

**IFB# GHURA-23-15**

**Specification  
for the**

**Isla Apartments Improvement**

**OWNER  
Guam Housing and Urban Renewal Authority**

**BY: \_\_\_\_\_  
Elizabeth F. Napoli, EXECUTIVE DIRECTOR**

**Contractor: \_\_\_\_\_**

**By: \_\_\_\_\_  
Signature and Title**

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

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<b>IFB Number:</b> GHURA-23-15		<b>Submit bid to:</b>  <b>GHURA</b> <b>117 Bien Venida Ave.</b> <b>Sinajana, Guam 96910</b>  Contact: Sonny Perez, 475-1404 or email <a href="mailto:sperez@ghura.org">sperez@ghura.org</a>  Andrew Manglona, 475-1315 or email <a href="mailto:amanglona@ghura.org">amanglona@ghura.org</a>
<b>Bid Opening Date:</b> July 20, 2023	<b>Bid Opening Time:</b> 2:00 pm	
<b>Project Title:</b> Isla Apartments Improvement		
<b>Project Description:</b> Isla Apartment and sewer line improvement.		

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# GHURA

Guahan Housing and Urban Renewal Authority  
Aturidat Ginima' Yan Rinueban Siudat Guahan  
117 Bien Venida Avenue, Sinajana, GU 96910  
Phone: (671) 477-9851 · Fax: (671) 300-7565 · TTY: (671) 472-3701



**Lourdes A. Leon Guerrero**  
Governor of Guam

**Joshua F. Tenorio**  
Lt. Governor of Guam

**Invitation for Bid**  
**IFB#GHURA-23-15**  
**Isla Apartments Improvement**  
This ad is paid with HUD Funds by GHURA

Guam Housing and Urban Renewal Authority (GHURA) will receive sealed proposals to make improvements to ISLA Apartment located in Mangilao until **2:00 PM ChST on Thursday, July 20, 2023** at GHURA's Main office in Sinajana.

Bid packets are available for review on GHURA's website: <https://www.ghura.org/doing-business-us/bidsproposalsrelease-funds/invitation-bids> beginning **Thursday, June 29, 2023**. Interested parties must register at GHURA main Office in Sinajana to receive access to a downloadable bid packet file; for a non-refundable fee of \$50.00 (exact cash amount, money order, or company check). Registration schedule is: Monday through Friday, 8:30 am – 4:00 pm ChST; with the exception of GovGu holidays. A pre-bid conference will be held on **Monday, July 3, 2023 at 2:00 pm ChST** in the GHURA Main Office Conference Room in Sinajana. A site visit will be conducted by GHURA staff on **Wednesday, July 5, 2023**. Attendance at the pre-bid conference is non-mandatory but highly encouraged. Any questions regarding the project or requirements must be submitted in writing or via email to Antonio C. Camacho at [accamacho@ghura.org](mailto:accamacho@ghura.org) no later than **Wednesday, July 12, 2023**. **Bid closing date and time is Thursday, July 20, 2023 at 2:00 pm ChST**. All bid submittals will be opened publicly at GHURA's Main Office Conference Room, in Sinajana.

Pursuant to 5GCA, Chapter 5, §5212, bid guarantees in the amount of 15% of the total base bid shall accompany each bid. Bid guarantee shall be a Bid Bond secured by a surety company authorized to do business in Guam and listed in the latest Department of Treasury Circular 570 published in the Federal Register, or as permitted by state law, a certified check, bank draft, or U.S. Government Bond at par value. All Bid Guarantees must be made payable to GHURA. **Personal checks will not be accepted**. GHURA reserves the right to waive irregularities and to reject any or all bids. Failure to submit a bid properly shall result in rejection of the bid.

For all contracts which exceed \$100,000, the successful bidder will be required to furnish and pay for satisfactory Performance and Payment bond for 100% of the contract price. GHURA will retain the bid guarantee until the performance bond is received and will release it soon thereafter. The Contractor must not discriminate on the basis of race, color, religion, sex, national origin, age, disability, or genetic information in employment or the provision of services. There is Restriction Against Contractors Employing Convicted Sex Offenders from Working at Government of Guam Venues. (§5253 of Title 5 Guam Code Annotated).

The successful bidder will be required to accomplish the following to the best possible and greatest extent feasible:

1. A goal of awarding at least 50 percent of the dollar value of construction contracts to Minority and/or Women Business Enterprises (MBE/WBE) or General Contractors with MBE/WBE participation.
2. In accordance with Section 3 of the U.S. Department of Housing and Urban Development Act of 1968, all construction contractors, to the maximum extent feasible, shall provide training, contracting, and employment opportunities to low income residents residing in GHURA.

GHURA intends to award a contract on the basis of the lowest and most responsible bid for the work described in the bid documents. No bid shall be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the prior written consent of GHURA.

GHURA is an Equal Opportunity Employer

  
Elizabeth F. Napol  
Executive Director

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

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

# Instructions to Bidders for Contracts

## Public and Indian Housing Programs

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### 1. Bid Preparation and Submission

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

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

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

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

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

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

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

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

### 2. Explanations and Interpretations to Prospective Bidders

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

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

### 3. Amendments to Invitations for Bids

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

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

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

### 4. Responsibility of Prospective Contractor

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

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

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

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

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

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

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

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

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

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or 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.



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

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

# Representations, Certifications, and Other Statements of Bidders

## Public and Indian Housing Programs

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### 1. Certificate of Independent Price Determination

(a) The bidder certifies that--

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### 2. Contingent Fee Representation and Agreement

(a) Definitions. As used in this provision:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### 4. Organizational Conflicts of Interest Certification

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

- (a) Result in an unfair competitive advantage to the bidder; or,
- (b) Impair the bidder's objectivity in performing the contract work.

[ ] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

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

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

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

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

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

#### 6. Minimum Bid Acceptance Period

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

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

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

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

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

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

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

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

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

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

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

(Check the block applicable to you)

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

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

The bidder represents and certifies that it:

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

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

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

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

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

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

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

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

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

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

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

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

- (1) Obtain identical certifications from the proposed subcontractors;
- (2) Retain the certifications in its files; and
- (3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

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

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

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

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

The bidder certifies that:

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

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

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

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

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

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

**13. Bidder's Signature**

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

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

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

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

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

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

**AFFIDAVIT DISCLOSING OWNERSHIP, INFLUENCE, COMMISSIONS AND  
CONFLICTS OF INTEREST**

(Required by 5 GCA § 5233 as amended by P.L. 36-13 (4/9/2021))

CITY OF \_\_\_\_\_ )  
 ) ss.  
 ISLAND OF GUAM )

Preface. As a condition of submitting a Bid/Offer/Proposal or responding to any method of source selection under Guam’s Procurement Law for the purpose of entering into a contract with the government of Guam, this Affidavit requires all Bidders/Offerors/Prospective Contractors to make disclosures of ownership, influence, commissions, gratuities, kickbacks, and conflicts of interest occurring **during the 365 calendar days preceding the publication of this solicitation and until award of a contract**. This includes the duty to disclose **any changes** to the facts disclosed herein throughout the solicitation process; and if the entity submitting this Affidavit is awarded a contract, the duty to disclose **any changes** to the facts disclosed herein **continues throughout the life of the contract, including any extensions or renewals**.

A. I, the undersigned, being first duly sworn, depose and say that I am an authorized representative of the Bidder/Offeror/Prospective Contractor and that (please check and fill out all that apply):

The Bidder/Offeror/Prospective Contractor is an individual with a business license, and all decisions are by, and all profit is for, that same individual, with principal place of business street address being: \_\_\_\_\_  
 \_\_\_\_\_

The Bidder/Offeror/Prospective Contractor is a business or artificial person (as defined in 1 GCA § 715 or 5 GCA §§ 5030(n) or 5233(b)), and is a sole proprietorship owned entirely (100%) by \_\_\_\_\_, with principal place of business street address being: \_\_\_\_\_  
 \_\_\_\_\_

The Bidder/Offeror/Prospective Contractor is a business or artificial person (as defined in 1 GCA § 715 or 5 GCA §§ 5030(n) or 5233(b)), and is owned by the following multiple individuals. Note: owners of more than 10% are statutorily required to be listed below, but other owners of smaller percentage are encouraged to be listed as well.

Name of Owner	Principal Place of Business Street Address	% of Interest
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

[ ] One or more of the more-than-10% owners listed above is a business or artificial person. Any more-than-25% owners of such a business or artificial person are listed below per 5 GCA § 5233. Note: any less-than-25% owners of such a business or artificial person is encouraged to also be listed below.

**Name of >10% Owner Business or Artificial Person:**

--

Names of owners of the >10% Owner Business or Artificial Person (“Second Tier Owner”)	Owner’s Principal Place of Business Street Address	% of Interest

**Name of other >10% Owner Business or Artificial Person:**

--

Names of owners of the >10% Owner Business or Artificial Person (“Second Tier Owner”)	Owner’s Principal Place of Business Street Address	% of Interest

B. If any Second Tier Owner identified above is an artificial person, the natural or artificial owners of such Second Tier Owner who have held more than 49% of the shares or interest in the Bidder/Offeror/Prospective Contractor (Third Tier Owners) are as follows [if none, please so state]:

Second Tier Owner Name \_\_\_\_\_

Name of Third Tier Owner	Principal Place of Business Street Address	% of Interest
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

C. If the name of no natural person has been identified as an owner, or a Second or Third Tier Owner of the Bidder/Offeror/Prospective Contractor, please identify the name, position, address, and contact information of the natural person having the authority and responsibility for the Bid/Offer/Proposal/Prospective Contract, and the name of any natural person who has the authority and power to remove and replace the designated responsible person:

Name of Natural Person	Position	Street Address of Principal Place of Business	Phone Number, Email Address, and other Contact Information

D. Further, I say that the persons who have received or are entitled to receive a commission, gratuity, contingent fee or other compensation to solicit, secure, or assist in obtaining business related to the Bid/Offer/Proposal/Prospective Contract for which this Affidavit is submitted are as follows (if none, please so state):

Name	Principal Place of Business Street Address	Amount of Compensation
_____	_____	_____
_____	_____	_____

E. Further, I say that the persons who have directly or indirectly participated in this solicitation and who are also employees of the government of Guam or the government of the United States, if federal funds are to be used in the payment of the contract related to the Bid/Offer/Proposal/Prospective Contract for which this Affidavit is submitted, are as follows (if none, please so state):

Name	Principal Place of Business Street Address
_____	_____
_____	_____

F. Regardless of any ownership interest, the following individuals have the power to control the performance of the contract or to control the Bidder/Offeror/Prospective Contractor, directly or indirectly:

Name	Principal Place of Business Street Address
_____	_____
_____	_____

///

///

- G. Until award of the contract, and throughout the term of any contract awarded to the Bidder/Offeror/Prospective Contractor represented herein, I agree to promptly make any disclosures not made previously and update changes in ownership, identities of owners and other required information, interests, compensation or conflicts of the persons required to be disclosed. I understand that failure to comply with this requirement shall constitute a material breach of contract.
- H. I hereby declare under penalty of perjury under the laws of Guam that the foregoing is true and correct.

Executed on: \_\_\_\_\_  
(date)

---

Signature of one of the following:  
Bidder/Offeror/Prospective Contractor, if a licensed individual  
Owner of sole proprietorship Bidder/Offeror/Prospective  
Contractor  
Partner, if the Bidder/Offeror/Prospective Contractor is a  
partnership  
Officer, if the Bidder/Offeror/Prospective Contractor is a  
corporation

Subscribed and sworn to before me

This \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

---

NOTARY PUBLIC

My commission expires: \_\_\_\_\_











# Requirements for Compliance with Requirements of Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (Section 3) Provisions of 24CFR 75

## Overview of Section 3 Requirements

Section 3 is a provision of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) that is regulated by the provisions of 24 CFR 75. Section 3 regulations ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

## General Policy Statement:

It is the declared policy of GHURA that Equal Employment Opportunities shall be provided for every employee and applicant for employment regardless of race, color, religion, sex, national origin, handicap, or economic status; and, that through the award of contracts to contractors, vendors, and suppliers, that employment and business opportunities be created for residents of GHURA properties and other qualified low- and very low-income persons residing on the island of Guam. This policy does not end with the mere prohibition of discriminatory practices by programs receiving HUD financial assistance or contractors, subcontractors, and vendors contracting with GHURA. GHURA recognizes its obligation as well as the obligation of potential contractors, subcontractors, and vendors, to develop practical steps to achieve the goal of providing meaningful, full-time permanent employment opportunities, as well as business opportunities to GHURA Residents and other Section 3 eligible persons.

Such obligation shall be demonstrated not merely through inclusion of positive or “best effort” steps, but shall result in a reasonable level of success in the recruitment, employment, and utilization of GHURA Residents and other Section 3 eligible persons and businesses in the workforce and subcontracting of work resulting out of the expenditure of HUD funding. GHURA’s Board of Commission, through official resolution, shall examine and consider a contractor/vendor’s success in providing employment and business opportunities to Authority Residents prior to acting on any proposed contract award.

## Eligibility:

Individuals and businesses that meet Section 3 criteria may seek Section 3 preference from GHURA or its contractors/subcontractors for training, employment, or contracting opportunities generated by [public housing financial assistance or housing and community development financial assistance]. To qualify as a Section 3 worker, Targeted Section 3 worker or a Section 3 business concern, each must self-certify that they meet the applicable criteria.

Businesses who *misrepresent* themselves as Section 3 business concerns and *report false* information to GHURA may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities.

## Applicability:

For public housing financial assistance, all funding is covered, regardless of the amount of expenditure or size of a contract. This plan applies to development assistance, operating funds, capital funds, and all mixed-finance development. For housing and community development financial assistance, this plan applies to housing rehabilitation, housing construction, and other public construction projects that exceed \$200,000 or more of housing and community development financial assistance from one or more HUD programs. Applicability is determined at the project level.

For projects funded with Lead and Hazard Control and Healthy Homes Programs, this plan applies to projects that exceed \$100,000.

This plan also applies to projects that include multiple funding sources. Multiple funding source projects include projects that include public housing financial assistance, housing and community development financial assistance for single or multiple recipients, and the Lead Hazard Control and Healthy Homes Program.

Section 3 requirements do not apply to: 1) Material Supply Contracts - § 75.3(b), 2) Indian and Tribal Preferences - § 75.3(c), and 3) Other HUD assistance and other Federal assistance not subject to Section 3 §75.3 (d). However, for financial assistance that is not subject to Section 3, recipients are encouraged to consider ways to support the purpose of Section 3.

**Purpose of this Policy and Compliance Plan:**

The purposes of this Policy are to create sustained employment and other opportunities for Section 3 Beneficiaries and to assist Contractors in understanding their Section 3 obligations so that they can be successful in meeting the responsibilities of the Section 3 requirements. These purposes are accomplished through the guidance provided by GHURA and assistance provided by GHURA’s Section 3 coordinator. This policy shall remain in effect for so long as it remains consistent with federal regulations or amended by GHURA’s Board of Commissioners.

**Numerical Goals for Section 3 Compliance:**

Recipients and Contractors may demonstrate compliance with the “greatest extent feasible” requirement of Section 3 by meeting the numerical goals set forth in this Section 3 Program for providing training, employment, and contracting opportunities to Section 3 Residents and Section Business Concerns. Efforts to employ Section 3 Residents to the greatest extent feasible should be made at all job levels.

GHURA, in its own operations, shall endeavor to achieve the goals of Section 3 and shall provide equal responsibility to its contractors, vendors, and suppliers to implement progressive efforts to also attain compliance. In doing so, GHURA shall evaluate contractors’ compliance towards achieving the goals of Section 3 and ensure a system of leveling sanctions against contractor, vendor, or supplier for non-compliance and endeavor to take appropriate steps to ensure any such concern is not permitted to participate in future GHURA procurement activities.

**Section 3 Final Rule Benchmark Notice:**

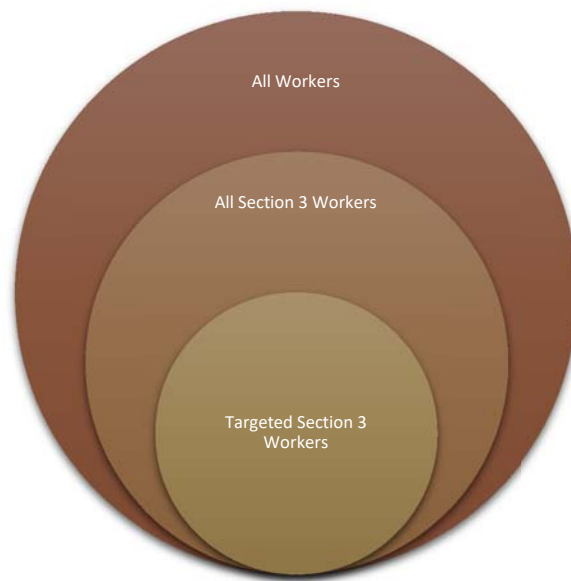
- 25% of all labor hours must be performed by a Section 3 worker.
- 5% of all labor hours must be performed by Targeted Section 3 workers

The numerical goals established above represent minimum numerical targets and all prospective contractors shall be advised and encouraged to seek Section 3 participation to the greatest extent feasible. Any contractor that meets the minimum numerical goals set forth above will be considered to have complied with the Section 3 requirements. Any contractor that does not meet the numerical goals set forth above has the burden of demonstrating why it was not feasible to meet the numerical goals. In the event no competing contractors were successful in meeting the minimum goals set forth above, GHURA shall consider documentation provided by the contractor evidencing impediments encountered despite actions taken to comply with the Section 3 Requirements. Such evidence shall be subject to the satisfaction of GHURA. Any contractor found to be in non-compliance with Section 3 shall be considered ineligible for award.

All contractors submitting bids/proposals to the GHURA shall be required to complete certifications, as appropriate, as acknowledgment of the Section 3 contracting and employment provisions as required by this section. Such certifications shall be supported with adequate evidence to support representations made. The certifications required to be submitted with the bid/proposal consist of the following:

- Certification for business concerns seeking Section 3 preference.
- Contractor certification of efforts to fully comply with employment and training provisions of Section 3.

Prior to the award of any contract the contractor shall enter into negotiations with GHURA for the purpose of incorporating into the contract a provision for a specific number of Public Housing residents or other Section 3 residents to be trained or employed on the contract. Such resulting provision shall obligate the contractor toward achieving not less than the numerical goals listed above and shall be based on a detailed workforce analysis to be compiled by the contractor and submitted to GHURA prior to award of contract.



**Section 3 Worker and Targeted Section 3 Worker:**

A Section 3 worker seeking certification shall submit self-certification documentation to the recipient contractor or subcontractor, that the person is a Section 3 worker or Targeted Section 3 worker as defined in 24 CFR Part 75. For the purposes of Section 3 worker eligibility, GHURA will use individual income rather than family/household income to determine eligibility.

Individual Income Limits		
FY2021 Income Limit Area	Income Limit Category	FY 2021 Income Limits
GUAM	Extremely Low Income Limits 30%	\$14,350
	Very Low Income Limits 50%	\$23,900
	Low Income Limits 80%	\$38,200

Persons seeking the Section 3 worker preference shall demonstrate that it meets one or more of the following criteria currently or when hired within the past five years, as documented:

- 1) A low or very low-income resident (the worker’s income for the previous or annualized calendar year is below the income limit established by HUD); or
- 2) Employed by a Section 3 business concern; or
- 3) A YouthBuild participant.

Persons seeking the Targeted Section 3 worker preference shall demonstrate that it meets one or more of the following criteria:

(For public housing financial assistance)

- 1) Employed by a Section 3 business concern or
- 2) Currently meets or when hired met at least one of the following categories as documented within the past five years:
  - a) A resident of public housing; or
  - b) A resident of other public housing projects or Section 8-assisted housing; or

c) A YouthBuild participant.

(For housing and community development assistance)

1) Employed by a Section 3 business concern or

2) Currently meets or when hired met at least one of the following categories as documented within the past five years: a) Living within the service area or the neighborhood of the project, as defined in 24 CFR Part 75.5; or b) A YouthBuild participant.

Section 3 workers and Targeted Section 3 workers who are seeking preference in training and employment must submit the Section 3 Worker and Targeted Section 3 Worker Certification Form from the GHURA office.

Example of the Section 3 Worker and Targeted Section Worker form is as follows:

### Exhibit 1

**Section 3 Worker and Targeted Section 3 Worker Self-Certification Form**

The purpose of HUD's Section 3 program is to provide employment, training and contracting opportunities to low-income individuals, particularly those who are recipients of government assistance for housing or other public assistance programs. Your response is voluntary, confidential, and has no effect on your employment.

**Eligibility for Section 3 Worker or Targeted Section 3 Worker Status:**  
A Section 3 worker seeking certification shall self-certify and submit this form to the recipient contractor or subcontractor, that the person is a Section 3 worker or Targeted Section 3 Worker as defined in 24 CFR Part 75.

**Instructions:** Enter/select the appropriate information to confirm your Section 3 worker or Targeted Section 3 Worker status.

**Employee Name:** \_\_\_\_\_

1. Are you a resident of public housing or a Housing Choice Voucher Holder (Section 8)?  Yes  No

2. Are you a resident of GUAM?  Yes  No

In the field below, select the amount of individual income you believe you earn on an annual basis.

Less than \$10,000       \$10,001 - \$20,000       \$20,001 - \$30,000  
 \$30,001 - \$40,001       \$40,001 - \$50,000       \$50,001 - \$60,000  
 More than \$60,000

Select from ONE of the following two options below:

I qualify as a:

Section 3 Worker (as defined on page 3 of Section 3 Worker Certification Form)

Targeted Section 3 Worker (as defined on page 3 of Section 3 Worker Certification Form)

GHURA SECTION 3 FORM-01A  
10/11

**Employee Affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Employee Address:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_      **Date Hired:** \_\_\_\_\_

**Signature:** \_\_\_\_\_      **Date:** \_\_\_\_\_

**FOR ADMINISTRATIVE USE ONLY**

Is the employee a Section 3 worker based upon their self-certification?  Yes  No

Is the employee a Targeted Section 3 worker based upon their self-certification?  Yes  No

Was this an applicant who was hired as a result of the Section 3 project?  Yes  No

If Yes, what is the name of the company? \_\_\_\_\_

What was the date of hire? \_\_\_\_\_

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**

GHURA SECTION 3 FORM-01A  
10/11

### Section 3 Program Participant Certification Procedure:

GHURA will certify Section 3 program participants who reside in GUAM or near the project site and who are seeking preference in training and employment by completing and attaching adequate proof of Section 3 eligibility as required (see Exhibit 1- Section 3 Participant Eligibility for Preference Form).

1. All persons living in GUAM or within the required radius of the project site who meet the Section 3 eligibility guidelines.
2. Once this assessment is complete, the Section 3 Coordinator will determine if the individual needs the eligibility requirements and is job ready.
3. If the individual is deemed eligible for Section 3 participation and deemed not ready for employment, a referral will be made to other agencies that are better equipped to address the individual's needs, ie., substance abuse providers, etc.
4. The Section 3 readiness component is a part of GHURA's commitment to provide economic opportunities and training to residents/eligible participants to become gainfully employed.

### Section 3 Business Concern Certification:

Businesses that believe they meet the Section 3 Business requirements can may self-register in the HUD Business registry, here: <http://www.hud.gov/Sec3Biz>. Businesses may seek Section 3 Business Concern preference by



demonstrating that it meets one or more of the following criteria:

- 1) At least 51 percent of the business is owned and controlled by low- or very low-income persons; or
- 2) At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing; or
- 3) Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers.

Businesses that seek Section 3 preference shall certify, or demonstrate to GHURA contractors or subcontractors, that they meet the definitions provided in the above. Businesses may demonstrate eligibility by submitting the Section 3 Business Concern Certification Form, located at the GHURA office.

Section 3 Business Concern Certification Forms must be submitted at the time of bid/proposal. If GHURA previously approved the business concern to be Section 3 certified, then the certification can be submitted along with the bid, as long as the form is submitted within the prescribed expiration date. The Section 3 Business Concern Certification Form will expire after **12 months**. Establishing a **12 month certification** of eligibility period allows GHURA the ability to assess contractor performance to ensure the business is striving to meet the required goals.

**Note:** While registering as a Section 3 Business Concern may give a business certain preferences, such registration is not a guarantee of such preferences that the business will be awarded any contractors or subcontracts by GHURA or its contractors/vendors.

Example of a Certification for Business Concerns Seeking Section 3 Preference form is located below:

**Exhibit 2**

**Certification for Business Concerns Seeking Section 3 Preference in Contracting and Demonstration of Capability**

Business Information	
Name of Business:	
Address of Business:	
Name of Business Owner:	
Phone Number of Business Owner:	
Email Address of Business Owner:	

Preferred Contact Information	
Same as above:	<input type="checkbox"/>
Name of Preferred Contact:	
Phone Number of Preferred Contact:	

**Type of Business (select from the following options):**

Corporation   
  Partnership   
  Sole Proprietorship   
  Joint Venture

**Select from ONE of the following three options below that applies:**

At least 51 percent of the business is owned and controlled by low- or very low-income persons (Refer to income guidelines on page 3)

At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.

Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers (Refer to definition on page 3).

GHURA SECTION 3 FORM-01B  
pg. 1

**Business Concern Affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I understand that businesses who misrepresent themselves as Section 3 business concerns and report false information to [insert name of recipient/grantee] may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

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

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

\*Certification expires within six months of the date of signature. Information regarding Section 3 Business Concerns can be found at 24 CFR 75.5

FOR ADMINISTRATIVE USE ONLY

Is the business a Section 3 business concern based upon their certification?

Yes   
  No

EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.

GHURA SECTION 3 FORM-01B  
pg. 2

### **Section 3 Recruitment and New hires:**

Contractors are expected to make best efforts to achieve the benchmarks and Section 3 Worker priorities outlined in this Policy and at 24 CFR Part 75. This section provides guidance for the recruitment of New Hires who are Section 3 Workers and Targeted Section 3 Workers to assist Contractors in meeting their benchmarks and obligations.

#### **A. Recruitment Efforts:**

1. GHURA maintains a database of employment-ready Section 3 Workers/Targeted Section 3 Workers who meet certain minimum qualifications for various categories of employment. Upon receipt of a completed Section 3 Job Order Form from Contractor/Subcontractor, GHURA will provide referrals of qualified candidates from the database. Contractors are expected to provide GHURA with the Section 3 Job Order Form in sufficient time to identify prospective candidates, prepare and refer them for interviews and secure employment in advance project commencement.
2. Contractors/Subcontractors are also to advertise Job Announcements within the project site area. Please see Exhibit 3.
3. Upon receipt of a Section 3 Job Order Form, GHURA will refer qualified candidates for interview for each available position. Contractors are expected to give each referred candidate full consideration for available positions.
4. Independent of GHURA's efforts and referrals, Contractors shall engage in independent employment recruitment efforts and follow the Section 3 Worker and Targeted Section 3 Worker order in of hiring priority as identified in this policy.
5. Contractors shall submit to GHURA their interview notes, including reasons for denial of employment or training opportunity in the future, as applicable.

#### **B. Section 3 Worker and Targeted Section 3 Worker New Hires:**

1. All Section 3 Worker and Targeted Section 3 Worker New Hires shall be employees of the Contractor and shall have all the protections afforded to employees under state, federal and local laws. Contractors are expected to impose the same hiring requirements and personnel rules and policies upon Section 3 Worker New Hires as are imposed upon their other employment candidates and employees. GHURA expects and requires Contractors to abide by equal pay for equal work principles.
2. Contractors are required to report to GHURA within five (5) business days of hiring Section 3 Workers and Targeted Section 3 Workers and shall provide to GHURA a completed Section 3 Worker and Targeted Section 3 Worker form.

#### **C. Apprenticeship Programs:**

1. Contractors who employ apprentices are required to utilize apprenticeship programs approved by the Federal Department of Labor (DOL)
2. Contractors who employ apprentices on construction projects that are subject to the Davis-Bacon Wage Act are required to adhere to all legal requirements for wage rates and ratios of apprentices to journeymen set forth.

#### **D. Limitations:**

Contractors retain the sole discretion and control over any hiring and personnel decisions. GHURA cannot and will not exercise any control over any of the Contractor's employees, including New Hires, regardless of whether they were referred by GHURA or are Section 3 Workers/Targeted Section 3 Workers recruited through other means.

### **Safe Harbor Compliance: 25% of total hours or 5% of hours contracted to targeted workers:**

It is the responsibility of contractors to implement efforts to achieve Section 3 compliance. Any contractor that does not meet the Section 3 benchmarks must demonstrate why meeting the benchmarks were not feasible. All contractors submitting bids or proposals to GHURA are required to certify that they will comply with the requirements of Section 3.

**Good Faith and Qualitative Efforts:**

Qualitative efforts to satisfy its benchmark goals, which may include, but are not limited to the following:

1. Engaging in outreach efforts to generate job applicants who are Targeted Section 3 Workers, including notifying GHURA's Section 3 Coordinator, posting job openings at the job site, HUD Opportunity Portal, social media pages, contacting Resident Advisory Councils, and other platforms;
2. Contacting agencies administering Department of Labor YouthBuild Programs, and requesting their assistance in recruiting Department of Labor YouthBuild Program participants for training opportunities and employment positions;
3. Consulting with state and local agencies administering training programs, such as those funded through Workforce Investment Act, unemployment compensation programs, community organizations and other officials or organizations to assist with training and recruiting Section 3 Workers and Targeted Section 3 Workers;
4. Holding job fairs;
5. Providing or connecting Section 3 Workers and Targeted Section 3 Workers with assistance in seeking employment, including: drafting resumes, preparing for interviews, and finding job opportunities connecting residents to job placement services;
6. Providing or referring Section 3 Workers to services supporting work readiness and retention (e.g., work readiness activities, interview clothing, test fees, transportation, child care);
7. Assisting Section 3 Workers to obtain financial literacy training and/or coaching;
8. Engaging in outreach efforts to identify and secure bids from Section 3 Business Concerns.
9. Providing technical assistance to help Section 3 Business Concerns understand and bid on contracts;
10. Dividing contracts into smaller jobs to facilitate participation by Section 3 Business Concerns;
11. Providing bonding assistance, guaranties, or other efforts to support viable bids from Section 3 Business Concerns;
12. Promoting use of Section 3 Business Registries designed to create opportunities for Section 3, disadvantaged and small businesses

**Documented Efforts:**

Contractors shall document efforts taken to recruit and interview Section 3 Workers/Targeted Section 3 Workers for hire and shall, upon reasonable request, provide GHURA with documentation that demonstrates such efforts, including interview notes, which shall include reasons for denial of employment or other actions as applicable.

**Lack of Compliance:**

A Contractor's failure to satisfy the requirements of this section may result in GHURA's determination that the Contractor has failed to demonstrate good faith and qualitative efforts to comply with the requirements of Section 3 and this Policy, and may subject Contractor to the penalties for default.

**Reporting Requirements:**

For Section 3 covered contracts, contractors must submit the Section 3 Performance and Summary Report to GHURA's Section 3 Coordinator on a monthly basis, and the annual reporting requirement set forth in that form's instructions.

**1) Monthly Reporting -**

- i) Contractors are required to submit monthly activity reports to GHURA's Section 3 Coordinator [alicej@ghura.org](mailto:alicej@ghura.org) by the 30<sup>th</sup> day of each month

## **2) Annual Reporting -**

- i) Once a project is completed, contractors must submit a final Section 3 cumulative report for the program year.
- ii) Upon the completion of a project, GHURA's Section 3 Coordinator will conduct a final review of the project's overall performance and compliance.
- iii) GHURA's Section 3 Coordinator will submit the Section 3 data into required reporting system to HUD at the respective reporting period.

### **Internal Section 3 Complaint Procedure:**

In an effort to resolve complaints generated due to non-compliance through an internal process, GHURA encourages submittal of such complaints to its Section 3 Coordinator as follows:

- 1) Complaints of non-compliance should be filed in writing and must contain the name of the complainant and brief description of the alleged violation of 24 CFR Part 75.
- 2) Complaints must be filed within 14 calendar days after the complainant becomes aware of the alleged violation.
- 3) An investigation will be conducted if complaint is found to be valid. GHURA will conduct an informal, but thorough investigation affording all interested parties, if any, an opportunity to submit testimony and/or evidence pertinent to the complaint.
- 4) GHURA will provide written documentation detailing the findings of the investigation. GHURA will review the findings for accuracy and completeness before it is released to complainants. The findings will be made available no later than 30 days after the filing of complaint. If complainants wish to have their concerns considered outside of GHURA a complaint may be filed with:

The HUD program office responsible for the public housing financial assistance or the Section 3 project, or to the local HUD field office. These offices can be found through the HUD website, [www.hud.gov/](http://www.hud.gov/).

## Appendices A: Definitions

The terms **HUD, Public housing, and Public Housing Agency (PHA)** are defined in 24 CFR part 5.

*The following definitions also apply to 24 CFR Part 75 HUD's Economic Opportunities for Low-and Very Low-Income Persons:*

**1937 Act** means the United States Housing Act of 1937, 42 U.S.C. 1437 et seq. activities related to Public Housing

**Contractor** means any entity entering into a contract with:

- (1) A recipient to perform work in connection with the expenditure of public housing financial assistance or for work in connection with a Section 3 project; or
- (2) A sub recipient for work in connection with a Section 3 project.

**Labor hours** means the number of paid hours worked by persons on a Section 3 project or by persons employed with funds that include public housing financial assistance.

**Low-income person** means a person as defined in Section 3(b)(2) of the 1937 Act, at or below 80% AMI. Note that Section 3 worker eligibility uses individual income rather than family/household income.

**Material supply contracts** means contracts for the purchase of products and materials, including, but not limited to, lumber, drywall, wiring, concrete, pipes, toilets, sinks, carpets, and office supplies.

**Professional services** means non-construction services that require an advanced degree or professional licensing, including, but not limited to, contracts for legal services, financial consulting, accounting services, environmental assessment, architectural services, and civil engineering services.

**Public housing financial assistance** means assistance as defined in 24 CFR Part 75.3(a)(1).

**Public housing project** is defined in 24 CFR 905.108.

**Recipient** means any entity that receives directly from HUD public housing financial assistance or housing and community development assistance that funds Section 3 projects, including, but not limited to, any State, local government, instrumentality, PHA, or other public agency, public or private nonprofit organization.

**Section 3** means Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).  
Section 3 business concern means:

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

Section 8-assisted housing refers to housing receiving project-based rental assistance or tenant-based assistance under Section 8 of the 1937 Act.

**Service area or the neighborhood of the project** means an area within one mile of the Section 3 project or, if fewer than 5,000 people live within one mile of a Section 3 project, within a circle centered on the Section 3 project that is sufficient to encompass a population of 5,000 people according to the most recent U.S. Census.

**Subcontractor** means any entity that has a contract with a contractor to undertake a portion of the contractor's obligation to perform work in connection with the expenditure of public housing financial assistance or for a Section 3 project.

**Subrecipient** has the meaning provided in the applicable program regulations or in 2 CFR 200.93.

Targeted Section 3 worker has the meanings provided in 24 CFR Part 75.11, 75.21, or 75.29, and does not exclude an individual that has a prior arrest or conviction.

**Very low-income person** means the definition for this term set forth in section 3(b) (2) of the 1937 Act (at or below 50% AMI)

**YouthBuild programs** refers to YouthBuild programs receiving assistance under the Workforce Innovation and Opportunity Act (29 U.S.C. 3226).

## Section 3 Worker and Targeted Section 3 Worker Self-Certification Form

The purpose of HUD's Section 3 program is to provide employment, training and contracting opportunities to low-income individuals, particularly those who are recipients of government assistance for housing or other public assistance programs. **Your response is voluntary, confidential, and has no effect on your employment.**

### Eligibility for Section 3 Worker or Targeted Section 3 Worker Status

A Section 3 worker seeking certification shall self-certify and submit this form to the recipient contractor or subcontractor, that the person is a Section 3 worker or Targeted Section 3 Worker as defined in 24 CFR Part 75.

**Instructions:** Enter/select the appropriate information to confirm your Section 3 worker or Targeted Section 3 Worker status.

**Employee Name:** \_\_\_\_\_

1. Are you a resident of public housing or a Housing Choice Voucher Holder (Section 8)  Yes  No
  
2. Are you a resident of GUAM)?  Yes  No

In the field below, select the amount of individual income you believe you earn on an annual basis.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Less than \$10,000  | <input type="checkbox"/> \$30,001- \$40,001 | <input type="checkbox"/> More than \$60,000 |
| <input type="checkbox"/> \$10,001 - \$20,000 | <input type="checkbox"/> \$40,001- \$50,000 |   |
| <input type="checkbox"/> \$20,001 - \$30,000 | <input type="checkbox"/> \$50,001- \$60,000 |   |

**Select from ONE of the following two options below:**

I qualify as a:

- Section 3 Worker (as defined on page 3 of Section 3 Worker Certification Form)
- Targeted Section 3 Worker (as defined on page 3 of Section 3 Worker Certification Form)

**Employee Affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Employee Address:** \_\_\_\_\_

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

**Date Hired:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

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

**FOR ADMINISTRATIVE USE ONLY**

Is the employee a Section 3 worker based upon their self-certification?  Yes  No

Is the employee a Targeted Section 3 worker based upon their self-certification?  Yes  No

Was this an applicant who was hired as a result of the Section 3 project?  Yes  No

If Yes, what is the name of the company? \_\_\_\_\_

What was the date of hire? \_\_\_\_\_

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**



## Certification for Business Concerns Seeking Section 3 Preference in Contracting and Demonstration of Capability

Business Information	
Name of Business:	
Address of Business:	
Name of Business Owner :	
Phone Number of Business Owner:	
Email Address of Business Owner :	

Preferred Contact Information	
Same as above:	<input type="checkbox"/>
Name of Preferred Contact:	
Phone Number of Preferred Contact:	

**Type of Business (select from the following options):**

- Corporation     
  Partnership     
  Sole Proprietorship     
  Joint Venture

**Select from ONE of the following three options below that applies:**

- At least 51 percent of the business is owned and controlled by low- or very low-income persons (Refer to income guidelines on page 3)
- At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.
- Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers (Refer to definition on page 3).

**Business Concern Affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I understand that businesses who misrepresent themselves as Section 3 business concerns and report false information to GHURA may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Print Name:**

**Signature:**

**Date:**

*\*Certification expires within six months of the date of signature Information regarding Section 3 Business Concerns can be found at [24 CFR 75.5](#)*

**FOR ADMINISTRATIVE USE ONLY**

Is the business a Section 3 business concern based upon their certification?

Yes      No

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**

# JOB POSTING

We're looking for:

Laborer

Carpenter

Mason

Certified Mechanics

Email your resume and apply at [example@mail.com](mailto:example@mail.com)

Inquire at:

(Phone number)

(Address here)

Exhibit 4

**Contractor Certification to Efforts to Fully Comply with Employment and Training Provisions of Section 3 Provisions of 24CFR 75**

The bidder represents and certifies as part of its bid/offer the following:

Section 3 Business concern and has submitted the required certification with the bid. A Section 3 Business concern means a business concern:

- 1) At least 51 percent of the business is owned and controlled by low- or very low-income persons; or
- 2) At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing; or
- 3) Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers.

I am not a Section 3 Business concern but who has and will continue to seek compliance with Section 3 by certifying to the following efforts to be undertaken.

**Efforts to award subcontractor to Section 3 concerns (*Check all that apply*)**

Contacting business assistance agencies, minority contractors associations and community organizations to inform them of the contracting opportunities and requesting their assistance in identifying Section 3 businesses which may solicit bids for a portion of the work.

