 inch gap at horizontal panel joints.

3. Place fasteners no closer than 3/8 inch from panel edges and 2 inches from panel corners.
 4. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.
 5. Maintain clearance between siding and adjacent finished grade.
 6. Specific framing and fastener requirements refer to Tables 2 and 3 in International Code Council Evaluation Report No. ESR-2290.
 7. Use off-stud metal jointer when vertical joints occur between framing members.
- K. Align level, and plumb.
- L. Install metal flashings at sills, head of wall openings, and all areas required by siding manufacturer.
- M. Seal watertight.

3.4 FINISHING

- A. Apply full finish field coating over the factory primed siding and trim. Refer to Section 09 90 00.

END OF SECTION

SECTION 07 53 00 – SELF-ADHERED EPDM ROOFING, INSULATION AND ACCESSORIES

PART 1 - GENERAL

1.1 WORK INCLUDES, BUT NOT LIMITED TO:

General: Intent of project is to provide a functional 20-year new watertight roof system, resisting wind uplift pressures, thermally induced movement and exposure to weather without failure. Roof system must have been tested by an approved testing agency and have field experience by the manufacturer. Provide and install all roof components and accessories for a complete watertight roof system.

- A. Clean and dry deck surface [repair / replace decking as required by field conditions].
- B. Installation of a new EPDM roofing system, self-adhered system [see roof schedules].
- C. Installation of new flat stock and tapered insulation, tapered insulation saddles and gypsum cover board.
- D. Installation of new membrane flashings and roof accessories.
- E. Raising existing curbs on mechanical units, vents, etc and rework, disconnect/ extend ducting/ electrical /gas lines to accommodate new insulation heights, flashings, penetration covers, and sheet metal as required. Electrical connections/utility hookups removed and reinstalled by Electrical contractor. Purge and recharge all removed HVAC units by HVAC contractor.
 - 1. All work required for plumbing, mechanical, and electrical disconnect and reconnect, rework, etc. as necessary for the proper execution of the work shall be included within the Contractor's scope – this will NOT be accomplished by the Owner, unless specifically noted.
 - 2. Sub / Trade Contractors must be approved by Owner. In some cases, there may be maintenance contracts, preferred vendors who work on the building and understand the intricacies of the existing building systems that must be utilized.
- F. Installation of new A/C condenser unit stands, curbs and other roof top units stands, curbs etc. includes approved tie down/stands, as shown, as applicable.
- G. Installation of roof pavers.
- H. Installation of walk pads.

1.2 APPLICABLE REFERENCES

- A. The following references form a part of this specification.
 - 1. ASTM C 1289-13 Polyiso Insulation Board, Type II, Class 2, Grade 2 and HD Cover Board, Type II, Class 4, Grade 1
 - 2. ASTM E108 Fire Test of Roof Coverings.
 - 3. [FMG] Factory Mutual Global - Current Approval System [NAV assembly numbers], Loss Prevention Data Sheets for Roof Deck Securement for Above Deck Roof Components, Perimeter Flashings, Wind Design-ANSI/FM 4474, Approval Standard FM 4470 and Roof Loads for Construction
 - 4. [UL] Underwriters Laboratories - Roofing Materials and Systems Directory, Fire Resistance Directory, Current Edition.
 - 5. [NRCA] National Roofing Contractors Association - Current Roofing and Waterproofing Manual.
 - 6. [AISC] Manual of Steel Construction
 - 7. [OSHA] Occupational Safety and Health Administration, Guidelines
 - 8. [ASCE] 7-10 Minimum Design Loads for Buildings
 - 9. [ANSI/SPRI/FM] 4435 ES-1 Wind Design for Edge Systems
 - 10. [NFPA] National Fire Protection Association, 58 Liquefied Petroleum Gas Code
 - 11. [ANSI/SPRI] WD-1 Wind Design Standards

12. ANSI/SPRI] Field Uplift Resistance of Fasteners and Adhesive.
13. ASTM D4637, Type 1 Ethylene Propylene Diene Monomer [EPDM].
14. ASTM D1177 Gypsum Board

1.3 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing EPDM roofing membranes specified in this section, with minimum 10 years' experience.
 1. All roofing materials supplied must be manufactured or manufacturer approved by the company furnishing the warranty including the metal roof edge and coping [if integrated in the roof membrane] - **single source responsibility**. The manufacturer must manufacture the membrane material furnished as a minimum.
 2. The roofing material manufacturer [manufacturer of record] must submit a letter stating that the applicator is approved to use the products as furnished, is licensed to install their material in the state in which the project is located, that the applicator can obtain the warranties as outlined in the specifications in accordance with the roof system requirements and details as drawn and the products are acceptable for use on the surfaces to which they are being applied. In addition, an outline of the roofing system components product name and their securement requirements shall be included with the letter.
- B. Applicator: Company specializing in applying single ply roof systems with minimum 5 years documented experience, never been terminated by a manufacturer for workmanship problems, be approved for minimum 5 years by the manufacturer for use of their materials and can provide the warranties as specified. No deviations from the roof membrane products specified herein unless approved by the owner.
- C. Inspection: Prior to, during mid-point installation and at completion, an inspection shall be made by the manufacturer's representative to assure that the roofing system is/has been installed in accordance with their requirements and recommendations.
 1. An inspection status report at mid-point of construction shall be prepared by the manufacturer's rep, no later than 3 days after the inspection and provided to Architect.
- D. Training: The roof foremen or at least 1 assistant working on this project must either be a 'Journeyman Roofer' or have attended and completed the roof material membrane manufacturer's approved installation course herein within the last two years of the bid date with the membrane/s specified herein. **[Certificate of proof required or letter from manufacturer as part of the submittal]**. Roof foremen must have a minimum of 5 years' experience with application of EPDM roof systems and be able to interpret specifications and drawings [Contract documents must be always on-site].
- E. Drainage Testing Requirements: Refer to Section 01 45 23
- F. Provide waterproof tarp[s] on site for temporary protection in the event of sudden inclement weather.
- G. Provide any power necessary to accomplish the work, Owner may or not provide power.
- H. Existing membrane penetrations or leak sources within work area must be repaired watertight before commencement of new work.
- I. Locate any conduit / lines which may be located directly under the deck prior to using penetrating deck fastener to avoid puncturing lines. Coordinate inspection with Owner. Relocate [at Owner's expense] any conduit / lines necessary. Repair any conduit / lines which are damaged / penetrated at Contractor's expense].

1.4 REGULATORY PERFORMANCE REQUIREMENTS

- A. Fire Hazard Classification: Underwriters Laboratories [UL], Use only Class A fire-rated materials as tested in accordance with ASTM E 108 or UL 790 for exterior fire. The roof system must be a Class A rated system.
- B. American Society of Civil Engineers [ASCE], Factory Mutual Global Corporation [FMG], Roof Material Manufacturer, NRCA: Materials must meet the intent of the test criteria set forth in FMG/ANSI standard 4474 and ANSI/SPRI WD-1 to resistance the uplift wind design pressures as noted on the drawings, to support internal/external fire, to support corrosion resistance fasteners/anchors. The roof membrane manufacturer in compliance with the building code and FM NAV assembly if required must provide the roof assembly securement requirements to resist the wind pressures as noted along with meeting the roof warranty wind requirements and other requirements as shown and outlined in the specifications. The manufacturer's roof assembly securement must not be less stringent than the ASCE 7-16 calculations and must be successfully tested to resist wind uplift pressure according with ANSI/SPRI WD-1 standard. A field pull [ANSI/SPRI FX-1] or adhesion test [ANSI/SPRI 1A-1] will be necessary prior to commencing work when conditions are different then manufacturer's assembly test criteria for their approval to meet the design pressures or required by the building code or be conducted per Architect's request. If a test has been completed the results will be provided herein.
- C. Occupational Safety and Health Administration [OSHA] 29CFR 1926:
 - 1. Asbestos roof materials training for the removal, handling and monitoring.
 - 2. Roofing safety requirements for torch application.
 - 3. Walking working surfaces and fall protection standards.

1.5 STATE/FACTORY MUTUAL [FM] APPROVALS AND STANDARDS *[these approvals/standards reference the design products contained herein. Equal products must provide applicable product approvals]. Approvals and numbers must be verified by the manufacturers technical department.*

- A. AMERICAN SOCIETY OF CIVIL ENGINEERS - Minimum Design Loads for Buildings and Other Structures.
 - 1. ANSI/ASCE Revision 7-16 - refer to wind pressure zones on the drawings.

1.6 COORDINATION

- A. Daily reporting by the Contractor is required.
 - 1. Email project team daily with outline summary of work accomplished, any problems encountered such as bad deck, etc.
 - 2. Email project team on days when weather prohibits work to indicate a 'weather day.'

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Do not overload the structure with storage of materials, verify roof deck weight capacity and location of structural supports, only items needed that day shall be stored on the roof. Limit loads on roof to 25 pounds per square foot for uniformly distributed loads for metal/wood decks, 75 pounds per square for concrete decks. Provide temporary securement of existing membrane to prevent membrane blow off while installing new roof system.
- B. Store and protect products in accordance with manufacturer's instructions.
- C. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact. All materials must be UL or FM labeled.
- D. Store products in weather-protected environment [manufacturer's plastic wrap is accepted for proper protection, unless wrap is broken, torn, removed], clear of ground 4 inches min. and moisture. Use breathable tarps for moisture protection as needed. Protect unwrapped foam insulation and liquids from direct sunlight exposure. Water damaged materials will be marked 'rejected' by the Contractor/Owner or Architect and removed from the site.

- E. Storage of flammable liquids in buildings is prohibited. All combustible debris shall be removed from the site daily.
- F. Storage shall be in areas designated by Owner.

1.8 WEATHER CONDITIONS

- A. Do not apply the roofing system during inclement weather or when the chance is 40% or greater, percentage as listed on www.weather.com for the local area, percentage as listed when read at 7 AM local time or at time of work commencement. Proceed with roofing and associated work when weather conditions permit unrestricted use of materials and quality control of the work being installed.
- B. Do not apply roofing system to damp or frozen deck surface.
- C. Adverse weather conditions e.g. extreme temperature, high winds, high humidity, and moisture could have a detrimental effect on adhesives, contact manufacturer for acceptable tolerances. See additional restrictions specified herein.

1.9 SEQUENCING AND SCHEDULING

- A. Building space underneath roof work is utilized by on-going operations. Coordinate all work with Owner including material storage and contractor parking. Owner's approval required before proceeding with the work. Contractor must provide overhead protection for Owner's workers, public, visitors, etc from falling materials/debris at building entry points.
- B. Coordinate the work of installing all associated items in such sequence that will not necessitate movement of workers and equipment over completed roof areas.
- C. Sequence daily work of new roofing to be limited only that can be covered and made 100% watertight at the end of each day, including full adhesion of the membrane, flashings and night seals. No temporary roofing shall be allowed unless approved by the owner.

1.10 MANUFACTURER'S WARRANTIES

- A. Provide a manufacturer's warranty for both repairs/replacements due to any faults in the material and workmanship [Total System Responsibility]. Any leak repairs/replacement due to normal wear and tear, membrane defects, workmanship defects, damage due to wind speeds up to 72 mph [10 meters above ground], shall be performed at no charge to the Owner throughout the period of the warranty. Roof warranty shall be a no dollar limit type [NDL] with no penal sum, covering all insulation, fasteners, membrane, flashings, liquid flashing, metal coping/edging, regardless of the manufacturer. The warranty must be transferable and must be signed by the Manufacturer of record and the Owner, if required. When a contractor warranty is provided or implied, this warranty must bind the Manufacturer and Contractor, for the terms of their agreement, to perform any necessary repairs/replacements for the term of the contractors warranty [in most cases two years].
 - 1. .060-inch-thick EPDM Roof Membrane shall be warranted for [20] twenty years.
- B. In the event of a default by the Contractor, the Manufacturer will provide a new contractor to fulfill the warranty obligation.

1.11 PORTABLE FIRE EXTINGUISHERS

- A. Two standard listed multipurpose dry chemical fire extinguishers, NFPA 10, with 10-pound capacity and an ABC UL rating shall be provided and located 20 horizontal feet from the work area. Additional fire extinguishers shall be provided for different roof levels/work sites.
 - 1. Ensure all personnel are trained to use fire extinguishers.

PART 2 PRODUCTS

General: All products shall be Building Code approved as applicable, meeting all manufacturers full system roof warranty requirements.

2.1 ROOFING SYSTEM DESCRIPTIONS

General: System Assembly Applications/Scopes, Roof Removal and Replacement.

- A. Manufacturers and Membrane Products and Membrane Designation: [Single Ply]: Ethylene Diene Monomer [EPDM] .060 inches thick, non-reinforced, self-adhered, color black.
 - 1. Elevate, RubberGuard EPDM SA.
 - 2. Carlisle SynTec., Sure-Seal EPDM, SAT with factory applied tape.
 - 3. Johns Manville, EPDM FIT SA
- B. Insulation [polyisocyanurate] Manufacturers:
 - 1. Elevate, ISOGARD GL
 - 2. Carlisle SynTec, InsulBase
 - 3. Johns Manville, ENRGY 3
- C. Coverboard [Gypsum] Manufacturers:
 - 1. Georgia Pacific, Densdeck Prime
 - 2. USG, Securock
- D. Base Flashing Designations: same as roof system unless manufacturer requires a different product for their warranty or as noted herein. Use manufacturer approved liquid membrane system product for flashing conditions where flashing height is less than 6 inches and unusual shaped metal supports and other areas as required by the manufacturer where noted or as required by condition. Use manufacturer approved molded products where liquid flashing system will not provide a watertight condition.
 - 1. Other Flashing Designation- Manufacturer's approved details for 20-year warranty.

Contractor's quote must match the roof system including all components and application procedures [cover board, fasteners, membrane and etc.] The roofing schedules set the parameters for the roof system assembly and its application procedures.

ROOFING SYSTEM SCHEDULES

ROOF SYSTEM [EPDM]

Low Sloped Wood Deck [Roof Areas A-1, A-2, C-2, and C-2]

Deck:	OSB deck [sloped]
Preparation:	See Preparation for Reroofing and the proposed roof matrix.
Vapor Barrier:	None
Insulation:	One-layer, flat stock, 1.5 inches thick, loose laid. Provide tapered insulation saddles where required.
Cover Board:	One-layer, flat stock, 1/4 inch thick gypsum cover board, fastened thru insulation into wood deck at the fastening rates established by manufacturer for warranty.
Membrane:	One ply EPDM membrane, self-adhered to the new cover board.

ROOF SYSTEM [EPDM]

Flat Wood Deck [Roof Areas B-1, B-2, B-3, B-4, B-5, B-6, and B-7]

Deck:	OSB deck [flat]
Preparation:	See Preparation for Reroofing and the proposed roof matrix.
Vapor Barrier:	None
Insulation:	1/8 inch per foot tapered insulation system [full tapered design], starting thickness of 1/2 inch, loose laid. Provide tapered insulation saddles where required.
Cover Board:	One-layer, flat stock, 1/4 inch thick gypsum cover board, fastened thru insulation into wood deck at the fastening rates established by manufacturer for warranty.
Membrane:	One ply EPDM membrane, self-adhered to the new cover board.
Overburden:	Rubber / Composite Roof Deck Pavers

2.2 SHEET MATERIALS/COMPONENTS

General: all membrane component flashings, etc shall match the same color as the membrane.

- A. Elastomeric Sheet: ASTM D4637, type I, class A material, cured, synthetic, non-polyester reinforced, self-adhered, single ply membrane composed of Ethylene Propylene Diene Monomer [EPDM], BLACK, .060 inches thick.
- B. Membrane Flashing: ASTM D4811, Type II, .055 -.060 inches thick, black, non-reinforced, semi-cured, synthetic, single ply EPDM.
- C. Self-Adhesive Flashing: un-cured .045 inches thick, EPDM membrane laminated to 35 mil EPDM tape adhesive.
- D. Lap Splice Tape: .035 inches thick, EPDM-based, formulated for compatibility w/EPDM membrane, self-adhering, cured, width as required.
- E. Adhesive Primer: Solvent based synthetic rubber based formulated for compatibility w/EPDM membrane.
- F. Splice Adhesive: Synthetic polymer-based, if required.
- G. Bonding Adhesive: Primer for vertical surfaces.
- H. Water Block Seal: Butyl rubber sealant.
- I. Splice Cleaner: Organic solvent mixture.

2.3 INSULATION AND COVER BOARD

General: All flat stock, tapered insulation and / or cover board shall be from the same manufacturer. Board configuration: 48-inch x 96-inch thickness [mechanically fastened] or 48-inch x 48-inch thickness for adhered [adhesive] applied. Board configuration for tapered insulation: 48-inch x 48-inch. Mixing of insulation panels from different manufacturers is not acceptable. All insulation/cover board shall be supplied and approved by the membrane manufacturer and must meet FMG 4450 or UL 1256 as a tested assembly.

- A. Flat Board Stock: ASTM C1289, closed cell polyisocyanurate, square edge/rigid board, type II, class 1, **grade 2**, glass-reinforced felt/mat [GRF] facers on both sides, square edges, **minimum 20 psi compressive strength**, size boards as approved for application and by the roof membrane manufacturer.
 - 1. Includes in-fill for tapered saddles and/or insulation. Thickness as outlined.
- B. Tapered: ASTM C1289, closed cell polyisocyanurate rigid board; type II, class 2, **grade 3**, coated bonded inorganic glass fiber reinforced mat facers on both sides, factory tapered, **minimum 25 psi compressive strength**, size boards as approved for application and as

supplied by the roof membrane manufacturer. The roofing contractor and the tapered insulation manufacturer designer must assume design/application responsibility for the performance of the submitted tapered insulation layout.

1. **Tapered and Saddle insulation** shall be sloped at 1/8 inch per foot. *Tapered insulation starts at 1/2 inch thick. Tapered insulation saddles starts at 1/2 inch thick.*
2. Saddles: Each side of the saddle width shall be as shown or 25% of the drain to drain [whatever is less], if spanning between two or more drains as applicable for conditions.
3. Drains Sumps: Tapered min. 1/4 inch per foot slope drain sumps are required at all drains, if conditions allow [size, 4-foot square].

C. Gypsum Cover Board, Flat Stock:

1. ASTM C1177, Georgia Pacific, Dens-Deck Prime Roof Board with EONIC Technology, glass mat faced, primed surface, 1/4-inch-thick and 1/2-inch thick [as noted on drawings] with square edges.

2.4 CANTS / EDGE

- A. Cant Strips and Tapered Edge Strips: Perlite, fire resistant, performed to 45 degree angle and 18 inch long tapered edge strip, tapered front to back as required by the Manufacturer.

2.5 ROOF FASTENERS AND ACCESSORIES [some items may not be required for this project]

General: Fasteners/Anchors: strength, type and configuration must meet the required pull test resistance for each attachment application. Fastener's rate and pattern must be FMG, or building code approved to meet the intent of the wind uplift rating specified.

A. The Contractor shall determine fastener lengths,

1. Minimum embedment:
 - a. Steel: 3/4-inch
 - b. Concrete/concrete block: 1-1/4 inch
 - c. Gypsum: 2-inch,
 - d. Tectum: 2-inch
 - e. Wood: 1 1/4 inch.
2. Fastener manufacturers: ITW Buildex, IWT Red Head, OMG and Tru-Fast or equal.
3. All fasteners shall be corrosion resistant steel in accordance with ASTM F1667 or type 304 -316 stainless.

B. Summary of fasteners and requirements are as follows:

1. Roofing and Other Nails: square or round head, ring shanked galvanized or non-ferrous type, length and diameter as required to suit application.
2. Metal Counterflashing and other LG metal sheets to Wood: ITW Buildex, 'TruGrip, #9, self-piercing, corrosion resistance steel shank with EPDM washer.
3. Metal Counterflashing and Other LG Sheet Metal [exposed] to Masonry: ITW Buildex, 1/4 inch, 'Scots Tapcon', stainless steel-hex head, ATF treads, corrosion resistant steel shank, with EPDM washer.
4. Termination Bars [exposed] to Masonry: ITW Buildex, 1/4 inch, 'Scots Tapcon', stainless steel-hex head, ATF treads, corrosion resistant steel shank, with EPDM washer.
5. Metal Sheets or Metal Decking to Metal Decking: # 10 ITW Buildex, 'tek/ 1', hex washer head, ATF self-tapping with corrosion resistant steel shank.
6. Base Sheet, Cover Board, Membrane to Insulating Concrete, Gypsum or Wood Fiber Decking: Tru-Fast, Twin Loc-nail, Coated steel fastener assembled with a 2.7inch diameter coated plate with a stainless-steel locking staple.
7. Insulation Fasteners/Plate, Wood Deck: Steel, HD #14, red, phillips head, superior corrosion resistance with a 3-inch round metal cap, meeting FMG 4470 standard requirements and must be supplied or approved by the roofing manufacturer for their warranty.
8. Edge Securement [EPDM]: Reinforced perimeter fastening strip RTS, 6 in. wide, .045 in. thick, polyester scrim reinforced, with factory laminated self-adhering tape, fastened in

place to the wall or the deck at 12 inches on center with manufacturer approved fasteners and plates.

9. General Purpose Stainless Steel: Series 304 fasteners, with or w/out EPDM washers.

C. Summary of accessories items and requirements as follows:

1. Pre-Molded Manufactured Accessories: Molded EPDM, color to match field, .050-.075 inch thick, pipe flashings, etc. Manufacturer warranted accessories.
2. Walkway Pads: Non-Reinforced EPDM, 0.130 inches thick, size: 30-inch-wide x 40 feet long with patterned slip resistant bearing surface, self-adhered or factory applied tape.
3. Roof Pavers: Refer to Section 07 76 10
4. Termination Bars: Aluminum 1.3-inch-wide, 10 feet long, 1.08 inch [min.] thick bars with flat or with [integral caulk edge], as applicable per manufacturer.
5. Pipe Supports/Hangers:
 - a. Manufactured by Portable Pipe Hangers, Adjustable, stainless metal components, polypropylene base, 'type SS8 – C or R [up to 2 ½ inch pipes] or PP10' [up to 3 ½ inch pipes], as required for conditions.
 - b. Manufactured by OMG, Pipe-Guard, non-adjustable, PGM-BK, PGS-BK, PGTS-BK pipes up to 2 inches, as required for conditions.
 - c. Manufactured by Advanced Supports Products, EcoCurb or MIRO pillow block. Pipe supports Condensate Lines/Piping.
6. Rail Curbs: Manufactured by Pate, type es-1, es-2 or es-5, as required for condition, size as required by unit base size including unit tie downs or as shown.
7. Vent Pipe Extenders: Manufactured by Tubos, Clearwater, FL, PVC pipe extenders.
8. A/C condenser and other roof top unit stands: Manufactured by Precision Aluminum Products, with height/load requirements provided including engineered tie downs and deck/substrate anchoring requirements.

2.6 SEALANTS/TAPES

- A. General Use: ASTM C920, Type S, Grade NS, Class 25 as required for each joint condition, single component, elastomeric silicone polymer, non-staining, non-shrinking, non-sagging, and ultra-violet resistance, clear or to match surrounding existing color.
 1. Refer to section 079201 Sealants for Roofing.

PART 3 EXECUTION

3.1 EXAMINATION / LEVEL SURFACE CONDITIONS

- A. Verify that surfaces and site conditions are ready to receive work. Verify that deck [total removed roofing membrane sections] is clean and smooth, free of depressions, irregularities, or projections, properly leveled, start of work constitutes acceptance of conditions.
 1. Verify that all wood blocking, nailers are securely anchored in place.
- B. Areas of substrate where severe ponding [1inch deep or greater] will occur 48 hours after a rainfall with an outside average temperature of 65F or higher [partly sunny or sunny condition] shall be levered per manufacturers recommendation and identified to RDA prior to installing final membrane. Failure to perform this action could result in total roof removal at that ponding area, string leveling prior to final ply recommended.

3.2 PROTECTION

- A. Protect building surfaces/interior spaces against damage from roofing work. It is the Contractor's responsibility to take any necessary actions to prevent construction-related leaks, to include but not limited to repairing watertight existing surrounding roofing scheduled to be replaced or overlaid. Surround roofing areas include roof top material storage areas, workers roof top access to from roofing work site areas and any drainage system [roof drain-scuppers] leak issues located in work area. Contractor must include the cost to deal with these existing

leak sources into the overall project unless the Owner/Owners rep is made aware of these leak sources prior to commencement of the project.

- B. Provide, erect barricades and guardrails as required by applicable regulatory advisory to protect occupants of building and workers.
- C. Cover all drains and other openings intended for drainage during construction to prevent clogging of system, remove at the end of each day to allow for drainage.
- D. Special precautions shall be taken to avoid fumes from entering the facilities through air intakes, coordinate with owner to deal with active A/C units.

3.3 INSULATION / COVERBOARD APPLICATION

General: Secure insulation and/or coverboard to roof deck to the requirements of FMG loss Prevention Data Sheet 1-28 and 1-29 to include additional securement at the corners and perimeters. Install insulation including saddles [if required] as shown on the contractor/manufacturer-approved layout. This layout must be capable of draining the roof completely into drainage elements after 48 hours following rainfall with an outside average temperature of 65°F or higher [partly sunny or sunny conditions]. The layout pattern must not block the flow of rainwater into any roof top unit/ventilator.