Advertising contracting opportunities by posting notices, which provide general information about the work to be contracted and where to obtain additional information, in the common areas of the applicable development(s) owned and managed by the Housing Authority.

Providing written notice to all known Section 3 business concerns of contracting opportunities. This notice should be in sufficient time to allow the Section 3 business concerns to respond to bid invitations

Following up with Section 3 business concerns that have expressed interest in the contracting opportunities

Coordinating meetings at which Section 3 business concerns could be informed of specific elements of the work for which subcontract bids are being sought

Conducting workshops on contracting procedures and specific contracting opportunities in a timely manner so that Section 3 business concerns can take advantage of contracting opportunities

Advising Section 3 business concerns as to where they may seek assistance to overcome barriers such as inability to obtain bonding, lines of credit, financing, or insurance, and aiding Section 3 businesses in qualifying for such bonding, financing, insurance, etc.

Where appropriate, by breaking out contract work into economically feasible units to facilitate participation by Section 3 businesses

Entering into a "first source" hiring agreements with organizations representing Section 3 residents

Exhibit 4

- Establishing training programs, which are consistent with the requirements of the Department of Labor, specifically for Section 3 residents in the building trades
- Advertising employment and training positions to dwelling units
- Contacting resident councils and other resident organizations in the affected housing development to request assistance in notifying residents of the training and employment positions to be filled
- Undertaking such continued job training efforts as may be necessary to ensure the continued employment of Section 3 residents previously hired for employment opportunities.

**Section 3 Efforts to comply affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I understand that businesses who misrepresent themselves as Section 3 business concerns and report false information to GHURA may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Print Name & Title:**

**Signature:**

**Date:**

**Bidder/offeror, if the Bidder/offeror is an Individual Partner, if the Bidder/offeror is a Partnership Officer, if the Bidder/offeror is a Corporation**

**Print Name & Title:**

**Signature:**

**Date:**

**Bidder/offeror, if the Bidder/offeror is an Individual Partner, if the Bidder/offeror is a Partnership Officer, if the Bidder/offeror is a Corporation**

*\*Certification expires within six months of the date of signature Information regarding Section 3 can be found at [24 CFR 75.5](#)*

**FOR ADMINISTRATIVE USE ONLY**

Is the business a Section 3 compliance based upon their certification?

- Yes       No

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**

**GHURA Section 3 Job Order Form**

The following job order shall be completed by vendors to request assistance in recruiting Section 3 Workers when they have new hire needs. The form should be submitted to the Section 3 Compliance Coordinator (ccabral@ghura.org) as soon as the contractor is aware of the hiring need. GHURA will use the form to identify and recruit candidates to fill the position. A separate job order must be completed for each position title.

This job order is not a substitute for recruitment efforts by the contractor/subcontractor. You are encouraged to engage in independent outreach efforts, including posting this job opening at the job site and posting at HUD Opportunity Portal. For hiring priorities, refer to your contract, or inquire with the Section 3 Compliance Administrator.

**PART I: CONTRACTOR INFORMATION:**

<b>Contractor Name:</b>	<b>Project Description:</b>	<b>GHURA Contract Number</b>
<b>Point of Contact Title :</b>	<b>Telephone:</b>	<b>Email:</b>
<b>Work/Project Start Date</b>	<b>Work/Project End Date:</b>	<b>Notes:</b>

**PART II: JOB DETAILS:**

<b>Job Title:</b>	<b>Job Start Date:</b>	<b>Job End Date:</b>
<b>Job Location:</b>	<b>Pay Rate:</b>	<b>Required Skills/Experience:</b>
<b>Required Licenses/Certifications:</b>	<b>Work Hours/Days:</b>	

**PART III: CONTRACTOR EFFORTS:**

Would your business be able to provide training or refer the Section 3 Worker to a local agency administering training programs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

This form was completed by:

---

**Name :**
**Date :**
**Signature:**

## **Contractor Certification to Efforts to Fully Comply with Employment and Training Provisions of Section 3 Provisions of 24CFR 75**

The bidder represents and certifies as part of its bid/offer the following:

Section 3 Business concern and has submitted the required certification with the bid. A Section 3 Business concern means a business concern:

- 1) At least 51 percent of the business is owned and controlled by low- or very low-income persons; or
- 2) At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing; or
- 3) Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers.

I am not a Section 3 Business concern but who has and will continue to seek compliance with Section 3 by certifying to the following efforts to be undertaken.

### **Efforts to award subcontractor to Section 3 concerns (*Check a minimum of two items*)**

Contacting business assistance agencies, minority contractors associations and community organizations to inform them of the contracting opportunities and requesting their assistance in identifying Section 3 businesses which may solicit bids for a portion of the work.

Advertising contracting opportunities by posting notices, which provide general information about the work to be contracted and where to obtain additional information, in the common areas of the applicable development(s) owned and managed by the Housing Authority.

Providing written notice to all known Section 3 business concerns of contracting opportunities. This notice should be in sufficient time to allow the Section 3 business concerns to respond to bid invitations

Following up with Section 3 business concerns that have expressed interest in the contracting opportunities

Coordinating meetings at which Section 3 business concerns could be informed of specific elements of the work for which subcontract bids are being sought

Conducting workshops on contracting procedures and specific contracting opportunities in a timely manner so that Section 3 business concerns can take advantage of contracting opportunities

Advising Section 3 business concerns as to where they may seek assistance to overcome barriers such as inability to obtain bonding, lines of credit, financing, or insurance, and aiding Section 3 businesses in qualifying for such bonding, financing, insurance, etc.

Where appropriate, by breaking out contract work into economically feasible units to facilitate participation by Section 3 businesses

Entering into a "first source" hiring agreements with organizations representing Section 3 residents

- Establishing training programs, which are consistent with the requirements of the Department of Labor, specifically for Section 3 residents in the building trades
- Advertising employment and training positions to dwelling units
- Contacting resident councils and other resident organizations in the affected housing development to request assistance in notifying residents of the training and employment positions to be filled
- Undertaking such continued job training efforts as may be necessary to ensure the continued employment of Section 3 residents previously hired for employment opportunities.

**Section 3 Efforts to comply affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I understand that businesses who misrepresent themselves as Section 3 business concerns and report false information to GHURA may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Print Name & Title:**

**Signature:**

**Date:**

**Bidder/offeror, if the Bidder/offeror is an Individual Partner, if the Bidder/offeror is a Partnership Officer, if the Bidder/offeror is a Corporation**

**Print Name & Title:**

**Signature:**

**Date:**

**Bidder/offeror, if the Bidder/offeror is an Individual Partner, if the Bidder/offeror is a Partnership Officer, if the Bidder/offeror is a Corporation**

*\*Certification expires within six months of the date of signature Information regarding Section 3 can be found at [24 CFR 75.5](#)*

**FOR ADMINISTRATIVE USE ONLY**

Is the business a Section 3 compliance based upon their certification?

- Yes       No

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**



## Certification for Business Concerns Seeking Section 3 Preference in Contracting and Demonstration of Capability

Business Information	
Name of Business:	
Address of Business:	
Name of Business Owner :	
Phone Number of Business Owner:	
Email Address of Business Owner :	

Preferred Contact Information	
Same as above: <input type="checkbox"/>	
Name of Preferred Contact:	
Phone Number of Preferred Contact:	

### Type of Business (select from the following options):

- Corporation
  Partnership
  Sole Proprietorship
  Joint Venture

### Select from ONE of the following three options below that applies:

- At least 51 percent of the business is owned and controlled by low- or very low-income persons (Refer to income guidelines on page 3)
- At least 51 percent of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.
- Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers (Refer to definition on page 3).
- N/A if the bidder is not claiming Section 3 preference.

**Business Concern Affirmation**

I affirm that the above statements on this form are true, complete, and correct to the best of my knowledge and belief. I understand that businesses who misrepresent themselves as Section 3 business concerns and report false information to GHURA may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities. I hereby certify, under penalty of law, that the following information is correct to the best of my knowledge.

**Print Name:**

**Signature:**

**Date:**

*\*Certification expires within six months of the date of signature Information regarding Section 3 Business Concerns can be found at [24 CFR 75.5](#)*

**FOR ADMINISTRATIVE USE ONLY**

Is the business a Section 3 business concern based upon their certification?

Yes      No

**EMPLOYERS MUST RETAIN THIS FORM IN THEIR SECTION 3 COMPLIANCE FILE FOR FIVE YEARS.**

# The Guam Housing and Urban Renewal Authority Section 3 Income Limits

## Eligibility Guidelines

The workers income must be at or below the amount provided below for an individual (household of 1) regardless of actual household size.

Individual Income Limits		
FY20__ Income Limit Area	Income Limits Category	FY20__ Income Limits
GUAM	Extremely Low Income Limits 30%	\$14,350
	Very Low Income Limits 50%	\$23,900
	Low Income Limits 80%	\$38,200

### Section 3 Worker Definition:

- A low or very low-income resident (the worker's income for the previous or annualized calendar year is below the income limit established by HUD); or
- Employed by a Section 3 business concern; or
- A Youth Build participant

### Targeted Section 3 Worker Definition:

- Employed by a Section 3 business concern or
- Currently meets or when hired met at least one of the following categories as documented within the past five years:
  - A resident of public housing; or
  - A resident of other public housing projects or Section 8-assisted housing; or
  - A YouthBuild participant.

**Law to be Observed**

1. The Proposer is to be familiar with federal and local laws, codes, ordinances, and regulations which, in any manner, affect those engaged or employed in the work or the material or equipment used in or upon the site, or in any way affect the conduct of the work. No place of misunderstanding or ignorance on the part of the Arbitrator will in any way serve to modify the provision of the contract.

2. Restriction Against Contractors Employing Convicted Sex Offenders from Working at Government of Guam Venues. (§5253 of Title 5 Guam Code Annotated).

(a) No person convicted of a sex offense under the provisions of Chapter 25 of Title 9 Guam Code Annotated, or an offense as defined in Article 2 of Chapter 28, Title 9 GCA in Guam, or an offense in any jurisdiction which includes, at a minimum all of the elements of said offenses, or who is listed on the Sex Offender Registry, and who is employed by a business contracted to perform services for an agency or instrumentality of the Government of Guam other than a public highway;

By submission of this bid or offer, each Vendor and each person signing on behalf of any Vendor certifies, and in the case of a joint bids or offers each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his knowledge and belief will be in compliance:

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

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

\_\_\_\_\_  
Signature:

\_\_\_\_\_  
Signature:

Title: \_\_\_\_\_  
Bidder/offeror, if the Bidder/offeror is an Individual  
Partner, if the Bidder/offeror is a Partnership  
Officer, if the Bidder/offeror is a Corporation

Title: \_\_\_\_\_  
Bidder/offeror, if the Bidder/offeror is an Individual  
Partner, if the Bidder/offeror is a Partnership  
Officer, if the Bidder/offeror is a Corporation

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

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

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

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

**Bidder's Qualifications**

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, add separate sheets for items requiring additional explanation. This information may be submitted in a separate sealed envelope marked **CONFIDENTIAL** "Bidder's Qualifications and Financial Statement". In the event your bid is not selected for award, this envelope will be returned to the Contractor unopened.

1. Name of Bidder	2. Date organized
3. Permanent main office address	4. State incorporated
	5. How many years have you been engaged in the contracting business under your present firm name?

6. Listing of current contracts: (Schedule these, showing nature of the work, gross amount of each contract, anticipated dates for completion, name and telephone number of owner's representative).


7. General character of work usually performed by your company.

--

8. Have you ever failed to complete any work awarded to you? If so, where and why?

--

9. Have you ever defaulted on a contract?

--

10. List the three (3) most important structures recently completed by your company, stating approximate cost of each, month and year completed, name and telephone number of owner's representative.


11. List your major equipment available for use on this contract.


12. Experience in construction work similar in importance to this project.



13. Background and experience of the principal members of your firm, including the officers and proposed construction superintendent.

--

14. Credit available for administration of this contract, furnish written evidence.

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15. Financial report not more than three (3) months old and containing a balance sheet providing at least the following information.

**Balance Sheet**

**ASSETS**

**CURRENT ASSETS:**

- Cash
- Joint Venture Accounts
- Accounts Receivable
- Notes Receivable
- Accrued Interest on Notes
- Deposits
- Material and Prepaid Expense
- Total Current Assets

**FIXED ASSETS - NET**

**OTHER ASSETS**

**TOTAL ASSETS:**

**LIABILITIES AND CAPITAL**

**CURRENT LIABILITIES**

- Accounts Payable
- Notes Payable
- Accrued Interest on Notes
- Provision for Income Taxes
- Advances Received from Owners
- Accrued Salaries
- Accrued Payroll Taxes
- Other
- Total Current Liabilities

**OTHER LIABILITIES**

**CAPITAL**

- Capital Stock
- Authorized and Outstanding Shares,  
Par Value
- Earned Surplus

**TOTAL LIABILITIES AND CAPITAL**

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Guam Housing and Urban Renewal Authority in verification of the recitals comprising this Statement of Bidder's Qualifications.

Signature of Bidder	Name of Bidder
Date	Title of Bidder

Sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_

\_\_\_\_\_  
Notary Public  
My Commission Expires \_\_\_\_\_

# General Conditions for Construction Contracts - Public Housing Programs

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

**Applicability. This form is applicable to any  
construction/development contract greater than \$250,000.**

Public reporting burden for this collection of information is estimated to average 1 hour. This includes the time for collecting, reviewing, and reporting the data. The information requested is required to obtain a benefit. This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 2 CFR 200, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 75. The form is required for construction contracts awarded by Public Housing Agencies (PHAs). The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, PHAs would be unable to enforce their contracts. There are no assurances of confidentiality. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

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## 1. Definitions

- (a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.
- (b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.
- (c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
- (d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
- (e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.
- (f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Terms and Conditions (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
- (g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
- (h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.
- (j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
- (l) "Work" means materials, workmanship, and manufacture and fabrication of components.

## 2. Contractor's Responsibility for Work

- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
- (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [ ] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
- (c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
- (d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
- (e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
- (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
- (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
- (h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

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

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

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

#### 4. Other Contracts

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

### Construction Requirements

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

of the work, and that it has investigated and satisfied itself

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

#### 6. Construction Progress

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

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

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

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

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

## 8. Differing Site Conditions

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

## 9. Specifications and Drawings for Construction

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

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

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

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

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

#### 10. As-Built Drawings

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

#### 11. Material and Workmanship

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

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

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

#### 12. Permits and Codes

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

waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer.

Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

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

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

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

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

(b) For these purposes, the Contractor shall:

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

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

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

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

### 14. Temporary Heating

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

### 15. Availability and Use of Utility Services

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

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

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

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

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

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

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

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

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

## 17. Temporary Buildings and Transportation of Materials

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

## 18. Clean Air and Water

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

## 19. Energy Efficiency

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

## 20. Inspection and Acceptance of

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

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

## 21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas

occupied without proper remuneration therefore. If prior possession or use by the PHA delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

## 22. Warranty of Title

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

## 23. Warranty of

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

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

**24. Prohibition Against Liens**

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

**Administrative Requirements**

**25. Contract Period**

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

**26. Order of Provisions**

accordance with the terms and conditions of the

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

**27. Payments**

retain ten (10) percent of the amount of progress

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

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

- (d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved submitted not later than \_\_\_\_\_ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:

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

**Name:**

Title:

Date:

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



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

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

## 28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or

responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.

- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

## 29. Changes

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

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

### 30. Suspension of Work

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

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

### 31. Disputes

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

### 32. Default

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

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

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

### 33. Liquidated Damages

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

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

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

### 34. Termination for

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

### 35. Assignment of Contract

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

### 36. Insurance

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

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

- (3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_

[Contracting Officer insert amount] per occurrence.

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

### 37. Subcontracts

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

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

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

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

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

### 39. Equal Employment Opportunity

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

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

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

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

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

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

(g) The Contractor/Seller shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. The Contractor/Seller shall permit

access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

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

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

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

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

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

(b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 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 notice shall describe the Section 3 prioritization requirements and shall state the minimum percentages of labor hour requirements established in the Benchmark Notice (FR-6085-N-04).

(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) 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.

(f) Contracts, subcontracts, grants, or subgrants subject to Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5307(b)) or subject to tribal preference requirements as authorized under 101(k) of the Native American Housing Assistance and Self-Determination Act (25 U.S.C. 4111(k)) must provide preferences in employment, training, and business opportunities to Indians and Indian organizations, and are therefore not subject to the requirements of 24 CFR Part 75.

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#### 41. Interest of Members of Congress

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

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

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

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

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

#### 44. Royalties and Patents

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

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

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

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

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

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

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

(2) (i) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(ii) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.

(iii) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.

(iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.

(3) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the

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

(b) Withholding of funds. HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.

(c) Payrolls and basic records.

(1) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the project. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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

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

- (A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;
  - (B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and
  - (C) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.
- (iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

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

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

- (d) (1) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (2) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under



- the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (g) Compliance with Davis-Bacon and related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (h) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (i) Certification of eligibility.
- (1) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.
- (j) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.
- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in subparagraph (j)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions set forth in subparagraph (j)(1) of this clause, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in subparagraph (j)(1) of this clause. DOL posts current fines at: <https://www.dol.gov/whd/govcontracts/cwhssa.htm#cmp>
- (3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in subparagraph (j)(2) of this clause.
- (k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

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47. Non-Federal Prevailing Wage Rates

(a) Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:

(1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;

(b) An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or

(c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

48. Procurement of Recovered Materials.

(a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.

( ) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

"General Decision Number: GU20230001 01/06/2023

Superseded General Decision Number: GU20220001

State: Guam

Construction Types: Building, Heavy, Highway and Residential

Excludes any projects funded under the National Defense Authorization Act 2010 - Guam Realignment Fund - Defense Policy Review

County: Guam Statewide.

### BUILDING, HEAVY, HIGHWAY AND RESIDENTIAL

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. Please note that this Executive Order applies to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

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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:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$16.20 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 2023.
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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                    01/06/2023

SUGU2020-001 03/05/2020

Rates            Fringes

CARPENTER.....\$ 15.48 \*\*  
CEMENT MASON.....\$ 14.92 \*\*  
ELECTRICIAN.....\$ 18.52  
Heavy Equipment Mechanic.....\$ 18.32  
Heavy Equipment Operator.....\$ 16.58  
IRONWORKER, REINFORCING.....\$ 15.61 \*\*  
IRONWORKER, STRUCTURAL.....\$ 14.90 \*\*  
PAINTER.....\$ 12.86 \*\*  
PIPEFITTER.....\$ 16.52  
PLASTERER.....\$ 22.89  
PLUMBER.....\$ 16.52  
REFRIGERATION MECHANIC  
(including Heating, Air  
Conditioning (HVAC) Mechanic  
work).....\$ 18.43  
SHEET METAL WORKER.....\$ 16.73

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

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\*\* Workers in this classification may be entitled to a higher  
minimum wage under Executive Order 14026 (\$16.20). Please see  
the Note at the top of the wage determination for more  
information.

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

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

#### Union Rate Identifiers

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

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

#### Survey Rate Identifiers

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

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

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate

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

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

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### WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

Washington, DC 20210

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

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

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

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

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END OF GENERAL DECISIO"

**A. APPLICABILITY**

The Project or Program to which the construction work covered by this Contract pertains is being assisted by the United States of America, and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**(1) MINIMUM WAGES**

- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment, computed at rates not less than those contained in the wage determination of the Secretary of Labor (which is attached hereto and made a part hereof), regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH1321)) 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.

**(ii) Additional Classifications.**

- (A) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
  - (2) The classification is utilized in the area by the construction industry; and
  - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor, the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the proposed 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 ("Administrator"), Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget ("OMB") under OMB control number 1235-0023.)
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, or 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 for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1235-0023.)



(D) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (1)(ii)(B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) 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.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1235-0023.)

(2) **Withholding.** HUD or its designee shall, upon its own action or upon written request of an authorized representative of the U.S. Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The U.S. Department of Labor shall make such disbursements in the case of direct Davis-Bacon Act contracts.

(3) **Payrolls and basic records.**

(i) **Maintaining Payroll Records.** 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 at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification(s), hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid.

Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1235-0023 and 1215-0018)

(ii) **Certified Payroll Reports.**

(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <https://www.dol.gov/agencies/whd/forms> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the U.S. Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1235-0008.)

- (B)** 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:
- (1)** That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;
  - (2)** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;
  - (3)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract; and
- (C)** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by subparagraph (a)(3)(ii)(b).
- (D)** The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

**(iii)** The contractor or subcontractor shall make the records required under subparagraph (a)(3)(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the U.S. Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **(4) Apprentices and Trainees.**

**(i) Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency (where appropriate), to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman’s hourly rate) specified in the contractor’s or subcontractor’s registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice’s level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination.

Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program.

If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, 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.

- (ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed, unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on 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 on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) **Equal employment opportunity.** The utilization of apprentices, trainees, and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

- (5) **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this Contract.
- (6) **Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs (1) through (11) in this paragraph (a) and such other clauses as HUD or its designee may, by appropriate instructions, require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.
- (7) **Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) **Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this Contract.
- (9) **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.
- (10) **Certification of Eligibility.**
- (i) 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 Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) Anyone who knowingly makes, presents, or submits a false, fictitious, or fraudulent statement, representation or certification is subject to criminal, civil and/or administrative sanctions, including fines, penalties, and imprisonment (e.g., 18 U.S.C. §§ 287, 1001, 1010, 1012; 31 U.S.C. §§ 3729, 3802).

**(11) Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic, to whom the wage, salary, or other labor standards provisions of this Contract are applicable, shall be discharged or in any other manner discriminated against by the contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

## **B. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The provisions of this paragraph (b) are applicable where the amount of the prime contract exceeds **\$100,000**. As used in this paragraph, the terms “laborers” and “mechanics” include watchmen and guards.

**(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work, which may require or involve the employment of laborers or mechanics, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek, unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph B(1) of this paragraph, the contractor, and any subcontractor responsible therefor, shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph B(1) of this paragraph, **in the sum set by the U.S. Department of Labor at 29 CFR 5.5(b)(2)** for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph B(1) of this paragraph. In accordance with the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 Note), the DOL adjusts this civil monetary penalty for inflation no later than January 15 each year.

**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall, upon its own action or upon written request of an authorized representative of the U.S. 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 other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages, as provided in the clause set forth in subparagraph B(2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph B(1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs B(1) through (4) of this paragraph.

## **C. HEALTH AND SAFETY**

The provisions of this paragraph (c) are applicable where the amount of the prime contract exceeds **\$100,000**.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his or her health and safety, as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to 29 CFR Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96), 40 U.S.C. § 3701 et seq.

**(3)** The contractor shall include the provisions of this paragraph in every subcontract, so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

**Bid Information**

<b>IFB Number GHURA-23-15</b>		<b>Submit bid to:</b>  <b>GHURA</b> <b>117 Bien Venida Ave.</b> <b>Sinajana, Guam 96926</b>  Contract: Sonny Perez, 475-1404 or email <a href="mailto:sperez@ghura.org">sperez@ghura.org</a>  Andrew Manglona, 475-1315 or email <a href="mailto:amanglona@ghura.org">amanglona@ghura.org</a>
<b>Bid Opening Date:</b> July 20,2023	<b>Bid Opening Time:</b> 2:00pm	
<b>Project Title:</b> Isla Apartment Improvement		
<b>Project Description:</b> Isla Apartment and Sewer line Improvement		
<b>Contract Completion Time:</b> See Special Conditions		
<b>Amount of Liquidated Damages:</b> \$150.00 per calendar day		

**Bidder's Information**

<b>Name of Company</b>	<b>FEIN</b>
	<b>Bidder's Telephone Number</b>
<b>Bidder's Address</b>	<b>Bidder's Fax Number</b>
	<b>Name of Person Submitting the Bid</b>
	<b>Title of Person Submitting the Bid</b>

**Bidder's Acknowledgments**

This is to acknowledge that an authorized representative(s) of the above named company has familiarized himself/herself/themselves with the local conditions affecting the cost of the work, all instructions, General and Supplemental Conditions, Contractor's compliance and reporting requirements, the specifications, drawings, and addenda.

GHURA requires a minimum acceptance period of 60 calendar days "Acceptance period," as used in this provision, means the number of calendar days available to GHURA for awarding a contract from the date specified in this solicitation for receipt of bids. **GHURA reserves the option, depending on the availability of funds to award a contract to the lowest responsible responsive bidders submitting the lowest bid on Base Bid Item No. 1, 2 & 3 . A bid may be submitted for either or both bid items**

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). In submitting this bid, it is understood that the right is reserved by GHURA to reject any and all bids.

**Acknowledgment of Addenda** The bidder acknowledges the following addenda: (Failure to acknowledge may cause bid rejection.)

<b>Addenda No.</b>	<b>Addenda Date</b>	<b>Addenda No.</b>	<b>Addenda Date</b>

**Required Submissions**

To be responsive, the bidder must submit the following documents in a sealed envelope marked on its face with the correct bidding information with his/her bid: <b>Form HUD-5369-a</b> , Representations, Certifications, and Other Statements of Bidders <b>AG form 002</b> , Disclosing ownership & Commission <b>AG form 003</b> , Affidavit re Non-Collusion <b>AG form 004</b> , Affidavit re No Gratuities or Kickbacks <b>AG form 005</b> , Affidavit re Ethical Standards <b>AG form 007</b> -Affidavit re Contingent Fees <b>Form GHURA 01B</b> , Section 3 Preference Certification completed and certified OR marked NA if the bidder is not claiming Section 3 preference.  GHURA shall reject a bid as non-responsive and bid that does not include	<b>Form GHURA 09</b> , Law to be observed <b>GHURA 010</b> , Bidder's Qualifications including a Financial Statement and a certificate of authority to do business in Guam <b>Form GHURA 013</b> , Bidder's Section 3 Commitment <b>Form GHURA 014</b> , Bid Form <b>Form GHURA 016</b> , Bid Bond and Certificates <b>Contractor's License</b> <b>Acknowledged copies of any and all Addenda</b>  each of the above documents, fully completed and properly executed.
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**A breakdown is required for each item description as noted below**

**Base Bid Item No.1**

The bidder hereby proposes to furnish all labor, materials, equipment and services required to complete the construction contract as per the requirements of the specification documents for Isla Apartment Improvement located in Mangilao all in accordance therewith, for the sum of:

(\$ \_\_\_\_\_ DOLLARS)

Item #	Item Description	Estimated Quantity	Unit		Unit Bid Price
			Measure	Price	
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
The bidder may continue by copying and attaching this section to the Bid Form.					
<b>Sum of all cost extensions are included in the base bid</b>					\$

**Additive Bid Items**

**GHURA does not require** an additive bid for this proposal. To offer a bid the bidder is requested to breakout the following items from the base bid. Each item shall include all labor, materials, equipment and services required to complete

Item #	Item Description	Item Bid

**Individual Bidder**

<p><b>Trading and doing business as</b></p> <p>If fictitious trade name is employed in the conduct of business, insert such name and complete, as appropriate. This foregoing fictitious or trade name  <input type="checkbox"/> is <input type="checkbox"/> is not a been registered under Guam Law.</p>	<p><b>Bidder's Signature</b></p> <p>_____</p> <p><b>Date</b></p> <p>_____</p>
<p><b>Name of person submitting the bid</b></p>	<p><b>Witness</b></p> <p>Witness Name _____</p> <p>Witness Signature _____</p> <p>Date _____</p>
<p><b>Business address</b></p>	

**Partnership Bidder**

<p><b>Name of Partnership</b></p> <p>If fictitious trade name is employed in the conduct of business, insert such name and complete, as appropriate. This foregoing fictitious or trade name  <input type="checkbox"/> is <input type="checkbox"/> is not a been registered under Guam Law.</p>	<p><b>Bidder's Signature</b> _____</p> <p><b>Date</b> _____</p>
<p><b>Name of person submitting the bid</b></p>	<p><b>Witness</b></p> <p>Witness Name _____</p> <p>Witness Signature _____</p> <p><b>Date</b> _____</p>
<p><b>Business address</b></p>	

**Corporate Bidder**

<b>Name of Corporation</b>	<b>Corporate's Signature</b> _____ <b>Title</b> _____ <b>Date</b> _____
<b>Name of person submitting the bid</b>	<b>Certificate as to Corporate Principle</b> I, _____, certify that I am the Secretary of the corporation named as Principal in the within bond: That _____ _____ , who signed the bond on behalf of the Principal, was then of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and I behalf of said corporation by authority of its governing body. _____ (Corporate Seal)
<b>Business address</b>	



**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned \_\_\_\_\_

\_\_\_\_\_  
(Name of Principal)

as PRINCIPAL, and

\_\_\_\_\_  
SURETY

are held and firmly bound unto Guam Housing and Urban Renewal Authority, hereinafter called "GHURA", in the penal sum of \_\_\_\_\_

\_\_\_\_\_  
Dollars, ( \_\_\_\_\_ ), lawful money of the United States, for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the Principal has submitted the accompanying bid, dated the \_\_\_\_\_, 20\_\_\_\_, for the \_\_\_\_\_

NOW THEREFORE, if the principal shall not withdraw said bond within the period specified therein after the opening of the same, or, if no period be specified, within sixty (60) days after the said opening, and shall within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with Guam Housing and Urban Renewal Authority in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said bid within the period specified, or time specified, if the principal shall pay Guam Housing and Urban Renewal Authority, the difference between the amount specified in said bid and the amount for which Guam Housing and Urban Renewal Authority may procure the required work or supplies, or both, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

ATTEST:

Sole Proprietorship

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\_\_\_\_\_  
(Individual Principal Signature)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(Name of Individual Principal Above)

(Seal)

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ATTESTED:

Corporation

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\_\_\_\_\_  
(Corporate Principal Signature)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(Name of Corporate Principal Above)

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

Affix Corporate Seal

ATTEST:

Surety Company

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\_\_\_\_\_  
(Corporate Surety Signature)

\_\_\_\_\_  
Corporate Surety Signature)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
Name of Corporate Surety)

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

Affix Corporate Seal

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(Power of Attorney for person signing for Surety Company must be attached to the Bond)

### CERTIFICATE AS TO CORPORATE PRINCIPAL

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_

Secretary of the Corporation names as Principal in the within the bond; that  
\_\_\_\_\_ " who signed the said bond on behalf of the

Principal was then \_\_\_\_\_ of said corporation; that I know his

signature, and his signature thereto is genuine; and that said bond was duly signed,

sealed, and attested to, for and *in* behalf of said corporation by authority of its governing

body.

\_\_\_\_\_  
(Corporate Seal)

THIS AGREEMENT MADE THIS \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_ by and between \_\_\_\_\_, A Corporation, Partnership or Sole Proprietorship existing under the laws of the State of \_\_\_\_\_ Guam hereinafter called the "Contractor," and the Guam Housing and Urban Renewal Authority, herein called the "GHURA."

WITNESSETH, that the Contractor and GHURA for the consideration stated herein, mutually agree as follows:

ARTICLE I

Statement of Work. The Contractor shall furnish all labor, material, equipment, and services and perform and complete all work required for the construction of Project No. GHURA-23-15 in strict accordance with "Specifications" for the ,which includes all items listed in the Tale of Contents and Addenda thereto, Numbered and the drawings referred to herein, all as prepared by Architect, which said Specifications, Addenda and Drawings are incorporated herein by reference and made a part hereof.

ARTICLE II

Contract Price. GHURA shall pay the Contractor for the performance of the Contract, in current funds, subject to additions and deductions as provided in the specifications for completed work meeting the requirements of the Contract Documents, the sum of \_\_\_\_\_.

ARTICLE III

Contractor agrees that time is of the essence in the completion of the work in the time required by this contract and hereby waives any notice of putting in default for failure to complete on time.

ARTICLE IV

Contract Documents. The contract shall consist of the following component parts:

- (a) This Instrument
- (b) General Conditions
  - (HUD-5370EZ or HUD-5370)
  - Wage Determination
- (c) Special/supplemental Conditions
- (d) Technical Specifications
- (e) Drawings
- (f) IFB # *GHURA-09-01-2022-MOD8 AMP's 2, 3 & 4*
- (g) Forms
  - (AG-002) Affidavit Disclosing Ownership and Commissions
  - (AG-003) - Affidavit re Non-Collusion
  - (AG-004) - Affidavit re No Gratuities or Kickbacks
  - (AG- 005) - Affidavit re Ethical Standards
  - (AG-007) - Affidavit re Contingent Fees
  - (GHURA-13) - Mandatory Compliance for Section 3
  - (GHURA-01B) - Section 3 Business Preference
  - (HUD-4010) - Federal Labor Standards
  - (HUD-5369) – Instructions to Bidders Offerors
  - (HUD-5369-a) - Representations, Certifications, and Other Statements of Bidders
- (h) Proposal
- (i) Addendum(s)

This instrument, together with the other documents enumerated in this ARTICLE IV, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, form the Contract. In the event that any provision of any other component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in the ARTICLE IV shall govern, except as otherwise specially stated. The various provisions in Addenda shall be construed in the order of the preference of the component part of the Contract which each modifies. IN WITNESS WHEREOF, the parties hereto have caused this Instrument to be executed in three (3) original counterparts as of the day and year first above written

# Form of Contract

Name:

Executed by: **Elizabeth F. Napoli**  
Executive Director for the Guam Housing Urban  
Renewal Authority

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

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

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

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

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

## Contractor's Certification

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_  
\_\_\_\_\_, of the Corporation, Partnership or Sole  
(Title)  
Proprietorship named as Contractor herein, and that \_\_\_\_\_, who signed  
(Name of Signatory)  
the Contract on behalf of the Contractor, was then the \_\_\_\_\_  
of said Corporation, Partnership or Sole Proprietorship; that said contract was duly signed for and in behalf of said  
Corporation, Partnership or Sole Proprietorship by authority of its governing body, and is within the scope of its  
corporate powers.

(Corporate Seal) \_\_\_\_\_  
Signature of person affixing the Corporate Seal

Funds Certified By: \_\_\_\_\_  
Controller

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

Grant No.	Project Number	Amount	

**Bid Information**

<b>IFB Number</b>		<b>Submit bid to:</b>  <b>GHURA</b> <b>117 Bien Venida Ave.</b> <b>Sinajana, Guam 96926</b>  Contract: Sonny Perez, 475-1404 or email <a href="mailto:sperez@ghura.org">sperez@ghura.org</a>  Andrew Manglona, 475-1315 or email <a href="mailto:amanglona@ghura.org">amanglona@ghura.org</a>
<b>Bid Opening Date:</b>	<b>Bid Opening Time:</b> 2:00pm	
<b>Project Title:</b> Phase II Design and Development for Transitional Housing		
<b>Project Description:</b> Design and development of transitional housing		
<b>Contract Completion Time:</b> See Special Conditions		
<b>Amount of Liquidated Damages:</b> \$150.00 per calendar day		

**Bidder's Information**

<b>Name of Company</b>	<b>FEIN</b>
	<b>Bidder's Telephone Number</b>
<b>Bidder's Address</b>	<b>Bidder's Fax Number</b>
	<b>Name of Person Submitting the Bid</b>
	<b>Title of Person Submitting the Bid</b>

**Bidder's Acknowledgments**

This is to acknowledge that an authorized representative(s) of the above named company has familiarized himself/herself/themselves with the local conditions affecting the cost of the work, all instructions, General and Supplemental Conditions, Contractor's compliance and reporting requirements, the specifications, drawings, and addenda.

GHURA requires a minimum acceptance period of 60 calendar days "Acceptance period," as used in this provision, means the number of calendar days available to GHURA for awarding a contract from the date specified in this solicitation for receipt of bids. **GHURA reserves the option, depending on the availability of funds to award a contract to the lowest responsible responsive bidders submitting the lowest bid on Base Bid Item No. 1, 2 & 3 . A bid may be submitted for either or both bid items**

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).  
 In submitting this bid, it is understood that the right is reserved by GHURA to reject any and all bids.

**Acknowledgment of Addenda** The bidder acknowledges the following addenda: (Failure to acknowledge may cause bid rejection.)

Addenda No.	Addenda Date	Addenda No.	Addenda Date

**Required Submissions**

To be responsive, the bidder must submit the following documents in a sealed envelope marked on its face with the correct bidding information with his/her bid:

<b>Form HUD-5369-a</b> , Representations, Certifications, and Other Statements of Bidders <b>AG form 002</b> , Disclosing ownership & Commission <b>AG form 003</b> , Affidavit re Non-Collusion <b>AG form 004</b> , Affidavit re No Gratuities or Kickbacks <b>AG form 005</b> , Affidavit re Ethical Standards <b>AG form 007</b> -Affidavit re Contingent Fees <b>Form GHURA 01B</b> , Section 3 Preference Certification completed and certified OR marked NA if the bidder is not claiming Section 3 preference.	<b>Form GHURA 09</b> , Law to be observed <b>GHURA 010</b> , Bidder's Qualifications including a Financial Statement and a certificate of authority to do business in Guam <b>Form GHURA 013</b> , Bidder's Section 3 Commitment <b>Form GHURA 014</b> , Bid Form <b>Form GHURA 016</b> , Bid Bond and Certificates <b>Contractor's License</b> <b>Acknowledged copies of any and all Addenda</b>
--	---

GHURA shall reject a bid as non-responsive and bid that does not include each of the above documents, fully completed and properly executed.

**A breakdown is required for each item description as noted below**

**Base Bid Item No.1**

The bidder hereby proposes to furnish all labor, materials, equipment and services required to complete the construction contract as per the requirements of the specification documents for the Design and development of transitional housing all in accordance therewith, for the sum of:

(\$ \_\_\_\_\_ DOLLARS)

**Base Bid Item No.2**

The bidder hereby proposes to furnish all labor, materials, equipment and services required to complete the construction contract as per the requirements of the specification documents for the Design and development of transitional housing all in accordance therewith, for the sum of:

(\$ \_\_\_\_\_ DOLLARS)

**Base Bid Item No.3**

The bidder hereby proposes to furnish all labor, materials, equipment and services required to complete the construction contract as per the requirements of the specification documents for the Design and development of transitional housing all in accordance therewith, for the sum of:

(\$ \_\_\_\_\_ DOLLARS)

Item #	Item Description	Estimated Quantity	Unit		Unit Bid Price
			Measure	Price	
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$
					\$

The bidder may continue by copying and attaching this section to the Bid Form.