- A. Wood Deck: Fasten the insulation in a one-layer configuration onto the deck at the rate/pattern as tested/approved by the manufacturer and to meet FM requirements. All insulation / coverboard shall be installed in accordance with the Manufacturer's / Contractors/ Architect approved layout. Install insulation / cover board with long joints in a straight line with end joints staggered. Install the insulation / cover board perpendicular to roof slope to the new insulation board with joints staggered [as applicable] no less than 24 inches in all directions from joints below in accordance with windstorm resistance classification securement pattern and insulation manufacturer's instructions. Any portion of an insulation / cover board that falls within the calculated perimeter or corner area has the increased securement applied over the entire board. Offset joints of top insulation layers/cover board from bottom layers/saddles no less than 6 inches. Full tapered insulation system where tapered boards are on top require no offset.
- B. Level all decks as necessary prior to starting work.
- C. Apply no more insulation than can be sealed watertight with roofing membrane in the same day. Cut insulation to fit neatly to perimeter blocking and around penetrations through the roof, maximum joint width 3/8 inch.
- D. All ventilators, A/C unit curbs, supports etc. [square or rectangle] will have a tapered edge strip [formed as a saddle] placed around the high side of unit to slope water from unit. Ventilators, A/C unit, supports etc. curbs over 2 feet wide will require insulation saddles sloped 1/2 inch per foot.
- E. Provide adequate separation of insulation between hot exhaust stacks.

3.4 MEMBRANE APPLICATION

General: Install roofing sheets as per manufacturer's recommendations which may be slightly different than outlined due to weather conditions and the following summary of requirements. Only install membrane when outside temperature of 30-degree F or higher. Additional enhancements to the membrane will be required if a 30-year warranted system is specified herein, consult the manufacturer for these requirements. These requirements are in addition to what is specified herein.

- A. Beginning at the low point of the roof, place the membrane without stretching over the acceptable substrate and allow membrane to relax a minimum of 30 minutes before attachment or splicing.

- B. After making sure the sheet is placed in its final position seams shed water or parallel to the water flow, adjoin sheets in a manner that all lap seams along the length of the membrane overlap 3 inches for application of seam tape and 1 inch or butt at end laps. The membrane should be smooth, clean and free of wrinkles and buckles.
- C. Starting from the center split of the exposed release liner, remove the release liner on one half of the sheet. Remove the liner on both sides at a 45-degree angle beyond the membrane edge. Pull the membrane onto the coverboard at an angle avoiding wrinkles and adhere it to the cover board. Do not fold the length of the roll in half. Keeping the membrane flat and secured and seams aligned continue removing the release liner. Removal of the liner should be accomplished by two people to use the slide out method or if cold condition exists use the barn door method. Fold back the remaining half of the sheet and repeat the process.
- D. Use a stiff bristled broom and apply pressure to initiate adhesion and push air out from the sheet. Broom the installed membrane across the width working towards the outer edge. Use a 50-pound weighted roller to roll membrane after broom has been completed.

3.5 MEMBRANE SPLICING

[Factory Applied Tape] Position the sheet at the splice area by overlapping membrane. Tack the sheet back with primer at 5' centers and at factory splices or as necessary to hold back the membrane at the splicing area. Remove excess amounts of dusting agent on the sheet and at factory splices using a stiff push broom. Apply primer to both surfaces at the same time to allow the same flash off time. Additional scrubbing is required at areas that may have become contaminated or have excess amounts of dusting agent, and at all factory splices. Follow manufacturers guidelines if no factory tape is applied.

- A. Position the seam splice tape on the bottom sheet, aligning the edge of the release paper with the markings. When adhering factory adhered tape, pull the backing from the tape and allow the top sheet to fall freely onto the exposed primed surface. Immediately roll the splice tape with a 3 inch-4-inch-wide silicone or silicone sleeved steel hand roller or a short nap 3-inch paint roller.
- B. When the seam splice tape has been installed for the entire splice length, trim the top sheet as necessary to assure that 1/8 inch-1/2 inch of the seam splice tape will be exposed on the finished splice. Broom the entire length of the splice as the release paper is being removed.
- C. Roll the splice using a 1-1/2 inch-2-inch-wide silicone or silicone sleeved steel hand roller, first across the splice, and then along the entire length of the splice.

3.6 FLASHING APPLICATIONS – Vertical Surfaces, etc.

General: Secure membrane when there is an angle change greater than 2 inch 12 inches with a reinforced perimeter fastening strip [RPS] fastened to the deck or wall, see manufacturer's recommendations for exceptions.

- A. Remove loose or unsecured flashings, mineral surfaced or coated flashings and excessive asphalt to provide a smooth, sound surface for new flashings.
- B. Apply primer to wall surface allow to dry. Roll the field EPDM membrane up the vertical surface evenly and carefully to minimize wrinkles.
- C. Install T-Joint covers at field and other splice intersections as required by manufacturer. Apply tape at laps if membrane is not self-adhered type throughout out the sheet [edge to edge].
- D. Provide termination directly to the vertical by a termination bar set in water block seal and other requirements as shown on the drawings.

3.7 FLASHING APPLICATION - Edge, Pipes and Drains.

General: Install flashing sheets over cants strips and other vertical surfaces, at edges and penetrations through roof as per manufacture's recommendations, requirements of FMG loss Prevention Data Sheet 1-49 including details and the following requirements.

A. EDGES

1. Apply primer to the metal edging and membrane. Remove approximately 2 ft.-3 ft. of release paper from the seam flashing and apply to the metal flange and membrane. Lap adjacent rolls of seam flashing a minimum of one inch with a 2 inch-3-inch-wide silicone or silicone sleeved steel hand roller, roll the seam flashing ensure proper adhesion. Additional attention must be given to factory splice intersections and to any change in plane.
2. Apply 6-inch length of seam flashing, a seam Joint Cover, or 6-inch x 6-inch form flash to the inside edge of the seam flashing at all overlaps and at all intersections between the seam flashing and field fabricated splices.
3. Apply seam edge treatment at the intersections of the flashing sections.
4. If the roof edge includes a metal edge and sealant is not applied between the laps in the metal edging, an additional piece of seam flashing shall be applied over the metal lap to the top of the metal edge, after the initial application of seam flashing. Seam edge treatment shall be applied at the intersections of the two flashing sections.

B. PIPES

1. Flash pipes with manufactures pre-molded flashing to max. extent possible or form flash only when per-molded flashing is not available. Prime and install an additional 12-inch seam flashing over pre-molded flange.

C. DRAINS

1. Remove all existing flashings, leads and cement. Provide a clean even finish between the drain clamping ring and the drain bowl. Position the membrane and cut a hole for the roof drain allowing a $\frac{3}{4}$ inch membrane inside the clamping ring. Make round holes in the membrane to align with the bolts. Install water block seal on the clamping ring flange below the membrane. Tighten the clamping bolts to achieve a constant compression. Replace or repair [bolts broken, cannot be removed] drain where existing clamping ring cannot be bolted securely in place.

3.8 LIQUID FLASHING

- A. Liquid flashing [LF] system [PMA] shall be installed on a clean roof surface with a reinforced polyester fleece fabric in a multi-layer [resin/fleece/resin] configuration with PMA resin applied [fully saturating fabric] at 2 gallons per square feet with resin top coat, Extending vertically and 8 beyond the base of penetration. LF shall be installed where noted or as required by condition per the manufacturer. Install in accordance with manufacturer's printed detail or as shown.

3.9 INSTALLATION OF ROOF ACCESSORIES

- A. Walkway pads and other accessories shall be installed in accordance with the manufacturer's recommendations or as shown on the drawings. Space pads 3 inches apart.
- B. Expansion joint, and other accessories not noted herein shall be installed in accordance with the manufacturer's recommendations and as shown on the drawings.
- C. Rail curbs, equipment stands, and pipe supports shall be installed in accordance with the manufacturer's instructions. Anchoring to substrate and tie downs as shown. Place curbs on deck and position curbs ends to allow water to flow toward drains or gutters.
- D. Equipment enclosure shall be 24-gauge stainless steel, shop or pre-manufactured with top fabricated [angled] to allow no moisture from entering the pipe areas. Install mortar in the

bottom of base with polyurethane pourable sealer poured around pipes [2-inch depth minimum]. Seal pipes that exit enclosure with sealant/foam.

- E. Penetration pans shall have mortar installed in the bottom of pitch pans with polyurethane pourable sealer [2-inch min] filled to the top of the pan, then slope.
- F. Roof drain clamp rings/bolts where distorted, corroded or too short, shall be replaced. Clamp rings shall be clean of all asphalt and other deposits. Provide new drain strainers where missing. Install drain inserts if clamping rings cannot be compressed on the new roof membrane due to broken bolts, etc.
- G. A/C condenser and other roof top unit stands shall be installed in accordance with engineered requirements furnished by the manufacturer to include height/load, tie downs and deck/substrate anchoring requirements.

3.10 FIRE SAFETY

- A. Measures to be implemented by the contractor to minimize the possibility of fire and to provide a safe work environment. It is the responsibility of the contractor performing any work to comply with the safety provisions of the National Fire Codes pertaining to such work along with other requirements specified herein. In the event of a fire of any size, Contractor shall notify the Local Fire Department.

3.11 WATER CUT-OFF

- A. At the end of the day's work or when precipitation is imminent, a water cut-off or other waterproof protection shall be provided to ensure a watertight condition is obtained, between the new and existing conditions, remove cut-off prior to resuming the installation of the roofing system.
- B. Contractor is responsible for the design and implementation of the night seal / water cut-off. Provide plan / implementation to Architect / Owner for review.

3.12 CLEANING

- A. In areas where finished surfaces are soiled by any other source of soiling caused by work of this section, consult manufacturer for cleaning advice.

END OF SECTION

SECTIONS 07 62 00 - SHEET METAL FLASHING, TRIM AND SPECIALTIES

PART 1 - GENERAL

1.1 WORK INCLUDES BUT NOT LIMITED TO:

General: Intent of project is to provide new sheet metal components for a new roof replacement. Install all components, including sheet metal items, accessories of the new roof system needed for a completed watertight installation.

- A. Removal of existing sheet metal items as noted. Refer to section 07 01 50 Preparation for Reroofing.
- B. Installation of new sheet metal items:
 - 1. Wind-rated coping, fascia/cover and edge, ANSI/SPRI/FM ES 1, tested and approved.
 - 2. Sheet metal fasteners.
 - 3. Skirt / Bib flashing [around units and curbs], counter flashing, and other sheet metal items.
 - 4. Thru wall scuppers, conductor heads, and downspouts.
 - 5. Equipment support flashings.
 - 6. Equipment enclosures

1.2 APPLICABLE REFERENCES

General: The following references form a part of this specification.

- 1. ASTM A 653 Metallic Coated, Sheet Steel [Galvanized], Grade A, Hot Dipped, Zinc Coated, Coating Class G90.
- 2. ASTM A 792, Metallic Coated, Sheet Steel [Galvalume], Grade 40, Coating Class A250 [Galvalume] Zinc Alloy.
- 3. ASTM A 755, Pre-Finished, Sheet Steel [Galvanized/Galvalume], Grade 40, Coating Class A250 or G90, Pre-painted by the coil coating process.
- 4. ASTM B 209, Aluminum.
- 5. ASTM D 1970 Self-Adhered Membrane
- 6. ASTM E 108 Fire Test of Roof Coverings.
- 7. ASTM E 2112 Installation of Exterior Door Flashings.
- 8. [FMG] Factory Mutual Global - Current Approval System [NAV assembly numbers], Loss Prevention Data Sheets for Roof Deck Securement for Above Deck Roof Components, Perimeter Flashings, Wind Design-ANSI/FM 4474, Approval Standards for Roof Materials FM 4470 and Roof Loads for Construction
- 9. [UL] Underwriters Laboratories - Roofing Materials and Systems Directory, Fire Resistance Directory, Current Edition.
- 10. [NRCA] National Roofing Contractors Association - Current Roofing and Waterproofing Manual, including shop fabricated metal edge testing.
- 11. [AISC] Manual of Steel Construction
- 12. [SMACNA] Sheet Metal and Air Conditioning Contractors Association-Current Manual.
- 13. [OSHA] Occupational Safety and Health Administration, Guidelines
- 14. [ASCE/SEI] 7-16 Minimum Design Loads for Buildings
- 15. [ANSI/SPRI/FM 4435] standard ES-1-17 Wind Design for Edge Systems
- 16. [NFPA] National Fire Protection Association, 58 Liquefied Petroleum Gas Code
- 17. [ANSI/SPRI] WD-1 Wind Design Standards.

1.3 QUALITY ASSURANCE

- A. Fabricator/Installer: Company specializing with skilled workers in sheet metal with minimum 5 years documented experience, never been terminated by a manufacturer for workmanship problems and be capable of providing the warranties as specified.

- B. Sheet Metal items and installation shall comply with SMACNA's [Architectural Sheet Metal] and NRCA's [Roofing] current manuals.

1.4 COORDINATION

- A. Coordinate sheet metal flashing, trim layout installation with adjoining roofing to provide a leakproof, secure non-corrosive installation.

1.5 PERFORMANCE REQUIREMENTS

- A. Fire Hazard Classification: Underwriters Laboratories [UL], Use only Class A fire-rated materials as tested in accordance with ASTM E 108 or UL 790 for exterior fire.
- B. Install sheet metal items to withstand wind loads, structural movement, by preventing buckling, opening of joints, hole elongation, failure of joint sealant, failure of connections and other detrimental effects.
- C. All perimeter metal items [copings and edges] must have been tested to resist the wind design loads for the building.

1.6 DELIVERY, STORAGE and HANDLING

- A. Do not overload the structure with storage of materials; verify roof deck weight capacity and location of structural supports, only items needed that day shall be stored on the roof. Limit loads on roof to 25 pounds per square foot for uniformly distributed loads for metal / wood decks, 75 pounds per square foot for uniformly distributed loads for concrete decks. Store and protect products in accordance with manufacturer's instructions.
- B. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact. Protect sheet metal items during transportation and handling.
- C. Store products in weather-protected environment [manufacturer's plastic wrap is accepted for proper protection, unless wrap is broken, torn or removed], clear of ground 4 inches minimum and protected from exposure from direct sunlight. Use breathable tarps for moisture protection as needed. Damaged materials will be marked 'rejected' by the Contractor / Owner or Architect and removed from the site.
- D. Storage of flammable liquids in buildings is prohibited. All combustible debris shall be removed from the site daily.

1.7 WEATHER CONDITIONS

- A. Do not apply materials during inclement weather, high winds or when the chance of rain is 60% or greater, percentage as listed on [www: weather.com](http://www.weather.com) for the local area, percentage as listed when read at 7 AM local time or at time of work commencement.

1.8 SEQUENCING and SCHEDULING

- A. Building space underneath roof work is utilized by on-going operations. Coordinate all work with Owner including, material storage, scaffolding [as required] and contractor parking. Owner's approval required before proceeding with the work. **Contractor must provide overhead protection for owner's workers from falling materials/debris at building entry points.**

1.9 MANUFACTURERS WARRANTIES

- A. Provide a manufacturer's warranty for both repairs/replacements due to any faults in the material and workmanship. Any repairs/replacement due to normal wear and tear, material finish defects and workmanship defects.
 - 1. Sheet metal items shall be warranted watertight for [20] twenty years by the roof membrane manufacturer.

2. Sheet metal manufacturer of record must provide a [20] twenty-year finish warranty for the metal fascia, coping and edge as outlined herein, Warranty shall cover finish fading, chalking, cracking, peeling or failure of paint to adhere to the base metal. The warranty shall be a lifetime warranty for defects of material or failure to resist wind speeds as outlined.
 3. Sheet metal coping and roof edges that terminate into/attach to [incorporated] into the roof membrane shall be warranted for winds up to 120 MPH or higher by the roof membrane manufacturer [part of the roof warranty] or by the metal manufacturer. Pre-manufactured items regardless of their location must be warranted and be tested by the metal manufacturer to resist failure [blow off] for wind speeds up to 120 mph and be certified to meet or exceed the design pressure as stated herein. The installation of these items must be in compliance with the metal manufacturers installation requirements and field condition attachments guidelines and as shown. The roof manufacturer can incorporate this warranty requirement into their roof warranty if approved by their metal manufacturer/fabricator.
- B. In the event of a default by the contractor, the manufacturer will provide a new contractor to fulfill the warranty obligation.

1.10 PORTABLE FIRE EXTINGUISHERS

- A. Two standard listed multipurpose dry chemical fire extinguisher, NFPA 10, with 10-pound capacity, 4A-60B:C UL rating shall be provided and located near the work area. Additional fire extinguishers shall be provided for different roof levels/work sites [see general requirements]. Contractor to ensure all personnel are trained to use fire extinguishers.

1.11 DEFINITIONS

- A. Shop fabricated includes items that will be formed at the fabricators shop predominately by press brake. Prefabricated or manufactured items will be plant manufactured ready for installation and wind rated in compliance with ANSI/SPRI ES-1.

PART 2 - PRODUCTS

General: All products shall be Building Code approved as applicable.

2.1 FABRICATION

- A. Fabricate sheet metal items to comply with recommendations in SMACNA [architectural Sheet metal manual] and NRCA's [the NRCA roofing manual]. Conceal fasteners and expansion provisions where possible on exposed to view items. Provide expansion provisions as recommended where lapped or bayonet type expansion cannot be used.

2.2 FASTENERS/SPECIALTY ITEMS

General: Fasteners/Anchors: strength, type and configuration must meet the required pull test resistance for each attachment application. Fastener rate and pattern must be Factory Mutual or local code approved to meet the intent of the wind uplift rating specified.

- A. The Contractor shall determine fastener lengths,
1. Minimum embedment:
 - a. Steel: 3/4-inch
 - b. Concrete/concrete block: 1-1/4 inch
 - c. Gypsum: 2-inch,
 - d. Tectum: 2-inch
 - e. Wood: 1 1/4 inch.
 2. Fastener manufacturers: ITW Buildex, IWT Red Head, OMG and Tru-Fast or equal.
 3. All fasteners shall be corrosion resistant steel in accordance with ASTM F1667 or type 304 -316 stainless.

- B. Summary of fasteners and requirements are as follows, see roofing section:
1. Metal Counterflashing and other LG metal sheets to Wood, ITW Buildex, 'tru-grip', self-piercing, # 9 – 11/64-inch diameter, corrosion resistance steel shank with EPDM washer, if applicable.
 2. Metal Counterflashing and Other LG Sheet Metal [exposed] to Masonry, ITW Red Head, 1/4-inch diameter, 'Scots Tapcon', stainless steel-hex head, HL treads, corrosion resistant steel shank, with EPDM washer.
 3. General Purpose Stainless Steel: Series 304 fasteners, with or w/out EPDM washers as required.
- C. Summary of specialty items and requirements as follows:
- General: Sheet Metal Items: All metal components not incorporated into the roof system and not outlined herein or shown on the drawings shall be fabricated with *.032-inch-thick pre-finished aluminum or 24-gauge stainless steel unless otherwise noted*.
1. Penetration Pockets: 24-gauge stainless steel, soldered together with 4-inch roof flange and 4-inch height or size required for condition, only use if another manufacturer approved detail, field flashing, or liquid flashing system will not work for the conditions.
 2. Continuous Cleats: Galvanized steel, 22 gauge.
 3. Counterflashing: 24 gauge pre-finished metal, fabricated in lengths maximum 12 feet, designed to be removable. Counter flashing to be notched and lapped at inside corners and joints.
 4. Equipment Enclosure shall be 24-gauge galvanized metal, shop or pre-manufactured with top fabricated [angled] to allow no moisture from entering the pipe areas, access to pipes required. Solder all corners, as applicable. Install spray-in foam insulation around the pipes to seal watertight.
 5. Coping, Wind-Rated [pre-manufactured/ES-1 shop fabricated]: pre-finished, 22 or 24 gauge pre-finished metal coping cap as shown, without exposed fasteners cleated on both sides, [continuous cleated or anchor clips configuration cleats] tapered style [toward roof], butt joint. Provide factory-fabricated corners and intersections. Concealed 8-inch-wide splice plates which must allow the cap to expand and contract freely while locked in place, continuous cleats or with a heavy gage metal anchor clips [12 inches wide] anchored to nailer/substrate in accordance with print approvals [maximum spacing three feet on center-two feet in corners]. Size and shape as shown or to match existing wall width, roof membrane manufacturer approved and warranted to meet or exceed design pressures/winds speeds [see manufacturer's warranties]. 20-year leak proof warranty by the roof membrane manufacturer and 20-year finish warranty by the metal manufacturer. Copings shall be ANSI/SPRI/FM 4435 ES-1-17 tested and approved for winds speeds up to 120 MPH or higher. Pre-Manufactured by Metal Era's 'Perma-Tite tapered Coping or roof manufacturers equivalent.
 6. Drip Edge or Fascia, Wind-Rated [pre-manufactured/shop ES 1 fabricated] – face over 2 1/2 inches long: pre-finished 24 gauge pre-finished metal drip cover over extruded anchor bar, fastened to wood nailer with #10 screws, continuous cleated. Size, length, profile as shown, roof membrane manufacturer approved and warranted to meet or exceed design pressures/winds [see wind warranty] and 20-year finish warranty by the metal manufacturer. ANSI/SPRI/FM 4435 standard ES-1-17 and tested and approved for winds up to 120 MPH or higher. Pre-Manufactured by Metal Era's, Anchor Tite System [drip or fascia] or roof manufacturer's equivalent.
 7. Drip Edge [shop fabricated-not wind rated] - face under 2 1/2 inches: Does not require a cleat and shall be fabricated with 24 gauge, pre-finished metal.
 8. Scupper Lining: 24-gauge, stainless steel, solder all corners, size and shape as required or shown. Installation [SMACNA FIG.1-30A similar-see drawing].
 9. Skirt [bib] Flashing Metal: 24-gauge stainless steel or pre-finished 24 gauge metal, minimum 4 inch wide. Use stainless steel screws for anchoring.

10. Conductor Head: 24 gauge pre-finished metal, pop riveted and sealed, [SMACNA, style FIG 1-25F], top opening size as existing with other dimensions in accordance with SMACNA sizing recommendations or as required by condition.
11. Downspouts: 24 gauge pre-finished metal, rectangular shape, smooth with flat lock seams, complete with mitered elbows / offsets as required, size 3-inch x 4-inch, unless otherwise noted, see roof plan for locations.
12. Downspout Hangers: 1 inch wide, 1/16-inch thick pre-finished metal [primed and painted] to match downspout color [SMACNA Fig 1-35A]. Install hanger at 10 foot on center maximum intervals. Coordinate placement with building lines and offsets as required.

2.3 SHEET METAL

General: Roof membrane manufacturer supplied and approved components [copings/roof edges - as required/shown] must be used, these sheet metal components must be pre-manufactured and be tested and approved in accordance with ANSI/SPRI/FM 4435/ES-1 test method standard and must be included into the roof warranty [as outlined]. Fabricated by Metal Panel System, Architectural Products, Metal Era, Pac-Clad Peterson, Una-Clad, Drexel Metals or Dimensional Metals, etc. *Some wind rated items may be shop fabricated, if pre-manufactured item is not currently available [a metal fabricator [see above] and roofing material manufacturer may allow the roofing contractor to use their metal/materials/installation methods and shop fabricate and install the items in accordance with their wind rated ANSI/SPRI/FM 4435-ES-1 standard approved tested requirements.] This will only be accepted if the contractor is an NRCA approved installer for ES-1 tested products and the item will comply/match Architect's detail [size/gauge/installation method] and an ES-1 current product certification is provided for each item. In all cases, the roof material manufacturer must approve/warrant the sheet metal items in accordance with meeting/exceeding the wind resistance requirements and finish warranties as outline herein and any other design requirements].* All other metal shall be shop fabricated in accordance with SMACNA 6th Edition or other details or pre-manufactured as shown.

- A. Pre-Finished Sheet Steel [Galvalume]: ASTM A792, grade 40, class A250, 24 or 22 gauge [as noted], primed and repainted by coil coating, finished exposed to view side with a fluoropolymer Kynar 500 [PVDF] thermally cured coating and a wash coat .5 mil thick applied to the reverse side; 20-year warranty covering fade, chalking and film integrity. Colors as selected by Owner.
- B. Pre-Finished Sheet Steel [Galvanized]: ASTM A755/A653, G90, 24 or 22 gauge [as noted], primed and repainted by coil coating, finished exposed to view side with a fluoropolymer Kynar 500 [PVDF] coating and a wash coat .5 mil thick applied to the reverse side; 20-year warranty covering fade, chalking and film integrity. Colors as selected by Owner.
- C. Pre-Finished Aluminum: ASTM B209, 3105 H15 alloy, thickness .032, .040 or .50 inches [as noted], primed and repainted by the coil coating, finished exposed to view side with a fluoropolymer kynar 500 [PVDF] thermally cured coating and a wash coat 0.5 mil thick applied to the reverse side; 20-year warranty covering fade, chalking and film integrity. Colors as selected by the Owner.
- D. Galvanized Sheet Steel: ASTM A653, hot dipped, zinc coated, G90, gauges as shown.
- E. Stainless Steel: ASTM A240/A 240M, dead soft fully annealed, smooth 24-gauge, Type/Grade 304 [painted or not] and 316 [exposed to view].

2.4 SEALANTS/TAPES

General Use: Provide joint sealants for sheet metal, backing and other materials as required to seal joint that are compatible with each other based upon industry test and field experience.

- A. ASTM C920, Type, Grade, Class as required to seal joints, single component, elastomeric silicone polymer, non- staining, non-shrinking, non-sagging and ultra-violet resistant, clear or to match surrounding existing color.

1. Refer to section 079201.
- B. Gutter: GE Silicone II, clear in color, or approved equal.
- C. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release paper.

PART 3 - EXECUTION

3.1 EXAMINATION and CONDITIONS

- A. Verify that surfaces and site conditions are ready to receive work.

3.2 PROTECTION

- A. Protect building surfaces/interior spaces against damage from work.
- B. Provide, erect barricades and guardrails as required by applicable regulatory advisory to protect occupants of building and workers.