<b>Sum of all cost extensions are included in the base bid</b>	<b>\$</b>
--	-----------

**Additive Bid Items**

**GHURA does not require** an additive bid for this proposal. To offer a bid the bidder is requested to breakout the following items from the base bid. Each item shall include all labor, materials, equipment and services required to complete

Item #	Item Description	Item Bid

**Individual Bidder**

<p><b>Trading and doing business as</b></p> <p>If fictitious trade name is employed in the conduct of business, insert such name and complete, as appropriate. This foregoing fictitious or trade name  <input type="checkbox"/> is <input type="checkbox"/> is not a been registered under Guam Law.</p>	<p><b>Bidder's Signature</b> _____</p> <p><b>Date</b> _____</p>
<p><b>Name of person submitting the bid</b></p>	<p><b>Witness</b></p> <p>Witness Name _____</p>
<p><b>Business address</b></p>	<p>Witness Signature _____</p> <p>Date _____</p>

**Partnership Bidder**

<p><b>Name of Partnership</b></p> <p>If fictitious trade name is employed in the conduct of business, insert such name and complete, as appropriate. This foregoing fictitious or trade name  <input type="checkbox"/> is <input type="checkbox"/> is not a been registered under Guam Law.</p>	<p><b>Bidder's Signature</b> _____</p> <p><b>Date</b> _____</p>
<p><b>Name of person submitting the bid</b></p>	<p><b>Witness</b></p> <p>Witness Name _____</p>
<p><b>Business address</b></p>	<p>Witness Signature _____</p> <p><b>Date</b> _____</p>

**Corporate Bidder**



<b>Name of Corporation</b>	<b>Corporate's Signature</b> _____ <b>Title</b> _____ <b>Date</b> _____
<b>Name of person submitting the bid</b>	<b>Certificate as to Corporate Principle</b> I, _____, certify that I am the Secretary of the corporation named as Principal in the within bond: That _____ _____ , who signed the bond on behalf of the Principal, was then of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and I behalf of said corporation by authority of its governing body.  _____ (Corporate Seal)
<b>Business address</b>	



# GHURA

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Guahan Housing and Urban Renewal Authority  
Aturidat Ginima' Yan Rinueban Siudat Guahan  
117 Bien Venida Avenue, Sinajana, GU 96910  
Phone: (671)477-9851 Fax: (671) 300-7565 TTY: (671) 472-3701

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## **ISLA APARTMENT IMPROVEMENT** *Mangilao, Guam*

PREPARED BY:  
A/E DIVISION

APPROVED BY:

SONNY M. PEREZ  
A/E MANAGER

REVISIONS	
No.	Description

Contractor:  
-XXX-

**BUILDING PERMIT**

**Project:**  
SEWERLINE CORRECTION FOR ISLA APARTMENT

**Title:**  
NEW SEWERLINE

264 Spotsia Ln. MANGILAO GUAM

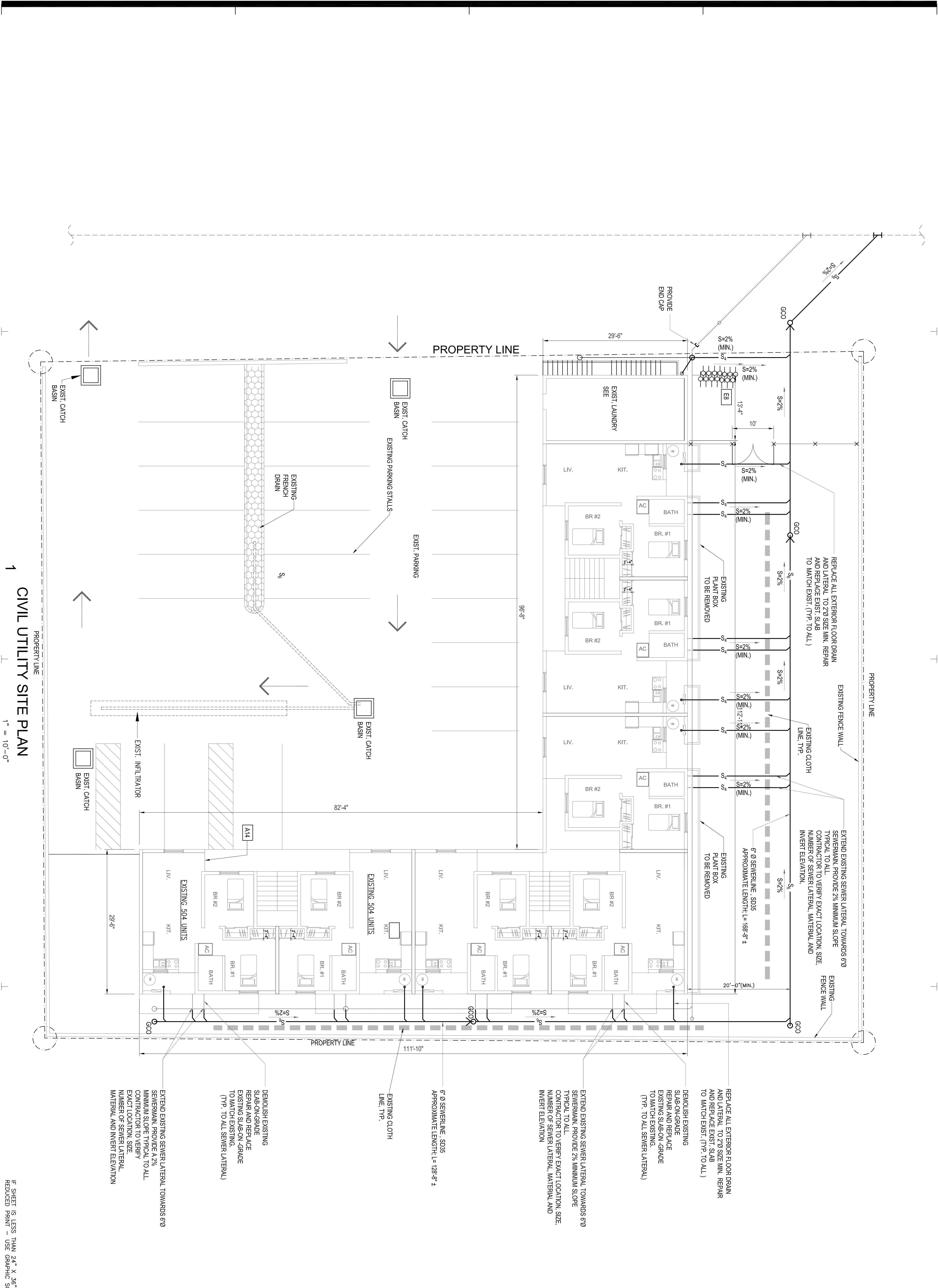
DATE

1. HIGHLIGHTED AREAS ARE REQUIRED TO BE SHOWN ON ALL SHEETS OF THIS DRAWING.

Designed:	MSR
Drawn:	MSR
Checked:	TTI
Supv:	MSR
Scale:	AS SHOWN
Date:	APRIL 03, 2023
Project No.:	Autocad File
Drawing No.:	

**C-1**

Sheet No. \_\_\_\_\_ of \_\_\_\_\_



**CIVIL UTILITY SITE PLAN**

1" = 10'-0"

IF SHEET IS LESS THAN 24" X 36"  
REDUCED PRINT - USE GRAPHIC SCALES

**LOCATION MAP**

**ISLA APARTMENT MANGILAO, GUAM**



## SPECIAL CONDITIONS

### 1. PROJECT SITE AND DESCRIPTION:

The building improvement projects are located in Mangilao, Guam. See attached vicinity map for location. Attached preliminary Site plans for references.

### 2. TIME OF COMPLETION:

The work shall commence at the time stipulated in the Notice to Proceed and shall be full completed within the time frame indicated below:

- a. Design Period: **30 consecutive days** after survey issue and signed by Professional surveyor.
- b. Construction Contract Period: **45 consecutive calendar days** after building permit is issued and signed off by DPW and other government agencies.
- c. Liquidated Damages: In case of failure on part of the Contractor to complete the work within the time fixed in the Contract, or within any time extensions given thereof, the Contractor and his sureties shall be liable for and shall pay to GHURA the sum of \$150.00 liquidated damages per calendar days of delay until the work is completed or accepted.

### 1. DESIGN AND CONSTRUCTION CRITERIA

#### 1.1 SCOPE OF WORK:

The contractor shall retain the services of a Professional Engineer who is currently registered and licensed in Guam to design and develop and approved construction set of drawings suitable for permit review and approval, and use for construction of the project.

1. Provide 2 coats on interior ceiling surfaces approximately 5,532 sf (Ground Floor). Scrape existing ceiling finishing and acid wash prior to painting. Color of painting to match existing.
2. Replace and install applicable fittings to prevent water lines leaks on restroom on unit 107. Replace tiles should match to existing. Any damage by the contractor shall be replace and restore to match existing such as wall tiles, floor tiles, painting and existing utilities.
3. Electrical Engineer will evaluate the 3 unit and provide recommendation for a repair or replacement on disconnect switch for hot water and aircon (Unit 201, 105 and 205).
4. Demolish existing slab-on-grade approximately 70 square feet on preparation of new 2-inches floor drain replacement and cover and connect to new sewermain. Restore damage slab-on-grade to match existing. Provide minimum 2 percent slope to 6" sewermain.
5. Install first the new 6" diameter outside the building with a minimum slope 2% towards 6" sewerline, install also 5 ground clean-out minimum and install 4" diameter sewer lateral towards new 6" diameter sewer pipe with a minimum slope of 2% per for all 14 units before connect to main sewerline on the road.

## ISLA APARTMENT IMPROVEMENTS

*Mangilao, Guam*

Note: Expose all existing sewer lateral first and existing 6" sewermain before the new 6" dia. connected to sewermain along the road. All vacant unit will be the priority for connection of sewer lateral.

6. Provide temporary portable/toilet potty for tenant in case there is no vacant unit during connection of sewer lateral.
7. Provide end cap on existing lateral. See Site Plan.
8. The project will require a topographic survey to determine the properties boundaries and elevations.
9. Submit detailed Schedule of values. Contractor cannot use lumpsum or lot for schedule of values.

PERMIT AND CLEARANCES: The following permit and clearances for the project's execution shall be the responsibility of the contractor.

# SPECIFICATIONS

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SECTION 01010  
SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Work covered by the Contract Documents.
  2. Contractor's use of the premises.
  3. Occupancy requirements.
- B. Related Documents:
1. The Contract Documents, as defined within this Section, apply to the work. Additional requirements and information necessary to complete the work may be found in other Documents.
  2. Owner's Bid and Contract documents per 01012.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Provide and pay for all labor, materials, services, equipment, permits, fees, licenses, taxes, and other items necessary for the execution, installation and completion of all work indicated in the Contract Documents.
- B. The work involves the construction of Work includes, but is not limited to, demolition, earthwork, site utilities, site improvements, paving, and landscaping. Work also includes concrete foundations, slabs-on-grade, concrete, cast-in-place concrete roof membrane, metal fabrications, thermal and sound insulation, concrete masonry unit walls, non-structural metal framing, carpentry, gypsum board walls and ceilings, ceramic tile, resilient flooring, carpeting, acoustical ceilings, aluminum storefronts and windows, glazing, hollow metal doors and frames, wood doors, door hardware, cabinetry and fixtures, toilet partitions and accessories, painting, typhoon shutters, fire detection system, electrical, plumbing, complete and ready for use.
- C. Coordination: The work of this Contract includes coordination of the entire work of the Project, from the beginning of activity through project close-out and the warranty periods.
- D. Drawings: Preparation of "As-Built" Drawings showing the location of all new work.
- E. The work and appurtenances shall be all in strict accordance with the Contract Documents, except only those items specifically shown, noted, or specified as not in the Contract (NIC), or OFCI, or those materials designated as OFCI.
- F. Summary of References: Work of the Contract can be summarized by reference to the Contract, General Conditions, Supplementary Conditions, Special Provisions, Labor Standards Provisions, Specifications Sections as listed in the Table of Contents bound herewith, Drawings, Addenda and Modifications to the Contract Documents issued subsequent to the initial printing of these Specifications, and including, but not necessarily limited, to printed matter referenced by any of the above.

SUMMARY OF WORK 01010-1

1.3 CONTRACTOR'S USE OF PREMISES

- A. During construction, the Contractor shall have full use of the Project Site and to the immediate area for construction operations. Contractor shall minimize disruption to the public and to activities in and around adjacent roads, streets, buildings and other facilities.
- B. The Contractor must limit use of the premises to construction activities only in the areas indicated:
1. Confine operations to areas within the Contract limits indicated. Portions of the Site beyond the areas in which construction operations are permitted are not to be disturbed or used.
  2. Keep driveways and entrances serving the public and adjacent buildings and properties clear and useable at all times. Do not use these areas for parking or storage of materials unless approved, in writing, by the Owner's representative.
  3. Schedule deliveries to minimize time and space required for storage of materials and equipment on the Project Site.
  4. Provide temporary fencing, barricades, signage, traffic control and personnel necessary for public safety.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SUMMARY OF WORK

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SECTION 01012  
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December	5

PART 1 GENERAL

- 1.1 PROJECT SITE
  - A. The Project Site is located as shown on Drawing.
- 1.2 CONTRACT DOCUMENTS
  - A. Contract form shall be:
    - 1. AIA Standard Form - Owner/Contractor Agreement
    - 2. Owner prepared Agreement
    - 3. Government of Guam Agreement Form
  - B. General Conditions should be:
    - 1. AIA Standard Form - General Conditions A-201
    - 2. Government of Guam General Conditions
  - C. Owner-issued bid and contract documents shall take precedence should there be conflict between the Owner-issued documents and these Specifications.
- 1.3 TIME OF COMPLETION
  - A. The work shall commence upon Contract signing and shall be thereafter substantially completed within the Contract Time. Prerequisites for substantial completion are indicated in Section 01705 - Project Closeout.
- 1.4 LIQUIDATED DAMAGES
  - A. In case of failure on the part of the Contractor to complete the work within the time fixed in the Contract or within any time extensions given thereof, the Contractor and his sureties shall be liable for and shall pay to the Owner for his real damages, the sum of \$\_\_\_\_\_ liquidated damages, per calendar day of delay, until the work is completed and accepted.
- 1.5 CLIMATIC CONDITIONS
  - A. The contract time for this Contract allows for the following number of days lost due to adverse climatic conditions in each month. Time extension on account of inclement weather will be allowed only for lost days of work in excess of the limits shown below. Time extension on account of inclement weather on Saturday and Sunday shall be granted only if the Contractor has confirmed, in writing, his intention to work on those days. Allowance for delays will not be given for interior work and other work which can proceed during periods of inclement weather.
 

Month	Non-Working Days
January	4
February	3

SUPPLEMENTARY CONDITIONS 01012-1

1.6 FEES

- A. The Contractor will be responsible for all processing and payment of fees and payments pursuant to the construction of this Project. Included are Building Permit and regulatory agencies fees. The Contractor will be responsible for submitting the required drawings and other required documents to the respective agencies and following up until permits have been issued.

1.7 DRAWINGS AND SPECIFICATIONS

- A. Upon award of the Construction Contract, the Owner will furnish the Contractor, without charge, four (4) copies of the Drawings and Specifications. Additional copies requested by the Contractor will be furnished at cost.

1.8 ELECTRONIC DOCUMENTS

- A. With concurrence of the Owner, the Architect and Consultants will release to the Contractor project drawings in electronic format. As a condition of release, the Contractor shall sign an Electronic Data Transfer Indemnity Agreement prepared by the Architect, and reimburse the Architect and Consultants for the cost of formatting and transferring the electronic files.

1.9 ADMINISTRATIVE SUBMATERIALS

- A. Contractor will submit for approval within ten (10) calendar days of award of the Contract, the following, which may also be referred to in other portions of these Specifications:

- 1. Resume of the project superintendent indicating qualifications to provide project supervision.
- 2. List of all subcontractors to be used on the project.
- 3. Schedule of Values.
- 4. Progress Schedule.
- 5. Performance and Payment Bonds.
- 6. Insurance Certificates.

1.10 BONDS

- A. The Contractor shall furnish to the Owner, in a form satisfactory to the Owner, at the Owner's request, a Performance Bond and a Labor and Materials Payment Bond, each in the sum of 100% of the Contract Sum, and with a Bond Rider naming the Contractor as principal, corporate surety satisfactory to the Owner, as surety and any construction lender

SUPPLEMENTARY CONDITIONS 01012-2

and lessee (if the Project is leasehold) as additional or dual obligees. The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his Power of Attorney.

1.11 CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

- A. The Contractor shall not commence work under this Contract until he has obtained all insurance required hereunder, and such insurance has been submitted to the Owner. The Contractor shall not allow any subcontractor to commence work under his subcontract until all similar insurance required of the subcontractor has been obtained. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.
- B. Workman's Compensation and Employer's Liability Insurance: The Contractor shall take out and maintain during the life of this Contract the statutory Workman's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the Project under this Contract, and in case any such work is sublet, the Contractor shall require the subcontractor, similarly, to provide Workman's compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in the work.
- C. Bodily Injury Liability and Property Damage Liability Insurance: The Contractor shall take out and maintain during the life of this Contract such Bodily Injury Liability and Property Damage Liability Insurance as shall protect from claims for damages from personal injury, including accidental death, as well as from operations under this Contract, whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amount of such insurance shall not be less than:
  - 1. Bodily Injury Liability Insurance in an amount not less than One Hundred Thousand Dollars (\$100,000) per person for injuries including wrongful death, and in an amount not less than Three Hundred Thousand Dollars (\$300,000) for injuries including wrongful death resulting from one accident.
  - 2. Property Damage Insurance in an amount not less than Fifty Thousand Dollars (\$50,000) for damages resulting from any one accident, and in an amount not less than One Hundred Thousand Dollars (\$100,000) for damages resulting from all accidents.
- D. Owner's Protective Liability Insurance: The Contractor shall take out, furnish to the Owner and maintain during the life of this Contract, complete Owner's protective liability insurance in the amounts specified above for bodily injury liability insurance and for property damage liability insurance.
- E. Fire, Typhoon, Theft and Vandalism Insurance: The Contractor shall insure the building and other work included in this Contract against loss or damage by fire, typhoon, theft and vandalism, and against loss or damage covered by the standard extended coverage insurance endorsement, with an insurance company or companies acceptable to the Owner, the amount of the insurance at all times to be at least equal to the amount paid on account of work and materials plus the value of work and materials furnished or delivered but not yet paid for by the Owner. The policies shall be in the names of the Owner and the Contractor.
- F. Supplemental to Contractor's and Subcontractor's Insurance:
  - 1. Flood Hazard Insurance: For projects located on the shoreline or in a flood hazard zone, the Contractor, during the life of this Contract, shall secure and maintain Flood Hazard Insurance in the amount equivalent to 100 percent (100%) of the Contract amount, for all damages. The policies shall be in the names of the Owner

SUPPLEMENTARY CONDITIONS

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and the Contractor.

- G. A certificate of the insurance company as to the amount and type of coverage, terms of policies, etc., shall be delivered to the Owner before commencing work.

1.12 PROGRESS PAYMENTS

- A. Applications for progress payments shall be made monthly on AIA Document G702 and G703 - "Application and Certification for Payment". Retainage of ten percent (10%) of the completed work and stored materials will be withheld until final completion of the work. After the work is 50% complete and should the work be proceeding acceptable to the Owner, the contractor may request the owner to allow the retainage to continue at five percent (5%) of the total contract value.

1.13 AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)

- A. All persons and entities providing work for this Project are required to be knowledgeable of the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) as they affect their portion of the work. Do not install work which is not in compliance with ADAAG. Prior to fabrication or installation of any work not in compliance with ADAAG, the Contractor shall notify the Architect and secure design directions to resolve the non-complying features.

1.14 WARRANTY

- A. All work shall be guaranteed, in writing, by the Contractor against defects resulting from the use of defective and inferior materials, equipment, and workmanship for a minimum of one (1) year from the date of substantial completion. Any maintenance service contracts and warranties for equipment in use shall begin the same date of the general warranty against defects described hereinabove.
- B. If, within the warranty period, repairs or changes required in connection with the guaranteed work, which in the opinion of the Owner or Architect are rendered necessary as a result of the use of materials, equipment, or workmanship, which are inferior, defective, or not in accordance with the terms of the Contract, the Contractor shall within five (5) consecutive working days of request by the Owner or Architect, and without expense to the Owner, commence to, in every instance, place in satisfactory condition all such guaranteed work and correct all defects therein, and make good all damages to the building or work or equipment or contents thereof.
- C. Whenever a manufacturer's warranty on any product exceeds one year, that warranty shall become part of the Contract. The Contractor shall complete the warranty forms in the name of the Owner, and submit such forms to the manufacturer within such time as required to validate the warranty. The Contractor shall submit to the Owner a copy of the completed warranty forms for the Owner's record as evidence that such warranty form was filed with the manufacturer.
- D. Any manufacturer's warranty concerning any items installed will run to the benefit of the Owner, and the Contractor agrees to not void or impair or to allow subcontractors to void or impair any original warranty or guaranty existing or running to the benefit of the Owner, as to products or items installed in the Project, provided, however, if the Architect shall designate installation in a method or manner which shall void or impair the aforesaid warranty, the Owner and Architect shall be advised, in advance, in writing, by the Contractor of such violation of the manufacturer's recommended installation and impairment of warranty, and the Architect and Owner may change such installation to conform with the recommended procedures or confirm the method of installation applicable thereto, in writing, to the Contractor.

SUPPLEMENTARY CONDITIONS

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SECTION 01068  
REFERENCES

1.15 BUILDING AND OCCUPANCY PERMITS

- A. The Contractor shall make application for, process, pay all charges and obtain Building Permit(s) for the Project and provide a copy to the Architect and Owner.
- B. Upon Substantial Completion, the Contractor shall record the Substantial Completion Certificate with the Department of Public Works and deliver an unrestricted Occupancy Permit to the Architect and Owner.

1.16 COMPLIANCE WITH MECHANIC'S LIEN LAW

- A. The Contractor shall comply with provisions of the Government Code of Guam. Contractor shall make such submittals to the Owner, record the required documents, provide releases, publish such notices, post surety bonds, as required, and take other actions within the stipulated time frame, for full compliance with the law.

1.17 DEFAULT

- A. The Owner may declare the Contractor in default in accordance with, and in the manner described in the General Conditions of the Contract for Construction for:
  - 1. Failure to complete the work within the Contract period or any extension thereof.
  - 2. Failure or refusal to comply with an order of the Architect or Owner within a reasonable time.
  - 3. Failure or refusal to remove rejected materials from the Project Site.
  - 4. Failure or refusal to perform anew any defective or unacceptable work.
  - 5. Bankruptcy or insolvency, or the making of an assignment for the benefit of creditors.
  - 6. Failure to pay subcontractors and suppliers promptly.
  - 7. Repeated failure to provide a qualified superintendent, competent workmen or subcontractors to carry out the work in an acceptable manner.
  - 8. Failure to prosecute the work in accordance with the agreed schedule of completion.

END OF SECTION

SUPPLEMENTARY CONDITIONS

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REFERENCES

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PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

- 1. Specifications format and content.
  - 2. Quality assurance.
  - 3. Reference standards.
  - 4. Abbreviations.
  - 5. Definitions.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 SPECIFICATIONS FORMAT AND CONTENT

- A. Specifications Format: The Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's (CSI) 16-Division format numbering system.
- B. The Bid and Contract Documents issued by the Owner are included with the Specifications. The Owner-issued documents will take precedence should there be any conflict between them and the Specifications.
- C. Specifications Content: The Specifications use certain conventions in language and intended meaning of certain terms, words and phrases when used in particular situations or circumstances. These conventions are explained as follows:
  - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated type. Words and meanings shall be interpreted as appropriate. Words that are implied, but not stated shall be interpolated as the sense required. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the context of the Contract Documents so indicates.
  - 2. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe the responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
    - a. The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.

1.3 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade, or other consensus standards, the Contractor shall comply with the requirements of the standard, except when more rigid requirements are specified or are required by applicable codes. Such standards are made a part of the Contract Documents by reference.
- B. Conform to the reference standards by the date of issue that was current on the original date of the Contract Documents.
- C. Obtain copies of the standards when required by the Contract Documents.
- D. Maintain a copy of the standards at the Project Site during submittals, planning and progress of the specific work until Final Acceptance.
- E. Should a specified reference standard conflict with the Contract Documents, request clarification from the Owner's representative before proceeding.
- F. Neither the contractual relationship, duties or responsibilities of the parties to the Contract nor those of the Owner's representative shall be altered from the Contract Documents by any mention or inference otherwise in any reference document.

1.4 INDUSTRY STANDARDS AND CODES:

- A. General Applicability of Standards: Applicable standards of the construction industry and Building Codes adopted by the governing agencies have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith.
- B. Referenced Standards (referenced directly in the Contract Documents or by governing regulations) have precedence over non-referenced standards which are recognized in the industry for applicability to the work. Except as otherwise indicated, where compliance with an industry standard is required, comply with the standard in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer the requirements that are different but apparently equal, and uncertainties to the Owner's representative for decision before proceeding.
  - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified or it may exceed the minimum within reasonable limits. In complying with these requirements, the indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Owner's representative for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction of the Project is required to be familiar with the industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound within the Contract Documents.
  - 1. Where copies of standards are needed for the performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

1.5 ABBREVIATIONS

REFERENCES

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- A. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Company.

1.6 DEFINITIONS (People and Entities)

- A. Definitions specified herein are included in order to further clarify terms.
- B. Architect-Engineer (of Record): The Architect-Engineer is the person lawfully licensed to practice in professional disciplines such as architecture or civil, structural, mechanical, and electrical engineering.
- C. Installer: The Contractor or another entity engaged by the Contractor, either as employee, subcontractor or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, unpacking, assembly, placing, finishing, curing, adjusting, cleaning, protection or similar operation. Installers are required to be experienced in the operations they are engaged to perform.
  - 1. Experienced: The term "experienced," when used with the term "installer," means having a minimum number of years experience on projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authorities having jurisdiction.
  - 2. Trades: Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that the requirements specified apply exclusively to tradespersons of the corresponding generic name.
- D. Manufacturer: A person, firm or corporation who makes products.
- E. Owner: The individual, firm, corporation or government entity that owns the Project.
- F. Owner's Representative: The individual, firm or company administering the Contract on behalf of the Owner. Owner's representative may be the Owner him / herself, the Architect of Record, project engineer, Project Manager or other, as designated by the Owner, and includes a duly appointed successor or authorized representative.
- G. Project Field Superintendent: The Contractor's representative at the Project Site who is responsible for continuous field supervision, coordination, quality control, completion of the Project, and for the prevention of accidents, unless another person is designated, in writing, by the Contractor.
- H. Subcontractor: An individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for performance of a part of the work at the Project Site.
- I. Supplier: A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with the Contractor or with any subcontractor to furnish materials or equipment to be incorporated into the work by the Contractor or any subcontractor, but does not perform labor at the Project Site.
- J. Separate Contractor: An individual, firm or corporation having a direct contract with the Owner for performance of part of the work at the Project Site.

REFERENCES

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- K. Testing Laboratory: An independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret the results of those inspections or tests.
  - L. Trade: See Installer.
  - M. Utility: Local utility agency providing service to the Project.
- 1.7 DEFINITIONS (Things, Services, and Dispositions)
- A. Acceptable: Satisfactory to and approved by the Owner's representative.
  - B. Approve: The term "approved," when used in conjunction with the Owner representative's action on the Contractor's submittals, applications and requests, is limited to the Owner representative's duties and responsibilities as stated in the Contract.
  - C. Change Order: A modification to the Contract.
  - D. Clarification Drawing: A graphic interpretation of a Drawing or other Contract Documents issued by the Architect through the Owner's representative.
  - E. Construction Operations: Activities of the Contractor at the Project Site.
  - F. Directed: Instructed by the Owner's representative.
  - G. Experienced (Qualified): When used to describe the "installer," "fabricator" or similar terms; a person, firm or corporation skilled through observation or of participation in the particular activities required to complete the work or a portion of the work to the degree of quality specified.
  - H. Final Connections: Complete plumbing, mechanical and electrical connections as required and recommended by the manufacturer for optimum operation of the equipment.
  - I. Indicated: The term "indicated" refers to graphic representations, notes or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled" and "specified" are used, it is to help the reader locate the reference. Location is not limited.
  - J. Install: Operations at the Project Site including actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.
  - 1. Final Connections: Complete plumbing, mechanical and electrical connections as required and recommended by the manufacturer for optimum operation of equipment.
  - K. Mobilization: To establish and commence work activity at the Project Site.
  - L. Partial Occupancy: Partial Occupancy occurs when the Owner begins to occupy part of the Project for its own purposes, such as early fixture set-up, merchandising, etc. Partial Occupancy shall not constitute acceptance of work not in accordance with the Contract Documents.
  - M. Premises: Space or property made available to the Contractor for constructing the work.

REFERENCES 01068-4 CENTRAL POLICE PRECINCT

- N. Project Site: The space available to the Contractor for performing construction operations, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- O. Receive: Accepting a delivery. (Entity responsible for accepting a delivery.)
- P. Regulations: The term "Regulations" includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the work.
- Q. Reviewed: Examined and found acceptable by the Owner's representative.
- R. Substantial Completion: The stage in progress of the work when the work or a designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the work for its intended use.
- S. Substitution: A product that is exchanged for another of the same function and is of equal or better quality.
- T. Supply: To supply, deliver, unload and inspect for damage (same as Furnish).
- U. Unacceptable: Determined not satisfactory by the Owner's representative.

1.8 DRAWING:

- A. Except as otherwise indicated, graphic symbols used on the Drawings are those symbols recognized in the construction industry for the purposes indicated.
- B. Discrepancies: In the event of a discrepancy, as between small scale Drawings and larger scale Details, or between Drawings and Specifications, or within the Specifications, immediately bring the discrepancy to the attention of the Owner's representative / Architect / Engineer for a decision before proceeding with the particular work involved. Work carried out disregarding these instructions is subject to removal and replacement at the Contractor's expense.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

01068-5

REFERENCES

SECTION 01150

SCHEDULES, REPORTS, PAYMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

- 1. Coordination
- 2. Progress Schedule
- 3. Submittal Schedule
- 4. Schedule of Values
- 5. Payment Requests

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 COORDINATION

A. Coordinate both the procedural timing and listing (naming and sequencing) of reports / activities required by the provisions of this Section and other Sections, to afford consistency and logical coordination between submitted reports or lists. Maintain the coordination and correlation between the separate reports by updating on a regular basis. Make the appropriate distribution of each report and updated report to entities involved in the work including the Owner's representative / Architect / Engineer. In particular, provide close coordination of the progress schedule, schedule of values, listing of subcontracts, schedule of submittals, progress reports, and payment requests.

1.3 PROGRESS SCHEDULE

A. The Progress Schedule to comply with requirements set forth in the "General Conditions of the Contract for Construction". Update the Schedule on a regular basis, but no less than every two months.

1.4 SUBMITTAL SCHEDULE

A. General: Immediately following development and acceptance of a fully developed Progress Schedule, prepare a complete schedule of work-related Submittals. Correlate the Submittal Schedule with the listing of principal subcontractors, as required by the General Conditions, and with the "listing of products" or "procurement schedule" as specified in "Products and Substitutions" Section 01605 and elsewhere in the Contract Documents.

B. Form: Show the category of the Submittal, name of the subcontractor, generic description of work covered, related Section number, activity or event number on the Progress Schedule, scheduled date for first submission, and blank columns for the actual date of submittal, re-submittal, and final release or acceptance by the Owner's representative / Architect / Engineer.

SCHEDULES, REPORTS, PAYMENTS 01150-1

1.5 SCHEDULE OF VALUES

A. General: Prepare a Schedule of Values acceptable to the Owner's representative, as required by the General and Supplementary Conditions, in coordination with preparation of the Progress Schedule. Correlate line items with other administrative schedules and forms required for the work, including Progress Schedule, payment request form, listing of subcontractors, schedule of allowances, schedule of alternates, listing of products and principal suppliers and fabricators, and Schedule of Submittals. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of payment requests and progress reports. Break down the principal subcontract amounts into several line items. Round off sums to the nearest whole dollar, but with the total equal to the Contract Sum. Submit three (3) copies of the Schedule of Values to the Owner's representative / Architect / Engineer for review and comment.

B. Unit Cost Allowances: Where required, identify line item values as a product of unit cost x measured quantity, as estimated from best indications in the Contract Documents.

C. Schedule Updating: Update the Schedule of Values when Change Orders affect the listing, and when actual performance of the work involves necessary changes of substance to values previously listed.

1.6 PAYMENT REQUESTS

A. General: Except as otherwise indicated, the sequence of progress payments is to be regular, and each must be consistent with previous applications and payments. It is recognized that certain applications involve extra requirements, including the initial application, application at the time of substantial completion, and the final payment application.

B. Waivers of Lien: For each payment application, waivers of lien from subcontractors who could lawfully and possibly file a lien arising out of the Contract and related to work covered by payment, may be requested. Submit partial waivers for the amount requested (prior to deduction or retainage) on each item, and when the application shows completion of an item, submit final or full waivers. The Owner reserves the right to designate which entities involved in the work must submit waivers.

C. Payment Application Times: The "date" for each progress payment is as indicated in the Owner-Contractor Agreement, or if none, as indicated therein - the 30th day of each month.

D. Application for Payment Form: AIA Document G702 and G703 Continuation Sheets.

E. Application for Payment Preparation: Except as otherwise indicated, complete every entry provided for on the form, including notarization and execution by an authorized person. Incomplete applications will be returned without action. Entries must match the current data of the Schedule of Values and Progress Schedule. Listings must include the amount of Change Orders approved prior to the last day of the "period of construction" covered by the Application.

F. Application Transmittal: Submit four (4) signed copies of each Application for Payment, one copy which is to be completed with waivers of lien and similar attachments. Submit each copy with a transmittal form listing those attachments, and recording the appropriate information related to the Application in a manner acceptable to the Owner's representative / Architect / Engineer.

G. Application Processing: Within ten (10) days of receipt of a properly documented Application, the Owner's representative / Architect / Engineer shall review and certify to the Owner the amount determined to be properly due, or if the form is incorrectly prepared,

SCHEDULES, REPORTS, PAYMENTS 01150-2

return to the Contractor for correction. Upon receipt of a certified Application from the Owner's representative / Architect / Engineer, the Owner will make payment within the time allowed by the Contract Documents.

H. Initial Payment Application: The principal administrative actions and submittals which must precede or coincide with submittal of the first Application for Payment can be summarized as follows, but not necessarily by way of limitation:

1. Listing of subcontractors, testing laboratory, principal suppliers and fabricators.
2. Listing of Contractor's staff assignments and principal consultants.
3. Copies of Building Permit (if Contractor's responsibility) and similar authorizations and permits from governing authorities.
4. Progress Schedule.
5. Performance and Labor and Materials Payment Bonds.
6. Schedule of Values.
7. Certificates of Insurance.
8. Submittal Schedule.

I. Application at Time of Substantial Completion: Following issuance of Owner representative's / Architect's / Engineer's final "Certificate of Substantial Completion," and also, in part, as applicable to prior Certificates on portions of completed work as designated, a "special" payment application may be prepared and submitted by the Contractor. The principal administrative actions and submittals which must proceed or coincide with such special applications can be summarized as follows, but not necessarily by way of limitation:

1. Occupancy Permit(s) and similar approvals or certifications by governing authorities and franchised services, assuring the Owner's full access and use of completed work.
2. Final cleaning of the work.
3. Coordination with the Owner on the change over of insurance coverage, including proof of extended coverage, as required.
4. Change of door locks and other Contractor's access provisions to the Owner's property.
5. Listing of the Contractor's incomplete work, recognized as exceptions to the Certificate of Substantial Completion.

J. Final Payment Application: The administrative actions and submittals which must precede or coincide with submittal of a final Application for Payment can be summarized as follows, but not necessarily by way of limitation:

1. Warranties, (Guarantees), maintenance agreements, and similar provisions of the Contract Documents.
2. Test / adjust / balance records, maintenance, instructions, meter readings, start-up performance reports, training, and similar change-over information germane to the

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Owner's occupancy, use, operation and maintenance of completed work.

3. Turn-over of spare materials, parts and tools to the Owner, as specified herein.
4. Completion of items specified for completion beyond the time of Substantial Completion (regardless of whether or not a special payment application was previously submitted).
5. Release of liens and other assurances, satisfactory to the Owner that unsettled claims will be settled, and that work not actually completed and accepted will be completed without undue delay.
6. Transmittal of required project construction records to the Owner.
7. Proof, satisfactory to the Owner, that taxes, fees and similar obligations of the Contractor have been paid.
8. Satisfactory removal of temporary facilities, services, surplus materials, rubbish and similar elements.
9. Consent of surety for final payment, as required.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SCHEDULES, REPORTS, PAYMENTS 01150-4



SECTION 01205  
PROCEDURES AND CONTROLS

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

A. The Contractor shall be responsible for the control and coordination of all work by his forces, subcontractors and suppliers. Procedures and performance required for this purpose include:

1. Coordination and meetings including meeting minutes.
2. Pre-Installation Conferences.
3. Adequate administrative and supervisory personnel.
4. Maintenance of surveys and records.
5. Enforcement of tradespeople and workmanship standards.
6. Coordination of the various trades and subcontractors.
7. Conducting of inspections, tests and reports.
8. Coordination of general installation provisions.
9. Proper cutting and patching procedures and techniques.
10. Cleaning and protection of the work.

1.2 COORDINATION AND MEETINGS

- A. General: Prepare and distribute to each entity performing work at the Project Site, a written memorandum of instructions on required coordination of activities, including required notices, reports and attendance at meetings. Prepare similar memoranda for separate contractors where the interfacing of work is required.
- B. Coordination Drawings: Where work by separate entities requires off-site fabrication of products and materials which must be accurately interfaced and closely intermeshed to produce the required results, prepare coordination drawings to interface and sequence the work shown by separate Shop Drawings.

1.3 PRE-INSTALLATION CONFERENCES

- A. General: Schedule and conduct pre-fabrication and pre-installation meetings as required by the Contract Documents. Pre-fabrication and pre-installation meetings are intended to assist the Contractor in determining before hand specific project requirements and to encourage coordination between the various trades. Schedule meetings at times appropriate to the type of work involved. Provide adequate notice to all parties to be involved.

1.4 ADMINISTRATIVE / SUPERVISORY PERSONNEL

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A. General: In addition to a general superintendent and other administrative and supervisory personnel required for performance of the work, provide specific coordination personnel as specified herein.

B. Project Coordination: Provide a full-time Project Coordinator, who is experienced in the administration and supervision of building construction, including mechanical and electrical work, and who is hereby authorized to act as the general coordinator of interfaces between units of work. For purpose of this provisions, "Interface" is defined to include the scheduling and sequencing of work, sharing of access to work spaces, installations, protection of each other's work, cutting and preparation of coordination drawings, inspections, tests, and temporary facilities and services.

1.5 SURVEYS AND RECORDS / REPORTS

A. General: Working from lines and levels established by property survey, and as shown in relation to the work, establish and maintain bench marks and other dependable markers to set lines and levels for the work at each story of construction and elsewhere on-site as needed to properly locate each element of the entire project. Advise tradesmen performing the work, of the marked lines and levels provided for their use in the layout of work.

B. Survey Procedures: Verify layout information shown on the Drawings, in relation to the property survey and existing bench marks before proceeding with layout of the actual work. As work proceeds, check every major element for line, level and plumb (where applicable), and maintain an accurate surveyor's log or record book of such checks, available for reference at reasonable times. Record deviations on the Record Drawings.

1.6 TRADESPEOPLE AND WORKMANSHIP STANDARDS

A. General: Investigate and maintain procedures to ensure that persons performing work at the site are skilled and knowledgeable in the methods and craftsmanship needed to produce the required quality levels for workmanship in the completed work. Coordinate the work of trades and subcontractors. Remove and replace work which does not comply with the workmanship standards as specified and as recognized in the construction industry for the applications indicated. Remove and replace work damaged or deteriorated by faulty workmanship and lack of protection of the work.

1.7 INSPECTIONS, TESTS AND REPORTS

A. General: Required inspection and testing services, as called for in the Specifications are intended to assist in the determination of probable compliance of the work with requirements, but do not relieve the Contractor of responsibility for compliance, or for general fulfillment of the requirements of the Contract Documents. The specified inspections and tests are not intended to limit the Contractor's quality control program. Afford reasonable access to agencies and companies performing tests and inspections. Provide adequate notification to the testing service of the schedule which impacts performance of the required tests.