3.3 INSTALLATION OF SHEET METAL AND SPECIALTY ITEMS

General: Sheet metal items shall be installed in accordance with **manufacturer's and NRCA's/SMACNA** recommendations and details from their current manual. Anchor sheet metal items securely in place with provisions for expansion. Use items as required to complete the sheet metal or drainage system. Where dissimilar metals contact each other, protect against galvanic action by coating material as recommended by the fabricator. Seal joints with sealant as required for a watertight condition.

- A. Continuous cleat [for non-pre-manufactured metal components]: Cleats shall not exceed 12 feet in length; allow a 1/4 inch gap between pieces. Fasten cleat to wood nailer top as applicable at 4 inches on center [staggered pattern-1 inch from edge] with corrosion resistant annular threaded nails [3/16-inch head], long enough to penetrate the wood 1-1/4 inch.
- B. Penetration pans shall have mortar installed in the bottom of pitch pans with polyurethane pourable sealer [2-inch depth minimum] filled to the top of the pan, then slope.
- C. Skirt [Bib] flashing shall be installed around all roof top units/supports and all items that cannot be removed and reinstalled. Position under unit curb and anchor to unit with corrosion resistance fasteners with EPDM washers at 12 inches on center unless otherwise noted.
- D. Equipment enclosure shall have mortar installed in the bottom with polyurethane pourable sealer [2-inch depth minimum] filled. Seal pipes that exit enclosure with sealant/foam.
- E. Termination bars shall be placed no more than 1-1/2 inches down from the top of the base flashing and be fastened at 6 inches on center with concrete self-tapping [tapcon] or wood fasteners, as applicable, fitted with an EPDM washer. Provide sealant at the top edge of bars.
- F. Counterflashing [CF] shall be surfaced mounted [SM] or in existing or new reglets/receivers with lap joints 4 inches. Attach SM with concrete self-tapping [tapcon] or wood fasteners, as applicable fitted with an EPDM washer at 12 inches on center, 1-inch minimum embedment. Apply a bead of sealant on the top of 45° angle lip of the metal flashing if SM type. CF shall overlap base flashing a minimum of three inches, fit tightly to base flashing and shall terminate no lower than 4 inch above finished roof surface, unless approved by the manufacturer.
- G. Wind Rated ES-1 approved coping sections shall be jointed together with a butt type joint with 8-inch-wide concealed splice located underneath the 10 to 12-foot-long panels, which must allow to expand and contract freely while locked in place. Provide factory-fabricated corners, intersections and ends. Coping metal anchor clips to be anchored to wood nailer or surface material at splice joints and within the coping panel [approx. every three feet on center-2 feet in corners.] or coping that is installed using continuous cleats on both sides shall have cleats anchored on top of nailer at 12 inches on center. Provide self-adhered or adhered 60 mil thick

EPDM over nailers/substrate to allow moisture to drain off edges without moisture to enter wall under coping cap [provide non-curing dual sealant strips on each side of splice plates], ensure EPDM membrane covers all wood nailers/substrate. Both methods shall use stainless steel fasteners or other fasteners to meet the wind resistance pressures as shown and as recommended by coping manufacturer **printed approvals**. Coping shall have a 4-inch vertical end flange where terminating into wall, counter-flash flanges.

- H. Wind Rated, ANSI/SPRI/FM 4435/ES-1 approved roof fascia/drip shall have an extruded anchor bar, face fastened as outlined per the metal manufacturer, 12 inches on center to the nailer with 2-inch-long #10 stainless steel fasteners with the roofing membrane extending under the anchor bar and down face of nailer or wall surface. Fascia/drip cover plate shall be cleated and snapped in place with no exposed fasteners. The formed roof flange/cover plate shall be set in approved sealant/mastic on finished roof surface with the written manufacturer's guidelines. Edge face shall exceed down to overlap and cover nailers onto exterior wall minimum 2 inches or existing metal fascia as shown. Follow manufacturer installation instructions.
- I. Conductor heads shall be installed in accordance with Fig 1-25 F SMACNA. Set top of conductor head at 1 inch below scupper to permit overflow. Provide extended face plate around scupper opening as required to cover old profile.
- J. Downspouts shall be attached to the conductor with screws. Attach downspout sections to wall with 1-inch-wide, 1/16-inch steel straps [2 per 10-foot section] - Fig 1-35 A SMACNA, with stainless steel screws anchored into solid support members. Down spouts terminating at ground or roof shall be provided with an elbow fitting and a concrete splash block [provide a roof membrane sheet under blocks that terminate on the roof]. If existing receivers are available or new undergrade piping is installed, downspouts shall be inserted into receivers, provide size and shape adapters as necessary.
- K. Drip edge [face under 2-1/2 inches in length]. Anchor roof flange onto wood nailers with screws or nails driven flush at 4 inches on center, staggered. Drip edge face to extend into gutter or overlap fascia board minimum 3 inches.

3.4 CLEANING

- A. In areas where finished surfaces are soiled by any other source of soiling caused by work of this section, consult manufacturer for cleaning advice.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 07 62 10 - SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Installation of new sheet metal flashings and counterflashings for siding / building enclosure components, except for roof related components [Refer to Section 07 62 00].

1.2 SYSTEM DESCRIPTION

- A. Sheet Metal System: Conform to criteria of [SMACNA "Architectural Sheet Metal Manual."]

1.3 SUBMITTALS

- A. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, termination, and installation details.

1.4 COORDINATION

- A. Coordinate sheet metal flashing, trim layout installation with adjoining building enclosure components such as siding, trim, openings, penetrations, etc. to provide a leakproof, secure non-corrosive installation.

1.5 PERFORMANCE REQUIREMENTS

- A. Fire Hazard Classification: Underwriters Laboratories [UL], Use only Class A fire-rated materials as tested in accordance with ASTM E 108 or UL 790 for exterior fire.
- B. Install sheet metal items to withstand wind loads, structural movement, by preventing buckling, opening of joints, hole elongation, failure of joint sealant, failure of connections and other detrimental effects.

1.6 DELIVERY, STORAGE and HANDLING

- A. Do not overload the structure with storage of materials; verify roof deck weight capacity and location of structural supports, only items needed that day shall be stored on the roof. Limit loads on roof to 25 pounds per square foot for uniformly distributed loads for metal / wood decks, 75 pounds per square foot for uniformly distributed loads for concrete decks. Store and protect products in accordance with manufacturer's instructions.
- B. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact. Protect sheet metal items during transportation and handling.
- C. Store products in weather-protected environment [manufacturer's plastic wrap is accepted for proper protection, unless wrap is broken, torn or removed], clear of ground 4 inches minimum and protected from exposure from direct sunlight. Use breathable tarps for moisture protection as needed. Damaged materials will be marked 'rejected' by the Contractor / Owner or Architect and removed from the site.
- D. Storage of flammable liquids in buildings is prohibited. All combustible debris shall be removed from the site daily.

1.7 SEQUENCING and SCHEDULING

- A. Building space underneath roof work is utilized by on-going operations. Coordinate all work with Owner including, material storage, scaffolding [as required] and contractor parking. Owner's approval required before proceeding with the work. **Contractor must provide overhead protection for owner's workers from falling materials/debris at building entry points.**

1.8 DEFINITIONS

- A. Shop fabricated includes items that will be formed at the fabricators shop predominately by press brake.

1.9 WARRANTY

- A. Furnish lifetime limited year manufacturer warranty for finishes.

PART 2 PRODUCTS

2.1 SHEET METAL FLASHING AND TRIM

- A. Pre-Finished Aluminum Sheet: ASTM B209; 3003 alloy, H15 alloy; mill finish shop pre-coated with acrylic color as selected from full range of manufacturer's standard colors.
 - 1. 20 gauge [0.032 inch thick] cladding / flashings where intended to be left exposed [including all fascia and rake, trim cladding, etc]. Alternate: install 24 gauge pre-finished metal cladding where needed / outlined on drawings. Coordinate with Section 07 62 00.
 - 2. 24 gauge [0.020 inch thick] or 26 gauge [0.016 inch thick] flashings at starter strips, concealed flashings, etc.
- B. Pre-Finished Galvanized Steel Sheet: ASTM A755/A755M; grade A; structural steel sheet, G90 (Z275) zinc coating; 24 gauge steel, shop pre-coated with two coat fluoropolymer top coat [Kynar 500, 70% formulation]; color as selected from full range of manufacturer's standard colors.

2.2 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers as required to suit conditions.
- B. Underlayment: ASTM D226; Type I, No. 15 unperforated asphalt felt.
- C. Protective Backing Paint: Bituminous.
- D. Slip Sheet: Rosin sized building paper.
- E. Sealant: Exterior metal lap joint butyl or polyisobutylene sealant as specified in Section 07 90 00.
- F. Plastic Cement: ASTM D4586, Type I.
- G. Reglets: As required to suit conditions.
- H. Primer and Solvent for Polyvinyl Chloride (PVC): As recommended by manufacturer.

2.3 FABRICATION

- A. Fabricate sheet metal items to comply with recommendations in SMACNA [architectural Sheet metal manual], NRCA's [the NRCA roofing manual], and siding manufacturer details. Conceal fasteners and expansion provisions where possible on exposed to view items. Provide expansion provisions as recommended where lapped or bayonet type expansion cannot be used.
- B. Form components to shape indicated on Drawings, accurate in size, square, and free from distortion or defects. Form pieces in longest practical lengths.
- C. Fabricate cleats and starter strips of same material as sheet, to interlock with sheet.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- E. Fabricate flashings to allow toe to extend 2 inches over roofing. Return and brake edges.
- F. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

- G. Fabricate corners in one piece, 18 inch long legs; seam for rigidity, seal with sealant.

2.4 SHOP FINISHING

- A. Acrylic coating: Baked enamel system conforming to AAMA 2603.
- B. PVDF (polyvinylidene fluoride) coating: Multiple coats, thermally cured, fluoropolymer system conforming to AAMA 2604 or AAMA 2605. (KYNAR 500)
- C. Primer Coat: Finish concealed side of metal sheets with primer compatible with finish system, as recommended by finish system manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, cant strips and reglets in place, and nailing strips located.
- B. Verify membrane termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to minimum dry film thickness of 15 mil.

3.3 INSTALLATION

- A. Install starter and edge strips, and cleats.
- B. Install surface mounted reglets. Seal top of reglets with sealant. Insert flashings to form tight fit. Seal flashings into reglets with sealant.
- C. Secure flashings in place using [concealed] fasteners.
- D. Install cladding over existing / new wood substrate. Brake form to profiles required in the longest lengths practical. Hang to minimize oil canning and other unintended movement / twisting, etc. Allow for expansion and contraction.
- E. Apply plastic cement compound between metal work and felt flashings.
- F. Fit components tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- G. Seal joints watertight.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 07 76 10 – RUBBER PAVING TILES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes resilient, interlocking, architectural rubber paving tiles.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating materials, component profiles, jointing details, sizes, surface texture, finishes / colors, and accessories.
- B. Samples: Submit two samples illustrating surface texture and color.

1.3 REFERENCES

- A. ASTM C 67 – Standard Test Method Methods for Sampling and Testing Brick and Structural Clay Tile.
- B. ASTM D 395 – Standard Test Methods for Rubber Property–Compression Set.
- C. ASTM D 412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers–Tension.
- D. ASTM D 573 – Standard Test Method for Rubber-Deterioration in an Air Oven.
- E. ASTM D 624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- F. ASTM D 1667 – Standard Specification for Flexible Cellular Materials, Vinyl Chloride Polymers and Copolymers (Closed-Cell Foam).
- G. ASTM D 2047 – Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine.
- H. ASTM D 2859 – Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
- I. ASTM E 108 – Standard Test Methods for Fire Tests of Roof Coverings.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum of 5 years experience for the manufacturing of rubber paving tiles similar to those specified.
- B. Installer Qualifications: Minimum of 3 years' experience with installation of similar products.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Remodel mock-up area as required to produce acceptable work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation in accordance with manufacturer's instructions.
- B. Handle products to prevent damage.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Tile Temperature: Ensure surface temperature of rubber paving tiles is a minimum of 40 degrees F at the time of installation.

- B. Air Temperature: Ensure ambient air temperature is a minimum of 40 degrees F for a minimum of 24 hours prior to and at the time of installation.

1.7 PROJECT CONDITIONS

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

1.8 WARRANTY

- A. Limited lifetime product warranty against manufacturing defects, non pro-rated

PART 2 PRODUCTS

2.1 RUBBER PAVING TILES

- A. Description: Resilient, interlocking, architectural rubber paving and ballast tiles.
 - 1. Basis of Design: DuraSTRONG Rubber Paving Tiles, Plus Series, or Equal.
- B. Material: Compression-molded, recycled rubber and binding agents.
- C. Tile Locking: U-shaped male and female locking mechanism on all 4 sides of the tile to support tile-to-tile adhesion while ensuring tiles are held in place.
- D. Top Edges: Chamfered.
- E. Tile Sides: edge-cut system for maximum seam adhesion.
- F. Wear Layer: compression molded to obtain optimum density and durability. Combination of elongated SBR rubber and granulated crumb rubber. Pigmented to achieve color.
- G. Size: 24" x 24" nominal size.
- H. Thickness: 2-inches.
- I. Weight: 24 pounds.
- J. Color: As selected from the full range of available colors.
- K. Testing
 - 1. Freeze Thaw, ASTM C 67: No deterioration.
 - 2. Rubber Deterioration/Air Oven, ASTM D 573: No deterioration.
 - 3. Slip Resistance:
 - a. ASTM E 303: Dry: 51 minimum; Wet: 44 minimum.
 - b. ASTM D 2047: 0.533.
 - 4. Tensile Strength, ASTM D 412: 0.661 Mpa
 - 5. Elongation at Break, ASTM D 412: 68.5 percent
 - 6. Tear Strength, ASTM D 624: 2.2 kNm
 - 7. Flammability, Burning Pill, ASTM D 2859 – Pass
 - 8. Density, ASTM D 3676: 817 kg/m³
 - 9. Taber Abrasion, Wear Index, ASTM C 501: 205.

2.2 ACCESSORIES

- A. Corners:
 - 1. Prefabricated outside and inside corners.
 - 2. Material: Same as rubber paving tiles.
- B. Adhesive:
 - 1. Approved and furnished by manufacturer.
 - 2. Single-component, 100% solids, polyurethane.
 - 3. Waterproof and supplied in tube format.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive rubber paving tiles. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper slope, support and drainage for rubber paving tiles.
- B. Ensure existing sub-surface is clean and sound with no cracks or loose material.
- C. Do not damage EPDM roof membrane during installation.

3.3 INSTALLATION

- A. Install rubber paving tiles in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Apply adhesive in accordance with manufacturer's instructions for tile-to-tile installation.
- C. Cut rubber paving tiles to fit around fixed obstacles.
- D. Install additional rubber paving tiles securement at perimeter in accordance with manufacturer's instructions.

3.4 CLEANING

- A. Remove adhesive spills from rubber paving tiles in accordance with manufacturer's instructions.
- B. Clean rubber paving tiles in accordance with manufacturer's instructions.

3.5 PROTECTION

- A. Protect completed tiles from damage during construction.
- B. Protect rubber paving tiles from foot traffic for a minimum of 12 hours after installation.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 07 90 00 - JOINT PROTECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes sealants and joint backing.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

1.4 QUALITY ASSURANCE

- A. Sealant shall be installed by a qualified sealant applicator for any/all joint sealant exposed to view. Owner reserves the right to request a mockup of the quality for the joint sealant installation.

PART 2 PRODUCTS

2.1 JOINT SEALERS

- A. Manufacturers:
 - 1. Tremco [basis of design]
 - 2. Sika
 - 3. GE Silicones.
 - 4. Pecora Corp.
 - 5. DAP
- B. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- C. Low-Emitting Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. Liquid-Applied Sealants: Comply with ASTM C920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- E. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.
- F. Additional Movement Capability: Where additional movement capability is specified, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C719, to withstand the specified percentage change in the joint width existing at the time of installation and remain in compliance with other requirements of ASTM C920 for uses indicated.
- G. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range, unless otherwise noted.

2.2 SILICONE JOINT SEALANTS:

- A. **Type S-1:** Single component, nonsag, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, Use NT

1. Tremco Spectrem 1 or Spectrem 800 or Equal
- B. **Type S-2:** Single Component, nonsag, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 50, use NT
 1. Tremco Spectrem 2 or Spectrem 3 or Equal
- C. **Type S-3:** Multi-Component, Nonsag, Silicone Joint Sealant: ASTM C920, Type M, Grade NS, Class 50, Use NT
 1. Tremco Spectrem 4-TS or Equal
- D. **Type S-4:** Single Component, nonsag, Traffic-Grade, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, Use T
 1. Tremco Spectrem 800 or Equal
- E. **Type S-5:** Mildew Resistant, Single Component, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, Use NT
 1. Tremco Tremsil 200 Sanitary or Equal

2.3 URETHANE JOINT SEALANTS

- A. **Type U-1:** Single Component, nonsag, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25 or 35, Use NT:
 1. Tremco Dymonic or Dymonic FC or Equal
- B. **Type U-2:** Single Component, nonsag, Traffic Grade, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, Use T.
 1. Tremco Vulkem 116 or Equal.
- C. **Type U-3:** Multi-Component, nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use T.
 1. Tremco Dymeric 240 or Dymeric 240 FC or Equal
- D. **Type U-4:** Multi-Component, nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use NT.
 1. Tremco Vulken 227 or Equal
- E. **Type U-5:** Multi-Component, nonsag, Traffic Grade, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use T.
 1. Tremco Vulken 227 or Equal

2.4 BUTYL JOINT SEALANTS

- A. **Type B-1:** Butyl Rubber based Joint Sealants: ASTM C 1311
 1. Tremco General Purpose Butyl Sealant or Equal

2.5 LATEX JOINT SEALANTS

- A. **Type L-1:** Latex Joint Sealant: Acrylic latex or Siliconized Acrylic Latex: ASTM C834, Type OP, Grade NF or better
 1. Tremco Tremflex 834 or Equal.
- B. **Type L-2:** Paintable Mildew-Resistant Latex Joint Sealant: Acrylic Latex or Siliconized Acrylic Latex: ASTM C834, Type OP, Grade NF or better.
 1. Tremco Tremflex 834 or Equal.

2.6 ACCESSORIES

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C1330, Type C (closed-cell material with a surface skin) as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and

density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Oversized to 30 to 50 percent larger than joint width.
- C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to optimum sealant performance.
- D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.
- E. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated. Non-staining type, recommended by sealant manufacturer to suit application.
- F. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- G. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate surfaces and joint openings are ready to receive work.
- B. Verify joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with ASTM C1193.

3.3 INSTALLATION

- A. Perform installation in accordance with ASTM C1193.
- B. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
- C. Install bond breaker where joint backing is not used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.**
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Tool joints concave.

3.4 SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and non-traffic horizontal surfaces.
 1. Joint locations such as, but not limited to:
 - a. Construction joints in cast-in-place concrete.
 - b. Control joints in unit masonry.
 - 1) Provide joint sealants slightly darker than the adjacent masonry units. Provide multiple colors as may be required for match.

- c. Perimeter joints between masonry, concrete, or stone and frames of doors, windows, storefronts, louvers, and similar openings.
 - d. Lintels and shelf angles to masonry construction.
 - e. Butt joints between metal panels.
 - f. Control and expansion joints in ceiling/soffit and similar overhead surfaces.
 - g. Exterior joints between dissimilar materials where the joining of the two surfaces leaves a gap between the meeting materials or components as may be dictated by various methods of construction to make building watertight.
 - h. Other joints as indicated on Drawings.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type S-1, Type S-2, Type S-3**
 - 3. Color: As selected by Architect from manufacturer's full range of colors.
- B. Joint-Sealant Application: Interior joints in horizontal traffic surfaces.
- 1. Joint locations such as, but not limited to:
 - a. Isolation joints in cast-in-place concrete slabs.
 - b. Perimeter of floor slabs or concrete curbs which abut vertical surfaces.
 - c. Areas around all piping systems that penetrate the slab or foundation walls below grade (utility trenches, electrical conduits, plumbing penetrations, etc.).
 - d. Control and expansion joints in tile flooring.
 - e. Other joints as indicated on Drawings.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type S-4**
 - 3. Color: As selected by Architect from manufacturer's full range of colors.
- C. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal non-traffic surfaces, subject to movement, unless otherwise noted.
- 1. Joint locations such as, but not limited to:
 - a. Control joints on exposed interior surfaces of exterior walls.
 - b. Interior joints where interior partitions meet exterior walls of dissimilar materials and components.
 - c. Other joints as indicated on Drawings.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type U-1**
 - 3. Color: As selected by Architect from manufacturer's full range of colors. Paintable Sealant, prep for painted finish.
- D. Joint-Sealant Application: Interior joints in vertical surfaces subject to abuse and movement.
- 1. Joint locations such as, but not limited to:
 - a. Vertical joints, including control joints and joints between masonry and structural support members, on exposed surfaces of interior unit masonry walls and partitions.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type U-2**
 - 3. Color: As selected by Architect from manufacturer's full range of colors.
- E. Joint-Sealant Application: Interior joints in vertical surfaces not subject to movement.
- 1. Joint locations such as, but not limited to:
 - a. Interior perimeter joints of exterior openings.
 - b. Perimeter joints between interior wall surfaces and frames of interior doors, windows, and elevator entrances.
 - c. Interior joints between dissimilar materials where a gap is created where materials meet, unless otherwise noted.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type L-1, Type L-2**
 - 3. Color: As selected by Architect from manufacturer's full range of colors.

- F. Joint-Sealant Application: Mildew-resistant interior joints in non-painted vertical surfaces and horizontal nontraffic surfaces.
 - 1. Joint locations such as, but not limited to:
 - a. Interior joints between plumbing fixtures and adjoining floors and counters.
 - b. Joints between countertops and backsplashes.
 - c. For interior joints in non-painted vertical and horizontal surfaces where incidental food contact may occur.
 - d. Tile control and expansion joints where indicated.
 - e. Other joints as indicated on Drawings.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type S-5**
 - a. For potable water storage sealant shall be certified by National Sanitation Foundation as conforming to the requirements of NSF Standard 61 – Drinking Water System Components – Health Effect.
 - b. For surfaces where incidental food contact may occur sealant must comply with United States Department of Agriculture (USDA) guidelines for incidental food contact with cured sealant.
 - 3. Color: As selected by Architect from manufacturer's full range of colors.
- G. Joint-Sealant Application: Mildew-resistant interior joints in painted vertical surfaces and horizontal non-traffic surfaces.
 - 1. Joint locations such as, but not limited to:
 - a. Interior joints between plumbing fixtures and adjoining painted walls.
 - b. Joints where countertops or backsplashes intersect painted walls.
 - c. For interior joints in painted vertical and horizontal surfaces where incidental food contact may occur.
 - 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type L-2**
 - 3. Color: As selected by Architect from manufacturer's full range of colors.
- H. Joint-Sealant Application: Interior or exterior joints in vertical surfaces between laps in fabrications of sheet metal.
 - 1. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type U-1**
 - 2. Color: As selected by Architect from manufacturer's full range of colors.
- I. Joint-Sealant Application: Exterior joints under metal thresholds and saddles, sill plates, or as bedding sealant for sheet metal flashing and frames of metal or wood.
 - 1. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type S-1, Type U-1, Type B-1**
 - 2. Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 08 11 15 - PRE-ASSEMBLED METAL DOORS AND FRAMES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Pre-assembled steel entry doors in wood / composite frames.

1.2 SUBMITTALS

- A. Product Data: Submit frame and door configurations, core materials, finishes, fire ratings, and Energy Star Compliance.

1.3 QUALITY ASSURANCE

- A. Perform glazing Work in accordance with the following:
 - 1. Insulated Glass: Fabricate insulated glass units in accordance with GANA (formerly FGMA) Glazing Manual.
 - 2. Safety Glass: Conform to CPSC 16 CFR 1201 and applicable codes.
- B. Surface Burning Characteristics:
 - 1. Foam Insulation: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84.
- C. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
- D. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
 - 1. Installer shall be certified by Manufacturer.

1.4 WARRANTY

- A. Furnish five year manufacturer's warranty on workmanship and materials.
- B. Furnish five year manufacturer's warranty for insulated glass units from seal failure, interpane dusting or misting, including replacement.

PART 2 PRODUCTS

2.1 PRE-ASSEMBLED STEEL DOORS AND FRAMES

- A. Manufacturers:
 - 1. Masonite: High Definition Steel Entry Doors.
 - 2. Therma-Tru: Profiles Steel Entry Doors, Equal to Above Style.
 - 3. Jeldwen: Premium Steel Exterior Door, Equal to Above Style.
 - 4. Lansing Housing Products

2.2 ENTRY DOORS

- A. Construction: Tension-leveled cold rolled steel, zinc-coated, conversion coated to permit paint bond skins:
 - 1. Thickness: 1-3/4 inch thick; 24 gauge steel sheet face, 0.021 inch minimum.
 - 2. Door surface: smooth, flush style with glazed openings, design as indicated on Drawings
 - 3. Door Core Construction: Thermally Broken, wood stiles and rails, with foamed in place insulation.
 - 4. Door Edges: Machinable kiln-dried pine or engineered composite lumber mechanically locked to door faces, four sided full thermal break provided, lock area reinforced with solid blocking in full area of passage and deadbolt locksets.
 - 5. Door Bottom Edge: Moisture- and decay-resistant composite.

6. Door Bottom Edge Weatherstripping: Bottom Sweep compatible with accessible threshold; provide corner seal pads as required to seal bottom of door at frame.
7. Core: Foamed-in-place polyurethane, density 1.9 pcf minimum.
8. Finish: White primed. [ready for field paint]
9. Glazing Style: Clear, Full lite insulated glazing.
10. Door Configuration: Frame hinge, inswing patio door – sized to fit existing rough opening / door being removed, left and right hand configurations to match existing.
11. Energy Efficiency: Maximum U-Value of 0.30.