B. Contract Conforming Work:

1. Resulting from Contract and Code Required Testing / Inspection: The Contractor to obtain and pay the cost of Testing / Inspection Services. Contractor to provide for work required to patch any damaged work.
2. Resulting from Owner Required Testing / Inspection: The Owner to pay the cost for initial Testing / Inspection Services. Contractor to patch any damaged work as follows:

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PART 3 EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

- A. Pre-Installation Conferences: Well in advance of the start of installation of every major unit of work which requires coordination and interfacing with other work, meet at the Project Site with installers and representatives of manufacturers and fabricators involved in or affected by the unit of work, and in its coordination or integration with other work which has preceded or will follow. At each meeting review the progress of other work and preparations for the particular work under consideration, including requirements of the Contract Documents, options, related Change Orders, purchases, deliveries, Shop Drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety inspection and testing requirements, required performance results, recording requirements, and protection. Record the significant discussions of each conference, record agreements and disagreements, along with a final plan of action. Distribute records of meetings promptly to everyone concerned, including the Owner's representative / Architect / Engineer.
- B. Installer's inspection of Conditions: Require installer of each major unit of work to inspect substrate to receive work, and conditions under which work will be performed, and to report (in writing to Contractor) unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
- C. Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation to the extent these are more explicit or more stringent than requirements indicated in the Contract Documents.
- D. Inspect each item of materials and equipment immediately prior to installation, and reject damaged and defective items.
- E. Provide attachment and connection devices and methods for securing work properly as it is installed; true to line and level, and within recognized industry tolerances if not otherwise indicated. Allow for expansions and building movements, provide uniform joint widths in exposed work, organized for the best possible visual effect, as approved by the Architect.
- F. Re-check measurements and dimensions of the work as an integral step for starting each installation.
- G. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion which will ensure the best possible results for each unit of work, and in coordination with the entire work. Isolate each unit of work from non-comparable work as necessary to prevent deterioration.
- H. Coordinate enclosure (closing-in) of the work with required inspections and tests to minimize the necessity of uncovering work for that purpose.
- I. Mounting Heights: Where mounting heights are not indicated, mount individual units of the work in compliance with ADAAG or industry-recognized standards for the applications indicated. Refer questionable mounting heights to the Owner=s representative / Architect / Engineer for a final decision.

3.2 CUTTING AND PATCHING

- A. General: Do not cut-and-patch structural work in a manner that will result in reduction of

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a. Non-conforming Work:

- 1) The Contractor to pay the cost for initial testing / inspection and other fair costs, if any, incurred by the Owner and Architect which directly result from the testing / inspection requirements of non-conforming work.
  - 2) The Contractor to correct defective work to meet the Contract requirements. Pay for all subsequent costs including, but not limited to, further testing, as may be required. Requests for additional time will generally not be considered when resulting from the installation of and/or correction of defective work.
- C. Qualification of Testing Agencies:
- 1. Except as otherwise indicated, and except where manufacturer's testing facilities are indicated as acceptable, engage independent testing laboratories specializing in the required services, and complying with "Recommended Requirements for Independent Laboratory Qualification" by American Council of Independent Laboratories (ACIL).
  - D. Reports: Submit test / inspection reports, including agency's analysis of the results and recommendations, where applicable, in duplicate, except as otherwise indicated, and submit copies directly to the governing authorities where required or when requested.

1.8 DAMAGE CLAIMS

- A. The Contractor will be responsible for adequately securing materials stored at the Project Site, and the work in progress, and to conduct the work in such a way as to not create undue risk of injury or damage to persons or property. It is required that the Contractor adequately fence and sign the Project Site, as necessary, and /or arrange and provide for security personnel to adequately keep unauthorized persons from entering the construction area at any hour of the day or night. Notwithstanding anything to the contrary in the General Conditions, and without limiting the generality of anything contained in the General Conditions, Drawings or Specifications, the Contractor is responsible for all damages to persons and property, including damage to the work of other contractors, that occurs as a result of the Contractor's negligence or the negligence of its employees, agents, representatives, or subcontractors upon the Project, in connection with its operations, use of the Project, or prosecution of the work. The Contractor will indemnify and hold harmless the Owner and all of its officers, agents, employees and consultants from any liability, claims, demands or causes of action of any nature whatsoever for damages of any kind, as above set forth, and the Contractor agrees, at its expense, to defend any legal or other action brought against the Owner founded upon such liability, claim, demand or cause of action and to pay any attorneys' fees incurred by the Owner in connection therewith.

1.9 COORDINATION WITH OTHER CONTRACTORS

- A. Schedule work activity in coordination with all on-site contractors; make adjustments in work activities to accommodate the requirements of other contractors.

PART 2 PRODUCTS

Not Used

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the load-carrying capacity or load / deflection ratio; submit proposed cutting and patching of structural elements to the Owner's representative / Architect / Engineer for structural approval before proceeding. Do not cut-and-patch operational elements and safety related components in a manner that will result in decreased operational life, increased maintenance, or decreased safety. Do not cut-and-patch work which is exposed on the exterior or exposed in occupied spaces, in a manner that will result in the reduction of visual qualities or result in substantial evidence of cut-and-patch work, both as judged solely by the Architect. Remove and replace work judged to be cut-and-patched in a visually unsatisfactory or otherwise objectionable manner.

- B. Materials: Except as otherwise indicated or approved, provide materials for cutting-and-patching which will result in equal-or-better work than the work being cut-and-patched, in terms of performance characteristics, and including visual effect, where applicable. Use materials identical to the original materials where feasible, and where recognized that satisfactory results can be produced thereby.
- C. Temporary Support and Protection: Provide adequate temporary support for work to be cut, to prevent failure. Do not endanger other work. Provide adequate protection of other work during cutting-and-patching, to prevent damage, and provide protection of the work from adverse weather exposure.
- D. Cut work by methods least likely to damage work to be retained and adjoining work.

1. Where physical cutting action is required, cut the work with sawing and grinding tools, not with hammering and chipping tools. Core drill openings through concrete work.
2. Comply with the requirements of applicable Division 2, Specifications Sections where cutting-and-patching requires excavating and backfilling.

E. Restore exposed finishes of patched areas, and, where necessary, extend the finish restoration onto the adjoining retained work, in a manner which will eliminate evidence of patching.

1. Where patching occurs in a smooth, painted surface, extend the final paint coat over the entire unbroken surface containing the patch after the patched areas have received prime and base coats.

### 3.3 CLEANING AND PROTECTION

A. General: During handling and installation of work at the Project Site, clean and protect work in progress and the adjoining work on a basis of perpetual maintenance. Apply suitable protective covering over newly installed work where reasonably required to ensure freedom from damage and deterioration at the time of substantial completion; otherwise, clean and perform maintenance on newly installed work as frequently as necessarily throughout the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

B. Limiting Exposures of Work: To the extent possible through reasonable control and protection methods, supervise performance of the work in a manner and by means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposures during the construction period.

END OF SECTION

PROCEDURES AND CONTROLS

01205-5

### SECTION 01310

#### PROJECT MANAGEMENT AND COORDINATION

##### PART 1 GENERAL

###### 1.1 SUMMARY

A. Section Includes:

1. Administrative and supervisory personnel.
2. Submittals.
3. Contractor's quality control.
4. Coordination.
5. Project coordination.
6. Pre-Construction meeting.
7. Progress meetings.
8. Pre-Installation meetings.
9. Schedule of Values.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

###### 1.2 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. Project Coordination Administrator: Contractor's Representative experienced in administration, supervision, and quality control of building construction similar to the work of this Project, including mechanical, plumbing and electrical work.

B. Project Field Superintendent: Contractor's Representative experienced in general field supervision of building construction similar to the work of this Project including finish work, mechanical, plumbing and electrical work; to supervise, direct, inspect and coordinate work of the Contractor, subcontractors, suppliers and installers, and expedite the work to ensure compliance with the Construction Schedule.

###### 1.3 SUBMITTALS

A. Submit a list of the Contractor's principal staff assignments including Project Coordination Administrator, Project Field Superintendent, Quality Control Representative, and other personnel assigned to the Project Site; identify their duties and responsibilities.

B. Submit Shop Drawings, product data, and other required submittals in accordance with Section 01330 - Submittal Procedures, for review and compliance with the Contract Documents.

C. Submit Requests for Information (RFI) and Interpretation of Contract Documents in a

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AND COORDINATION

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timely manner.

#### 1.4 CONTRACTOR'S QUALITY CONTROL

- A. Perform project quality control in accordance with requirements in the Contract and as specified in Section 01450 - Quality Control.
- B. Coordinate the scheduling of inspections and testing required by the individual Specification Sections and in accordance with Section 01450 - Quality Control.

#### 1.5 COORDINATION DRAWINGS

- A. Prepare and distribute coordination drawings where close coordination is required for the installation of products and materials fabricated off-site by separate entities, and where limited space availability requires maximum utilization of space for the efficient installation of different components. Show the interrelationship of components shown on separate Shop Drawings. Indicate the required installation sequences.

#### 1.6 PROJECT COORDINATION

- A. Coordinate construction activities and the work of all trades under various Sections of these Specifications and work of the Contract to facilitate the orderly installation of each part of the work. Coordinate construction operations included under different Sections of the Specifications and the Contract that are dependent upon each other for proper installation, connection and operation.
- B. Coordinate the construction activities of this Contract with Contractors retained separately from the Owner.
- C. Where installation of one part of the work is dependent upon installation of other components, either before or after that part of the work, schedule construction activities in a sequence to obtain an uninterrupted installation.
- D. Obtain drawings, manufacturer's product data, instructions, and other data to provide a proper and complete installation.
  - 1. Check field dimensions prior to installing products. Verify necessary clearances and means of access for equipment from storage to the final position.
  - 2. Make data and information available to all trades involved.

- E. Ensure that utility requirements of operating equipment are compatible with the building utilities. Coordinate the work of various Specification Sections for installation and final connection of the equipment.

- 1. Ensure that mechanical, plumbing and electrical rough-ins have been installed and are properly sized and located.

- F. Coordinate space requirements and the installation of mechanical, plumbing and electrical work indicated diagrammatically on the Drawings. Follow the routing shown for pipes, ducts, conduits and wiring as closely as possible; make runs parallel with the lines of the building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

- G. Where space is limited, coordinate the installation of different components to ensure maximum accessibility for required maintenance, service and repairs.

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AND COORDINATION 01310-7

- H. Provide for installation of items scheduled for future installation.

- I. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Prepare memoranda for the Owner's representative, separate contractors, where coordination of their work is required.

- J. In finished areas, conceal pipes, ducts, conduit and wiring within the construction. Coordinate the location of fixtures and outlets with finish elements.

- K. Coordinate completion and clean up of the work of the separate Sections in preparation for completion of the Project.

- L. After occupancy, coordinate access to the Site for correction of defective work and work not in accordance with the Contract Documents, to minimize disruption of the Owner's / Tenant's activities.

#### 1.7 PRE-CONSTRUCTION MEETING

- A. The Owner's representative will schedule a Pre-Construction Meeting after issuance of a Notice to Proceed.

- B. Attendance: Owner's representative, Architect, Engineer, Contractor, Project Superintendent and Contractor's Quality Control Representative and other contractors retained by the Owner.

- C. Agenda:

- 1. Submission of executed Bonds and Insurance Certificates.

- 2. Distribution of Contract Documents.

- 3. Submission of the Schedule of Values.

- 4. Designation of personnel representing the parties to the Contract.

- 5. Procedures and processing of Requests for Information (RFI), field decisions, submittals, substitutions, applications for payment, change proposals, Change Orders, and contract closeout procedures.

- 6. Scheduling.

- 7. Construction facilities and temporary controls.

- D. The Contractor will record minutes of the meeting and distribute copies to the participants and 1 those affected by the decisions made.

#### 1.8 PROGRESS MEETINGS

- A. The Contractor will schedule and administer meetings throughout progress of the work at intervals to be determined.

- B. The Contractor will make arrangements for meetings, prepare an agenda, distribute copies to participants and preside over the meetings.

- C. Attendance: Job Superintendent, Contractor's Quality Control Representative, major

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AND COORDINATION 01310-3

subcontractors and suppliers, Architect and the Owner's representative, engineers and subcontractors as appropriate to the agenda for each meeting.

D. Agenda:

1. Minutes of previous meetings.
2. Work progress.
3. Status of payments.
4. Field observations, problems, and decisions.
5. Submittals Schedule and the status of submittals.
6. Status of off-site fabrications and delivery schedules.
7. Progress Schedule.
8. Corrective measures to regain projected schedules, if necessary.
9. Planned progress during the succeeding work period.
10. Quality and work standards and pre-installation meetings.
11. Pending change proposals and effect of proposed changes on the progress schedule, and coordination.
12. Other business relating to the work.

D. The Owner's representative will record the minutes and distribute copies to the participants.

1.9 PRE-INSTALLATION MEETING

A. When required by an individual Specifications Section, or as determined necessary by the Owner's representative, convene a Pre-Installation Meeting at the Project Site prior to commencing the work of that Section.

B. Require attendance of the parties directly affecting, or affected by the work of the specific Specifications Section.

C. Notify the Architect seven (7) days in advance of the meeting date.

D. Prepare an agenda and preside at the meetings:

1. Review requirements of the Contract Documents, conditions of installation, preparation, and installation procedures.
2. Review coordination with related work.

E. The Contractor shall record minutes of the meetings and distribute copies to the participants and those affected by the decisions made.

1.10 SCHEDULE OF VALUES

A. Prior to submittal of the first payment application, submit a construction cost breakdown to the Architect in a form and format acceptable to the Architect.

PART 2	PRODUCTS Not Used.
PART 3	EXECUTION Not Used.

END OF SECTION

PROJECT MANAGEMENT  
AND COORDINATION

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PROJECT MANAGEMENT  
AND COORDINATION

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SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Submittal procedures.
  - 2. Product data, Shop Drawings, samples and miscellaneous work.
  - 3. Assurance / Control submittals.
    - a. Certificates.
    - b. Manufacturer's installation instructions.
  - 4. Owner representative's action.
- B. Related Documents: The Contract Documents as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 DEFINITIONS

- A. Product Data: Includes manufacturer's standard printed information on materials, products and systems; not especially prepared for this Project, other than the designation of selections from among available choices printed therein.
- B. Shop Drawings: Include specially-prepared technical data for this Project, including drawings, details, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form.
- C. Samples: Include both fabricated and unfabricated physical examination of materials, products and units of work; both as competed units and as smaller portions of units of work; either for limited visual inspection or, where indicated, for more detailed testing and analysis.
- D. Mock-Ups: A special form of samples, which are too large or otherwise inconvenient for handling in the specified manner for transmittal of sample submittals.
- E. Design Calculations: As required to show that component parts of a system meet the design criteria and performance requirements. Manufacturer's published calculations or as certified by a professional engineer. Subject to approval of the Owner's representative, manufacturer or fabricator certifications may be accepted in lieu of calculations.
- F. Miscellaneous Submittals: Includes warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing

and field measurement data, operating and maintenance materials, extra and overrun stock, devices and similar information; applicable to the work and not processed as product data, shop drawings or samples.

1.3 SUBMITTALS

- A. Submit two (2) copies of a proposed Schedule of Submittals to the Owner's representative within 30 days after receipt of a Notice to Proceed. List all items requiring submittal for review and approval by the Architect - Engineer / Owner's representative.
- B. Schedule of Submittals. Include the following:
  - 1. Indicate the type of submittal: Product Data, Shop Drawing, sample, certificate, warranty, technical representative's report or other submittal.
  - 2. Identify the Specifications Section number, Section paragraph number where the item is specified and a description of the item being submitted.
  - 3. Indicate the scheduled date for initial submittal, date for approval and date for possible re-submittal for each required submittal.
- C. Coordinate the Schedule of Submittals with the Construction Schedule.

1.4 SUBMITTAL PROCEDURES

- A. General:
  - 1. Coordination and Sequencing: Coordinate the preparation and processing of submittals with performance of the work so that the work will not be delayed by submittals. Coordinate and sequence different categories of submittals of the same work, and or interfacing units of work, so that one will not be delayed by coordination of the submittal review with another.
  - 2. Transmit each submittal to the Owner's representative on an Owner-approved transmittal form.
  - 3. On the Transmittal form, provide a place to indicate the Project name, date, <sup>A</sup>To, <sup>B</sup>From, names of the Contractor, subcontractors, suppliers, manufacturers, pertinent drawings(s), detail number(s), Specifications Sections, category and type of submittal, purpose, description, distribution record (for both transmittal and submittals), and signature of the transmitter.
  - 4. Identify variations from the Contract Documents and product or system limitations which may affect successful performance of the completed work.
  - 5. Apply the Contractor's stamp, signed or initialed certifying that review, verification of the products required, field dimensions, adjacent construction work and the coordination of information, is in accordance with requirements of the work and the Contract Documents.
  - 6. Provide space for the Owner representative's remarks and <sup>A</sup>Action stamp.
  - 7. Sequentially number each transmittal form. Provide the original number and a sequential alphabetic suffix on each re-submittal.
  - 8. Package each submittal appropriately for transmittal handling.

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dimensions and notes based on field measurements. Identify materials and products in the work shown. Provide key plans or cross reference to room numbers to identify the location of multiple elements. Indicate compliance with standards and special coordination requirements. Identify deviations from the Contract Documents, check dimensions; check that trades have been coordinated and that no conflict will develop in its installation.

2. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service to functional equipment and appliances.
3. Shop Drawings: Submit for review. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES above.
4. Submit in the form of one (1) translucent reproducible transparency and two (2) blue-line or blackline prints. The transparency will be returned to the Contractor after review.
5. Do not allow copies of shop drawings without appropriate final Action® markings by the Owner's representative to be used in connection with the work.

D. Samples:

1. Submit samples to illustrate the functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
2. Include full Project information on each sample submitted.
3. Provide units identical to the final condition of the proposed materials or products of the work. Include Arrange® samples of not less than three (3) units where unavoidable variations must be expected, and describe or identify variations between the units of each set. Provide a full set of optional samples where selection is required. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards. Submit samples for review and confirmation of color, pattern, texture, and Akind®.
4. Submit samples of finishes in the available colors, textures and patterns.
5. Submit the number of samples specified in the individual Specifications Sections; a minimum of two (2), one of which will be retained by the Owner's representative. At Contractor's option, provide preliminary submittal of a single set of samples for review and Action®. Otherwise, initial submittals will be considered the final submittal unless returned with an Action® mark that requires re-submittal. Submit three (3) sets of samples in the final submittal; two (2) sets will be returned.
6. Maintain one (1) final set of samples at the Project Site, in suitable condition and available for quality control comparisons.
7. The Owner's representative will not Atest® samples, except as otherwise indicated, for compliance with other requirements, which are the responsibility of the Contractor.

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9. Schedule submittals to comply with the scheduling requirements of the Construction Schedule.
10. On each re-submittal, identify all changes made since the previous submission.
11. Distribute copies of reviewed submittals to the field, subcontractors and suppliers, as appropriate. Instruct the parties to promptly report any inability to comply with the provisions.
12. Submittals not required will not be processed.
13. Submittals received from sources other than through the Contractor's office will be returned Awithout action®.
14. Except as otherwise indicated in individual Specifications Sections, comply with the requirements specified herein for each indicated category of submittal. Provide and process intermediate submittals, where required between the initial and final submittals, similar to initial submittals.

B. Product Data:

1. Collect required data into one submittal for each unit of work or system; mark each copy to show which choices or options are applicable to the Project.
2. Include manufacturer's standard printed information such as catalog cuts, manufacturer's published instructions, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, performance curves and other similar items. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.
3. Mark each copy to identify the applicable products, models, options, and other data. Supplement the manufacturers' standard data with information unique to this Project.
4. Indicate product utility and electrical characteristics, utility connection requirements, and the location of utility outlets for service to functional equipment and appliances.
5. Submit the number of copies the Contractor requires, plus four (4) copies to be retained by the Owner's representative. Submit six (6) sets of product data; three (3) sets will be returned. Maintain one (1) set of product data at the Project Site, available for reference.
6. Do not submit product data or permit its use on the Project until compliance with requirements of the Contract Documents has been confirmed by the Contractor.
7. Do not proceed with the installation of materials, products or systems until the final copy of applicable product data is in the possession of the installer.

C. Shop Drawings:

1. Provide newly prepared information on reproducible sheets, with graphic information at accurate scales, and with the name of the preparer indicated. Show

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8. Returned samples intended or permitted to be incorporated into the work are so indicated in the individual Specifications Sections Samples; must be in an undamaged condition at the time of acceptance.

E. Mock-Ups:

1. Mock-ups and similar samples indicated in individual Specifications Sections are recognized as a special type of sample. Comply with the requirements for <sup>Δ</sup>samples<sup>Δ</sup>, to the greatest extent possible, and process transmittal forms to provide a record of activity.

F. Certificates:

1. When specified in individual Specifications Sections, submit certification by the manufacturer Owner's representative in the quantities specified in Product Data above.
2. Indicate that the material or product conforms to or exceeds the specified requirements. Submit supporting reference data, affidavits and certifications as appropriate.
3. Certificates may be recent or previous test results on materials or products, but must be acceptable to the Owner's representative.

G. Inspection and Test Reports:

1. Classify each as either <sup>Δ</sup>product data<sup>Δ</sup> or <sup>Δ</sup>shop drawing<sup>Δ</sup>, depending upon whether the report is uniquely prepared for the Project or a standard publication or workmanship control testing at the point of production. Process accordingly.

H. Manufacturer's Installation Instructions:

1. When specified in individual Specification Sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing in the quantities specified in Product Data above.
2. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for the application or installation.

I. Warranties:

1. Refer to individual Specifications Sections for specific general requirements on warranties, product / workmanship bonds, and maintenance agreements. In addition to copies for the Contractor's use, furnish two (2) additional executed copies. Furnish two (2) additional copies when required for the maintenance manuals.

J. Standards:

1. Where copy submittal is indicated, and except where specified integrally with <sup>Δ</sup>Product Data<sup>Δ</sup>, submit two (2) copies for the Owner representative's use. Where workmanship at the Project Site and elsewhere is governed by standards, furnish additional copies to the fabricators, installers and others involved in performance of the work.

K. Closeout Submittals:

2. Refer to individual Specifications Sections and to <sup>Δ</sup>closeout<sup>Δ</sup> paragraphs for specific requirements on submittal of closeout information, materials, tools and similar items.

L. Record Document Copies:

1. Submit one (1) set.
- M. Maintenance / Operating Manuals:
1. Submit two (2) bound sets.

N. Materials and Tools:

1. Refer to individual Specifications Sections for the required quantities of spare parts, extra and overrun stock, maintenance tools and devices, keys, and similar physical units to be submitted.

O. Administrative Submittals:

1. Submit three (3) copies. No copies will be returned.

P. General Distribution:

1. Provide additional distribution of submittals to the subcontractor, suppliers, fabricators, installers, governing authorities and others as necessary for proper performance of the work. Include such additional copies in the transmittal when required to receive an <sup>Δ</sup>Action<sup>Δ</sup> marking before final distribution. Record distributions on the transmittal forms.

1.5 OWNER REPRESENTATIVE'S ACTION

A. For submittals where action and return is required or requested, the Owner's representative will review each submittal, mark to indicate the action taken, if any, and return promptly, generally within 20 days, excluding delivery time to and from the Contractor. When a submittal is to be reviewed by an off-island consultant or when it must be held for coordination, 25 days will be required for review.

1. Compliance with the specified characteristics is the Contractor's responsibility.
2. No action will be taken on submittals for information, closeout documents, record documents and other submittals for similar purposes.

B. Action Stamp: Owner's representative will stamp each submittal to be returned to the Contractor with a uniform, self-explanatory <sup>Δ</sup>Action<sup>Δ</sup> stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

1. "Accepted" or <sup>Δ</sup>Approved<sup>Δ</sup>: Final Unrestricted Release. When a submittal is marked "Accepted" or <sup>Δ</sup>Approved<sup>Δ</sup>, that part of the work covered by the submittal may proceed provided it complies with the requirements of the Contract Documents; final acceptance will depend upon that compliance.
2. "Accepted<sup>Δ</sup> or <sup>Δ</sup>Approved as Noted": Final-But-Restricted Release. When a submittal is marked "Accepted" or <sup>Δ</sup>Approved as Noted", that part of the work

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covered by the submittal may proceed provided it complies with the notations and corrections marked on the submittal and meets requirements of the Contract Documents; final acceptance will depend on that compliance.

3. "Rejected or Disapproved: Submit Specified Item" or "Revise and Resubmit": Returned for Re-submittal. When a submittal is marked "Rejected or Disapproved: Submit Specified Item", or "Revise and Resubmit," do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery or other activity. Revise or prepare a new submittal in accordance with the notations; re-submit without delay. Repeat as necessary to obtain an acceptable action mark.

- a. Do not permit submittals marked "Rejected or Disapproved: Submit Specified Item" or "Revise and Resubmit" to be used at the Project Site or elsewhere where work is in progress.

4. "Returned: Not Required": Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Returned: Not Required".

- C. Any review and approval by the Owner's representative of any Product Data, Shop Drawings, or Samples is only for conformance to the general design concept of the work and does not extend to consideration of structural integrity, safety, detailed compliance with the Contract Documents or any other obligation of the Contractor. Review and approval of any such data does not relieve the Contractor from its obligation to meet his requirements under the Contract Documents, not shall it give rise to any claim in favor of the Contractor or any third party against the Owner.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01440

REQUESTS FOR INFORMATION

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. Administrative requirements for RFI's.

1.2 DEFINITIONS

- A. Request for Information (RFI): Contractor's written request for information to confirm, re-verify, or clarify the intent required by the Contract Documents.

1.3 SUBMITTALS

- A. Submit RFI's on the Contractor's standard form.

1.4 QUALITY ASSURANCE

- A. Architect's Intent: It is a condition of the Contract for Construction, that prior to signing of the Contract, the Contractor be fully familiar with and clear as to the requirements (Architect's design intent) for this Project as presented in the Contract Documents. It is also a condition of the Contract, that prior to signing of the Contract, should there be any aspect of the Contract which is not clear or not complete enough, that the Contractor secure the necessary information from the Architect in order to attain the required understanding of the Project. The primary reasons for this is so the Owner can receive a fair and complete cost proposal for the Work, without hidden or additional costs and to minimize unnecessary costs to administer the Project during progress of the Work.

- B. Architect's Drawings and Specifications

1. Design Intent: It is an accepted historical and understood practice in the industry that the Architect's Drawings and Specifications reasonably and professionally convey the design intent for the Project without necessarily indicating every single condition for the Work, but to the degree necessary for Contractor's to propose a fair and complete cost for the Work, including for Work not indicated, but implied by the Architect's design intent.

2. RFI's - Basis of Communication: Due to the fact that all conditions are not indicated in the Contract Documents, it is understood that additional clarifications will be necessary during the course of the Work for the Contractor to fully achieve all aspects of the Architect's design intent, and that the RFI procedure becomes the administrative basis by which information is formally conveyed between the Architect and the Contractor.

- C. Misuse of the RFI Process: RFI's are not to be used frivolously, including as a method of enlisting the Architect's services for finding information already indicated in the Contract Documents.

- D. Contractor Initiation: All RFI's must be submitted by the General Contractor.

PART 2 PRODUCTS

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Not Used.

PART 3 EXECUTION

3.1 CONTRACTOR'S RESPONSIBILITIES

- A. Examination: Upon discovering a potential aspect of the Work which may require further clarification from the Architect, the Contractor shall thoroughly examine the Contract Documents to ensure that the information is not indicated.
- B. Submittal: When a reasonable search for the needed information has been made without success, complete and submit an RFI.

3.2 ARCHITECT'S RESPONSIBILITIES

- A. Review: Not later than ten (10) working days after an RFI is received, return a response to the Contractor on the submittal form.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Owner representative's quality assurance (QA).
  - 2. Contractor's quality control (QC).
  - 3. Quality control procedures.
  - 4. Testing and inspection laboratory services.
  - 5. Contractor's field inspection and testing.
  - 6. Contractor's reports.
  - 7. Contractor's testing and inspection reports.
  - 8. Non-compliance check-off list.
  - 9. Completion and inspection of work.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM C 802 - Practice for Conducting an Interlaboratory Test Program to Determine the Precision of Test Methods for Construction Materials.
  - 2. ASTM C 1077 - Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
  - 3. ASTM C 1093 - Practice for Accreditation of Testing Agencies for Masonry.
  - 4. ASTM D 3740 - Practice for Minimum Requirements for Agencies Engaged in Testing and / or Inspection of Soil and Rock as Used in Engineering Design and Construction.
  - 5. ASTM D 4561 - Practice for Quality Control Systems for Organizations Producing and Applying Bituminous Paving Materials.
  - 6. ASTM E 329 - Specification for Agencies Engaged in Construction Inspection and / or Testing.

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7. ASTM E 543 - Specification for Agencies Performing Nondestructive Testing.
8. ASTM E 699 - Practice for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating of Building Components.
- 1.3 SUBMITTALS
- A. Submit four (4) copies of a proposed Contractor Quality Control Plan within fifteen (15) days after receipt of the Notice to Proceed.
- B. Contractor's Quality Control Plan. Indicate the following:
1. Quality Control Organization: In chart form, showing relationship of the Quality Control organization to other elements of the Contractor's organization.
2. Names and qualifications of personnel in the Quality Control organization, including the Contractor's Quality Control Representative, inspectors, independent testing and inspection laboratory, independent fire alarm test and certification agency, independent fire sprinkler test and certification agency, independent HVAC test and balance agency, etc.
3. Procedures for reviewing coordination drawings, Shop Drawings, certificates, certifications and other submittals.
4. Testing and Inspection Schedule, keyed to the Construction Schedule, indicating tests and inspections to be performed, names of persons responsible for the inspection and testing for each segment of the work, including preparatory, initial and follow-up.
5. Proposed forms to be used including Contractor's Daily Report, Contractor's Test and Inspection Report, and Non-Compliance Check-Off List.
- C. Independent Testing and Inspection Laboratory. Submit the following:
1. Name.
2. Address.
3. Telephone number.
4. Name of full-time registered Engineer.
- 1.4 OWNER REPRESENTATIVE'S QUALITY ASSURANCE
- A. The Owner's representative will inspect the quality of work being installed, review and verify the accuracy of changes in the work, receive and distribute the Contractor's submittals, determine compliance with the Contract Documents and preside at progress and coordination meetings.
- B. The Owner's representative will arrange for factory tests when needed; at the Contractor's cost.
- C. Owner's Field Inspection: The Owner's representative will perform inspections of the work for quality assurance (QA).

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1.5 CONTRACTOR'S QUALITY CONTROL REPRESENTATIVE

- A. Qualifications for Contractor's Quality Control Representative: Minimum five (5) years construction quality control or construction management experience on work similar to the work of this Contract.

1.6 CONTRACTOR'S QUALITY CONTROL

- A. The Contractor is responsible for the overall quality of the work performed by the Contractor and subcontractors working under this Contract. The quality of any part of the work must not be less than that required by the Contract Documents. If the Owner's representative determines that the quality of the work does not conform to the Contract Documents, the Owner's representative will notify the Contractor, in writing. The Contractor must correct the identified deficiencies and advise the Owner's representative of the corrective action taken within 7 days of the date of notification.
- B. Monitor quality control over the Contractor's staff, subcontractors, suppliers, manufacturer's, products, services, site conditions and workmanship.
- C. Comply fully with the manufacturer's published instructions, including each step in the sequence of installation.
- D. Should the manufacturer's published instructions conflict with the Contract Documents, request clarification from the Owner's representative before proceeding.
- E. Comply with the specified standards as a minimum quality for the work, except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- F. Perform the work by persons who are thoroughly qualified and trained in their respective trade to produce workmanship of the specified quality.
- G. Secure products in place with positive anchorage devices, designed and sized to withstand wind and seismic loads, stress, vibration, physical distortion and disfigurement.
- H. Perform tests required by governing authorities and utility agencies having jurisdiction.
- I. Contractor's Field Inspection: The Contractor or his authorized representative(s) shall inspect all work under this Contract for quality control (QC).

1.7 QUALITY CONTROL TESTING:

- A. Field tests made at, or in the vicinity of the Project Site in connection with the actual construction, including but not limited to, concrete batch plants, asphalt batch plants and similar establishments directly involved in the construction process.
1. Field Tests by the Contractor: The Contractor shall perform all field testing specifically required of him in the Contract Specifications and all field tests required by Applicable Publications<sup>®</sup> referenced in the Contract Specifications. The cost of testing shall be borne by the Contractor. The Contractor shall furnish all equipment, instruments, qualified personnel and facilities necessary to perform all tests required by the Contract Documents. The required testing services shall be performed by the Contractor or acquired by the Contractor through a qualified commercial testing laboratory. If a commercial testing laboratory is retained to perform tests under this Contract, all test reports shall be certified by the

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laboratory. Test reports shall include the acceptable value for each specification item, actual test results obtained, methods used, and a statement that the product, equipment or system conforms or does not conform to the Specifications requirements.

2. Field Tests by Owner: Field tests conducted by the Owner will be made as necessary to assure quality or as otherwise provided herein.

B. Factory tests made at the point of manufacture of various products shipped to the Project Site as a unit.

C. Certified tests made by approved testing agencies on material and / or equipment to be incorporated into the Project under the Contract. These tests are those performed by Factory Mutual, Underwriters' Laboratories, Inc., and others.

1. Manufacturer's Certified Tests: Certified tests on materials to be incorporated into the work will be acceptable, provided they are performed by the manufacturer or by Owner's representative approved agencies or laboratories, show that the materials conform to the Specifications, and that tests and certifications meet the requirements of the paragraph entitled "Quality Assurance" below.

#### 1.8 TESTING AND INSPECTION LABORATORY SERVICES

A. Selection and Payment:

1. Employment and payment for services of an Independent Testing and Inspection Laboratory to perform specified testing and inspection shall be by the Contractor.

2. Owner Approval of Laboratories: All laboratory work performed under this Contract shall be done by a Laboratory approved by the Owner's representative, whether the laboratory is employed by the Contractor or by others, or is owned and operated by the Contractor. The basis of approval includes the following:

- a. Laboratories performing work in connection with concrete, steel and bituminous material must conform to American Society for Testing and Materials (ASTM) E 329.
- b. Laboratories performing work not in connection with concrete, steel and bituminous materials must conform to Sections 3 and 4 of ASTM E 329.

3. Employment of Independent Testing and Inspection Laboratory in no way relieves the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents.

B. Quality Assurance:

1. Comply with the requirements of ASTM C 802, ASTM C 1077, ASTM C 1093, ASTM D 3740, ASTM D 4561, ASTM E 329, ASTM E 543, ASTM E 699 and ASTM E 1691.

2. Laboratory Staff: Maintain a full-time registered Engineer on staff to review the services provided.

3. Testing Equipment: Calibrated at reasonable intervals with devices of and accuracy traceable to either National Bureau of Standards or accepted values of natural physical constraints.

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C. Laboratory Responsibilities:

1. Test samples of mixes submitted by the Contractor.
2. Provide qualified personnel at the Project Site. Cooperate with the Owner's representative and the Contractor in the performance of services.
3. Perform the specified sampling, testing and inspection of products in accordance with the specified standards.
4. Determine compliance of the materials and mixes with requirements of the Contract Documents.
5. Promptly notify the Contractor's Quality Control Representative and the Owner's representative of observed irregularities or non-conformance of work or products.
6. Perform additional tests as required by the Owner's representative.

#### 1.9 CONTRACTOR'S FIELD INSPECTION AND TESTING

A. Contractor: Test and inspect the work provided under this Contract to ensure that the work is in compliance with the Contract requirements. Required tests and inspections are indicated in the individual Specifications Sections.

B. Preparatory Inspection: Performed prior to beginning the work and prior to beginning each segment of work and includes:

1. Review of Contract requirements.
2. Review of Shop Drawings and other submittal data after approval and return.
3. Examination to assure that the materials and equipment conform to the Contract requirements.
4. Examination to assure that the required preliminary or preparatory work is complete.

C. Initial Inspection: Performed when a representative portion of each segment of the work has been completed, and includes:

1. Performance of the required tests.
  2. Quality of the workmanship.
  3. Review for omissions and dimensional errors.
  4. Examination of products used, connections and supports.
  5. Approval or rejection of the inspected segment of work.
- D. Follow-Up Inspections: Performed daily and more frequently, as necessary, to ensure that non-complying work has been corrected.
- E. Testing and Inspection: Perform testing and inspection in accordance with requirements of the individual Specifications Sections.

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stating specifically what is non-complying, date the faulty work was originally discovered and the date the work was corrected. There is no requirement to report deficiencies corrected the same day the deficiency was discovered. Submit a copy of the Non-Compliance Check-Off List of non-complying work items on a weekly basis for review at the next Progress / Coordination Meeting.

- 1.10 CONTRACTOR'S WEEKLY REPORTS
  - A. Submit weekly reports to the Owner's representative for days that work was performed. Include the following information:
    1. Contractor's name and address.
    2. Job reference and information.
    3. Date, weather, minimum and maximum temperatures, rainfall and other pertinent weather conditions.
    4. Daily workforce of the Contractor and subcontractors, by trade.
    5. Description of the work started, on-going work, and work completed by each subcontractor.
    6. Coordination implemented between the various trades.
    7. Approval of substrates received from various trades.
    8. Non-conforming and unsatisfactory items to be corrected.
    9. Remarks.

- 1.13 COMPLETION AND INSPECTION OF WORK
  - A. Prior to final acceptance by the Owner's representative, submit a certification signed by the Contractor stating that all work has been inspected and that all work, except as specifically noted, is complete and in compliance with the Contract Documents.
  - B. Record Documents: By Contractor's Quality Control Representative. Ensure that "Record Documents" required by Section 01780 - Closeout Submittals, are marked to show any deviations made during construction and are kept current on a daily basis. Upon completion of the work, certify the accuracy of the "Record Documents" and submit to the Owner's representative.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

1.11 CONTRACTOR'S TESTING AND INSPECTION REPORTS

- A. Prepare and submit a written report of each test and inspection, signed by the Contractor's Quality Control Representative performing the inspection, within two (2) days after the day the inspection was made.
- B. Include the following on the written inspection reports:
  1. Cover sheet prominently identifying that the inspection "CONFORMS" or "DOES NOT CONFORM" to the Contract Documents.
  2. Date of the inspection and date of the report.
  3. Project name, location, solicitation number and Contractor.
  4. Names and titles of individuals making the inspection.
  5. Description of the Contract requirements for inspection by referencing the Specifications Section.
  6. Description of the inspection made, interpretation of the inspection results, and notification of significant conditions at the time of the inspection.
  7. Requirements for follow-up inspections.

1.12 NON-COMPLIANCE CHECK-OFF LIST

- A. Maintain Check-Off List of work that does not comply with the Contract Documents,

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SECTION 01500  
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Coordination and Approval.
  - 2. Temporary Utilities: Electrical power, lighting, air conditioning and ventilation, water and sanitary facilities.
  - 3. Fencing.
  - 4. Barriers and Enclosures.
  - 5. Erosion Controls: Surface water control and protection of work.
  - 6. Access Roads and Parking Areas.
  - 7. Project Signs.
  - 8. Field Office and Sheds: Temporary buildings.
  - 9. Construction Aids
  - 10. Progress Cleaning and Waste Removal.
  - 11. Ownership of Temporary Facilities and Controls.
  - 12. Removal of Temporary Construction Facilities and Controls.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 COORDINATION AND APPROVAL

- A. Coordinate with and obtain approval of the Owner's representative for each temporary facility and control, location, sequence and schedule before starting any temporary work.

1.3 ELECTRICAL POWER

- A. Contractor to provide and pay for electrical power from the local power authority; provide generator when island power is not available.
- B. Provide a temporary electric feeder from the electrical service at a location determined by the local power authority and approved by the Owner's representative.

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- C. Provide temporary power panels, wiring and outlets for construction operations with branch wiring and distribution boxes located as required; provide properly sized flexible power cords.

- D. Provide temporary transformers, emergency generators, lines, etc., as necessary for continuous electrical supply to existing buildings affected by the construction of this Project.

1.4 LIGHTING

- A. Provide and maintain lighting for construction operations to achieve a minimum lighting level of 2 footcandles.
- B. Permanent building lighting may be utilized during construction.

1.5 AIR CONDITIONING AND VENTILATION

- A. Provide and pay for cooling devices and cooling, as needed, to maintain the specified conditions for construction operations.
- B. Enclose the building prior to activating the temporary cooling equipment.
- C. Prior to the operation of permanent equipment for temporary purposes, verify that the installation is approved for operation, the equipment is lubricated, ductwork and equipment are clean, unfinished construction procedures will not be detrimental to use of the equipment, and filters are in place. Provide and pay for the operation, maintenance and regular replacement of filters and worn or consumed parts.
- D. Ventilate enclosed areas to assist the cure of materials, dissipate humidity, and prevent the accumulation of dust, fumes, vapors and gases.

1.6 WATER

- A. Provide, maintain and pay for suitable quality drinking water for site personnel.
- B. Provide temporary water lines, maintain and pay for water required for construction, including compaction, grading and dust abatement.

1.7 SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures.
- B. Comply with regulations of the governing authorities having jurisdiction.

1.8 FENCING

- A. Provide 6' high temporary fence around the entire construction area meeting the requirements, if any, of the Department of Public Works; provide vehicular and pedestrian gates with locks.

1.9 BARRIERS AND ENCLOSURES

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from demolition and construction

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operations in accordance with regulations of OSHA and governing authorities having jurisdiction.

- B. Provide barricades and covered walkways as required by governing authorities having jurisdiction for public rights-of-way.
- C. Protect non-owned vehicular traffic from injury and damage.

1.10 EROSION CONTROL

- A. Provide erosion control measures and facilities satisfactory to the environmental agency having jurisdiction and as required by Section 01560 - Environmental Protection.
- B. Grade the Site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment as necessary.
- C. Protect the Project Site from ponding and running water. Provide water barriers as required to protect the Site from soil erosion.

1.11 ACCESS ROADS AND PARKING AREAS

- A. Construct and maintain temporary roads accessing a public thoroughfare to serve the construction area.
- B. Extend or relocate as work progress requires. Provide detours necessary for unimpeded traffic flow.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Parking: Arrange for temporary parking areas to accommodate site personnel's vehicles.
  - 1. When site space is not adequate, provide for off-Site parking.

1.12 PROJECT SIGNS

- A. Provide a 4' x 8' temporary project sign. Use new materials; 3/4" exterior grade plywood with hardwood edge trim; mount on treated 4" x 4" hardwood posts or the fence, as appropriate. Sign design to be provided by the Architect.
- B. Use primer and two coats of exterior paint on the sign background, rear and posts. Use exterior paint for lettering on the face. Have lettering done by a professional sign painter.
- C. Locate the sign(s) as indicated or as directed.
- D. Allow no other signs or advertising of any kind on the Project Site, except safety, directional and warning signs and signs required by law.

1.13 FIELD OFFICE AND SHEDS

- A. Provide a building and sheds adequate in size and accommodation for the Contractor's office and storage.
- B. Provide space for Project meetings with a table and chairs to accommodate 10 persons.
- C. Place the office and sheds at approved locations.

1.14 CONSTRUCTION AIDS

TEMPORARY FACILITIES AND CONTROLS 01500-3

- A. Furnish, install and maintain for the duration of the construction, all scaffolds, shoring, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary work necessary for proper completion of the Project and protection of the public and site personnel in compliance with relevant OSHA safety and other regulations.

1.15 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris and rubbish. Maintain the Project Site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to the start of surface finishing and continue cleaning to prevent the accumulation of dust.
- D. Collect and remove waste materials, debris and rubbish from the Site weekly, daily if necessary, or as directed by the Owner's representative, and dispose off-Site.

1.16 OWNERSHIP OF TEMPORARY FACILITIES AND CONTROLS

- A. Items provided by the Contractor under this Section shall remain the property of the Contractor and all shall be removed from the Project Site immediately upon completion of the work.

1.17 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

- A. Remove temporary utilities, equipment, facilities and materials prior to the Substantial Completion inspection.
- B. Remove temporary underground installations.
- C. Clean and repair damage caused by installations and temporary work.
- D. Restore existing and permanent facilities used during construction to their original condition, as specified.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 ACCESS PROVISION

- A. Provide ramps, stairs, ladders and similar temporary access elements as reasonably required to perform the work and to facilitate its inspection. Comply with reasonable requests of governing authorities performing inspections. When permanent stairs are available for access during construction, cover finished surfaces with sufficient protection to ensure freedom from damage and deterioration at the time of Substantial Completion.

3.2 SECURITY / PROTECTION PROVISION

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ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 DEFINITIONS OF CONTAMINANTS

- A. Sediment: Soil and other debris that has been eroded and transported by runoff water.
- B. Solid Waste: Rubbish, debris, garbage, and other discarded materials resulting from industrial, commercial, and agricultural operations, and from community activities' such material having insufficient liquid content to be free flowing.
- C. Rubbish: A variety of combustible and noncombustible wastes such as ashes, waste materials that result from construction or maintenance and repair work, leaves and tree trimmings.
- D. Chemical Wastes: Includes salts, acids, alkalies, herbicides, pesticides, petroleum-derived products and organic chemicals.
- E. Sewage: Water-carried waste products from residences, public buildings, institutions or other buildings, including excrementitious or other discharge from the bodies of human beings or animals, together with such ground water infiltration and surface water as may be present.
- F. Garbage: Refuse and scraps resulting from preparation, cooling, dispensing, and consumption of food.
- G. Asbestos and Asbestos Materials: Asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite. Asbestos materials means asbestos or any material containing asbestos such as asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing consigned for disposal. Friable asbestos material requires a Waste Disposal Permit. Submit one (1) copy of Guam Environmental Protection Agency (GEPA) permit or license which reflects such agency's approval of the disposal plan as being in compliance with their waste disposal regulations.

1.2 ENVIRONMENTAL PROTECTION REQUIREMENTS

- A. Provide and maintain during the life of the contract, environmental protection as defined herein. Provide environmental protective measures as required to control pollution that develops during normal construction practice.
- B. Provide also environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with all federal and local statutes and regulations pertaining to environmental protection.

1.3 SUBMITTALS

- A. Environmental protection Plan: Submit two (2) copies of the proposed Environmental Protection Plan (EPP) to the Guam Environmental Protection Agency (GEPA) and 2 copies to the Engineer for review and approval no later than 10 calendar days after receipt of the Notice to Proceed (NTP) with work under this project. Review of the plan by the Engineer and GEPA will be accomplished simultaneously. The Contractor shall not undertake any clearing, grubbing, earthwork, and excavations until the EPP has been approved by the

ENVIRONMENTAL PROTECTION 01560-1

- A. The types of temporary security and protection provisions required include, but is not limited to, fire, protection, barricades, warning signs / lights, site enclosure fence, building enclosure / lockup, watchman service, personnel security program (theft prevention), environmental protection, and similar provisions intended to minimize property losses, personal injuries and claims for damages at the Project Site.

3.3 EXTERIOR CLOSURES

- A. Temporarily close exterior openings, weather-tight, to provide acceptable working conditions and for the protection of products, to allow for the maintenance of required ambient temperatures identified in the individual Specifications Sections, and to prevent the entry of unauthorized persons. Provide access doors with self-closing hardware and padlocks.

3.4 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual Specifications Sections.
- B. Provide temporary and removable protection for installed work. Control activity in the immediate area to prevent damage.
- C. Protect finished floors, and other surfaces from traffic, dirt, wear, damage and movement of heavy objects by covering with durable sheet materials.
- D. Prohibit traffic and storage of materials on waterproofed and finished roof surfaces. If traffic or activity is necessary, obtain recommendations for protection from the waterproofing or roofing material manufacturer.
- E. Prohibit traffic from landscape areas into interior work areas.

3.5 PERMANENT FIRE PROTECTION

- A. Complete each fire protection facility at the earliest reasonable date, make ready for emergency use, and inform site personnel of its availability and proper use.

END OF SECTION

TEMPORARY FACILITIES AND CONTROLS 01500-5



GEPA and the Engineer.

- B. Solid Waste Disposal Permit: Submit one (1) copy of local permit or license which reflects Guam Environmental Protection Agency's (GEPA) approval of the disposal plan as being in compliance with their solid waste disposal regulations.
- C. The Contractor shall prepare an Environmental Protection Plan (EPP) / Erosion Control Plan (ECP) including a Stormwater Pollution Prevention Plan (SWPPP) based on the Contractor's proposed sequence of work, and shall obtain approval of the plan from the Guam Environmental Protection Agency (GEPA) and submit all required Notice of Intent (NOI) to the United States Environmental Protection Agency for compliance with the Guam National Pollutant Discharge Elimination System (NPDES) permit. The EPP shall include all requirements of GEPA including but not limited to Solid and Hazardous Waste Disposal Plan and Fugitive Dust Control Plan to obtain all related permits.

PART 2 - PRODUCT (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES: The natural resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their existing condition or restored to an equivalent or improved condition upon completion of the work. Confine construction activities to areas defined by the work schedule, drawings, and specifications.

- A. Land Resources: Except in areas indicated to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without special permission from the Engineer.
- B. Protection: Protect existing trees which are to remain and which may be injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from un-cleared areas. Protect monuments, markers, and works of art.
- C. Repair or Restoration: Repair or restore to their original condition all trees or other landscape features scarred or damaged by the equipment or operations. Obtain approval of the repair or restoration from the Engineer prior to its initiation.
- D. Temporary Construction: At the conclusion of the project, obliterate all signs of temporary construction facilities such as work areas, stockpiles of excess or waste materials, and all other vestiges of construction.
- E. Water Resources: Perform all work in such a manner that any adverse environmental impact on water resources is reduced to a level acceptable to the Engineer.
- F. Oily and Other Hazardous Substances: Take special measures to prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water.

3.2 CONTROL AND DISPOSAL OF SOLID, CHEMICAL, AND SANITARY WASTES: Pick up solid waste and place in containers which are emptied on a regular schedule. The preparation, cooking, and disposing of food are strictly prohibited on the project site. Conduct handling and disposal of waste to prevent contamination of the site and other areas. On completion, leave areas clean and natural looking. Remove signs of temporary construction and activities incidental to construction of the permanent work in place.

- A. Disposal of Rubbish and Debris: Dispose of rubbish and debris in accordance with the requirements specified herein.  
Remove rubbish and debris from the project site and dispose of it in compliance with federal

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and local requirements.

- B. Garbage Disposal: Place garbage in appropriate containers and transport such refuse to an approved landfill for disposal at least once per week. As an alternative, the Contractor may arrange for weekly pickup and disposal service either with the Government of Guam or a privately-owned garbage collection service. The Contractor shall pay all fees associated with obtaining and maintaining garbage collection and disposal services.
- C. Sewage, Odor, and Pest Control: Dispose of sewage through connection to the public sewage system. Where such system is not available, use chemical toilets or comparably effective units and periodically empty waste into the public sanitary sewage system. Include provisions for pest control and elimination of odors.
- D. Chemical Waste: Store chemical waste in corrosion resistant containers labeled to identify type of waste and date filled. Remove containers from the project site, and dispose of chemical waste in accordance with federal, state, and local regulations. For oil and hazardous material spills which may be large enough to violate federal and local regulations, notify the Engineer immediately and take measures as instructed by the Engineer or appropriate regulatory agencies, at no additional costs to the Owner.
- E. Petroleum Products: Conduct fueling and lubricating of equipment and motor vehicles in a manner that affords the maximum protection against spills and evaporation. Dispose of lubricants to be discarded and excess oil in accordance with approved procedures meeting federal and local regulations.

3.3

DUST CONTROL: Keep dust down at all times, including non-working hours, weekends, and holidays. Sprinkle or treat with dust suppressors, the soil at the site, haul roads, and other areas disturbed by operations. No dry brooming is permitted. Instead use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing is permitted only for cleaning non-particulate debris, such as steel reinforcing bars. No sandblasting is permitted unless dusts from sandblasting activity are confined. Only wet cutting of concrete blocks, concrete, and asphalt is permitted. No unnecessary shaking of bags is permitted where bagged cement, concrete mortar, and plaster is used.

3.4

NOISE: When available, make the maximum use of "low-noise emission products" as certified by Guam Environmental Protection Agency.

3.5

PEST CONTROL: At the time of final cleaning, engage an experienced exterminator to make an inspection of the project and rid project of rodents, insects, and other pests.

3.6

HISTORIC RESOURCES: Where historic and cultural resources are known to exist within the project construction limits, such resources shall be treated in accordance with the Owner's mitigation plan approved by the Guam Historic Preservation Office (GHPO). When suspected historic resources are encountered during construction, immediately cease all work which will affect such resources. Notify the GHPO, Owner, and Architect and request for instruction.

END OF SECTION

ENVIRONMENTAL PROTECTION

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SECTION 01567

MAINTENANCE OF TRAFFIC

PART 1 - GENERAL

- 1.1 Traffic control and safety devices shall be in accordance with Part VI of the Manual on Uniform Traffic Control Devices (MUTCD) For Streets and Highways. Latest Edition: U.S. Federal Administration, hereinafter referred to as "the Manual".
- 1.2 Prior to beginning work, the Contractor shall submit to Department of Public Works Traffic Engineering Section approved Traffic Control Plan and a "copy" furnished to the Engineer. The Contractor shall also include a schedule listing the types and number of traffic control and safety devices proposed for use.
- 1.3 Unless otherwise approved or directed by the Engineer, the minimum widths for one-lane and two-lane traffic shall be 10 feet and 20 feet, respectively.

PART 2 - PRODUCTS

- 2.1 Traffic control devices shall conform to the applicable specifications, standards and principles of the Manual except as amended herein. The traffic control devices shall be used at the site for construction, construction survey, and related work that might endanger passing motorists, pedestrians and workers.
  - A. Traffic control devices shall be in place prior to the start of any construction, maintenance, construction survey, and related work and shall be removed until the obstruction or danger of obstruction no longer exists. Where work is performed in stages, there shall be in place those devices that apply to the conditions and activities present during the stage in progress.
  - B. All signs, markers, barricades, cones, lights, and other devices indicating the existence of special conditions and activities shall remain in place until their need is no longer required, unless otherwise directed by the Engineer. Signs that do not apply to existing conditions and activities shall be removed or covered. All devices employed shall be neatly constructed and shall be repaired, cleaned, repainted, and properly maintained in good condition. Special care shall be taken to see that shrunken construction materials, equipment, spoil and other obstructions do not obscure any sign, light or barricade, particularly at intersections or curves.
  - C. When it becomes necessary to excavate along or across a highway or any lane thereof, the work shall be performed to avoid existing local peak traffic hours. The Contractor must coordinate this work with DPW.

2.2 SIGNS:

- A. Regulatory signs, warning signs and guide signs used at construction, surveying or other sites shall be reflectorized and shall conform to the basic standards prescribed in the Manual and as specified in the applicable Sections of the Specifications. Generally, signs shall be placed in the most effective locations so as to assure the fastest and most adequate driver response time. All advance warning signs shall be placed on each approach and shall indicate the general character of the work being done, and the distance from the sign to the actual work area.
- B. The Engineer may waive any requirements specified herein if advance application is made by the Contractor when in his judgment, the placement of signs may not be

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feasible or such placement may interfere with the progress of the work.

2.3 BARRIERS AND CHANNELIZING DEVICES:

- A. Barriers and channelizing devices used at work sites shall follow the basic standards prescribed in the Manual and the following provisions:
  - 1) When it is necessary to confine the traffic to singular lanes, additional transverse barricades and drums shall be placed at close intervals (approximately 120-foot spacing on tangents and curves of more than 500 feet radius and approximately 60-foot spacing on curves of 500 feet radius or less) in the closed lane.
  - 2) Where hazardous locations occur, a series of Type II barricades, cones or drums shall be placed in longitudinal rows along the edge of the closed area (continuously for barricades and at approximately 15-foot spacing for cones and drums).

PART 3 - EXECUTION

- 3.1 Maintaining Traffic: The Contractor shall conduct construction operations with minimum interference to traffic on roads, streets and driveways and he shall have under construction, no greater length or amount of work than he can prosecute properly with due regard to the rights of the public. Roads, streets and driveways shall be kept free of dirt and debris at all times. Convenient access to driveways, houses and buildings along the line of the work shall be maintained. In all areas, the Contractor shall install and maintain appropriate signs, lights, flares and barricades for the protection of the public. Such signs and barricades and their placement shall conform to instructions contained in Part VI of the "Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways". The Contractor is expected to be familiar with all applicable Government of Guam Laws and compliance with such laws is considered a part of this contract.

3.2 Coordination:

- A. In the case of conflict between the Manual and the Specifications, the most stringent requirements shall apply.
- B. This Section of the specifications shall be coordinated with all related documents affecting the work.
- C. All work shall be coordinated through the Engineer.

END OF SECTION

MAINTENANCE OF TRAFFIC

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SECTION 01600  
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Definitions.
2. Products.
3. Product options.
4. Product substitution procedures.
5. Product delivery requirements.
6. Product handling and storage requirements.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 DEFINITIONS

A. Products: Items for incorporation into the work, whether purchased specifically for the Project or taken from previously purchased stock. This term includes the terms material, equipment, systems, and other terms of similar intent.

B. Named Products: Items identified by manufacturer's name, including make or model number or other designation, as shown or listed in the manufacturer's published product literature.

C. Materials: Products substantially shaped, cut, worked, mixed, finished, refined, or otherwise fabricated, processed, or installed to form a part of the work.

D. Equipment: Products with operational parts, whether motorized or manually-operated, that require service connections, such as water piping, waste piping and / or electrical wiring.

1.3 PRODUCTS

A. Provide products that comply with the Contract Documents, and are new and undamaged at the time of installation.

B. Provide products complete with accessories, trim, finish, safety guards, and other devices and details required for a complete installation and for its intended use and effect.

C. Provide products of a kind from a single source. When the products specified are available only from a source that does not, or cannot produce the quantity necessary to

meet the Project requirements, in compliance with the Project Schedule, contact the Architect, in writing, to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability and compatibility. When the Architect makes a determination, select products from a source that produces products that possess those qualities to the greatest extent possible.

1.4 PRODUCT OPTIONS

A. Products: Throughout the Contract Documents products may be specified by a manufacturer's name and catalog number to establish standards of quality and performance, and not for the purpose of limiting competition. Substitute methods and products may be submitted to the Owner's representative for consideration in conformance with the article entitled "Product Substitution Procedures" below.

B. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.

C. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting the Specifications requirements. Substitutions may or may not be permitted, as stated in the particular Section specifying the product.

D. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named, Submit in accordance with the article entitled "Product Substitution Procedures" below.

E. Standards, Codes and Regulations: Where only compliance with an imposed standard, code or regulation is required, selection from among products which comply with the requirements, including those standards, codes and regulations, is the Contractor's option.

F. Performance Requirements and Design Criteria: Provide products which have been produced in accordance with the prescriptive requirements for structural capability, anchorage, mixing, fabricating, curing, finishing, testing and similar operations in the manufacturing process.

G. Prescriptive Requirements: Provide products which have been produced in accordance with the prescriptive requirements using the specified ingredients and components, and complying with the specified testing and similar operations in the manufacturing process.

H. Visual Matching:

1. Where matching with an established sample is required, final judgment of whether a product matches the specified cost category is available, which matches the sample satisfactorily, and complies with requirements, comply with the Contract Document provisions concerning, "substitutions".

2. Visual Selection: Except as otherwise indicated, where specified product requirements include "...as selected from the manufacturer's standard colors, patterns, textures..." or words of similar effect, the selection of manufacturer and basic product is the Contractor's option, and the subsequent selection of color, pattern and texture is by the Architect.

1.5 SUBSTITUTIONS

A. Conditions: Contractor's request for substitution will be received and considered when extensive revisions to the Contract Documents are not required, and changes are in keeping with the general intent of the Contract Documents, when timely, fully documented

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and properly submitted; and when one or more of following conditions is satisfied, all as judged by the Owner's representative. Otherwise, requests will be returned without action except to record non-compliance with the requirements.

#### 1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Submit each Request for Substitution on a "Contractor's Substitution Request" form with complete data substantiating compliance of the proposed substitution with the Contract Documents.
- B. A request constitutes a representation that the Contractor:
  - 1. Has investigated the proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the substitution as for the specified product.
  - 3. Will coordinate the installation and make changes to other work which may be required for the work to be completed at no additional cost to the Owner.
  - 4. Waives claims for additional cost and time extension which may subsequently become apparent.
- C. Substitutions will not be considered when they are indicated or implied on the Shop Drawing or product data submittals, without a separate written request, or when acceptance will require revision of the Contract Documents.
- D. Substitution Submittal Procedure:
  - 1. Submit four (4) copies of the "Contractor's Substitution Request" form for substitution consideration. Limit each request to one (1) proposed substitution.
  - 2. Submit Shop Drawings, product data, and certified test results attesting to the proposed product's equivalence. The burden of proof lies with the proposer.
  - 3. The Architect will notify the Contractor, in writing, of the decision to accept or reject the substitution request.

#### 1.6A Requests for Substitutions:

- 1. Provide a written substitution request, fully documented to show compliance with the requirements for substitutions. Include product data / drawings, description of methods and samples where applicable. The Contractor shall submit a comparison of significant qualities between the specified item and the proposed substitution, including life expectancy, weatherability, durability, fire resistance, compatibility with other materials, susceptibility to defects due to characteristics unique to the product, and product limitations, including other characteristics such as slip resistance, acoustical properties, etc. The Contractor shall submit a statement of effect on construction time, coordination with other affected work, and the Contractor's statement to the effect that the proposed substitution is satisfactory for use in the Project and will result in overall work equal-to-or-better-than the work originally indicated.
- 2. When not equal-to-or-better, the Contractor shall submit a justification and deductive cost proposal resulting from the substitution.

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#### 1.7 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with the manufacturer's instructions, using means and methods to prevent damage, deterioration, and loss, including theft.
- B. Schedule product delivery to minimize long-term storage at the Project Site, and to prevent overcrowding of construction spaces.
- C. Coordinate product delivery with the installation schedule to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- D. Deliver products to the Project Site in undamaged condition, in the manufacturer's original, new, sealed container(s) or packaging system, complete with labels intact and instructions for handling, storing, unpacking, protecting, and installing.
- E. Promptly inspect shipments to ensure that the products comply with the Project requirements, that quantities are correct, products are undamaged, and are properly protected.

#### 1.8 PRODUCT HANDLING AND STORAGE REQUIREMENTS

- A. Store and protect products in accordance with the manufacturers' published instructions, with seals and labels intact and legible.
- B. Store products subject to deterioration above ground, under cover, in a weathertight enclosure and with ventilation adequate to prevent condensation and potential degradation. Maintain temperature and humidity within the range required by the manufacturer's published instructions.
- C. For exterior storage of fabricated products, place on sloped supports, above ground.
- D. Provide off-site storage and protection when the Project Site does not permit on-site storage or proper protection.
- E. Store loose granular materials on solid flat surfaces in a well drained area. Prevent mixing with foreign matter.
- F. Provide equipment and personnel to handle and store products by methods to prevent soiling, disfigurement, and damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to verify that the products are undamaged and are maintained in an acceptable condition.

#### 1.9 WARRANTIES

- A. Comply with the Warranty provisions of Section 01012 - Supplementary Conditions.
- B. Categories of Specific Warranties: Warranties on the work are in several categories, including those of the General Conditions, and including, but not necessarily limited to, Sections of Divisions 2 through 16 of these Specifications.

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C. 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 the subcontractor, installer, manufacturer or other entity engaged by the Contractor.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

D. Specified Product Warranty: A Warranty which is required by the Contract Documents, to be provided for a manufactured product incorporated into the work.  
E. 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 has published a Warranty in connection with purchase and use of the product without regards to specific applications.

F. General Limitations: It is recognized that specific Warranties are intended primarily to protect the Owner against failure of the work to perform as required, and against deficient, defective and faulty materials and workmanship, regardless of the source. Except as otherwise indicated, specific Warranties do not cover failures in the work which result from:

1. Unusual and abnormal phenomena of the elements,
2. The Owner's misuse, maltreatment or improper maintenance of the work,
3. Vandalism after the date of Substantial Completion, or
4. Insurrection or acts of aggression, including war.

G. Start Date: Warranties will commence on the date of Substantial Completion of the Project unless otherwise agreed to by the Owner's representative.

H. Reinstatement of Warranty Period: Except as otherwise indicated, when work covered by a special Project Warranty or product Warranty has failed and has been corrected by replacement or restoration, reinstate the Warranty by written endorsement for the original time period, starting on the date of acceptance of the replaced or restored work.

I. Replacement Cost, Obligations: Except as otherwise indicated, the cost of replacing or restoring failing warranted units or products is the Contractor's obligation, without regard for whether or not the Owner has already benefitted from use through a portion of the anticipated useful service life.

J. Related Damages and Losses: In connection with the Contractor's correction of warranted work which has failed, remove and replace other work of the Project which has been damaged as a result of the failure, or must be removed and replaced to provide access for correction of the warranted work.

K. Rejection of Warranties: The Owner reserves the right, at the time of Substantial Completion or thereafter, to reject coincidental product Warranties submitted by the Contractor, which in the opinion of the Owner tend to detract from or confuse interpretation of the requirements of the Contract Documents.

L. Contractor's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or sub-subcontract for materials or units of work for the Project where a special Project Warranty, specified product Warranty, certification or similar commitment is required, until it has been determined that the entities required to countersign such commitment are willing to do so.

M. Submittal of Warranty Forms: Where a special Project Warranty (Guarantee) or specified product Warranty is required, prepare a written document to contain terms and appropriate

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- E. Examine and verify specific conditions described in the individual Specifications Sections.
- F. Verify that utility services are available, of the correct characteristics, and in the correct location for the installation of work.

1.3 PREPARATION

- A. Construction Layout:
  - 1. Be responsible for the accuracy of measurements, elevations, lines, and grades of the work.
  - 2. Do not scale Drawings. Use the dimensions indicated on the Drawings for the laying out of work.
  - 3. Errors in construction caused by the Contractor scaling Drawings to obtain measurements for laying out the work is the responsibility of the Contractor. By scaling Drawings, the Contractor assumes responsibility for the performance of such work, and is responsible for the cost of corrective work.
  - 4. Perform field work necessary to lay out and maintain work to the dimensions indicated in the Contract Documents.
- B. Field Engineering:
  - 1. Establish permanent benchmarks on the Project Site referenced to established control points indicated on the Drawings. Record locations, with horizontal and vertical data, on the Project Record Drawings.
  - 2. Establish elevations, lines, and levels, for work using survey instrumentation for:
    - a. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
    - b. Grid or axis for structures.
    - c. Building foundations, column locations, and finish floor elevations.
    - d. Location of existing utilities necessary to adjust, move, or relocate existing structures, utility poles, lines, services, and other items located within the Project Site or affected by the work.
  - 3. Periodically verify layouts by the same means.
- C. Preparation for product Installation:
  - 1. Conduct a Pre-Installation Meeting when specified in the individual Specifications Sections.
  - 2. Obtain, read, and understand applicable reference standards and manufacturer's published instructions regarding erection, application, and installation of products.
  - 3. Clean substrate surfaces before applying products.
  - 4. Seal cracks and openings of substrates before applying products.

EXECUTION REQUIREMENTS 01700-2

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Examination.
  - 2. Preparation.
  - 3. Execution.
  - 4. Cleaning.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other documents.

1.2 EXAMINATION

- A. Visit the Project Site to determine the existing conditions.
  - 1. Take field measurements and verify field conditions, compare field measurements, conditions, locations of survey benchmarks, and other information known to the Contractor, with the Construction Documents before starting the work.
  - 2. Be responsible for determining conditions of the Project Site, including all existing improvements, paving, above and below ground utilities, and existing construction.
  - 3. Contact local utility companies and agencies and make arrangements to obtain utility locations and marking service before the start of work.
- B. Review Bidding and Contract Documents.
  - 1. Carefully study and compare the Contract Documents with each other.
  - 2. Be responsible for thorough knowledge of the Contract Documents and their relationship to each other.
  - 3. If the Contractor performs work knowing it involves a recognized error, inconsistency, or omission in the Contract Documents, without notice to the Owner's representative, the Contractor assumes responsibility for performance of the work, and is responsible for the cost of corrective work.
- C. Verify that existing conditions and substrate surfaces are acceptable and meet the manufacturer's requirements for the application or installation of work.
- D. Verify that the substrate is capable of structurally supporting attachment of the work being applied or installed.

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5. Apply manufacturer's required or recommended substrate primer, sealer, or conditioner before applying products in contact or bond.
- 1.4 EXECUTION
- A. Cutting and Patching:
1. Employ skilled and experienced tradesmen to perform cutting and patching work.
  2. Submit a written request, in advance of cutting or altering elements which affect:
    - a. Structural integrity of an element.
    - b. Integrity of weather-exposed or moisture-resistant elements.
    - c. Efficiency, maintenance, or safety of an element.
    - d. Visual quality of sight exposed elements.
  3. Execute cutting, fitting, and patching to complete work, and to:
    - a. Fit several parts together, to integrate with other work.
    - b. Uncover work to install or correct ill-timed work.
    - c. Remove and replace defective and non-conforming work.
    - d. Remove samples of installed work for testing.
    - e. Provide openings in elements of the work for penetrations of mechanical and electrical work.
  4. Execute work by methods that will avoid damage to other work, and will provide proper surfaces to receive patching and finishing.
  5. Cut masonry and concrete materials using a masonry saw or core drill.
  6. Restore work with new products in accordance with requirements of the Contract Documents.
  7. Fit work tight to pipes, sleeves, ducts, conduit, and other penetrations.
  8. Maintain the integrity of wall, ceiling, and floor construction; completely seal voids.
  9. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to the nearest intersection; for an assembly, refinish the entire unit.
  10. Identify any hazardous substance or condition exposed during the work to the Owner's representative for a decision or remedy.
- B. Installation:
1. Refer to the installation requirements in individual Specifications Sections.
  2. For each product, inspect the substrate and conditions under which the work will be performed. Do not proceed with the work until the unsatisfactory conditions

EXECUTION REQUIREMENTS 01700-3

- have been corrected.
3. Comply with manufacturer's published installation instructions and recommendations, to the extent that instructions and recommendations are more explicit or stringent than requirements in the Contract Documents.
  4. Inspect products ready for installation immediately upon delivery to the Project Site.
    - a. Inspect products immediately before the start of application, installation, or erection.
    - b. Reject damaged and defective products.
  5. Verify and check dimensions and measurements before the start of application, installation or erection.
  6. Coordinate the closing-in of work with required inspections and tests.
    - a. Do not cover work until inspected and approved by the appropriate person or entity.
    - b. Uncover work that has not been inspected as directed by the Owner's representative.
  7. Provide fasteners, attachments, connection devices, and methods as indicated on the Drawings, or as specified.
    - a. Where not indicated or specified, provide a appropriate methods necessary for securing the work.
    - b. Secure work plumb, level and true to line.
    - c. Provide for expansion and building movement.
- 1.5 CLEANING
- A. Cleaning During Construction: Coordinate with Section 01500 - Temporary Facilities and Controls.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

EXECUTION REQUIREMENTS 01700-4

SECTION 01705  
PROJECT CLOSEOUT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Description of requirements.
2. Prerequisites for Substantial Completion.
3. Closeout procedures.
4. Final cleaning.
5. Starting and adjusting.
6. Operation and maintenance instructions.
7. Partial occupancy or use.
8. Prerequisites for final acceptance.
9. Default.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 DESCRIPTION OF REQUIREMENTS

A. Definitions: Closeout is hereby defined to include the general requirements near the end of the Contract Time in preparation for substantial completion, beneficial occupancy, final acceptance, and final payment.

1.3 PREREQUISITES TO SUBSTANTIAL COMPLETION

A. General: Prior to requesting an Owner representative's inspection for certification of substantial completion (for either the entire work or portions thereof), complete the following:

1. Provide a list of incomplete items, reasons for being incomplete and a schedule for completion.
2. Obtain and submit releases enabling the Owner's full and unrestricted use of the work and access to services and utilities, including recorded Occupancy Permit(s), operating certificates, and similar releases.
3. Make final change-over of locks and transmit keys to the Owner. Advise the Owner's personnel of the change-over in security provisions.
4. Complete start-up and testing of equipment and systems including instruction of

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Owner's operations / maintenance personnel. Discontinue (or change-over) and remove from the Project Site all temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.

5. Place in good working order all equipment and systems, including but not limited to, all fire, mechanical, electrical and life safety systems.
6. Submit manuals and other supporting documentation, as indicated in the Contract Documents.
7. Complete final cleaning.

B. Inspection Procedures: Upon receipt of the Contractor's request, the Owner's representative will either proceed with the inspection or advise the Contractor of prerequisites not fulfilled. Following the initial inspection, the Owner's representative will either prepare a Certificate of Substantial Completion, or advise the Contractor of work which must be performed prior to the issuance of a certificate. Repeat the inspection when requested and assured that the work has been substantially completed. Results of completed inspection will form the initial "punch-list" for final acceptance.

1.4 CLOSEOUT PROCEDURES

A. At completion of the work of each subcontract or designated division of the work, conduct an initial inspection to verify completion of the work; prepare a list of work to be completed or corrected, and conduct a follow-up inspection to verify that the corrections have been made.

B. Beneficial Occupancy:

1. When the Contractor considers the work, or a portion of the work which the Owner agrees to accept separately, is substantially complete, submit written certification to the Owner's representative stating that the Contract Documents have been reviewed, work has been inspected, the work is complete in accordance with the Contract Documents, and the work is ready for inspection.

- a. Submit a list of items to be completed or corrected.
- b. Complete and correct items on the list.
- c. Failure to include an item on the list does not change the Contractor's responsibility to complete the work in accordance with the Contract Documents.
- d. Submit Closeout Submittals to the Owner's representative.

2. The Owner's representative will review the list and make an inspection to determine if the work, or designated portion of the work, is substantially complete.

- a. The Contractor will be notified of items identified during inspection as not in accordance with the Contract Documents, whether they were included on the Contractor's list or not.
- b. Contractor to complete and correct items on the list.
- c. Notify the Owner's representative that the items have been corrected and request re-inspection.

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3. The Owner's representative will re-inspect to determine if the work, or designated portion of the work, is substantially complete.
  4. When the work, or designated portion of the work, is substantially complete, the Owner's representative will notify the Contractor and document the Date of Beneficial Occupancy.
- C. Final Acceptance:
1. The Contractor to submit written certification that the Contract Documents have been reviewed, work has been inspected, work is complete in accordance with the Contract Documents, and is ready for final inspection.
  2. The Owner's representative will make an inspection to determine if the work of the Contract is complete.
    - a. The Contractor will be notified by the Owner's representative of items identified during inspection as not in accordance with the Contract Documents, and not ready for final acceptance.
    - b. Contractor to complete and correct items on the list.
    - c. Contractor to notify Owner's representative that items on the list have been corrected and request an inspection.
  3. When the work is complete, as determined by the Owner's representative, the Owner's representative will notify the Contractor and document the Date of Final Acceptance.
- 1.5 FINAL CLEANING
- A. Complete cleaning operations before requesting inspection for Substantial Completion for Final Acceptance or a portion of the Project.
  - B. Provide final cleaning of the work consisting of cleaning each surface or unit of work to a normal "clean" condition expected from a first class building cleaning and maintenance program. Comply with the manufacturer's instructions for cleaning operations.
  - C. Use cleaning materials and agents recommended by the manufacturer or fabricator of surfaces to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property, or that might damage finished surfaces.
    1. Remove tools, construction equipment, machinery and surplus materials from the Project Site.
    2. Remove temporary protection devices and facilities installed during construction.
    3. Clean the Project Site, yard and grounds, in areas disturbed by the construction activities, including landscape development areas. Remove rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petrochemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even textured surface.
    4. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics and similar spaces.
    5. Broom clean concrete floors in unoccupied spaces.

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6. Clean exposed exterior and interior hard-surface finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing the natural weathering of exterior surfaces.
  7. Remove labels that are not permanent.
  8. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable, vision obscuring materials. Replace chipped and broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch the surfaces.
  9. Vacuum clean carpet and similar soft surfaces, remove debris and excess nap; shampoo if required.
  10. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
  11. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure. Clean food service equipment to a condition of sanitation ready and acceptable for its intended service use.
  12. Clean light fixtures, lamps, globes and reflectors to function with full efficiency. Replace burned out lamps, and defective and noisy starters in fluorescent and mercury vapor fixtures.
  13. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills. Clean ducts, blowers, and coils if units were operated without filters during construction.
  14. Wipe surfaces of mechanical and electrical equipment clean, including elevator and similar equipment. Remove excess lubricants, paint, mortar droppings and other foreign substances.
  15. Leave the entire Project Site clean and ready for occupancy.
    - D. Engage an experienced licensed exterminator to make a final inspection, and rid the Project Site of rodents, insects, and other pests. Comply with regulations of the local authorities having jurisdiction.
    - E. Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the Project Site and dispose at a designated site, and in accordance with requirements of the local authorities having jurisdiction.
- 1.6 STARTING AND ADJUSTING
- A. Inspect mechanical and electrical equipment start-up operations, observe testing and balancing, and record the start-up results, including the time and date of start-up.
  - B. Starting Systems:
    1. Coordinate the schedule for start-up of the various items of equipment and systems.

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2. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for any conditions which may cause damage upon start-up.
3. Verify that tests, meter readings, and the specified electrical characteristics agree with those required by the equipment or system manufacturer.
4. Verify that wiring and support components for equipment are complete and have been tested.
5. Execute start-up under the supervision of appropriate Contractor's personnel, and in accordance with the manufacturers' instructions.

#### 1.7 OPERATION AND MAINTENANCE INSTRUCTIONS

- A. Arrange for each installer of work requiring continuing maintenance or operation to meet with the Owner's personnel at the Project Site to provide basic instructions for proper operation and maintenance of the entire work. Utilize the Operations and Maintenance Manuals as the basis for instructions. Review contents of the manuals, in detail, to explain all aspects of operation and maintenance. Include instructions by manufacturer's representatives where the installers are not expert in the required procedures.
- B. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, shutdown, hazards, trouble-shooting, cleaning, servicing, maintenance and similar procedures.
- C. For operational equipment, demonstrate start-up, shut-down, operation, control, emergency operations, noise and vibration adjustments, safety, economy / efficiency adjustments, energy effectiveness, and similar operations.
- D. Review operations and maintenance in relation to applicable warranties, agreements to maintain, bonds, and similar continuing commitments.
- E. Prepare and insert additional data in the Operations and Maintenance Manuals when need, for data that becomes apparent during the instructions.

#### 1.8 PARTIAL OCCUPANCY OR USE

- A. The Owner shall have the right to occupy or permit its employees, agents, representatives, or subcontractors to occupy any part or parts of the Project (to the extent that such work is not covered hereunder) and to install special items, fixtures, furniture, appliances and equipment, notwithstanding that all work hereunder shall not have been completed at the time of such occupancy, provided, however, that:
  1. The work completed in the part or parts to be occupied shall have been conditionally accepted by the Owner, in writing, specifying any claimed deficiencies in the work completed;
  2. The Owner assumes liability for utilities and the risk of loss with respect to the portion of the Project subject to such early occupancy; and
  3. Any such early occupancy shall not reasonably interfere with the Contractor's sequence for completing its work in the areas occupied or in other areas. The Contractor agrees to fully cooperate and coordinate its effort with such early

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"occupancy" of the Project under this paragraph, and shall give to the Owner prompt notice of any inconvenience, damage, or delay likely to arise from such early occupancy. Such early occupancy shall have no bearing on the commencement of warranty periods.