2.3 DOOR FRAMES

- A. Composite Frames: Rot-resistant door frame, mullions, and brickmold, as supplied by Door manufacturer. Formed with integral stop for weatherstripping; accessible style threshold.
 1. Jamb Width: +/- 6-9/16 inch; Match existing wall thickness, field verified by Contractor.
 2. Mullion: Storm door ready Mullion [& Adaptor as required]; nominal 2 inch width
 3. Trim: Composite 2" brickmold
 4. Sill: High Dam type unless located in accessible unit
 5. Hinges: Steel, full mortise butt hinges; 4 x 4 inches, finish to match door hardware specified in Section 08 71 00.
 6. Finish: Painted

2.4 COMPONENTS

- A. Steel Sheet: Galvanized to ASTM A653/A653M G60 coating class.
- B. Insulation: Polyurethane.
- C. Insulating Glass: Sealed double pane units with Low E coating with internal grid. Max U-Value of 0.30.
 1. Outer Pane: Clear fully tempered safety glass, Low-E Coating.
 2. Inner Pane: Clear fully tempered safety glass.
 3. Pane Thickness: Minimum 1/8 inch thick.
 4. Minimum Total Unit Thickness: 5/8 inch minimum.
 5. Internal Decorative Pattern: as indicated on Drawings.

2.5 HARDWARE

- A. Weatherstripping: Jacketed, thermoset open-cell foam, press-fit in kerfs at jamb stops in frames. Medium Reach Compression type; Bottom sweep compatible with accessible threshold.
 1. Note: insulation shall be installed to fully prevent passage of light and air thru any gaps in the frame and door leaf.
- B. Hardware Finish: US 26D [unless directed Otherwise by Owner]
- C. Remainder of Hardware: Specified in Section 08 71 00.

2.6 ACCESSORIES

- A. Door Casings:
 1. Exterior: 2 inch brickmold or 1x trim
 2. Interior: wood casing.
- B. Bituminous Coating: Non-asbestos fibered asphalt emulsion.
- C. Primer: Manufacturer's standard rust inhibitive type.

2.7 FABRICATION

- A. Fabricate doors and frames as pre-hung single piece jamb units with continuous threshold for each opening.
- B. Fabricate pre-hung units with hardware reinforcement welded in place.
- C. Configure exterior frames to accept weatherstripping.

- D. Factory glaze doors.
- E. Attach fire rating label to each fire rated door and frame.

2.8 FACTORY FINISHING

- A. Doors and Frames:
 - 1. Primer: Baked on dry powder.
 - 2. Finish Coating: Field Applied.
- B. Hardware Finish:
 - 1. Steel Components: Satin chrome finish or with finishes to match door hardware as applicable.
 - 2. Aluminum Components: Mill finish.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify framed openings are correct size and thickness and project conditions are acceptable.

3.2 INSTALLATION

- A. Install units in accordance with manufacturers installation instructions.
- B. Install fire rated assemblies in accordance with NFPA 80.
- C. Install doors and frames plumb, level and square.
- D. Coordinate installation of hardware specified in Section 08 71 00.
- E. Field Finishing: As specified in Section 09 90 00.
- F. Adjust door and frame units to ensure smooth and balanced movement.

3.3 ERECTION TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edges, crossed corner to corner.

3.4 SCHEDULES

- A. Exterior Entry Doors: Steel door with wood / composite frame; sized per drawings, style as indicated on drawings; with continuous threshold. Hardware per section 08 71 00.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 08 71 00 - DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes hardware exterior patio doors being replaced as part of this project.
 - 1. Provide cylinders and keys for all doors.

1.2 SUBMITTALS

- A. Shop Drawings:
 - 1. Indicate locations and mounting heights of each type of hardware, schedule, and catalog cuts.
 - 2. Submit manufacturer's parts list, and templates.
- B. Manufacturer's installation instructions: Submit special procedures, and perimeter conditions requiring special attention.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of installed cylinders and their master key code.
- B. Operation and Maintenance Data: Submit data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- C. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the following requirements:
 - 1. ANSI A156 series.
 - 2. NFPA 80 - Fire Doors and Windows.
 - 3. NFPA 101 - Life Safety Code.
- B. Furnish hardware marked and listed in BHMA Directory of Certified Products.
- C. Coordinate work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware and recessed items.
 - 1. Provide templates or actual hardware as required to ensure proper preparation of doors and frames.
- D. Coordinate Owner's keying requirements during course of work.

1.5 WARRANTY

- A. Furnish five year manufacturer warranty for door hardware.

1.6 MAINTENANCE SERVICE

- A. Provide special wrenches and tools applicable to each different or special hardware component.

PART 2 PRODUCTS

2.1 DOOR HARDWARE

- A. Lockset, Latch Set, and Cylinder Manufacturers:
 - 1. KwikSet Delta Lever Latchset [match building standard]
- B. Deadlock Manufacturers:
 - 1. KwikSet SmartKey – Key Control Deadbolt [match building standard].

- C. Cylinders: Match CMHA standards, field verify all requirements.

2.2 COMPONENTS

- A. General Hardware Requirements: Where not specifically indicated, comply with applicable ANSI A156 standard for type of hardware required. Furnish each type of hardware with accessories as required for applications indicated and for complete, finished, operational doors.
 - 1. Templates: Furnish templates or physical hardware items to door and frame manufacturers sufficiently in advance to avoid delay in Work.
 - 2. Reinforcing Units: Furnished by door and frame manufacturers; coordinated by hardware supplier or hardware manufacturer.
 - 3. Fasteners: Furnish as recommended by hardware manufacturer and as required to secure hardware.
 - a. Finish: Match hardware item being fastened.
- B. Hinges: ANSI A156.1, full mortise type, template type, ANSI A156.7, complying with following general requirements unless otherwise scheduled.
 - 1. Widths: Sufficient to clear trim projection when door swings 180 degrees.
 - 2. Number: Furnish minimum three hinges to 90 inches high, four hinges to 120 inches high for each door leaf.
 - 3. Pins: Furnish nonferrous hinges with non-removable pins (NRP) at exterior doors, non rising pins at interior doors.
 - 4. Tips: Flat button tips with matching plug.
- C. Locksets: Furnish locksets compatible with specified cylinders. Furnish standard strikes with extended lips to protect trim from being marred by latch bolt verify type of cutouts provided in metal frames.
 - 1. Bored (Cylindrical) Locksets: ANSI A156.2, Grade 3 unless otherwise indicated.
- D. Latch Sets: Match locksets. Typical 2-3/4" backset. Furnish standard strikes with extended lips to protect trim from being marred by latch bolt.
 - 1. Bored (Cylindrical) Latchsets: ANSI A156.2, Grade 3 unless otherwise indicated.
- E. Push/Pulls, Gaskets, Thresholds, and Trim: Furnish as indicated in Schedule, with accessories as required for complete operational door installations.
 - 1. Weatherstripping: Furnish continuous weatherstripping at top and sides of exterior doors.
 - 2. Thresholds: Standard high dam type at non accessible dwelling units.
- F. Cylinders: Match Owner Standard.
- G. Keying: Keyed as directed by Owner to integrate with existing Keying Schedule.
 - 1. Keys: Nickel silver. Stamp keys with "DO NOT DUPLICATE".
 - 2. Supply keys in the following minimum quantities
 - a. 3 keys per residential unit.

2.3 ACCESSORIES

- A. Lock Trim: Furnish levers with 2 3/8" rose.
- B. Through Bolts: Through bolts and grommet nuts are not permitted on door faces in occupied areas unless no alternative is possible.
 - 1. Do not permit through bolts on solid wood core doors.

2.4 FINISHING

- A. Finishes: ANSI A156.18; with following finishes except where otherwise indicated in Schedule at end of section.
 - 1. Hinges: Satin nickel.
 - 2. Exterior Door Hardware: Satin nickel

3. Thresholds: Finish appearance to match door hardware on exterior face of door.
4. Other Items: Provide manufacturer's standard finishes matching similar hardware types on same door, and maintaining acceptable finish considering anticipated use and BHMA category of finish.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify doors and frames are ready to receive work and dimensions are as indicated on shop drawings and as instructed by manufacturer.

3.2 INSTALLATION

- A. Coordinate mounting heights with door and frame manufacturers. Use templates provided by hardware item manufacturer.
- B. Mounting Heights from Finished Floor to Center Line of Hardware Item: Comply with manufacturer recommendations and applicable codes.
 1. Locksets: 38 inches
 2. Dead Bolt: 48 inches
 3. Top Hinge: Jamb manufacturer's standard, but not greater than 10 inches from head of frame to centerline of hinge.
 4. Bottom Hinge: Jamb manufacturer's standard, but not greater than 12-1/2" from floor to centerline of hinge.
 5. Intermediate Hinges: Equally spaced between top and bottom hinges and from each other.

3.3 ADJUSTING

- A. Adjust hardware for smooth operation.

3.4 SCHEDULE

- A. The following hardware sets are intended to establish type and standard of quality when used together with these section requirements. Examine Drawings and Specifications and furnish proper hardware for door openings.
 1. **Each new door requires two (2) of the Rockwood 528 stop. Also provide wall mounted plastic door stop plate at any door adjacent to a gypsum wall.**

Hardware Set H-1: Patio Entry Doors

Hinges:	1-1/2 pair, 4x4 butt hinges
Stops:	Rockwood 528, plastic wall plate
Lock Set:	ANSI function F75 [passage latchset]
Dead Bolt	ANSI function E0152 [deadbolt with interior thumbturn]
Weatherstripping	Compression type
Threshold	Standard, high dam threshold

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 09 90 00 - PAINTING AND COATING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints and other coatings.
- B. Paint/Stain all exposed surfaces, new and existing, unless otherwise indicated.
 - 1. Exterior Work:
 - a. Fiber Cement Siding and Trim
 - b. Wood and Composite Trim
 - c. Exterior Doors and Frames.
 - d. Miscellaneous exterior trim.
 - e. Steel Lintels
- C. Do not paint prefinished items, finished metal surfaces, operating parts, labels, and materials obviously intended to be left exposed such as brick and tile.
- D. Unless otherwise indicated do not paint concealed surfaces.
- E. Obtain primers and undercoat materials for each coating system from the same manufacturer as the finish coats. Primer and finish coat shall be factory applied, finish coat shall be field applied.
- F. **Extra Materials:** Deliver to Owner **any extra materials**, properly labeled, factory sealed, of each color and type of finish coat paint used on project for each building in contract.
- G. Minimum surface temperature of 50 degrees required for all coating systems.
- H. Store all materials in tightly closed containers when not in use, away from heat, electrical equipment, sparks and open flames. Use approved bonding and grounding procedures. Keep out of the reach of children and residents.
- I. Transfer materials to approved containers with complete and appropriate labeling.

1.2 APPLICATORS QUALIFICATIONS

- A. Engage an experienced applicator with a minimum of five years experience and who has completed painting systems application similar in materials and extend to those indicated for the Project and that have resulted in a construction record of successful in-service performance.

1.3 SUBMITTALS

- A. Product Data and Color Samples: Provide product data on each coating system component indicating VOC and environmental requirements. Coordinate coating systems for each material/substrate.

1.4 REFERENCES AND REGULATIONS:

- A. Standards: Comply with applicable provisions and recommendations of the following, except when otherwise shown or specified:
 - 1. OSHA Safety Standards for the Construction Industry, Title 29 - Labor, Subtitle B – Regulations Relating to Labor, Occupational Safety and Health Administration (OSHA) 1926, 07/01/93 editions.
 - 2. OSHA Worker Safety and Health Act Regulation 29 CFR No. Parts 1900 through 1910.1400, 07/01/93 and later editions.
 - 3. SSPC Volume 1, Good Painting Practice, 1989 edition.
 - 4. SSPC Volume 2, Systems and Specifications, 1991 edition, Surface Preparation Guide and Paint Application Specifications of the Steel Structures Painting Council.

5. NACE Standards, Volume I and II, 1992 editions of the National Association of Corrosion Engineers.
6. SSPC and NACE Painter Safety Guidelines, latest editions.
- B. Requirements of Regulatory Agencies, conform with the following:
 1. Clean Air Act (CAA) – hazardous Air Emissions by U.S. EPA or State Agency under Regulation 40 CFR 61 or state equivalent.
 2. Clean Water Act (CWA) – hazardous Water Releases by U.S. EPA or State Agency under Regulation 40 CFR 116 through 117 or state equivalent.
 3. Toxic Substances Control Act (TSCA) – Toxic substance by U.S. EPA under Regulation 40 CFR 761.
 4. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "SuperFund") – Uncontrolled Hazardous Waste Sites and Hazardous Substance Release by U.S. EPA under Regulation 40 CFR 302.
 5. Resource Conservation and Recovery Act (RCRA) – Generation, Transportation, Treatment, Storage and Disposal of hazardous waste by U.S. EPA or State Agency under Regulation 40 CFR 260 through 267 or state equivalent.
 6. Hazardous and Solid Waste Amendments (HSWA) – Further regulation of hazardous waste by U.S. EPA or State Agency under Regulation 40 CFR through 267 or state equivalent.
 7. Hazardous Material Transportation Act (HMTA) – Transportation of Hazardous Material by DOT or State Agency under Regulation 49 CFR 171 through 179 or state equivalent.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit maintenance and cleaning instructions.