#### 1.9 PREREQUISITES FOR FINAL ACCEPTANCE

- A. Prior to requesting final inspection for certification of final acceptance and final payment, as required by the General Conditions, complete the following and list known exceptions in the request:
  1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted.
  2. Submit a dated final statement accounting for changes to the Contract Sum.
  3. Submit a certified copy of the final Punch List of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed and dated by the Owner's representative.
  4. Submit final meter readings for temporary utilities per Specifications Section 01500 - Temporary Facilities; a measured record of stored fuel, and similar data as of the time of Substantial Completion or when the Owner took possession of and responsibility for corresponding elements of the work.
    5. Submit a consent of Surety to the release of final payment.
    6. Deliver tools, spare parts, extra stocks of materials, and similar physical items to the Owner.
    7. Submit Record Drawings, Record Product Data and Miscellaneous Record Submittals.
    8. Submit Warranties, workmanship / maintenance bonds, maintenance agreements, final certifications and similar documents.
    9. Submit compliance with mechanics liens laws.
- B. Re-inspection Procedure: Upon receipt of the Contractor's notice that the work has been completed, including Punch List items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, the Owner's representative will re-inspect the work. Upon completion of the re-inspection, the Owner's representative will either process final closeout documents or advise the Contractor of work not completed or obligations not fulfilled, as required for final acceptance.
- C. Final Payment, Liens and Punch List of Work: If at the time of Final Payment, any application or applications for mechanic's or materialmen's liens have been filed against the Project, the Owner may withhold an amount equal to two hundred percent (200%) of the amount of the claimed lien or liens until the liens are removed or the Contractor posts a bond or cash deposit discharging such liens. The Owner may also withhold from the final payment such amount as the Owner reasonably deems necessary to cover: 1) minor corrective work (Punch List items) until such corrective work has been completed by the Contractor, and 2) any remaining work the Contractor is required to perform under the Contract Documents. The amount withheld shall be two hundred percent (200%) of the value of the incomplete work as reasonably estimated by the Owner.

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1.10 DEFAULT

A. The Owner may declare the Contractor in default in accordance with and in the manner described in the General Conditions of the Contract for Construction for any of the following reasons:

1. Failure to complete the work within the Contract period or any extension thereof.
2. Failure or refusal to comply with an order of the Owner or Architect within a reasonable time.
3. Failure or refusal to remove rejected materials.
4. Failure or refusal to perform anew any defective or unacceptable work.
5. Bankruptcy or insolvency, or the making of an assignment for the benefit of creditors.
6. Failure to pay subcontractors and suppliers promptly.
7. Repeated failure to provide a qualified superintendent, competent workmen or subcontractors to carry out the work in an acceptable manner, or failure to prosecute the work according to the agreed schedule for completion.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01780

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Maintenance contracts.
  2. Operation and maintenance data.
  3. Product warranties.
  4. Project record documents.
  5. Extra materials.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

1.2 MAINTENANCE CONTRACTS

- A. Provide Plant Maintenance as part of the work of this Contract as specified in Section 02930 - Exterior Plants.
- B. Provide Elevator Maintenance as part of the work of this Contract as specified in Section 14240 - Hydraulic Elevators.

1.3 OPERATION AND MAINTENANCE DATA

- A. Prepare instructions and data by personnel experienced in operation and maintenance of the described products and equipment.
- B. Format:
  1. Prepare data in the form of an instructional manual.
  2. Binders: Commercial quality, 8-1/2" x 11", three D, side ring binders with durable plastic covers; 2" maximum ring size. When multiple binders are used, correlate the data into related, consistent groupings.
  3. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify the title of the Project; identify the subject matter of the contents.
  4. Provide tabbed dividers for each separate product and system, with a typed description of the product and major component parts of equipment.
  5. Text: Manufacturer's published data, or typewritten data on 20 pound paper.

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6. Drawings: Provide with reinforced punched binder tabs. Bind in with text; fold large drawings to the size of the text pages.
7. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
  - a. Part 1: Directory, listing the name, address, and telephone number of the Architect, Engineers, Contractor, subcontractor, and major equipment suppliers.
  - b. Part 2: Operations and maintenance instructions, arranged by system and subdivided by Specifications Section. For each category, identify the name, address, and telephone number of the subcontractor and suppliers. Identify the following:
    - 1) Significant design criteria.
    - 2) List of equipment.
    - 3) Parts list for each component.
    - 4) Operating instructions.
    - 5) Maintenance instructions for equipment and systems.
    - 6) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
  - c. Part 3: Project documents and certificates, including the following:
    - 1) Shop Drawings and product data.
    - 2) Air and water balance reports.
    - 3) Certificates.
    - 4) Copies of Warranties.

C. Contents, Each Volume:

1. Table of Contents: Provide the title of the Project; name, address, and telephone number of the Architect, Engineer, subcontractor, and the Contractor with the name of the responsible party, schedule of products and systems, indexed to the content of the volume.
2. For Each Product or System: List the name, address and telephone number of subcontractor and suppliers, including the local source of supplies and replacement parts.
3. Product Data: Mark each sheet to clearly identify the specific products and component parts, and data applicable to the installation. Delete or do not include inapplicable information.

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4. Drawings: Supplement product data to illustrate the relationship of component parts of equipment and systems, to show control and flow diagrams. Do not use the Project Record Documents as maintenance drawings.
  5. Typed Text: As required to supplement product data. Provide a logical sequence of instructions for each procedure, incorporating the manufacturer's instructions.
  6. Warranties: Bind in a copy of each.
  7. Lien Release: Include a copy from each subcontractor and major supplier.
- D. Manual for Materials and Finishes:
1. Building Products, Applied Materials, and Finishes: Include product data, with catalog numbers, sizes, composition, and color and texture designations. Provide information for re-ordering custom manufactured products.
  2. Instructions for Care and Maintenance: Include the manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
  3. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
  4. Additional Requirements: As specified in the individual product Specifications Sections.
  5. Provide a listing in the Table of Contents for design data, with a tabbed fly sheet and space for insertion of data.
- E. Manual for Equipment and Systems:
1. Each Item of Equipment and Each System: Include description of the 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.
  2. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
  3. Include color coded wiring diagrams, as installed.
  4. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include any special operating instructions.
  5. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
  6. Provide a servicing and lubrication schedule, and a list of lubricants required.

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7. Include the manufacturer's published operation and maintenance instructions.
8. Include sequence of operation by the controls manufacturer.
9. Provide the original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
10. Provide control diagrams by the controls manufacturer, as installed.
11. Provide the Contractor's coordination drawings, with color coded piping diagrams, as installed.
12. Provide charts of valve tag numbers, with the location and function of each valve, keyed to flow and control diagrams.
13. Provide a list of the original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
14. Include test and balancing reports, as specified.
15. Additional Requirements: As specified in the individual product Specifications Sections.
16. Provide a listing in the Table of Contents of design data, with tabbed dividers and space for insertion of additional data.

1.4 PRODUCT WARRANTIES

- A. Submit Warranties required for specific products or work, as specified in the individual Specifications Sections.
- B. Form of Submittals:
  1. Bind in commercial quality 8-1/2" x 11" three D, side ring binders with durable plastic covers.
  2. Cover: Identify each binder with the typed or printed title WARRANTIES with the title of the Project, name, address and telephone number of the Contractor and equipment supplier, and the name of the responsible company principal.
  3. Table of Contents: Neatly typed, in the sequence of the Project Manual, Table of Contents, with each item identified with a number and title of the Specifications Section in which specified, and the name of the product or work item.
  4. Separate each Warranty with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets, as necessary. List the subcontractor, supplier, and manufacturer, with the name, address, and telephone number of the responsible principal.
- C. Preparation of Submittals:
  1. Obtain Warranties executed in duplicate by the responsible subcontractor, supplier, and manufacturer, within ten (10) days after completion of the applicable item of work. Except for items put into use with the Owner representative's approval, leave the date of the beginning of the warranty time until the Date of Final Acceptance has been determined.

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2. Verify that the documents are in the proper form, contain complete information, and are notarized.
  3. Co-execute submittals when required.
  4. Retain Warranties until the time specified for submittal.
- D. Time of Submittals:
1. For equipment or component parts of equipment put into service during construction with the Owner representative's approval, submit documents within ten (10) days after acceptance.
  2. Make other submittals within ten (10) days after the Date of Substantial Completion, and prior to the final Application for Payment.
  3. For items of work for which acceptance is delayed beyond the Date of Substantial Completion, submit within ten (10) days after acceptance.

1.5 PROJECT RECORD DOCUMENTS

- A. Project Record Documents required include:
  1. As-Built copies of the Contract Drawings.
  2. Marked-up copies of the Shop Drawings.
  3. Marked-up copies of the Specifications, addenda and Contract Modifications.
  4. Marked-up product data submittals.
  5. Field records for variable and concealed conditions.
  6. Record information on work that is recorded only schematically.
- B. Specific record copy requirements that expand the requirements of this Section are included in the individual Specifications Sections of Division 2 through Division 16.
- C. Maintenance of Documents: Store the Record Documents in a field office apart from the Contract Documents used for construction. Do not permit the Project Record Documents to be used for construction purposes. Maintain and protect the Record Documents from damage in a clean, dry, legible condition. Make Documents available at all times for inspection by the Owner's representative.
- D. Record (As-Built) Drawings:
  1. During construction, maintain a set of blackline, white prints of the Contract Drawings and Shop Drawings for Project Record Document purposes.
    - a. Mark these Drawings to indicate actual installations where the installations vary from the installation originally shown. Give particular attention to information on concealed elements which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

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- 1) Dimensional changes to the Drawings.
  - 2) Revisions to Details shown on the Drawings.
  - 3) Depth of foundations below the first floor.
  - 4) Locations and depths of underground utilities.
  - 5) Revisions to the routing of piping and conduits.
  - 6) Revisions to electrical circuitry.
  - 7) Actual equipment locations.
  - 8) Duct sizes and routing.
  - 9) Locations of concealed internal utilities.
  - 10) Changes made by Contract Modifications.
  - 11) Details not on the original Contract Drawings.
- b. Mark completely and accurately record on prints of the Contract Drawings or Shop Drawings, whichever is most capable of showing the actual physical conditions. Where Shop Drawings are marked, show a cross-reference on the Contract Drawings.
  - c. Mark important additional information which was either shown schematically or omitted from the original Drawings.
  - d. Note construction change directive numbers, alternate numbers, Change Order numbers, clarification numbers and similar identification.
  - e. Responsibility for Markup and Supervision: Contractor Quality Control Representative, as specified in Section 01450 - Quality Control. Where feasible, the name of the individual or entity who obtained the record data, whether individual or entity is installer, subcontractor, or similar entity, is required to prepare mark-ups on the Record Drawings.
    - 1) Accurately record information in an understandable Drawing technique.
    - 2) Record data as soon as possible after it has been obtained. In case of concealed installations, record and check mark-ups prior to concealment.
    - 3) Contractor Quality Control Representative: Affix signature and certify accuracy of the Record Drawings.
2. Preparation of As-Built Drawings: Immediately prior to the inspection for Final Acceptance, review the completed marked-up record Drawings with the Owner's representative. Prepare a full set of corrected Drawings of as-built conditions.
    - a. Incorporate changes and additional information previously marked on the print sets. Erase, redraw, and add details and notations where applicable. Identify and date each Drawing; include the printed

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- designation "PROJECT AS-BUILT DRAWINGS" in a prominent location on each Drawing.
- b. Refer instances of uncertainty to the Owner's representative for resolution.
  - c. The Owner's representative will make the original Contract Drawings available to the Contractor in electronic format.
  - d. The Contractor is responsible for printing the original Contract Drawings and other Drawings.
  - e. Review of Drawings: Before copying and distributing, submit corrected Drawings and the original marked-up prints to the Owner's representative for review.
3. Copies and Distribution: After completing the preparation of As-Built Drawings, submit two (2) complete sets of the Drawings on reproducible vellum sheets (24" x 36"), and two (2) complete zip disks (100 mb AutoCAD). Place each set of Drawings in durable tube-type containers with end caps. Mark the end cap of each container with suitable identification. Mark the zip disks similarly.
    - a. Organize and bind the original marked-up set of prints that were maintained during construction in the same manner.

E. Record Specifications:

1. During the construction period, maintain one copy of the Project Specifications, including addenda and any modifications issued, for Project Record Document purposes.
  - a. Mark the Specifications to indicate actual installations where the installation varies from that indicated in the Specifications and modifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, and information on concealed installations that would be difficult to identify or measure and record later.
    - 1) In each Specifications Section where products, materials or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
    - 2) Record the name of the manufacturer, supplier and installer, and other information necessary to provide a record of the selections made and to document coordination with the Record Product Data submittals and Maintenance Manuals.
    - 3) Note the related Record Product Data, where applicable. For each principal product specified, indicate whether the Record Product Data has been submitted in a Maintenance Manual instead of submitted as Record Product Data.
3. Upon completion of the mark-up, submit Record Specifications to the Owner's representative.
  - F. Record Product Data:

CLOSEOUT SUBMITTALS

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1. During construction, maintain one (1) copy of each Product Data submittal for Project Record Document purposes.
  - a. Mark the Product Data to indicate the actual product installation where the installation varies from that indicated in the Product Data submitted. Include significant changes in the product delivered to the Project Site, and changes in the manufacturer's instructions and recommendations for installation.
  - b. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - c. Note related Contract Modifications and mark-up of Record Drawings, where applicable.
  - d. Upon completion of the mark-up, submit a complete set of the Record Product Data to the Owner's representative with an index of all product data cross-referenced to submittal numbers.
  - e. Where the Record Product Data is required as part of the Maintenance Manuals, submit the marked-up Product Data as an insert in the Manual instead of submittal as Record Product Data.

G. Additional Record Submittals:

1. Refer to other Specifications Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Final Acceptance, complete additional records and place in order, properly identified and bound or filed, ready for use and reference. Submit to the Owner's representative.
  - a. Categories of requirements resulting in miscellaneous records include, but are not limited to the following:
    - 1) Field records of excavations and foundations.
    - 2) Field records of underground construction and similar work.
    - 3) Survey showing locations and elevations of underground lines.
    - 4) Invert elevations of drainage piping.
    - 5) Surveys establishing building lines and levels.
    - 6) Authorized measurements utilizing unit prices or allowances.
    - 7) Records of plant treatment.
    - 8) Ambient and substrate condition tests.
    - 9) Certifications received in lieu of labels on bulk products.
    - 10) Batch mixing and bulk delivery records.
    - 11) Testing and qualification of tradesmen.

- 12) Documented qualifications of installation firms.
- 13) Load and performance testing.
- 14) Inspections and certifications by governing authorities.
- 15) Leakage and water-penetration tests.
- 16) Fire resistance and flame spread test results.
- 17) Final inspection and correction procedures.

1.6 EXTRA MATERIALS

- A. Provide products, spare parts, maintenance, and extra materials in the quantities specified in the individual Specifications Sections.
- B. Deliver to the Project Site and place in a location directed by the Owner's representative; obtain a receipt prior to final payment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

CLOSEOUT SUBMITTALS

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CLOSEOUT SUBMITTALS

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SECTION 02050

DEMOLITION AND REMOVAL

PART 1 - GENERAL

- 1.1 PROCEDURES: Areas in which demolition and removal is to be accomplished shall be as indicated on the drawings either specifically or as a necessary or incidental part of the work. The procedures shall provide for the safe conduct of the work, careful removal and disposition of materials to be removed, protection of property, which is to remain undisturbed, and coordination with other work involved.
- 1.2 Do not begin demolition until authorization is received from the Engineer. Remove rubbish and debris from the project site daily; do not allow accumulations inside or outside the buildings. Store materials that cannot be removed daily in areas designated by the Engineer.
- 1.3 The Contractor shall submit his/her demolition and removal procedures to the Engineer for approval before work is started. Demolition plan shall include procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, and a detailed description of methods and equipment to be used for each and sequence of operation.
- 1.4 EXPLOSIVES: Use of explosives will not be permitted.
- 1.5 PROTECTION OF EXISTING STRUCTURES, UTILITIES AND OTHER ITEMS OF PROPERTIES: Existing structures, utilities, and other items of properties to remain shall be protected from damage during demolition and removal operation. Any damage to existing facilities, structures, utilities or other works shall be repaired by the Contractor, using materials equal to or better than those existing, all at the Contractor's expense.
- 1.6 In addition, the Contractor shall seek and obtain written clearances from all utility agencies of the Government of Guam, specifically DPW, GPA, GTA, GWA, MCV, etc. prior to undertaking demolition/removal operations. As part of obtaining such clearances, the Contractor shall specifically request each utility agency to stake out the location of their utilities prior to undertaking any demolition or removal work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. The work includes the demolition and removal of existing structures, concrete pads, fences, waterlines, and other items as indicated on the drawings or as required to accomplish the work. Miscellaneous items that will be a hindrance or hazardous to the work to be done shall be removed and disposed of as directed by the Engineer.
- B. Dust and Noise Control: The amount of dust resulting from demolition shall be controlled to prevent the spread of dust to occupied portions of the area and to avoid creation of a nuisance in surrounding areas. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as flooding, or pollution. Noise associated with the demolition shall be controlled by proper selection of the equipment used, procedure selected, time of day, or day of the week the work is accomplished, to minimize adverse effects of the necessary noise on the every-day operations or activities of the Contractor.

DEMOLITION AND REMOVAL

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- C. Notifications: Furnish timely notification of demolition work to the Engineer in writing 10 working days prior to the commencement of demolition work.
  - D. Traffic Control Plan: Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Engineer prior to beginning such work.
  - E. Existing Work: Protect existing work, which is to remain in place, be reused, or remain the property of the Government. Repair items, which are to remain, and which are damaged during the performance of the work to their original or better condition or replace with new. Provide new supports and reinforcements to existing construction weakened by demolition or removal work. Repairs, reinforcements, or structural replacements must have Engineer's approval.
  - F. Relocations: Perform the removal and reinstallation of relocated items as indicated with the workmen skilled in the trades involved. Coordinate with agency that has jurisdiction over the utility to be relocated. Repair items to be relocated, which are damaged or replace damaged items with new undamaged items as approved by the Engineer.
  - G. Title to Materials: Except where specified in other Sections, all material and equipment removed, and not reused, shall become the property of the Contractor and shall be removed from the project site. Title to material resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Engineer of the Contractor's demolition and removal procedures, and authorization by the Engineer to begin demolition. The Owner will not be responsible for the condition or loss of, or damage to, such property after contract award. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.
  - H. Salvage: The Contractor shall remove existing facilities, as necessary or as indicated; salvage usable materials as directed; store, transport, stockpile and/or protect it at the location designated. All salvaged materials shall be the property of the Owner.
  - I. Disposition: Refuse resulting from demolition operations shall be hauled at the Contractor's expense to an approved disposal site(s) or landfill and shall be disposed of at the Contractor's expense in such a manner as to meet all applicable requirements, regulations and laws of the Government of Guam regarding environmental protection, health, safety and public welfare. The Contractor may not dispose of such refuse by burning on the site of the project at any time.
- In no case shall any material be left on the project, shoved onto abutting properties or areas, or be burned in embankments or trenches on the project. Demolition and removal/disposal operations shall be carried out well in advance of construction operations so as to permit a well planned schedule of work.

3.2 CLEANUP: Upon completion of demolition and removal operations, the entire area shall be cleaned of all debris and rubbish in a manner satisfactory to the Engineer.

**END OF SECTION**

DEMOLITION AND REMOVAL

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SECTION 04200

UNIT MASONRY

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM A 82 Steel Wire, Plain, for Concrete Reinforcement
- ASTM A 153 Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- ASTM A 167 Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
- ASTM A 615 Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
- ASTM B 370 Copper Sheet and Strip for Building Construction
- ASTM C 90 Load-Bearing Concrete Masonry Units
- ASTM C 91 Masonry Cement
- ASTM C144 Aggregate for Masonry Mortar
- ASTM C 150 Portland Cement
- ASTM C 207 Hydrated Lime for Masonry Purposes
- ASTM C 270 Mortar for Unit Masonry
- ASTM C 476 Grout for Masonry

1.2 SUBMITTALS

Submit the following in accordance with Section 01300, "Submittals."

1.2.1 Manufacturer's Catalog Data

- a. Masonry accessories
- b. Reinforcement
- c. Flashing

Submit for each type.

1.2.2 Drawings

- a. Reinforcing steel
- b. Drawing Requirements

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Indicate splicing, laps, shapes, dimensions, and details of reinforcing steel and accessories. Include details of anchors, adjustable wall ties, positioning devices, bond beams, and lintels. Do not scale drawings to determine lengths of bars.

1.2.3 Design Data

- a. Pre-mixed mortar

1.2.4 Instructions

- a. Masonry cement

When masonry cement is used, submit the manufacturer's printed instructions on proportions of water and aggregates and on mixing to obtain the type of mortar required.

1.2.5 Samples

- a. Masonry units

Submit two sets of each type masonry units, showing full range of color, texture, finish, and dimensions.

1.3 QUALITY ASSURANCE

1.3.1 Appearance

Do not change source or supply of materials after work has started if the appearance of the finished work would be affected.

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver cementitious materials to the site in unbroken containers, plainly marked and labeled with manufacturers' names and brands. Store cementitious materials in dry, weather-tight sheds or enclosures. Handle so as to prevent entry of foreign materials and damage by water or dampness. Store masonry units off the ground and handle with care to avoid chipping and breakage. Protect materials from damage and, except for sand, keep dry until used. Cover sand to prevent intrusion of water and foreign materials and to prevent drying. Do not use materials containing frost or ice. Store Type II concrete masonry units at the site before using for a minimum of 28 days for air cured units, 10 days for atmospheric steam or water cured units, and 3 days for units cured with steam at a pressure of 120 to 150 psi and at a temperature of 350 to 365 degrees F for at least 5 hours.

1.5 SCHEDULING

Coordinate masonry work with the work of other trades to accommodate built-in items and to avoid cutting and patching.

PART 2 PRODUCTS

2.1 MASONRY UNITS

2.1.1 Concrete Masonry Units

Units of modular dimensions and air, water, or steam cured. Surfaces of units which are to be plastered shall be sufficiently rough to provide bond; elsewhere, exposed surfaces of units shall be

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smooth and of uniform texture. Exterior concrete masonry units shall have water-repellent admixture added during manufacture.

a. Hollow Load-Bearing Units

ASTM C 90, Type I or II, made with or normal weight aggregate. Provide load-bearing units for exterior walls, foundation walls, load-bearing walls, and shear walls.

b. Special Shapes

Provide special shapes such as closures, header units, and jamb units as necessary to complete the work. Special shapes shall conform to the requirements for the units with which they are used.

2.1.2 Pre-cast Concrete Lintels

Same materials and surface texture as adjacent masonry units, with a 28-day compressive strength of not less than 3000 psi. Provide reinforcing as indicated. Provide lintels of sizes indicated, with at least 8 inches of bearing at each end.

2.2 MORTAR

2.2.1 Portland Cement

ASTM C 150, Type I, II, or III.

2.2.2 Hydrated Lime

ASTM C 207, Type S.

2.2.3 Masonry Cement

ASTM C 91, except that for masonry cement provided for mortar for exterior walls, the air content of the mortar specimen shall be not more than 16 percent by volume in lieu of 22 percent. Containers shall bear complete instructions for proportioning and mixing to obtain the required types of mortar.

2.2.4 Sand

ASTM C 144.

2.2.5 Water

Clean, potable, and free from substances which could adversely affect the mortar.

2.2.6 Mortar Types

ASTM C 270, Type S for masonry work; except where higher compressive strength is indicated on structural drawings. Air content shall not be less than 11 percent.

2.2.7 Pre-Mixed Mortar

ASTM C 270, Type S, compressive strength of 1800 psi in 28 days. Air content shall not be less than 11 percent. Admixtures may be provided in mortar to retard curing and provide up to 36 hours of workability, as long as the admixture does not adversely affect bonding or compressive strength.

2.3 MASONRY ACCESSORIES

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2.3.1 Horizontal Joint Reinforcement

Fabricate from cold drawn steel wire, ASTM A 82. Wire shall be hot-dipped galvanized after fabrication in accordance with ASTM A 153 Class B-2, 1.5 oz. of zinc per square foot. Reinforcement shall be truss type with two or more longitudinal wires welded to a continuous diagonal cross wire, or ladder type with perpendicular cross wires not more than 16 inches o.c. Provide flat sections 10 feet long, and pre-formed corners and tees approximately 30 inches long. Overall width shall be approximately 2-inches less than nominal thickness of wall.

a. Single-Wythe

For single-wythe walls and partitions, provide two 9-gage (0.1483-inch) longitudinal wires and 9-gage cross wires.

2.3.2 Fastenings

Build in bolts, metal wall plugs, and other metal fastenings furnished under other sections for securing furring and other items.

2.3.3 Reinforcing Bars

ASTM A 615

2.3.4 Through-Wall Flashing

Provide one of the following types

a. Coated-Copper Flashing

7-ounce electrolytic copper sheet, uniformly coated on both sides with acid-proof, alkali-proof, elastic bituminous compound. Factory apply coating to a weight of not less than 6 ounces per square foot (approximately 3 ounces per square foot on each side).

b. Copper or Stainless Steel Flashing

Copper, ASTM B 370, minimum 16-ounce weight; stainless steel, ASTM A 167, Type 301, 302, 304, or 316, 0.010-inch thick, No. 2D finish. Provide with factory-fabricated deformations that mechanically bond flashing against horizontal movement in all directions. Deformations shall consist of dimples, diagonal corrugations, or a combination of dimples and transverse corrugations.

c. Reinforced Membrane Flashing

Polyester film core with a reinforcing fiberglass scrim bonded to one side. The membrane shall be impervious to moisture, flexible, and not affected by caustic alkalis. The material, after being exposed for not less than 1/2 hour to a temperature of 32 degrees F, shall show no cracking when, at that temperature, it is bent 180 degrees over a 1/16-inch diameter mandrel and then bent at the same point over the same size mandrel in the opposite direction 360 degrees.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 Protection

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a. Stains

Protect exposed surfaces from mortar and other stains. When mortar joints are tooled, remove mortar from exposed surfaces with fiber brushes and wooden paddles. Protect base of walls from splash stains by covering adjacent ground with sand, sawdust, or polyethylene.

b. Load

Do not apply uniform loads for at least 12 hours or concentrated loads for at least 72 hours after masonry is constructed.

c. Provide temporary bracing as required.

d. Polyester-Embossed Film

Provide protective boards for polyester film during job installation.

### 3.1.2 Surface Preparation

Surfaces on which masonry is to be placed shall be smooth, clean, and free of foreign substances when mortar is applied.

### 3.2 WORKMANSHIP

Carry masonry up level and plumb. Furnish and use story poles or gage rods throughout the work. Changes in coursing or bonding after the work is started will not be permitted. Do not carry one section of the walls up in advance of the others. Step back unfinished work for joining with new work. Tooling will not be permitted. Check heights of masonry at each floor and at sills and heads of openings to maintain the level of the walls. Build in door and window frames, lowered openings, anchors, pipes, ducts, and conduits as the masonry work progresses. Fill spaces around metal door frames solidly with mortar. Handle masonry units with care to avoid chipping, cracking, and spalling of faces and edges. Drilling, cutting, fitting, and patching to accommodate the work of others shall be performed by masonry mechanics. Cut masonry with masonry saws for exposed work. Structural steelwork, bolts, anchors, inserts, plugs, ties, lintels, and miscellaneous metalwork specified elsewhere shall be placed in position as the work progresses. Provide chases of approved dimensions for pipes and other purposes where indicated and where necessary. Cover tops of exposed walls and partitions not being worked on with a waterproof membrane secured in place and extended down at least 2 feet on both sides. Inspect scaffolding regularly to ensure that it is amply strong, well braced, and securely tied in position. Do not overload scaffolding.

### 3.3 MORTAR MIXING

Measure mortar materials in 1 cu. ft. containers to maintain control and accuracy of proportions. Do not measure materials with shovels. Mix mortar in a mechanical batch mixer for not less than 3 nor more than 5 minutes after all ingredients are in so as to produce a uniform mixture. Add water gradually as required to produce a workable consistency. Do not load mixer beyond its rated capacity. Keep mortar boxes, pans, and mixer drums clean and free of debris and dried mortar. Re-temper mortar which has stiffened because of evaporation by adding water and mixing to obtain a workable consistency. Do not use or re-temper mortar which has not been placed in final position within 2 1/2 hours after the initial mixing. Do not use antifreeze compounds, salts, or other substances to lower the freezing point of mortar.

a. Mortar

Mix mortar in accordance with ASTM C 270 to obtain type mortar required. When masonry cement is provided, conform to masonry cement manufacturer's printed mixing instructions.

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During mixing, add water-repellent admixture in quantity recommended by the admixture manufacturer to mortar which will be used in exterior concrete masonry unit walls.

b. Grout

ASTM C 476. Provide fine grout in grout spaces less than 2 inches in any horizontal dimension or in which clearance between reinforcing and masonry is less than 3/4 inch. Provide coarse grout in grout spaces 2 inches or greater in all horizontal dimensions provided the clearance between reinforcing and masonry is not less than 3/4 inch.

### 3.4 MORTAR JOINTS

Uniform thickness of 3/8-inch unless otherwise indicated. Tool exposed joints slightly concave with a round or other suitable jointer when the mortar is thumbprint hard. For horizontal joints, jointers shall be at least 12 inches long for brickwork and 16 inches long for concrete masonry. Jointers shall be slightly larger than the width of the joint so that complete contact is made along the edges of the units, compressing and sealing the surface of the joint. Strike flush joints that will not be exposed. Tool vertical joints first. Brush joints to remove all loose and excess mortar. Horizontal joints shall be level; vertical joints shall be plumb and in alignment from top to bottom of wall within a tolerance of plus or minus 1/2 inch in 40 feet.

### 3.5 TOLERANCES

Masonry work shall be within the following limits:

a. Face of Concrete Masonry Unit

1/16 inch from face of adjacent unit.

b. Variation From True Plane

1/4 inch in 10 feet and 1/2 inch maximum in 20 feet or more.

c. Variation From Plumb

1/4 inch in each story, non-cumulative and 1/2 inch maximum in two stories or more.

d. Variation From Level

1/8 inch in 3 feet, 1/4 inch in 10 feet, and 1/2 inch maximum.

e. Variation in Wall Thickness

Plus or minus 1/4 inch.

### 3.6 CONCRETE MASONRY UNIT WORK

Lay the first course in a full bed of mortar for the full width of the unit. Lay succeeding courses in running bond unless otherwise indicated. Form bed-joints by applying mortar to entire top surfaces of inner and outer face shells. Form head joints by applying mortar for a width of about 1 inch to ends of adjoining units. Mortar shall be of such thickness that it will be forced out of the joints as the units are placed in position. Where anchors, bolts, and ties occur within the cells of the units, place metal lath in the joint at the bottom of such cells and fill cells with mortar or grout as work progresses. Provide concrete brick for bonding walls, working out the coursing, topping out walls under sloping slabs, distributing concentrated loads, backing brick headers, and elsewhere as required. Do not dampen concrete masonry units before or during laying.

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3.6.1 Special Concrete Masonry Unit Work

Where exposed concrete masonry unit walls and partitions are indicated, provide special concrete masonry unit work. Select units for uniformity of size, texture, true plane, and undamaged edges and ends of exposed surfaces. Place units plumb, parallel, and with properly tooled joints of maximum 3/8-inch thickness. Keep exposed surfaces clean and free from blemishes or defects.

3.6.2 Reinforced Concrete Masonry Unit Walls

Where vertical reinforcement occurs, fill cores solid with grout. Lay units in such a manner as to preserve the unobstructed vertical continuity of cores to be filled. Embed the adjacent webs in mortar to prevent leakage of grout. Remove mortar fins protruding from joints before placing grout. Minimum clear dimensions of vertical cores shall be 2 by 3 inches. Position reinforcing accurately as indicated before placing grout. As masonry work progresses, secure vertical reinforcing in place at vertical intervals not to exceed 160 bar diameters. Use puddling rod or vibrator to consolidate the grout. Minimum clear distance between masonry and vertical reinforcement shall be not less than 1/2 inch. Unless indicated or specified otherwise, form splices by lapping bars not less than 40 bar diameters and wire tying them together.

3.7 BONDING AND ANCHORING

Unless indicated otherwise, extend partitions from the floor to the bottom of the construction above. Structurally bond or anchor walls and partitions to each other and to concrete walls, beams, and columns. Securely anchor non-load-bearing partitions and interior walls to the construction above as indicated. Completely embed anchors in mortar joints.

3.7.1 Corners of Load-Bearing Walls

Provide a true masonry bond in each course, except where indicated or specified otherwise.

3.7.2 Intersections of Load-Bearing Walls

Provide a true masonry bond in each course, or anchor with rigid steel anchors not more than 2 feet apart vertically, unless otherwise indicated.

3.7.3 Masonry Walls Facing or Abutting Concrete Members

Anchor masonry to concrete with dovetail or wire-type anchors inserted in slots or inserts built into concrete. Locate anchors not more than 18 inches o.c. vertically and not more than 24 inches o.c. horizontally.

3.8 THROUGH-WALL FLASHING

Provide as indicated. Unless indicated otherwise, extend flashing from a point 1 inch outside of exterior face of walls. Bend down exterior edge to form a drip. Flashing shall be terminated 1 inch back from interior face of walls and turned back on itself not less than 1 inch. Secure flashing as indicated. Provide flashing in lengths as long as practicable. Lap ends not less than 1½ inches for interlocking type and 4 inches for other types. Seal laps as necessary to ensure watertight construction. Provide dams at ends of flashing where masonry abuts concrete and where flashing ends within the masonry.

3.9 HORIZONTAL JOINT REINFORCEMENT

Provide reinforcement where indicated in walls and partitions of concrete masonry units. Reinforcement shall be continuous except at control joints and expansion joints. Reinforcement above

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and below openings shall extend not less than 24 inches beyond each side of openings. Provide reinforcement in the longest available lengths, utilizing the minimum number of splices. Overlap ends not less than 6 inches. Provide welded L-shaped assemblies and welded T-shaped assemblies to match straight reinforcement at corners and intersections of walls and partitions. Provide mortar cover for wire of at least 5/8 inch for exterior face of wall, ½ inch for interior face of wall.

3.10 CONCRETE MASONRY UNIT LINTELS AND BOND BEAMS

Provide special units, fill cells solidly with grout or concrete, and provide not less than two No. 5 reinforcing bars, unless indicated otherwise. Reinforcing shall overlap a minimum of 40 bar diameters at splices. Terminate bond beams and reinforcing on each side of expansion joints. Concrete masonry units provided for lintels and bond beams shall have exposed surfaces of the same material and texture as the adjoining masonry units. Lintels shall be straight and true and shall have at least 8 inches of bearing at each end. Allow lintels to set at least 6 days before shoring is removed. During mixing, add water-repellent admixture in quantity recommended by the admixture manufacturer to concrete and grout which will be used to fill lintels and bond beams in exterior walls.

3.11 CONTROL JOINTS

Provide where indicated in concrete masonry-unit walls. Provide sawed type or built-in type as required. Joints shall occur directly opposite each other on both faces of the wall and shall be filled with sealant as specified in Section 07920, "Sealants," or as indicated.

3.12 EXPANSION JOINTS

Fill joints with a permanently flexible pre-formed filler material and a sealant as specified in Section 07920, "Sealants."

3.13 GROUT PLACEMENT

Place grout from the interior side of walls, unless approved otherwise. Protect sills, ledges, offsets, and other surfaces from grout droppings. Remove grout from such surfaces immediately. Grout shall be well mixed to prevent segregation and shall be sufficiently fluid to flow into joints and around reinforcing without leaving voids. Place grout by pumping or pouring from buckets equipped with spouts in lifts not exceeding 5 feet. Keep pours at 1½ inches below top of masonry units in top course, except at finish course. Float bricks into grout to a position not less than 1 inch nor more than 2 inches from surrounding masonry units. Puddle or agitate grout thoroughly to eliminate voids. Remove masonry displaced by grouting operation and re-lay in alignment with fresh mortar.

3.14 FORMS AND SHORING

Construct to the shape, lines, and dimensions of members indicated. Prevent deflections which may result in cracking or other damage to supported masonry. Do not remove until members have cured.

3.15 CLEANING

3.15.1 Protection

During cleaning operations, protect work which may be damaged, stained, or discolored.

3.15.2 Pointing

Upon completion of masonry work and before cleaning, cut out defective mortar joints and tuck point joints and all holes solidly with pre-hydrated mortar.

3.15.3 Cleaning

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Clean exposed masonry surfaces with clear water and stiff fiber brushes and rinse with clear water. Where stains, mortar, or other soil remain, continue scrubbing with warm water and detergent. Immediately after cleaning each area, rinse thoroughly with clear water. Restore damaged, stained, and discolored work to original condition or provide new work.

SECTION 05500  
METAL FABRICATIONS

PART 1 GENERAL

1.1 SUMMARY

END OF SECTION 04200

A. Section Includes:

1. Rough hardware.
2. Miscellaneous framing and supports.
3. Loose bearing and leveling plates.
4. Counters and equipment supports.
5. Miscellaneous steel trim.
6. Shelf and relieving angles.
7. Steel ladders.
8. Aluminum ladders.
9. Pipe bollards.
10. Metal bar gratings.
11. Cast-in-place stair nosings and thresholds.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 03300 - Cast-in-Place Concrete: Substrate for attachments.
2. Section 04230 - Reinforced Unit Masonry: Substrate for attachments.
3. Section 05520 - Steel Handrails and Railings: Inserts and anchorage for.
4. Section 05600 - Ornamental Metal Work: Inserts and anchorage for.
5. Section 07724 - Roof Hatch: Safety ladder post.
6. Section 09900 - Painting: Metal finishes.
7. Products Furnished But Not Installed Under this Section: Inserts and anchors preset in masonry and concrete for anchorage of metal work.

1.2 DESCRIPTION OF WORK

A. The extent of metal fabrications is indicated on the Drawings, schedules and as specified

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herein, and includes providing, fabricating and installing items made from iron and steel shapes, plates, bars, strips, tubes, pipes and castings which are not structural steel or other metal systems specified elsewhere herein.

B. All light iron and miscellaneous metal work not specified under another Section, but required for the work shall be provided under this Section whether or not specifically referred to herein.

### 1.3 REFERENCES

A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.

B. American Institute of Steel Construction (AISC):

1. Specification for Structural Steel for Buildings.

C. American National Standards Institute (ANSI):

1. ANSI B18.5 - Round Head Bolts (Inch Series).

2. ANSI B18.6.1 - Wood Screws (Inch Series).

D. American Society of Civil Engineers (ASCE):

1. ASCE / SEI 7 - Minimum Design Loads for Buildings and Other Structures.

E. American Society for Testing and Materials (ASTM):

1. ASTM A 27 / A 27M - Specification for Steel Castings, Carbon, for General Application.

2. ASTM A 47 / A 47M - Specification for Ferritic Malleable Iron Castings.

3. ASTM A 48 / A 48M - Specification for Gray Iron Castings.

4. ASTM A 36 / A 36M - Specification for Carbon Structural Steel.

5. ASTM A 53 / A 53M - Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.

6. ASTM A 123 / A 123M - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

7. ASTM A 134 - Specification for Pipe, Steel, Electric-Fusion (Arc)-Welded (Sizes NPS 16 and Over).

8. ASTM A 153 / A 153M - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

9. ASTM A 167 - Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

10. ASTM A 176 - Specification for Stainless and Heat-Resisting Chromium Steel Plate, Sheet, and Strip.

11. ASTM A 276 - Specification for Stainless Steel Bars and Shapes.

METAL FABRICATIONS

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12. ASTM A 307 - Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.

13. ASTM A 500 / A 500M - Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Round and Shapes.

14. ASTM A 501 - Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.

15. ASTM A 568 / A 568M - Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.

16. ASTM A 653 / A 653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

17. ASTM A 780 - Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.

18. ASTM C 1107 / C 1107M - Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).

19. ASTM E 330 - Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

20. ASTM E 935 - Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings.

21. ASTM E 936 - Practice for Roof System Assemblies Employing Steel Deck, Preformed Roof Insulation, and Bituminous Built-Up Roofing.

F. American Welding Society (AWS):

1. AWS D1.1 / D1.1M - Structural Welding Code - Steel.

G. Americans with Disabilities Act Accessibility Guidelines (ADAAG):

1. Accessibility Guidelines for Buildings and Facilities.

H. International Code Council:

1. International Building Code (IBC), 2009.

I. National Association of Architectural Metal Manufacturers (NAAMM):

1. Metal Finishes Manual for Architectural and Metal Products.

2. MBG 531 - Metal Bar Grating Manual.

3. MBG 532 - Heavy Duty Metal Bar Grating Manual.

4. MBG 533 - Welding Specification for Fabrication of Steel, Aluminum and Stainless Steel Bar Grating.

J. SSPC: The Society for Protective Coatings (formerly Structural Steel Painting Council):

1. SSPC Painting Manual.

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2. SSPC PA 1 - Specification Procedure for Shop, Field and Maintenance Painting of Steel.
3. Paint 20 - Specification of Zinc-Rich Coating Type 1 - Inorganic and Type II - Organic.
4. SSPC SP 2 - Requirements for Hand Tool Cleaning of Steel Surfaces.
5. SSPC SP 3 - Requirements for Power Tool Cleaning of Steel Surfaces.
6. SSPC SP 6 - Standard for Commercial Blast Cleaning of Steel Surfaces.
7. SSPC SP 7 - Standard for Brush-Off Blast Cleaning of Steel Surfaces.
8. VIS 3 - Guide and Reference Photographs for Steel Surfaces Prepared by Power and Hand-Tool Cleaning.

#### 1.4 DEFINITIONS

- A. Custom Metal Fabrications: Metal fabrications custom built for a specific Project purpose.
- B. Pre-Manufactured Metal Fabrications: Metal fabrications which are factory-fabricated for a specific architectural purpose. These products may require modification to meet the Project requirements, but their primary manufactured purpose is not altered.
- C. Non-Structural/Metal Fabrications: Metal work which has not been designed by the Project Structural Engineer, and which is not part of the Structural Engineer's documents.

#### 1.5 SYSTEM PERFORMANCE

- A. Structural Performance: Provide assemblies which, when installed, comply with the following minimum requirements for structural performance, unless otherwise indicated.

#### 1.6 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Procedures for submittals.
  1. Product Data: Manufacturer's specifications, anchor details and installation instructions for pre-manufactured products. Submit data indicating materials used in miscellaneous metal fabrications, including paint products and grout.
  2. Shop Drawings:
    - a. Drawings for fabrication and erection of miscellaneous metal fabrications; including plans, elevations and details of sections and connections. Show anchorage and accessory items. Provide templates for anchor and bolt installations by others.
    - b. Where materials or fabrications are required to comply with requirements for design loadings, include structural computations, materials properties and other information for structural analysis. Prepare under the seal of a professional structural engineer for products requiring structural engineering to meet the Performance Requirements.
    - c. Include profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners and accessories, erection drawings, elevations,

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welded connections using standard AWS welding symbols with net weld lengths.

- d. Take field measurements prior to the preparation of Shop Drawings and pre-fabrication when possible. Allow for trimming and fitting where taking of field measurements before fabrication might delay construction.

#### 3. Samples:

- a. Submit representative samples of materials and finished products as requested by the Architect.

#### 1.7 QUALITY ASSURANCE

- A. Qualifications:
  1. Fabricator: Company specializing in fabricating the products specified with a minimum of five (5) years documented experience.
  2. Installer: Company experienced in performing the work of this Section with a minimum of five (5) years documented experience.
- B. Performance Requirements:
  1. Provide the capacity to withstand the following loading requirements for exterior units:
    - a. Design, fabricate and install to resist combined positive and negative windloading in accordance with IBC 2009, Section 1609 with a Vmph of 170, qs of 74.0 psf, exposure [B] [C] [D] and importance factor [1.0] [1.25] [1.5], as applicable per ASCE 7.
  2. Provide assemblies which, when installed, comply with the following minimum requirements for structural performance, unless otherwise indicated.
    - a. Treads and Platforms of Steel Stairs: Capable of withstanding a uniform load of 100 pounds per square foot, or a concentrated load of 300 pounds so located as to produce maximum stress conditions.

#### 1.8 DELIVERY, STORAGE AND HANDLING

- A. Section 01600 - Product Requirements: Transport, handle, store and protect the products.
- B. Protect materials from corrosion, deformation and other damage during delivery, storage and handling.
- C. Deliver product to the Project Site in the fabricator's original, unopened packages, containers or bundles.

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- D. Store and protect the materials with a weatherproof covering; ventilate to avoid condensation.
- PART 2 PRODUCTS
- 2.1 MATERIALS
- A. Use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness for fabrication of miscellaneous metalwork which will be exposed to view.
- B. Steel Plates, Angles, and Other Structural Shapes: ASTM A 36 / A 36M.
- C. Steel Pipe: ASTM A 53 / A 53M. Type and grade (if applicable), as selected by the fabricator and as required for the design loading. Black finish, unless galvanizing is indicated. Standard weight (Schedule 40), unless otherwise indicated.
- D. Galvanized Steel Pipe and Tube: ASTM A 53 / A 53M.
- E. Steel Tubing: Cold-formed, ASTM A 500 / A 500M or hot-rolled, ASTM A 501.
- F. Sheet Steel, Galvanized: ASTM A 123 / A 123M.
- G. Sheet and Strip Steel, Hot-Rolled: ASTM A 568 / A 568M.
- H. Structural Steel Sheet: Hot-rolled, ASTM A 134 or cold-rolled ASTM E 936, Class 1; of grade required for the design loading.
- I. Galvanized Structural Steel Sheet: ASTM A 653 / A 653M, of grade required for the design loading. Coating designation as indicated, or if not indicated, G90.
- J. Stainless Steel: AISI Type 304 for fumed and welded products. ASTM A 276 for base shapes and forging; ASTM A 167 or A 176 as best suited for plates, sheets and strip. Satin finish typical.
- K. Gray Iron Castings: ASTM A 48, Class 30.
- L. Malleable Iron Castings: ASTM A 47, grade as selected by the fabricator.
- M. Steel Bar Grating: ASTM A 36 / A 36M or NAAMM MBG 531.
- N. Brackets, Flanges and Anchors: Cast or formed metal of the same type material and finish as the supported fabrications.
- O. Concrete Inserts: Threaded or wedge type; galvanized ferrous castings, either malleable iron, ASTM A 47, or cast steel, ASTM A 27. Provide bolts, washers and shims, as required, hot-dip galvanized, ASTM A 153.
- P. Non-Shrink, Non-Metallic Grout: Premixed, factory-packaged, non-staining, non-corrosive, non-gaseous grout complying with ASTM C 1107 (formerly CE CRD-C621), POR-ROK Anchoring Cement by Minwax Co. division of Eastman Kodak Co., or approved equal. Comply with the manufacturer's printed instructions.
- Q. Welding Materials: AWS D1.1 / D1.1M. Type required for the materials being welded.

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R. Anchors:

1. Threaded Type, Concrete Inserts: Galvanized malleable iron or cast steel capable of receiving 3/4" diameter machine bolts.
  2. Slotted Type, Concrete Inserts: Welded box type, fabricated with a minimum 1/8" thick galvanized pressed steel plate with slots to receive 3/4" diameter square head bolts, and knockout cover.
  3. Expansion Shield, Masonry Anchorage: FS FF-2-325.
  4. Toggle Bolts: FS FF-B-588, type, class and style as required.
- S. Fasteners:
1. Provide zinc-coated fasteners for exterior use or where built into exterior walls. Select fasteners for the type, grade and class required.
  2. Bolts, Nuts and Washers at Interior Locations: ASTM A 307, Grade A, regular hexagon head.
  3. Bolts, Nuts and Washers at Exterior Locations: ASTM A 307, galvanized per ASTM A 153.
  4. Bolts, Round Head: ANSI B18.5.
  5. Lag Bolts: Square head type, FS FF-B-561.
  6. Plain Washers: Round, carbon steel, FS FF-W-92.
  7. Lock Washers: Helical spring type, carbon steel, FS FF-W-84.
  8. Masonry Anchorage Devices: Expansion shields, FS FF-S-325.
  9. Toggle Bolts: Tumble-wing type, FS FF-B-588, type, class and style as required.
  10. Machine Screws: Cadmium plated steel, FS FF-S-92.
  11. Wood Screws: Flat head carbon steel, FS FF-S-111.

T. Primers:

1. Primer for Field Painting: Provide one of the following:
  - a. No. 99 Red Primer by Tnemec Co.
  - b. Ceco No. 15 Primox by Chessman-Elliott Company.
  - c. No. 7-C-19 by Rowe Products, Inc.
2. Touch-Up Primer for Galvanized Surfaces: High zinc dust content paint for re-galvanizing welds in galvanized steel, complying with SSPC-Paint-20 and ASTM A 780.
3. Section 01600 - Product Requirements: Product options and substitutions: Substitutions: Permitted.

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- U. Concrete Fill:
1. Concrete Materials and Properties: Comply with the requirements of Division 3 Sections for normal weight, ready-mix concrete with minimum 28-day compressive strength of 4,000 psi, 440 pounds cement per cubic yard, minimum, and a W/C ratio of 0.65, maximum, unless higher strength is indicated.
  2. Non-Slip Aggregate Finish: Factory-graded, packaged material containing fused aluminum oxide grits or crushed emery as abrasive aggregate; rust-proof and non-glazing; unaffected by moisture and cleaning materials.
- 2.2 ROUGH HARDWARE
- A. Furnish bent or otherwise custom fabricated bolts, plates, anchors, hangers, dowels and other miscellaneous steel and iron shapes as required for framing and supporting woodwork, and for anchoring or securing woodwork to concrete or other structures. Straight bolts and other stock rough hardware items are specified in Sections of Division 6.
  - B. Fabricate items to the sizes, shapes, and dimensions required. Furnish malleable-iron washers for heads and nuts which bear on wood structural connections; elsewhere, furnish steel washers.
- 2.3 MISCELLANEOUS FRAMING AND SUPPORTS
- A. General: Provide steel framing and supports for the applications indicated, or which are not a part of the structural steel framework, as required to complete the work.
  - B. Fabricate miscellaneous units to the sizes, shapes, and profiles indicated or, if not indicated, of the required dimensions to receive adjacent other construction retained by framing and supports. Except as otherwise indicated, fabricate from structural steel shapes, plates, and steel bars, of welded construction using mitered joints for field connections. Cut, drill, and tap units to receive hardware, hangers, and similar items.
1. Equip units with integrally welded anchors for casting into concrete or building into masonry.
  2. Furnish inserts if units must be installed after concrete has been placed.
  3. Except as otherwise indicated, space anchors and inserts 16" o.c., and provide the minimum number of anchor units in the form of steel straps 1-1/4" wide x 8" long.
- 2.4 LOOSE BEARING AND LEVELING PLATES
- A. Provide loose bearing and leveling plates for steel items bearing on concrete or masonry construction, made flat, free from warp and twist, and of the required thickness and bearing area. Drill plates to receive anchor bolts and for grouting, as required. Galvanize after fabrication.
- 2.5 MISCELLANEOUS STEEL TRIM
- A. Provide shapes and sizes indicated for the profiles shown. Unless otherwise indicated, fabricate units from structural steel shapes, plates, and steel bars, with continuously welded joints and smooth exposed edges. Use concealed field splices wherever possible. Provide cutouts, fittings, and anchorages as required for the coordination of assembly and installation with other work.

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- B. Hot-dip galvanize miscellaneous framing and supports in exterior locations and where indicated.
- 2.6 SHELF AND RELIEVING ANGLES
- A. Provide structural steel shelf and relieving angles of the sizes indicated for attachment to concrete framing. Provide slotted holes to receive 3/4" bolts, spaced not more than 6" from the ends and at not more than 24" o.c., unless otherwise indicated.
  - B. Hot-dip galvanize shelf angles to be installed on exterior concrete framing.
  - C. Furnish wedge-type concrete inserts, complete with fasteners, for attachment of shelf and angles to cast-in-place concrete.

2.7 STEEL LADDERS

- A. Comply with OSHA, and the requirements of other agencies having jurisdiction.
- B. Fabricate ladders for the locations shown, with dimensions, spacings, details and anchorages as indicated.
- C. Wall Ladders: All steps / rungs shall be non-slip serrated treads or by coating of the rungs with aluminum oxide granules set in epoxy resin adhesive, or by using a manufactured rung filled with aluminum oxide grout. Hot-dip galvanize all ladders, brackets, and fasteners. Adhesive-applied coating strips are not acceptable.
  1. Siderails: Continuous steel flat bars, with eased edges, 1/2" x 2-1/2", 18" apart.
  2. Bar Rungs: Round steel bars, 3/4" diameter, spaced 12" o.c., unless otherwise noted.
  3. Fit rungs at the centerline of side rails, plug weld and grind smooth on the outer rail faces.
  4. Support ladders at the top and bottom, and at intermediate points spaced not more than 5'-0" o.c. by means of welded or bolted steel brackets.
  5. Size brackets to support the design dead and live loads required, and to hold the centerline of the ladder rungs clear of the wall surface by not less than 7".
- D. Provide safety post in accordance with Section 07724 - Roof Hatch.

2.8 ALUMINUM LADDERS

- A. Wall Ladders: Aluminum, all welded; standard duty channel or tube shape rails; rungs 24" wide, spaced at 12" o.c., deep serrated aluminum, carry 1,000 pounds load without deformation or failure; aluminum pipe handrails not less than 1-1/2" in diameter with end caps; mill finish; standard wall mounting brackets., OSHA / ANSI A14.3 compliant. Model 500 as manufactured by O'Keefe's Inc. or approved equal.
- B. Ship Ladder: Aluminum, all welded; standard duty channel or tube shape rails; rungs 24" wide, spaced at 12" o.c., deep serrated aluminum, carry 1,000 pounds load without deformation or failure; aluminum pipe handrails not less than 1-1/2" in diameter with end caps; mill finish; standard wall mounting brackets; incline as shown on the Drawings. OSHA / ANSI A14.3 compliant. Model 520 as manufactured by O'Keefe's Inc. or approved equal.

2.9 PIPE BOLLARDS

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- blemishes including pitting, seam marks, roller marks, roller trade names and roughness. Remove blemishes by grinding or by welding and grinding prior to cleaning, treating and the application of surface finishes, including zinc coating.
- D. Workmanship: Use materials of the size and thickness indicated or, if not indicated, as required to produce the strength and durability in the finished products for the intended use. Work to the dimensions indicated or accepted on the Shop Drawings, using proven details of fabrication and support. Use the type of materials indicated or specified.
- E. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges. Fabricate items with joints tightly fitted and secured. Make exposed joints butt tight, flush and hairline. Ease exposed edges to a radius of approximately 1/32", unless otherwise indicated. Form bent-metal corners to the smallest radius possible, without causing grain separation or otherwise impairing the work.
- F. Conceal welds where possible. Weld corners and seams continuously, complying with AWS and the Building Code. At exposed connections, grind the exposed welds smooth and flush to match and blend with the adjoining surfaces.
- G. Form exposed connections with hairline joints, flush and smooth using concealed fasteners wherever possible. Use exposed fasteners of the type indicated or, if not indicated, Phillips flat-head (countersunk) screws, or bolts.
- H. Exposed Mechanical Fastenings: Flush countersunk screws and bolts, unobtrusively located, except where specifically noted otherwise; consistent with the design.
- I. Provide anchorage of the type indicated, coordinated with the supporting structure. Fabricate and space anchoring devices to provide adequate support for the intended use. Fabricate anchorage and related components of the same material and finish as the metal fabrication, unless indicated otherwise.
- J. Cut, reinforce, drill and tap miscellaneous metal work, as indicated, to receive the finish hardware and similar items.
- K. Fabricate joints which will be exposed to weather in a manner to exclude water, or provide weep holes where water may accumulate.
- L. Galvanizing: For items indicated to be galvanized, apply zinc-coating by the hot-dip process in compliance with the following requirements:
1. ASTM A 153 / A 153M for galvanizing iron and steel hardware.
  2. ASTM A 123 / A 123M for galvanizing both fabricated and un-fabricated iron and steel products made of un-coated rolled, pressed, and forged shapes, plates, bars, and strip 0.0299" thick and heavier.
  3. ASTM A 123 / A 123M for galvanizing assembled steel products.
- 2.13 FINISHES, GENERAL
- A. Comply with NAAMM, Metal Finishes Manual for Architectural and Metal Products, for recommendations relative to the application and designation of finishes.
- B. Finish metal fabrications after assembly.
- 2.14 SHOP PAINTING AND PROTECTIVE COATING
- METAL FABRICATIONS 05500-11
- A. Fabricate pipe bollards from Schedule 80 galvanized steel pipe.
- B. Fabricate sleeves for bollard anchorage from galvanized steel pipe with 1/4" thick steel plate welded to the bottom of the sleeve.
- 2.10 METAL BAR GRATINGS
- A. Provide close mesh bar gratings using bars of the type, material, sizes, spacing and construction indicated, or if not indicated, to support the truck loadings indicated. Comply with the Standard Specifications for Metal Bar Grating and Metal Bar Grating Treads® portion of the NAAMM, Metal Bar Grating Manual®.
- B. Material: Steel.
- C. Type Grating: Welded.
- D. Bearing Bars: Size and shape as required by the anticipated loading.
- E. Cross Bars: Rectangular. Provide true alignment and equal spacing of the cross bars by notching the bearing bars prior to welding. Do not notch the bearing bars at supports to maintain elevation.
- F. Traffic Surface: Plain.
- G. Edge Band openings in the grating which interrupt four or more bearing bars with bars of the same size and material as the bearing bars.
- H. Steel Finish: Hot-dip galvanized with a coating of not less than 1.5 oz. per square foot of coated surface.
- 2.11 METAL STAIR NOSINGS
- A. Material: Cast aluminum with hatched aluminum abrasive surface, 1/4" nosing lip x 3" minimum depth, embedded; one piece the full width of stair treads and landings.
- B. Manufacturers:
1. DSA3 by American Safety Technologies.
  2. Style 3511 by American Safety Tread Co.
  3. Type 231 by Wooster Products Inc.
  4. Section 01600 - Product Requirements: Product options and substitutions: Substitutions: Permitted.
- 2.12 FABRICATION
- A. Fabricate steel items according to the approved Shop Drawings and to the applicable portions of ANSC Specifications.
- B. Pre-assemble products in the shop to the greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assemble and installation.
- C. For fabrications exposed to view, use materials which are smooth and free of surface
- METAL FABRICATIONS 05500-10

- A. Conform to SSPC-PA 1, including preparation for painting.
  - B. Apply shop primer to un-coated surfaces of metal fabrications, except those with a galvanized finish or to be embedded in concrete, masonry, or sprayed-on fireproofing, unless otherwise indicated. Comply with the requirements of SSPC-PA 1, A Paint Application Standards, Guides and Specifications No. 1\*, for shop painting.
  - C. Preparation for Shop Priming: Prepare un-coated ferrous metal surfaces to comply with the minimum requirements indicated below for SSPC surface preparation specifications and the environmental exposure conditions of the installed metal fabrications:
    - 1. Interiors (SSPC Zone 1A): SSPC-VIS 3.
    - 2. Exteriors (SSPC Zone 1B): SSPC-SP 6.
  - D. Shop primer for Ferrous Metal: Fast-curing, lead-free, abrasion-resistant, rust-inhibitive primer selected for compatibility with the substrates and with the types of alkyd-type paint systems indicated, and for compatibility to provide a sound foundation for field-applied topcoats, despite prolonged exposure; complying with the performance requirements of FS TT-P-86, Types I, II and III.
  - E. Hot-Dip galvanizing and zinc coatings applied on products fabricated from rolled, pressed, and forged steel shapes, plates, bars and strips shall comply with ASTM A 123 / A 123M. Galvanized surfaces, for which a shop coat of paint is specified, shall be chemically treated to provide a bond for the paint. Except for bolts and nuts, all galvanizing shall be done after fabrication.
  - F. Clean surfaces of rust, scale, grease and foreign matter in accordance with SSPC-SP 1 Solvent Cleaning, prior to finishing. Prepare surfaces for painting in accordance with SSPC-SP 2, SSPC-VIS 3 or SSPC-SP 7.
  - G. Do not prime surfaces that will be in direct contact with concrete, or where field welding is required.
  - H. Prime paint items scheduled, with one coat.
- PART 3 EXECUTION
- 3.1 EXAMINATION
- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
  - B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.
  - C. Report in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.
- 3.2 PREPARATION
- A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for the installation of anchorages, such as concrete inserts, sleeves, anchor bolts, and miscellaneous items having integral anchors to be embedded in concrete or masonry.

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- B. Coordinate the delivery of such items to the Project Site.
- 3.3 INSTALLATION
- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners, where necessary, for securing miscellaneous metal fabrications to in-place construction, including threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws, and other connectors, as required.
  - B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for the installation of miscellaneous metal fabrications. Set fabrications accurately in location, alignment, and elevation with edges and surfaces level, plumb, true, and free of rack; measured from established lines and levels.
  - C. Setting Loose Plates: Clean concrete or masonry bearing surfaces of any bond-reducing materials, and roughen to improve bond to the surfaces. Clean the bottom surface of bearing plates.
  - D. Set loose leveling and bearing plates on wedges, or other adjustable devices. After the bearing members have been positioned an plumbed, tighten the anchor bolts. Do not remove the wedges or shims, but if protruding, cut-off flush with the edge of the bearing plate before packing with grout. Use metallic non-shrink grout in concealed locations where not exposed to moisture; use non-metallic, non-shrink grout in exposed locations, unless otherwise indicated. Pack grout solidly between bearing surfaces and plates to ensure that no voids remain.
  - E. Provide temporary bracing or anchors in the formwork for items to be built into concrete, masonry or similar construction.
  - F. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed joints smooth and touch-up shop paint coat. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.
  - G. Bollards:
    - 1. Anchor bollards in concrete by means of pipe sleeves preset and anchored into a concrete footing. After bollards have been inserted into sleeves, fill the annular space between the bollard and the sleeve solid with non-shrink, non-metallic grout, mixed and placed to comply with the grout manufacturer's directions.
    - 2. Fill bollards with concrete and round off the top.
- H. Metal Bar Gratings:
- 1. Comply with the recommendations of NAAMM, Metal Bar Gratings Manual® for the installation of gratings, including installation clearances and standard anchoring details.
  - 2. Secure removable units to supporting members with the type and size clips and fasteners indicated, of if not indicated, as recommended by the grating manufacturer for the type of installation conditions shown.
  - 3. Secure non-removable units to supporting members by welding where both materials are the same, otherwise fasten by bolting, as indicated.

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I. Field Welding: Comply with the AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of the welds made and methods used in correcting welding work, and the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion-resistance of the base metal.

2. Obtain fusion without undercut or overlap.

3. Remove welding flux immediately.

4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and the contour of the welded surface matches the adjacent surfaces.

J. Touch-Up For Galvanized Surfaces: Clean the welds, bolted connections and abraded areas, and apply two (2) coats of galvanizing repair paint in compliance with SSPC Paint 20 and ASTM A 780.

K. Touch-Up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting; comply with SSPC-PA 1 requirements for touch-up of field painted surfaces.

1. Apply by brush or spray and provide a minimum dry film thickness of 2.0 mils.

### 3.4. ISOLATION REQUIREMENTS

A. Dissimilar Metals:

1. Where metal surfaces are in contact with, or fastened to dissimilar metals except stainless steel, zinc or zinc coating, the metal shall be protected from the dissimilar metal.

2. Where drainage from a dissimilar metal passes over the metal, paint the dissimilar metal with a non-lead pigmented paint.

B. Cementitious Materials: Paint metal where in contact with mortar, concrete, masonry or other cementitious material, with an alkali-resistant coating such as heavy-bodied bituminous paint or epoxy paint.

C. Wood Contact: Isolate metal from cedar, redwood, oak and acid-treated lumber by means of unbroken 6-mil polyethylene construction sheet or a heavy coating of metal-protective paint.

D. Surfaces in contact with sealants after installation need not be coated with any type of protective material.

### 3.5 FIELD QUALITY CONTROL

A. Section 01450 - Quality Control: Field inspection.

B. Inspect fabrications and installations for alignment, attachment to the structure, and secure and rigid installation.

### 3.6 ADJUSTING AND CLEANING

A. Section 01700 - Execution Requirements: Adjusting the installed work.

METAL FABRICATIONS

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METAL FABRICATIONS

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END OF SECTION

SECTION 07110  
WATERPROOFING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Below grade walls waterproofing.
2. Existing below grade walls affected by new construction waterproofing.
3. Planters waterproofing.
4. Concrete parking and traffic decks waterproofing.
5. Horizontal roof slabs supporting earth waterproofing.
6. Split concrete slabs waterproofing.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 03300 - Cast-In-Place Concrete: Substrate for waterproofing.
2. Section 04230 - Reinforced Unit Masonry: Substrate for waterproofing.
3. Section 04400 - Natural Stone: Dampproofing under natural stone.
4. Section 07190 - Water Repellents (Sealer): Water repellents and slurry coat dampproofing.
5. Section 09300 - Tile: Dampproofing under ceramic and quarry tile flooring.

1.2 DESCRIPTION OF WORK

A. The extent of each type of waterproofing is indicated on the Drawings and as specified herein, and includes providing and installing all waterproofing materials. Similar work used as an exposed finish is excluded by definition and, if required, is specified as roofing, flooring, special coating or other appropriate category.

1.3 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
  1. ASTM C 642 - Test Method for Water Absorption.
  2. ASTM D 56 - Test Method for Flash Point by Closed Cup Tester.

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3. ASTM D 3960 - Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.

4. ASTM E 514 - Test Method for Water Penetration and Leakage Through Masonry.

C. U. S. Environmental Protection Agency (EPA):

1. Method 24 - Determination of Volatile Matter Content.

1.4 SUBMITTALS

A. Section 01330 - Submittals: Procedures for submittals.

1. Product Data: Submit manufacturer's specifications, recommendations for water repellents for each surface specified, performance data, surface preparation and application instructions, precautions for materials which can contaminate the system, limitations to coating, protection and cleaning instructions and VOC content. Include recommendations for sealing penetrations, cracks and control, construction and expansion joints. Submit color charts for products required to be integrally colored.

2. Shop Drawings: Indicate details critical to water tightness of the membrane, including, but not necessarily limited to, membrane transitions / terminations at perimeters, drains, sleeves and other penetrating elements.

3. Samples: For each type of waterproofing system, submit a 8-1/2" x 11" board sample of each complete system. Where the membrane is a layered system, expose at least 1" of each succeeding layer. Top coats to be provided with Project required colors as selected.

4. Assurance / Control Submittals:

- a. Manufacturer's certificate that the products meet or exceed the specified requirements.
- b. Manufacturer's Material Safety Data Sheets (MSDS).
- c. Manufacturer's certification that the products supplied comply with applicable federal and local regulations controlling the use of volatile organic compounds (VOC).
- d. Manufacturer's instructions indicating procedures and conditions requiring special attention, and cautionary procedures required during application.
- e. Documentation of experience indicating compliance with the specified qualifications requirements.

C. Section 01780 - Closeout Submittals: Procedures for closeout submittals.

1. Warranty: Submit a written special Warranty with forms completed in the name of the Owner and registered with the manufacturer.

1.5 QUALITY ASSURANCE

A. Qualifications:

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- indicate the date, time of day, length of each visit, weather condition during the visit, condition of the substrate at the time of application, application procedures, and other important aspects that affect success of the application. Submit Reports within seven (7) days after each Site visit.
- F. Performance Requirements: It is required that the waterproofing membrane be watertight, and not deteriorate in excess of the limits published by the membrane manufacturer.
- 1.6 COORDINATION
- A. Pre-Application Conference: Prior to start of the application of materials, meet at the Project Site with the Owner's representative, Architect, Contractor, Applicator and subcontractors whose work penetrates the surfaces to be waterproofed. Review the conditions, methods and procedures necessary for application of the work, including inspections of the areas of work, requirements of the Specifications and the manufacturer's literature; review submittals and schedules.
- B. Tolerances / Finish of Substrates: Coordinate with other trades providing substrates over which the waterproofing is scheduled for the required tolerances, conditions and finish of the substrates necessary to ensure successful application of the work of this Section. Coordinate in a timely manner so other trades can implement their requirements in accordance with the Job Schedule. Submit documentation of the coordination, including the date of the coordination, with whom coordinated, and the requirements specified.
- C. Control Joints: Control joints are indicated on the Drawings. Where additional or other configuration for control joints is required in substrates other than what is currently required to ensure success of each membrane application, submit the requirements to the Owner's representative for review, and arrange with the substrate installer for installation of such control joints.
- 1.7 DELIVERY, STORAGE AND HANDLING
- A. Section 01600 - Product Requirements. Transport, handle, store, and protect the products.
- B. Deliver products to the Project Site in the manufacturer's original, new and unopened packages or containers with seals and labels intact; dry and undamaged, bearing the product name, color, manufacturer's lot number, directions for use and precautionary labels.
- C. Store materials not in actual use, in tightly covered containers. Maintain containers used in the storage of materials, in a clean condition, free of foreign materials and residue.
- D. Store materials in a well ventilated area, and in compliance with the manufacturer's published instructions.
- E. Store and handle materials to prevent deterioration and damage due to moisture, temperature changes, contaminants, and other causes.
- F. Protect against fire hazards and spontaneous combustion.
- G. Keep storage areas neat and orderly. Remove waste daily.
- H. Take all precautions to ensure that workmen and the work areas are adequately protected from health hazards resulting from handling, mixing and application of the materials.
- 1.8 JOB CONDITIONS

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1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience, and has a record of successful in-service performance.
2. Applicator: Company experienced in applying the types of waterproofing required for this Project for not less than five (5) years, and is acceptable to the primary waterproofing materials manufacturer. Employees assigned to the Project shall have been trained by an approved waterproofing materials manufacturer.
- B. Mockup: Apply water repellent to a mockup, either partial or full coverage, as directed, before proceeding with the application. Comply with the application requirements contained herein.
- C. Regulatory Requirements: Comply with applicable rules and regulations of the pollution-control regulatory agency having jurisdiction regarding volatile organic compounds (VOC) and use of hydrocarbon solvents.
- D. General: Obtain the primary materials from a single manufacturer. Provide secondary materials only as recommended by the manufacturer of the primary materials.
- E. Manufacturer's Technical Representative:
- The primary waterproofing materials manufacturer to make a Technical Representative available to monitor the on-going work to ensure proper application of the waterproofing system. The manufacturer must maintain the same Technical Representative for the duration of the Project.
  - Pre-Application Review: Prior to the start of work and the purchase of any materials, the Manufacturer's Technical Representative, who is to certify each application, shall visit the Project Site, review existing conditions, and review the Contract Document for appropriateness of the requirements with the specified manufacturer's system including, but not necessarily limited to membrane requirements, substrate preparation, membrane terminations, reinforcements, flashing conditions, penetrations, including multiple penetration requirements, joints required and treatment and protection of the membrane.
  - Certification: After the Manufacturer's Technical Representative's review, submit written certification of the appropriateness of the requirements, or submit other or additional specific recommendations, if any, to assure that the specified system is appropriate for the use intended and complete in scope to assure its intended performance. This should be coordinated with the Shop Drawing Submittal.
  - Substrate Certification: Submit the Technical Representative's written certification of compliance that the prepared substrate is in conformance with requirements necessary for the system installation. Certification of the substrate is to be accomplished just prior to the start of application of the membrane system.
  - Technical Representative's Field Review of Work:
    - Number of Site Visits: Submit the manufacturer's recommended minimum number of times the Technical Representative is to field review the work to ensure success of the installation. Indicate when such visits are to be made.
    - Field Reports: For each visit, the Technical Representative shall submit a detailed Field Report assessing each application. Field Reports to

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- A. Proceed with the waterproofing work only after the substrate construction and penetrating work has been completed.
  - B. Environmental Requirements: Do not apply products under any of the following conditions, except with the written recommendation of the manufacturer:
    1. Substrate surfaces cured less than thirty (30) days.
    2. Surfaces not dry for a minimum of 24 hours.
    3. Rain predicted within 24 hours.
- 1.9 WARRANTY
- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
  - B. Special Warranty:
    1. Provide a joint and severable written Warranty signed by the waterproofing materials manufacturer, Contractor and the Applicator, agreeing to repair or replace defective materials and workmanship, defined to include leakage of water, ruptures caused by cracking substrate up to 1/16", abnormal aging or deterioration of materials, and other failures of membranes to perform as required within the warranty period. Warranty shall include responsibility for removal and replacement of other work which conceals the waterproofing membrane.
    2. During the warranty period, repairs and replacements required because of acts of God and other events beyond the Contractor's / Applicator's control, and which exceed the performance requirements, shall be completed by the Contractor / Applicator and paid for by the Owner at the prevailing rates.
    3. Warranty Period: Five (5) years from the date of Substantial Completion of the waterproofing work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the Project requirements, manufacturers offering products which may be incorporated into the work include the following:
  1. Urethane Polymers International (UPI).
  2. Carlisle Coatings and Waterproofing, Inc. (CCW).
- B. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

2.2 SYSTEM

- A. The following specifications are based on Urethane Polymers International products to establish quality.
- B. Other acceptable manufacturer's systems shall be equivalent.

2.3 WATERPROOFING MATERIALS

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- A. WP-1 (for vertical and horizontal surfaces below grade, masonry backer walls and inside planters): Single component, fluid-applied, modified elastomeric waterproof membrane, UPI System BG-7011-90 Mill by Urethane Polymers or approved equal, 90 mils thickness for walls and vertical surfaces.
- B. WP-2 (for horizontal roof slabs supporting earth or paving and split slab construction): UPI System BG-7011-R-90 Mill or approved equal.
- C. WP-3 (for exposed concrete parking and vehicular traffic decks): Single component, moisture-curing, polyurethane elastomeric membrane UPI Uradek System #70-S for parking stalls; Uradek System #70-H or approved equal for entrances, ramps and drives.
- D. Caulking Compound: Single component, polyurethane as recommended by the primary waterproofing materials manufacturer.
- E. Aggregate: As recommended by the manufacturer and approved by the Owner's representative.
- F. Other materials as recommended by the manufacturer of the prime materials.

2.4 PROTECTION / DRAINAGE BOARD

- A. Composite structure of a molded, three-dimensional, high impact-resistant polymeric sheet with a filler fabric bonded to the open side. ACCW MiradRAIN 6000" as manufactured by Carlisle Coatings or approved equal.

1. Attach panels to the substrate with an adhesive recommended by the manufacturer.

2.5 MISCELLANEOUS MATERIALS

- A. Parge Coat: Where the manufacturer requires a portland cement parge coat over rough or porous substrates, the Contractor shall provide such parge coat as required at no additional cost. Failure of the parge coat or the absence of a parge coat will be considered as failure of the membrane system to perform as the parge coat is a required condition for the membrane's success over substrates requiring a parge coat.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.
  1. Verify that joint sealants are installed and cured.
  2. Verify that surfaces to be coated are dry, clean, and free of efflorescence, oil, and other matter detrimental to application of the coating.
- C. Report, in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

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3.2	PREPARATION	b. Cracks: Encapsulated reinforcement of a width necessary to extend the material 6", minimum, on each side of the crack.
3.3	INSTALLATION	
3.4	APPLICATION	
3.5	MEMBRANE TESTING	
3.6	PROTECTION	
3.7	WATERPROOFING	
3.8	WATERPROOFING	

- A. Clean substrate surfaces of projections and substances detrimental to the work, acid etch smooth surfaces, fill all voids to comply with recommendations of the prime materials manufacturer. Stripe coat all cracks up to 1/16" wide, rout and patch cracks larger than 1/16".
- B. Moisture Content Testing: Just prior to application, test substrates with an electronic moisture meter. Do not proceed until the moisture content is within the manufacturer's acceptable tolerances.
- C. Protection of Other Work: Do not allow liquid or mastic compounds to enter and clog drains, sleeves or conductors. Prevent spillage and migration onto other surfaces of the work by masking or otherwise protecting the adjoining work.

- A. General: Comply with the manufacturer's instructions, except where more stringent requirements are shown or specified, and except where Project conditions require extra precautions or provisions to ensure satisfactory performance of the work.
- B. Thickness Testing: Monitor mil thickness application by a monitoring method recommended by the Manufacturer's Technical Representative for each specific system.
- C. Reinforcement: Unless otherwise acceptable, or as otherwise recommended, in writing, by the Manufacturer's Technical Representative, reinforcement is to be provided as follows and in the manner indicated:

- Material: Manufacturer's recommended elastomeric sheet and / or polyester fabric fully encapsulated in the primary membrane coating of a thickness equal to the total thickness required for the primary membrane, unless otherwise recommended by the manufacturer, and has been reviewed and approved on submittals.
- Transitions: At transitions from vertical to horizontal, at inside and outside corners, and at other similar transitions that are not expansion / control joints, penetrations, or cracks, embed reinforcement of a width that extends 6", minimum, onto each surface on each side of the intersection.
- Expansion / Control Joints: Embed reinforcement of a width necessary to extend the material 6", minimum, on each side of the joint, plus additional materials, as necessary, to accommodate movement of the joint. Small joints are to be bridged over backer rods placed in the joints. Reinforcement is to be looped down into the joints with backer rod placed in the loop.
- Penetrations: 36" square reinforcement, but not less than necessary to extend out in all directions from the penetration a distance of 12", minimum, beyond the flange of each penetration.
  - Pipes, Conduits, and Similar Components: Construct a form fitting elastomeric boot 6", minimum, in height and with an integral elastomeric flange extending 6", minimum, onto the wall or deck. The boot shall be fully adhered to the penetrating element and fully encapsulated at the interface with the wall or deck. Apply 36" square reinforcement material over this, fully encapsulated in the primary membrane material.

- A. WP-1: Prime coat the substrate surface at the rate of 250 - 300 sq. ft. / gallon. Apply with rollers, two or more coats (30 dry mils) at the rate of 4.5 gallons / 100 sq. ft. to produce 90 dry mils total thickness at vertical surfaces. Allow 18 hours curing time between coats.
- Attach Protection / Drainage Boards to all vertical and horizontal surfaces with adhesive per the manufacturer's recommendations. Set panels with the fabric toward the earth side. Lap fabric a minimum of 2". Install at below grade walls and retaining walls. Lap fabric at the top of the highest course and embed in waterproofing to ensure that loose material cannot enter and accumulate behind the protection / drainage board. Backfill against boards with approved material.
- B. WP-2: Apply a surface conditioner to concrete substrates in accordance with the manufacturer's instructions. Apply membrane in three (3) applications at a rate to provide a continuous monolithic coating of 30 dry mils, average thickness per coat, and 90 mils total thickness. Provide flashing in accordance with the manufacturer's standard details. Where protection board is required, embed into the membrane to ensure good bond. Place protection boards in a staggered pattern and butt boards tightly together.
- C. WP-3: Prime and apply a 30 mil thick coating to cover and overlap shrinkage cracks, integral flashings, caulked expansion joints and construction joints. Apply a 25 mil base coat, 25 mil intermediate coat, and two (2) 10 mil top coats to produce 70 mils total thickness, exclusive of aggregate. Broadcast aggregate in the first top coat.