1.6 QUALITY ASSURANCE

- A. Surface Burning Characteristics:
 1. Fire Retardant Finishes: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information:
 1. Product name and type (description)
 2. Application & use instructions
 3. Surface preparation
 4. VOC content
 5. Environmental handling and an SDS
 6. Batch date
 7. Color number
- B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.
- C. Handling: Maintain a clean, dry storage area to prevent contamination or damage to the coatings.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not apply coatings under environmental conditions outside manufacturer's absolute limits.

1.10 MOCKUP

- A. Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections and demonstrate aesthetic effects and set quality standards for materials and execution.

PART 2 PRODUCTS

2.1 PAINT AND COATINGS

- A. Manufacturer
 - 1. Sherwin-Williams (SW) – Basis of Design
 - 2. PPG Porter
 - 3. Benjamin Moore
- B. Paints and Coatings - General:
 - 1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such a procedure is specifically described in manufacturer's product instructions. VOCs need to be confirmed by using the products EDS sheets.
- C. Primers:
 - 1. Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- D. Coating Application Accessories:
 - 1. Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required per manufacturer's specifications.
- E. Colors: As selected from a full range of manufacturer's offerings, including premium colors.
- F. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.
 - 1. Lead: Measurable lead content in either the pigment or binder will not be permitted.
 - 2. The finish coats shall match colors selected.
- G. Finish Quality:
 - 1. Finishes shall exhibit a high quality, commercial grade appearance of uniform thickness.
 - 2. Finishes shall be free of runs, sags, drips, waves, orange peel, festoons, dry spray, cloudiness, spotting, ropiness, brush marks, roller marks, fish eyes or other surface imperfections, voids, discontinuities, pinholes, holidays and overspray.
 - 3. Final coat shall be uniform in texture, color and gloss, and shall provide an acceptable match with the approved drawdown sample sheet.
- H. Provide for a minimum of the following:
 - 1. Exterior Finishes: 4 colors [allow for different colors at different buildings]

2.2 EXTERIOR PAINT APPLICATION SCHEDULE

General: All coatings shall be applied according to manufacturer's application instructions, including application rates for wet film and dry film thickness.

- A. Exterior Fiber Cement Siding, Trim, Composite Trim, etc: [Satin Finish]
 - 1. 1st Coat: S-W Exterior Latex Wood Primer, B42W8141; or S-W Exterior Oil-Based Wood Primer [refer to S-W], not required for pre-primed materials.

2. 2nd Coat: S-W Duration Exterior Acrylic Latex Satin, K33-Series
3. 3rd Coat: S-W Duration Exterior Acrylic Latex Satin, K33-Series
- B. Metals - Ferrous: [Semi-Gloss Finish]
 1. 1st Coat: S-W Pro-Industrial Pro-Cryl Primer [as required to suit conditions]
 2. 2nd Coat: S-W Waterbased Alkyd Urethane Enamel, Semi-Gloss, B53-1150/2150 Series
 3. 3rd Coat: S-W Waterbased Alkyd Urethane Enamel, Semi-Gloss, B53-1150/2150 Series
- C. Metals – Aluminum / Galvanized: [Semi-Gloss Finish]
 1. 1st Coat: S-W Pro Industrial DTM Acrylic Primer / Finish, B66 Series
 2. 2nd Coat: S-W Pro Industrial DTM Acrylic Enamel Semi-Gloss, B66 Series
 3. 3rd Coat: S-W Pro Industrial DTM Acrylic Enamel Semi-Gloss, B66 Series
- D. Exterior Doors and Frames [Semi-Gloss Finish]
 1. 1st Coat: S-W Pro-Industrial Pro-Cryl Primer [as required to suit conditions]
 2. 2nd Coat: S-W Waterbased Alkyd Urethane Enamel, Semi-Gloss, B53-1150/2150 Series
 3. 3rd Coat: S-W Waterbased Alkyd Urethane Enamel, Semi-Gloss, B53-1150/2150 Series
- E. Miscellaneous metals and steel lintels:
 1. 1st Coat: S-W DTM Acrylic Primer/Finish.
 2. 2nd Coat: S-W SW DTM Acrylic Semi-Gloss Enamel Semi-Gloss, Acrylic Coating.
 3. 3rd Coat: S-W SW DTM Acrylic Semi-Gloss Enamel Semi-Gloss, Acrylic Coating.

2.3 PRE-CLEANING AND SURFACE PREPARATION PRODUCTS

- A. Pre-cleaning Agents
 1. SW No Rinse Prepaint Cleaner
 2. Krud Kutter
 3. Potable water
- B. Pre-cleaning (Power Wash) Equipment
 1. Capacity to continuously deliver 3-5 gpm at 2,500 psig of 180-200 degree F hot water.
 2. Cleaning system shall affect the 32-ounce per gallon dilution.
 3. Manufacturer: Alkota, Model 565T with model 520 water heater or approved equal.
 4. Power wash with 15 degree tip capable of delivering hot water at 2500 psig.
- C. Power Tool Surface Preparation Media:
 1. Scotch Brite No. 07451 by 3 M Corporation, Surface Conditioning disc.
 - a. Properties
 - b. Texture: A Medium
 - c. Maximum Speed: 18,000 RPM
 2. Clean 'N' Strip Disco No CSD2 by 3 M Corporation
 - a. Texture: Course
 - b. Maximum Speed: 8,000 RPM
 - c. Or approved equal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin application of coatings until substrates have been properly examined and prepared. Notify Architect of unsatisfactory conditions before proceeding.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Proceed with work only after conditions have been corrected, and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.
- D. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.2 SURFACE PREPARATION

- A. Comply with paint manufacturer's written instructions for surface preparation, environmental and substrate conditions, product mixing, and application.
- B. Perform all surface preparation in accordance with SSPC specifications, guidelines and good painting practices.
- C. Proper product selection, surface preparation, and application affect coating performance. Coating integrity and service life will be reduced because of improperly prepared surfaces. Selection and implementation of proper surface preparation ensures coating adhesion to the substrate and prolongs the service life of the coating system.
- D. Selection of the proper method of surface preparation depends on the substrate, the environment, and the expected service life of the coating system. Economics, surface contamination, and the effect on the substrate will also influence the selection of surface preparation methods.
- E. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.
- F. Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised.
- G. Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.
- H. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50°F, unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50°F or higher to use low temperature products.
- I. Methods:
 - 1. Aluminum: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.
 - 2. Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days at 75°F unless the manufacturer's products are designed for application prior to the 30-day period. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
 - 3. Concrete, SSPC-SP13 or NACE 6: This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls, and shotcrete surfaces. An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.
 - 4. Cement Composition Siding/Panels: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked

paint should be scraped and sanded to a sound surface. Pressure clean, if needed, with a minimum of 2100 psi pressure to remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. The pH of the surface should be between 6 and 9, unless the products are designed to be used in high pH environments.

5. Drywall—Exterior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
6. Exterior Composition Board (Hardboard): Some composition boards may exude a waxy material that must be removed with a solvent prior to coating. Whether factory primed or unprimed, exterior composition board siding (hardboard) must be cleaned thoroughly and primed with an alkyd primer.
7. Galvanized Metal: Clean per SSPC-SP1 using detergent and water or a degreasing cleaner to remove greases and oils. Apply a test area, priming as required. Allow the coating to dry at least one week before testing. If adhesion is poor, Brush Blast per SSPC-SP16 is necessary to remove these treatments.
8. Steel: Structural, Plate, etc.: Should be cleaned by one or more of the surface preparations described below. These methods are used throughout the world for describing methods for cleaning structural steel. Visual standards are available through the Society of Protective Coatings. A brief description of these standards together with numbers by which they can be specified follow.
9. Solvent Cleaning, SSPC-SP1: Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation.
10. Hand Tool Cleaning, SSPC-SP2: Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before Hand Tool Cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP1.
11. Power Tool Cleaning, SSPC-SP3: Power Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before Power Tool Cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP1.
12. White Metal Blast Cleaning, SSPC-SP5 or NACE 1: A White Metal Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.
13. Commercial Blast Cleaning, SSPC-SP6 or NACE 3: A Commercial Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 33 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.
14. Brush-Off Blast Cleaning, SSPC-SP7 or NACE 4: A Brush-Off Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose paint. Tightly adherent mill scale, rust, and paint may remain on the surface. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.
15. Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals, SSPC-SP16: This standard covers the requirements for brush-

off blast cleaning of uncoated or coated metal surfaces other than carbon steel by the use of abrasives. These requirements include visual verification of the end condition of the surface and materials and procedures necessary to achieve and verify the end condition. A brush-off blast cleaned non-ferrous metal surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, metal oxides (corrosion products), and other foreign matter. Intact, tightly adherent coating is permitted to remain. A coating is considered tightly adherent if it cannot be removed by lifting with a dull putty knife.

16. Power Tool Cleaning to Bare Metal, SSPC-SP11: Metallic surfaces that are prepared according to this specification, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxide corrosion products, and other foreign matter. Slight residues of rust and paint may be left in the lower portions of pits if the original surface is pitted. Prior to power tool surface preparation, remove visible deposits of oil or grease by any of the methods specified in SSPC-SP1, Solvent Cleaning, or other agreed upon methods.
17. Near-White Blast Cleaning, SSPC-SP10 or NACE 2: A Near White Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 5 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.
18. Water Blasting, NACE Standard RP-01-72: Removal of oil grease dirt, loose rust, loose mill scale, and loose paint by water at pressures of 2,000 to 2,500 psi at a flow of 4 to 14 gallons per minute.
19. Stucco: Must be clean and free of any loose stucco. If recommended procedures for applying stucco are followed, and normal drying conditions prevail, the surface may be painted in 30 days. The pH of the surface should be between 6 and 9, unless the products are designed to be used in high pH environments such as Loxon.
20. Wood—Exterior: Must be clean and dry. Knots and pitch streaks must be scraped, sanded, and spot primed before a full priming coat is applied. Patch all nail holes and imperfections with a wood filler or putty and sand smooth.
21. Vinyl Siding, Architectural Plastics & Fiberglass or other PVC, plastic building products. Clean the surface thoroughly by scrubbing with warm, soapy water. Rinse thoroughly, prime with appropriate white primer. Do not paint vinyl with any color darker than the original color. Do not paint vinyl with a color having a Light Reflective Value (LRV) of less than 56 unless VinylSafe® Colors are used. If VinylSafe® Colors are not used and darker colors lower than an LRV of 56 are, the vinyl may warp. Follow all painting guidelines of the vinyl manufacturer when painting. Only paint properly installed vinyl siding. Deviating from the manufacturer's painting guidelines may cause the warranty to be voided.

3.3 APPLICATION

- A. Examination and Verification of Condition: Contractor shall verify the areas and conditions under which the work is to be performed and notify the Owner in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until satisfactory conditions have been corrected. Do not coat over chalk, dirt, scale, moisture, oil, surface contaminants, coatings that have exceeded the manufacturer's re-coat guidelines, or conditions otherwise detrimental to the formation of a durable high quality coating system.
- B. Comply with manufacturer's instructions and SSPC Good Paint Practices Volumes 1 and 2.
- C. Comply with OSHA regulations, State of Ohio and Federal laws, ordinances, and guidelines.
- D. Follow manufacturer's requirements for temperature and humidity at time of application.
- E. Refer to SDS sheets before using any product.

- F. All surfaces must be thoroughly dry before coating applications. Do not apply to wet or damp surfaces.
 - 1. Wait at least 30 days before applying to new concrete or masonry or follow manufacturer's procedures to apply appropriate coatings prior to 30 days.
 - 2. Test new concrete for moisture content.
 - 3. Wait until wood is fully dry after rain or morning fog or dew.
- G. Apply coatings using brush or roller only.
- H. Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendation.
- I. Apply coatings using methods recommended by manufacturer.
- J. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.
- K. Apply coatings at spreading rate required to achieve the manufacturer's recommended dry film thickness.
- L. Regardless of number of coats specified, apply as many coats as necessary for complete hide.
- M. Exterior Woodwork: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 2 weeks.
- N. Inspection: The coated surface must be inspected and approved by the Architect or Engineer just prior to the application of each coat.

3.4 CLEAN UP

- A. Clean site and remove debris and empty cans daily. Remove all paint from adjacent surfaces. Clean spills and splatters immediately.
- B. Clean hands and tools immediately after use with soap and water for water based products and with mineral spirits for oil based products.
- C. Follow manufacturer's safety recommendations when using mineral spirits.

3.5 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

END OF SECTION