- A. Water Test: Conduct water containment tests to ensure that the membranes are watertight.
- B. Horizontal Membranes: For installations where the primary membrane is horizontal, contain waterproofed areas in a manner to prevent 2", minimum, depth of water from escaping by damming any open perimeters and sealing the drains.
- C. Pan Membranes: For installations where the primary membrane forms a continuous container with the bottom and all vertical sides enclosed, such as planters, seal the drains and fill the container to within 1" of the top termination of the membrane.
- D. Method of Containment: Dams, seals, and other methods used to contain water should be capable of fully containing water for the period of time required. The method of containment should not damage the adjacent work.
- E. Period of Containment: 48 hours without loss of water, except for that by natural evaporation, and without evidence of failure in the membrane in any manner.
- F. Report: Submit a report of tests to the Owner's representative indicating the location of the test, date and time of the test, weather conditions and results.

- A. Contractor's Operations: The Contractor to verify the kinds of operations that will be conducted around or over installed membranes. The Owner's representative will advise the Contractor of the measures that must be implemented to ensure that the membranes will be without damage at the time of Substantial Completion.

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- B. Buried Installations: At the time of backfill / fill, at the time of installation of irrigation and landscaping over buried membranes, and at any other time where the Contractor's operations may have an adverse effect on a buried membrane system, the Manufacturer's Technical Representative shall observe to ensure that the Contractor's operations are being conducted in a manner that will protect the membranes from damage.

3.7 FIELD QUALITY CONTROL

- A. Section 01450 - Quality Control: Field inspection.
  - B. Inspect installations for tight and waterproof joints and proper thickness of membrane applications.
- 3.8 CLEANING
- A. Section 01700 - Execution Requirements: Cleaning the installed work.
  - B. Clean all spills. Do not leave splatters or drips.
  - C. Do not allow seepage of waterproofing through joints.

END OF SECTION

SECTION 07120  
FLUID-APPLIED URETHANE ROOFING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Fluid-applied, elastomeric polyurethane membrane roofing system for new and existing, exposed concrete roof slabs.
  - 2. Walking surfaces over concrete roof slabs.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.
- C. Related Sections:
  - 1. Section 03300 - Cast-In-Place Concrete: Substrate for roofing materials.

1.2 DESCRIPTION OF WORK

- A. The extent of fluid-applied waterproofing over new and existing concrete roof slabs, including walking surfaces is indicated on the Drawings and as specified herein, and includes providing and applying all the required products.

1.3 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.
  - 1. ASTM C 501 - Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser.
  - 2. ASTM C 957 - Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane With Integral Wearing Surface.
  - 3. ASTM D 412 - Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
  - 4. ASTM D 624 - Test Methods for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
  - 5. ASTM D 822 - Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.
  - 6. ASTM D 903 - Test Method for Peel or Stripping Strength of Adhesive Bonds.
  - 7. ASTM D 1004 - Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.
- B. American Society for Testing and Materials (ASTM):

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- 8. ASTM D 2240 - Test Method for Rubber Property - Durometer Hardness.
  - 9. ASTM E 96 - Test Methods for Water Vapor Transmission of Materials.
- C. National Roofing Contractors Association (NRCA):
- 1. Roofing and Waterproofing Manual.
- D. Underwriters Laboratories Inc.:
- 1. UL 790 - Test Method for Fire Test of Roof Coverings.
- E. U. S. Environmental Protection Agency (EPA):
- 1. Method 24 - Determination of Volatile Matter Content

1.4 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Procedures for submittals.
- 1. Product Data: Provide data for primer, membrane roofing, flexible flashings, joint and crack sealants and temperature range for application of the waterproofing membrane.
  - 2. Shop Drawings: Sequence drawings and details for special conditions not covered by the manufacturer's standard details.
  - 3. Samples: Not less than 6" x 6" in size showing the applied thickness, texture and color.
  - 4. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
  - 5. Assurance / Control Submittals:
    - a. Manufacturer's certificate that the products meet or exceed the specified requirements.
    - b. Manufacturer's Material Safety Data Sheets (MSDS).
    - c. Manufacturer's certification that the products supplied comply with applicable federal and local regulations controlling the use of volatile organic compounds (VOC).
    - d. Manufacturer's instructions indicating procedures and conditions requiring special attention, and cautionary procedures required during application.
    - e. Documentation of experience indicating compliance with the specified qualifications requirements.
- B. Section 01760 - Closeout Submittals: Procedures for closeout submittals.
- 1. Warranty: Submit a written special Warranty with forms completed in the name of the Owner and registered with the manufacturer.

1.5 QUALITY ASSURANCE

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- A. Qualifications:
- 1. Manufacturer: Company specializing in manufacturing aromatic and aliphatic urethane roofing systems materials with a minimum of five (5) years documented experience in high temperature, high UV and high humidity environments.
  - 2. Authorized Applicator: Company specialized in, and has successfully completed applications of the same or similar type of materials for not less than five (5) years.
    - a. Applicator shall be specifically approved as a factory-authorized Applicator, in writing, by the roofing system manufacturer.
    - b. Submit the manufacturer's written approval and certification of the Applicator.
    - c. Applicator's equipment and training shall conform to the manufacturer's standards.
    - d. As applicable, assign work closely associated with waterproofing, including, but not limited to, waterproofing accessories, flashing in connection with waterproofing, expansion joints in membranes, and insulation and protection courses in membranes, to the waterproofing Applicator for undivided responsibility.
    - e. Applicator shall conform strictly to the manufacturer's Quality Assurance Programs requirements.
- B. Source Quality Control: Obtain the primary waterproofing materials from a single manufacturer. Provide secondary materials only as recommended by the primary materials manufacturer.
- C. Manufacturer's Technical Representative:
- 1. The primary waterproofing materials manufacturer to make a Technical Representative available to monitor the on-going work to ensure proper application of the roofing system. The manufacturer must maintain the same Technical Representative for the duration of the Project.
  - 2. Pre-Application Review: Prior to the start of work and the purchase of any materials, the Manufacturer's Technical Representative, who is to certify each application, shall visit the Project Site, review existing conditions, and review the Contract Document for appropriateness of the requirements with the specified manufacturer's system including, but not necessarily limited to, the substrate and application conditions.
  - 3. Certification: After the Manufacturer's Technical Representative's review, submit written certification of the appropriateness of the requirements, or submit other or additional specific recommendations, if any, to assure that the specified system is appropriate for the use intended and complete in scope to ensure its intended performance. This should be coordinated with the Shop Drawing Submittal.
  - 4. Substrate Certification: Submit the Technical Representative's written certification of compliance that the prepared substrate is in conformance with requirements necessary for application of the system. Inspection and certification of the substrate is to be accomplished just prior to the start of application of the membrane system.

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5. Technical Representative's Field Review of Work:

- a. Number of Site Visits: Submit the manufacturer's recommended minimum number of times the Technical Representative is to field review the work to ensure success of the application. Indicate the stages of work when such visits are to be made.
- b. Field Reports: For each visit, the Technical Representative shall submit a detailed Field Report assessing each application. Field Reports to indicate the date, time of day, length of each visit, weather conditions during the visit, condition of the substrate at the time of application, application procedures, and other important aspects that affect success of the application. Submit Reports within seven (7) days after each Site visit.
- D. Regulatory Requirements: Comply with the applicable rules and regulations of the EPA and the local pollution control regulatory agency having jurisdiction regarding volatile organic compounds (VOC) and the use of hydrocarbon solvents.
- E. Performance Requirements: It is required that the fluid-applied waterproofing membrane be watertight, and not deteriorate in excess of the limits published by the membrane manufacturer.
- F. Caution: Do not apply fluid-applied waterproofing membrane to on-grade slabs, split slabs with buried membrane or on slabs over unvented metal pans without prior approval of the roofing membrane manufacturer.

1.6 COORDINATION

- A. Pre-Application Conference: Prior to start of the application of materials, meet at the Project Site with the Owner's representative, Architect, Contractor, Applicator and subcontractors whose work penetrates the surfaces to be roofed. Review the conditions, methods and procedures necessary for application of the work, including inspection of the areas of work, requirements of the Specifications and the manufacturer's literature; review submittals and schedules.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Section 01600 - Product Requirements: Transport, handle, store, and protect the products.
- B. Deliver products to the Project Site in the manufacturer's original, new and unopened packages and containers with seals and labels intact; dry and undamaged, bearing the product name, color, manufacturer's lot number, directions for use and precautionary labels.
- C. Store materials not in actual use, in tightly covered containers. Maintain containers used in the storage of materials, in a clean condition, free of foreign materials and residue.
- D. Store materials in a well ventilated area, and in compliance with the manufacturer's written instructions.
- E. Keep storage areas neat and orderly. Remove waste daily.
- F. Protect against fire hazards and spontaneous combustion.
- G. Take all precautions to ensure that workmen and the work areas are adequately protected from health hazards resulting from handling, mixing and application of the materials.

1.8 JOB CONDITIONS

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- A. Proceed with the work only after the substrate construction and penetrating work has been completed.
- B. Proceed with the work only when existing and forecasted weather conditions will permit work to be performed in accordance with the manufacturer's recommendations. Do not apply products under the following conditions:
  - 1. Substrate surfaces have cured less than thirty (30) days.
  - 2. Rain is predicted within 24 hours.
  - 3. Surfaces have not been dry for a minimum of 24 hours.
- C. Provide adequate ventilation to prevent the accumulation of hazardous fumes during the application of solvent-based components in enclosed spaces; maintain ventilation until the coatings have thoroughly cured.
- D. Warn personnel against breathing vapors and contact of materials with the skin and eyes.
- E. Ensure that workmen wear the appropriate approved respiratory gear and protective clothing.
- F. Ensure that all gas flames and electrical apparatus are shut down during the coating application and curing.

1.9 SAFETY / COORDINATION

- A. All application, material handling and associated equipment shall conform to, and be operated in conformance with OSHA safety requirements.
- B. Manufacturer's Material Safety Data Sheets (MSDS) shall be read, understood and the instructions adhered to.
- C. A sufficient number of filled and operating fire extinguishers meeting current standards must be on the roof deck at all times during application of the roofing materials.

1.10 WARRANTY

- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
- B. Special Warranty:
  - 1. Provide a written joint and severable Warranty signed by the roofing materials manufacturer, Contractor and Applicator, agreeing to repair or replace defective materials and workmanship, defined to include leakage of water, ruptures caused by cracking substrate up to 1/16", abnormal aging or deterioration of materials, and other failures of the membrane to perform as required within the warranty period. Warranty shall include responsibility for removal and replacement of other work which conceals the membrane waterproofing.
  - 2. During the warranty period, repairs and replacements required because of acts of God and other events beyond the Contractor's / Applicator's control, and those which exceed the performance requirements, shall be completed by the Contractor / Applicator and paid for by the Owner at the prevailing rates.
  - 3. Warranty Period: Five (5) years from the date of Substantial Completion of the

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roofing work.

Adhesion to Base Coat 30 pli ASTM D 903

D. Top Coat: UI-7016-HS, single-component, high tensile strength, abrasion-resistant, weather-resistant, aliphatic polyurethane. Meet or exceed the following typical performance properties:

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the Project requirements, manufacturers offering products which may be incorporated into the work include the following:
  - 1. Urethane Polymers International, Inc.
  - 2. Carlisle Coatings & Waterproofing.
- B. Section 01600 - Product Requirements: Product Options: Substitutions not permitted.

2.2 SYSTEM

- A. The following specifications are based on Urethane Polymers International, ΔM-C-Thane 4556 - 60 Mil® system to establish quality.
- B. Other acceptable manufacturer's systems shall be equivalent.

2.3 ELASTOMERIC ROOFING MATERIALS

- A. Primer: UI-7012 water-based, or UI-7112 solvent-based, Epoxy-Polyamide, low viscosity, two-component primer / sealer, as recommended by the membrane manufacturer.
- B. Base Membrane: UI-7013 single-component, high-adhesion, moisture-cured, polyurethane membrane. Meet or exceed the following typical properties:

Property	Typical Value	Test Method
Composition	Aromatic Urethane	
Weight Solids	86 +/- 2%	
VOC Content	Less than 200 gm / l	
Hardness, Shore A	65 +/- 5	ASTM D 2240
Tensile Strength	900 +/- 100 psi	ASTM D 412
Ultimate Elongation	650 +/- 100%	ASTM D 412
Tear Resistance	150 +/- 25 lbs / in.	ASTM D 1004
Weather Resistance	Slight checking@ 500 hours	ASTM D 822
Adhesion to Concrete	30 pli	ASTM D 903

- C. Elastomeric Membrane: UI-7013-HT, single component high tensile strength, moisture-cured, liquid elastomeric polyurethane. Meet or exceed the following typical properties:

Property	Typical Value	Test Method
Composition	Aromatic Urethane	
Weight Solids	81 +/- 2%	
VOC Content	Less than 250 gm / l	
Hardness, Shore A	80 +/- 5	ASTM D 2240
Tensile Strength	2500 +/- 250 psi	ASTM D 412
Ultimate Elongation	450 +/- 50%	ASTM D 412
Tear Resistance	250 +/- 50 lbs / in.	ASTM D 1004
Weather Resistance	Slight chalk @ 1,000 hrs.	ASTM D 822

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Property	Typical Value	Test Method
Composition	Aliphatic, Saturated Polyester Urethane	
Weight Solids	75 +/- 2%	
VOC Content	Less than 250 gm / l	
Hardness, Shore A	90 +/- 5	ASTM D 2240
Tensile Strength	3500 +/- 300 psi	ASTM D 412
Ultimate Elongation	250 +/- 50%	ASTM D 412
Tear Resistance	300 +/- 50 lbs / in.	ASTM D 1004
Water Permeability	Less than 0.1 Perm	ASTM E 96 / E 96M
Weather Resistance	No chalking @ 2000 hrs.	ASTM D 822
Abrasion Resistance	Negligible change, CS-17 wheels, 1000 cycles, 1,000 gm. load	ASTM C 501
Color	White, or as selected	

2.4 ACCESSORIES

- A. Flexible Flashing: 45-60 mils, thickness neoprene sheet or non-woven reinforcing fabric, or as recommended by the roofing materials manufacturer.
- B. Embedded Flashing / Reinforcing: Non-woven fabric as recommended by the roofing materials manufacturer.
- C. Joint and Crack Sealant: One- or two-component polyurethane compound, as recommended by the roofing membrane manufacturer.
- D. Caulking Compound: One- or two-component polyurethane compound as approved by the roofing membrane manufacturer.
- E. Aggregate: Rounded, non-angular, pre-blended 20 / 30 mesh, flint, shot silica, ground glass, Monterey sand, or equivalent washed and kiln-dried aggregate, free of foreign materials; hard and stable to atmospheric conditions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.
  - 1. Roofing Applicator, Manufacturer's Technical Representative and the Owners Representative must jointly examine the substrates and conditions under which the roofing work is to be done.
  - 2. Verify that substrate surfaces are durable, free of matter detrimental to adhesion

- and application of the roofing materials.
3. Verify that substrate surfaces are smooth, free of honeycomb and pitting, and not detrimental to full contact bond of the waterproofing materials.
  4. Verify that items which penetrate surfaces to receive the roofing are installed and secured in-place.
- C. Report, in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

### 3.2 CONDITION OF CONCRETE SURFACES

- A. Concrete surfaces shall have a steel troweled finish, free of fins, ridges, voids and air entraining holes.
- B. Cured at least 28 days or until completely dry by the water curing method. Curing compounds or chemical curing agents shall not be used without prior approval of the roofing manufacturer.
- C. Surfaces shall be sloped for proper drainage.
- D. Saw-cut control joints and / or expansion joints shall have been properly installed at strategic locations throughout the field of the deck.
- E. Required crickets and drains shall be cast monolithic with the main roof deck.
- F. Concrete decks poured over precast A.T.'s®, planks or slabs, shall have control joints placed directly over all corresponding joints and openings in the precast units.
- G. Coordinate with Section 03300 - Cast-In-Place Concrete.

### 3.3 PREPARATION

- A. Finish voids, rock pockets and excessively rough surfaces with epoxy grout or grind to match the unrepared areas.
- B. Apply bond breaker per the manufacturer's recommendations, fill voids and seal joints with polyurethane sealant; pay particular attention to construction joints.
- C. Clean, prime, install backing rod and caulk all expansion and contraction joints with elastomeric polyurethane sealant.
- D. Repair of concrete cracks and spalls:
  1. All cracks over 1/16" in width and all moving cracks less than 1/16" in width shall be routed out to 1/4" minimum, width and depth, and filled flush with polyurethane elastomeric sealant.
  2. Joints less than 1/2" in width and all caulked cracks shall be stripe-coated with a 30 mil preparatory coat of Base Membrane for a width of 3" on either side of the crack.
  3. Apply 45 to 60 mil thick neoprene flashing or non-woven reinforcing fabric over all cracks as recommended by the membrane manufacturer.
- E. Treatment of Roof Penetrations:

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1. Caulk around and along the perimeters of duct and pipe penetrations with polyurethane elastomeric sealant.
  2. Apply a 3/4" cant of sealant around all pipes, drains and vertical junctions.
  3. Apply 30 mils of polyurethane membrane coating 6" vertically, 6" horizontally on surfaces around roof penetrations.
- F. Correct ponding water locations for smooth flow into roof drains; use epoxy topping where required to build up slopes.
- G. Clean concrete substrate of projections and substances detrimental to the work.
- H. Thoroughly clean and dry concrete surfaces free of laitance, surface contaminants and cleaning residue. Clean and prepare surfaces to receive roofing in accordance with the manufacturer's published instructions.
- I. Protect adjacent surfaces not scheduled to receive roofing. Mask off surfaces to effectively prevent spillage and overspray of liquid materials outside the membrane area.
- J. Protect landscaping, property, personnel and vehicles from over spray and drift.

### 3.4 FLASHING REINFORCEMENT

- A. Install all required metal and neoprene flashings and fabric flashing reinforcement; install all sealant cants.
- B. Deliver all metal shop primed, then field prime with Epoxy Primer prior to coating with the Base Membrane. Prime metal surfaces which exhibit adhesion difficulties first with a zinc chromate type of epoxy primer.
- C. Base Membrane is used as an adhesive for polyester reinforcing fabric. Reinforcing fabric shall be laid into wet Base Membrane with roller, brush or broad blade knife. Fabric shall be laid relaxed, smooth and wrinkle-free; over-coat with Base Membrane.
- D. Coat flashings and polyester reinforcing fabric with Base Coat and Top Coat with each application.

### 3.5 APPLICATION

- A. The roofing Applicator shall have the sole right of access to specific areas of the roof for the time required to complete the application and to effect adequate cure.
- B. Comply with the manufacturer's instructions, except where more stringent requirements are shown or specified, and except where the Project conditions require extra precautions or provisions to ensure satisfactory performance of the work.
- C. Start application of the waterproofing membrane only in the presence and with the advice of the Manufacturer's Technical Representative.
- D. Stir and mix separately packaged components using a mixing paddle on a slow speed drill motor, in accordance with the manufacturer's instructions. Protect the components from sun and rain.
- E. Apply uniform coatings of waterproofing to substrates and surfaces indicated to receive membrane.

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- F. Apply coatings by spray, squeegee or roller.
- G. Primer:
  - 1. Apply Primer at the approximate rate of 250 sq. ft. per gallon. Allow primer to dry until tack-free. Within 16 hours of primer application, apply Base Coat. If the base coat cannot be applied within 16 hours then re-prime the surfaces.
- H. Base Membrane:
  - 1. Apply Base Membrane in one uniform coat at the rate of 60 to 65 sq. ft. per gallon, minimum, or as needed to obtain a minimum dry film thickness of 20 mils. Allow 16 to 48 hours curing time before applying the next coat. Do not apply coating over joints greater than 1/2" in width.
- I. Elastomeric Membrane:
  - 1. Apply in one uniform coat at the approximate rate of 60 to 65 sq. ft. per gallon, minimum, or as needed to obtain an average dry film thickness of 18 mils. Allow 16 hours curing time before applying the next coat.
  - 2. If the preceding layers of membrane become dirty or contaminated or lose their surface tack, wipe clean with xylene immediately before applying the next coating.
  - 3. Apply a second coat of Elastomeric Membrane in one uniform coat at the rate of 100 sq. ft. per gallon, or as needed to obtain an average dry film thickness of 12 mils.
  - 4. At locations shown on the Drawings, or if not shown, as directed, while the second coat is still fluid, uniformly broadcast aggregate onto the coating at the rate of 25 lbs. per 100 sq. ft.
  - 5. Allow 16 to 36 hours curing time before applying the next coat.
- J. Top Coat:
  - 1. Apply one uniform coat at the rate of 100 sq. ft. per gallon, minimum, to obtain an average dry film thickness of 10 mils, and to completely encapsulate the aggregate.
  - 2. For walkway surfaces and around roof-mounted equipment, provide aggregate additive for a tough non-slip surface. Apply in colors and patterns as designated by the Architect.
- K. Spray coats over flashings; embed with fabric when plastic flashings are spanning voids greater than 3/4".
- L. The application of membrane waterproofing materials shall be continued up onto vertical surfaces 6", minimum, and over the tops of fascias and parapets. Apply extra thickness waterproofing material at corners, intersections, angles, cants, penetrations and over cracks.
- M. If waterproofing is applied on unscheduled surfaces, remove immediately by a method approved by the membrane manufacturer.
- N. The overall dry film thickness of the completed waterproofing system, exclusive of aggregate, shall average 60 mils.

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FLUID-APPLIED URETHANE ROOFING

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3.6 FIELD QUALITY CONTROL

- O. Permit the membrane to cure under conditions which will not contaminate or deteriorate the waterproofing materials. Block off all traffic and protect the membrane from physical damage.
- P. Remove protective coverings.
- A. Section 01450 - Quality Control: Field inspection and testing.
- B. Inspect the fluid-applied roofing application.
- C. Test for required dry film thickness.

3.7 PROTECTION

- A. Section 01700 - Execution Requirements: Protection of the applied work.
- B. Do not permit traffic on the membrane during the first 24 hours after application and no heavy traffic within four (4) days after the final coat has been applied, or until accepted by the Owner's representative.
- C. Do not permit traffic over unprotected or uncovered membrane.

END OF SECTION

SECTION 07190

WATER REPELLENTS (SEALER)

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Surface preparation and application of clear penetrating water repellent coating to the following exposed surfaces:

- a. WR-1: Exterior and interior concrete walks and floors.
- b. WR-2: Slurry coating for dampproofing vertical walls.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

- 1. Section 03300 - Cast-in-Place Concrete: Sealers and curing agents.
- 2. Section 04400 - Natural Stone: Sealers and curing agents.
- 3. Section 07900 - Joint Sealers: Joint fillers and sealers.
- 4. Division 7 Sections - Roofing and Waterproofing.

1.2 DESCRIPTION OF WORK

A. The extent of each type of waterproofing work is indicated on the Drawings and as specified herein, and includes providing and applying waterproofing on concrete surfaces. Similar work used as an exposed finish is excluded by definition and, if required, is specified as roofing, flooring, special coating or other appropriate category.

1.3 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM C 642 - Test Method for Water Absorption.
  - 2. ASTM D 56 - Test Method for Flash Point by Closed Cup Tester.
  - 3. ASTM D 3960 - Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
  - 4. ASTM E 514 - Test Method for Water Penetration and Leakage Through Masonry.
- C. U. S. Environmental Protection Agency (EPA):

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1. Method 24 - Determination of Volatile Matter Content.

1.4 SUBMITTALS

A. Section 01330 - Submittal Procedures: Procedures for submittals.

- 1. Product Data: Manufacturer's specifications, recommendations for water repellents for each surface specified, surface preparation and application instructions, precautions for materials which can contaminate the system, limitations to coating, protection and cleaning instructions. Include recommendations for sealing penetrations, cracks and control, construction and expansion joints. Submit color charts for products required to be integrally colored.
- 2. Shop Drawings: Indicate details critical to water tightness of the membrane, including, but not necessarily limited to, membrane transitions / terminations at perimeters, drains, sleeves and other penetrating elements.
- 3. Samples: 16" x 16" samples of each substrate indicated to receive water repellent with the specified repellent treatment applied to half of each sample.
- 4. Assurance/Control Submittals:

- a. Manufacturer's certification that the materials specified are recommended by the manufacturer for the applications indicated.
- b. Manufacturer's certificate that the products meet or exceed the specified requirements.
- b. Manufacturer's Material Safety Data Sheets (MSDS).
- c. Manufacturer's certification that the products supplied comply with applicable federal and local regulations controlling the use of volatile organic compounds (VOC).
- d. Manufacturer's instructions indicating procedures and conditions requiring special attention, and cautionary procedures required during application.
- e. Documentation of experience indicating compliance with the specified qualifications requirements.

B. Section 01780 - Closeout Submittals: Procedures for closeout submittals.

- 1. Warranty: Submit a written special Warranty with forms completed in the name of the Owner and registered with the manufacturer.

1.5 QUALITY ASSURANCE

A. Qualifications:

- 1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience, and has a record of successful in-service performance.
- 2. Applicator: Company experienced in applying the types of waterproofing required for this Project for not less than five (5) years, and is acceptable to the primary waterproofing materials manufacturer.

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replace defective materials and workmanship, defined to include leakage of water, ruptures caused by cracking substrate up to 1/16", abnormal aging or deterioration of materials, and other failures of membranes to perform as required within the warranty period. Warranty shall include responsibility for removal and replacement of other work which conceals the waterproofing membrane.

2. During the warranty period, repairs and replacements required because of acts of God and other events beyond the Contractor's / Applicator's control, and those which exceed the performance requirements, shall be completed by the Contractor / Applicator and paid for by the Owner at the prevailing rates.

3. Warranty Period: Five (5) years from the date of Substantial Completion of the water repellent work.

**PART 2 PRODUCTS**

**2.1 MANUFACTURERS**

- A. Subject to compliance with the Project requirements, manufacturers offering products which may be incorporated into the work include the following:
  - 1. Tammis Industries.
  - 2. Hydrozo, Inc.
  - 3. Thoro System Products.
  - 4. Textured Coatings of America.
  - 5. Pecora Corp.
- B. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

**2.2 MATERIALS**

- A. WR-1: Silane, clear, penetrating water repellent. A monomeric compound containing approximately 40% alkylalkoxysilane with alcohol, ethanol, mineral spirits, water, or other proprietary solvent carrier.
  - 1. Baracade Silane 40 by Tammis Industries.
  - 2. Concrete and Masonry Sealer by Thoro Consumer Products.
  - 3. Hydrozo Silane 40 VOC by Hydrozo, Inc.
  - 4. Kiere-Seal 940S VOC by Pecora Corp.
  - 5. Rainstopper RS1750W by Textured Coatings of America.
- B. WR-2: Crystalline, applied as a slurry coat.
  - 1. Xypex Concentrate by Xypex Chemical Corp. or approved equal.

**PART 3 EXECUTION**

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B. Mockup: Apply water repellent to a mockup, either partial or full coverage, as directed, before proceeding with the application. Comply with the application requirements contained herein.

C. Regulatory Requirements: Comply with applicable rules and regulations of the pollution-control regulatory agency having jurisdiction regarding volatile organic compounds (VOC) and use of hydrocarbon solvents.

**1.6 DELIVERY, STORAGE AND HANDLING**

- A. Section 01600 - Product Requirements: Transport, handle, store, and protect the products.
- B. Deliver products to the Project Site in the manufacturer's original, new and unopened packages or containers with seals and labels intact, dry and undamaged, bearing the product name, color, manufacturer's lot number, directions for use and precautionary labels.
- C. Store materials not in actual use, in tightly covered containers. Maintain containers used in the storage of materials, in a clean condition, free of foreign materials and residue.
- D. Store materials in a well ventilated area, and in compliance with the manufacturer's published instructions.
- E. Store and handle materials to prevent deterioration and damage due to moisture, temperature changes, contaminants, and other causes.
- F. Protect against fire hazards and spontaneous combustion.
- G. Keep storage areas neat and orderly. Remove waste daily.
- H. Take all precautions to ensure that workmen and the work areas are adequately protected from health hazards resulting from handling, mixing and application of the materials.

**1.7 JOB CONDITIONS**

- A. Environmental Requirements: Do not apply products under any of the following conditions, except with the written recommendation of the manufacturer:
  - 1. Substrate surfaces cured less than thirty (30) days.
  - 2. Surfaces not dry for a minimum of 24 hours.
  - 3. Rain predicted within 24 hours.
  - 4. Windy conditions such that the repellent might be blown onto vegetation or onto substrates not intended to be coated.

**1.8 WARRANTY**

- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
- B. Special Warranty:
  - 1. Provide a joint and severable written Warranty signed by the water repellent materials manufacturer, Contractor and the Applicator, agreeing to repair or

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3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that the field measurements, surfaces, substrates and conditions are as required, and ready to receive work.
  - 1. Verify that joint sealants are installed and cured.
  - 2. Verify that surfaces to be coated are dry, clean, and free of efflorescence, oil, and other matter detrimental to application of the coating.
- C. Report, in writing, prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate surfaces of substances that might interfere with penetration or performance of the water repellent. Remove loose particles and foreign matter. Remove oil and foreign substances with a cleaning agent which will not affect the coating.
- B. Scrub surfaces with water, rinse and let dry.
- C. Test for moisture content according to the manufacturer's instructions to ensure that the surfaces are sufficiently dry.
- D. Test the pH level according to the manufacturer's instructions to ensure chemical bond to the silicate minerals.
- E. Protect adjacent surfaces not scheduled to receive coating. Protect landscaping, property, and vehicles from over spray and drift. If applied on unscheduled surfaces, remove immediately, by an approved method.
- F. Prior to the start of application, properly seal joints and cracks in movement with an elastomeric joint sealant acceptable to the sealant manufacturer. Non-movement cracks greater than 1/64" in width must be filled with a suitable patching material.
- G. Do not apply water repellent until sealants in joints adjacent to surfaces to receive water repellent treatment have been installed and cured.

3.3 APPLICATION

- A. Prepare materials in accordance with the manufacturer's printed instructions for the Project conditions. Consult a manufacturer's technical representative if the printed recommendations are not applicable to the Project conditions.

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- B. Apply coating in accordance with manufacturer's instructions, using the appropriate method and coverage rate.

C. WR-1:

- 1. Apply a heavy-saturation spray coating of the water repellent on surfaces indicated for treatment using low-pressure spray equipment. Comply with the manufacturer's instructions and recommendations using airless spraying procedure unless otherwise indicated.
- 2. Apply a second saturation spray coating, repeating the first application. Comply with the manufacturer's instructions for limitations on drying time between coats and after rainstorm wetting of surfaces between coats.
- 3. Remove protective coverings from adjacent surfaces.

D. WR-2:

- 1. Mix Xype Concentrate in accordance with the manufacturer's instructions. Apply with a bristle-brush to a uniform thickness of 1/16".
- 2. Apply a second coat after the first coat has reached initial set but is still  $A_{green}$ .
- 3. Lightly re-water, as necessary, to counteract drying.
- 4. Wet cure surfaces in accordance with the manufacturer's instructions. Do not thoroughly wet concrete surfaces with water to saturate the surfaces; remove excess water before application.

3.4 FIELD QUALITY CONTROL

- A. Section 01450 - Quality Control: Field inspection.
- B. Inspect for complete and consistent coverage and waterproofing capability.

3.5 CLEANING

- A. Section 01700 - Execution Requirements: Cleaning the installed work.
- B. Clean all spills. Do not leave splatters or drips.

END OF SECTION

SECTION 07900  
JOINT SEALERS

PART 1 GENERAL  
1.1 SUMMARY

- A. Section Includes:
1. Sealants.
  2. Backing.
  3. Substrate preparation.
- B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.
- C. Related Sections:
1. Section 03300 - Cast-In-Place Concrete: Sealant used in conjunction with concrete work.
  2. Section 04230 - Reinforced Unit Masonry: Sealant used in conjunction with masonry work.
  3. Section 05800 - Expansion Control: Sealant for waterproofing expansion joints.
  4. Section 06400 - Architectural Woodwork: Sealant to prevent vermin and moisture penetration into concealed spaces.
  5. Section 06650 - Solid Polymer Fabrications: Sealant to prevent vermin and moisture penetration into concealed spaces.
  6. Section 07110 - Waterproofing: Sealant for waterproofing concrete work.
  7. Section 07120 - Fluid-Applied Urethane Roofing: Sealant for waterproofing roofing applications.
  8. Section 07125 - Fluid-Applied Elastomeric Roofing (Acrylic): Sealant for waterproofing roofing applications.
  9. Section 07190 - Water Repellents (Sealer): Sealant for waterproofing concrete walks and floors.
  10. Section 07250 - Fireproofing: Sealants used in fireproofing.
  11. Section 07410 - Preformed Metal Roofing: Sealant for waterproofing metal roofing systems.
  12. Section 07415 - Exterior Wall Panel System: Sealant for waterproofing metal wall systems.

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13. Section 07620 - Sheet Metal Flashing and Trim: Sealant for weatherproofing metal roofing and flashings.
14. Section 07724 - Roof Hatch: Sealant for waterproofing roof hatch installations.
15. Section 07840 - Firestopping: Sealants for use in fire-rated assemblies.
16. Section 08100 - Hollow Metal Doors and Frames: Sealants for weatherproofing door and window frame perimeters and thresholds.
17. Section 08310 - Access Doors and Panels: Sealant to close joint where metal edge trim meets adjacent surfaces.
18. Section 08330 - Overhead Coiling Doors: Sealants for weatherproofing door frame perimeters and thresholds.
19. Section 08400 - Entrances, Storefronts and Windows: Sealants for weatherproofing frame perimeters and thresholds.
20. Section 08800 - Glass and Glazing: Sealants and compound for glass and glazing installations.
21. Section 09250 - Gypsum Board: Sealant for back of control joints and to close joint where edge trim meets adjacent surfaces; acoustical sealants.
22. Section 09300 - Tile: Sealants for tile and threshold installations.
23. Section 09510 - Gypsum Board: Sealant to close joint where edge trim meets vertical surfaces.
24. Section 10200 - Louvers and Vents: Sealants to close joint where metal edge trim meets vertical surfaces.
25. Section 10500 - Metal Lockers: Sealant to close joint where metal edge trim meets vertical surfaces.
26. Section 10810 - Toilet Accessories: Sealants to prevent moisture penetration into concealed areas.
27. Section 12305 - Science Casework and Laboratory Equipment: Sealant to prevent vermin and moisture penetration into concealed spaces.
28. Section 14240 - Hydraulic Elevators: Sealant to prevent moisture penetration into concealed spaces.
29. Section 14245 - Traction Elevators: Sealant to prevent moisture penetration into concealed spaces.
30. Section 14560 - Chutes: Sealant to prevent moisture penetration into concealed spaces.

1.2 DESCRIPTION OF WORK

- A. The extent of joint sealers work is indicated on the Drawings and as specified herein, and includes providing and installing sealants, complete. The principal item of work is the

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sealing of openings and joints indicated, specified, and as required to make the entire building weatherproof and watertight.

B. This Section contains general specifications for sealants throughout the Project. The specific use for joint sealants is indicated in the Sealant Schedule at the end of this Section.

### 1.3 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
1. ASTM C 717 - Terminology of Building Seals and Sealants.
  2. ASTM C 834 - Specification for Latex Sealants.
  3. ASTM C 920 - Specification for Elastomeric Joint Sealants.
  4. ASTM C 1193 - Guide for Use of Joint Sealants.
  5. ASTM C 1299 - Guide for Use in Selection of Liquid-Applied Sealants.
  6. ASTM D 1056 - Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.

### 1.4 SUBMITTALS

- A. Section 01330 - Submittals: Procedures for submittals.
1. Product Data: Manufacturer's specifications, recommendations, handling, installation and curing instructions for each type of sealant and associated miscellaneous material required. Include chemical characteristics, performance criteria, substrate preparation, limitations, color availability and VOC content.
  2. Samples: 2" long of each color required for each type of sealant exposed to view.
  3. Assurance / Control Submittals:
    - a. Manufacturer's certificate that the products meet or exceed the specified requirements.
    - b. Manufacturer's Material Safety Data Sheets (MSDS).
    - c. Manufacturer's certification that the products supplied comply with applicable federal and local regulations controlling the use of volatile organic compounds (VOC).
    - d. Manufacturer's instructions indicating procedures and conditions requiring special attention, and cautionary procedures required during application.
    - e. Documentation of experience indicating compliance with the specified qualifications requirements.
- B. Section 01780 - Closeout Submittals: Procedures for closeout submittals.

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1. Warranty: Provide a written special Warranty with forms completed in the name of the Owner and registered with the manufacturer.

### 1.5 QUALITY ASSURANCE

- A. Qualifications:
1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience.
  2. Installer: Company experienced in performing the work of this Section with a minimum of five (5) years documented experience.

### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Section 01600 - Product Requirements: Transport, handle, store and protect the products.
- B. Deliver products to the Project Site in the manufacturer's original, new, unopened packages or containers, dry and undamaged with seals and labels intact, identifying the product and manufacturer, product designation, date of manufacture, lot number, shelf life, curing time, and mixing instructions, if applicable.
- C. Handle and store materials to prevent deterioration and damage due to moisture, temperature changes, contaminants and other causes.
- D. Store materials not in actual use out of the weather until ready for use. Maintain packages and containers in a clean condition, free of foreign materials and residue.
- E. Store materials in a ventilated area, and in compliance with the manufacturer's printed instructions.
- F. Keep storage areas neat and orderly.
- G. Protect against fire hazards and spontaneous combustion.
- H. Take all necessary precautions to ensure that workmen and the work areas are adequately protected from health hazards resulting from handling, mixing and installation of the materials.

### 1.7 JOB CONDITIONS

- A. Environmental Requirements: Install sealants only during the manufacturer's recommended temperature ranges and weather conditions for proper application and cure. Consult the manufacturer if a sealant cannot be applied under the recommended conditions.

### 1.8 WARRANTY

- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
- B. Special Warranty:
1. Submit a joint and severable written Warranty signed by the sealant manufacturer and the installer certifying that the products and installation is free of defective materials and workmanship and agreeing to repair or replace sealants and accessories which fail because of loss of cohesion or adhesion, which do not

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cure properly or are improperly installed.

2. Warranty Period: Three (3) years from the date of Substantial Completion.

## PART 2 PRODUCTS

### 2.1 MATERIALS

A. General Performance Requirements: Select materials for compatibility with the joint surfaces to be encountered and other indicated exposures, and except as otherwise indicated, select modulus of elasticity and hardness or grade recommended by the manufacturer for each application indicated.

B. Where exposed to foot traffic, select materials of sufficient strength and hardness to withstand stiletto heel traffic without damage or deterioration of the sealant system.

C. Subject to compliance with the Project requirements, manufacturers offering products which may be incorporated into the work include the following:

#### 1. Urethanes:

- a. Two-Part Urethane: Self-Leveling, ASTM C 920, Type M, Grade P, Class 25.
  - 1) Chem-Calk 550 by Bostik.
  - 2) Vulkem 245 by Tremco (formerly Mameco International, Inc.)
  - 3) Vulkem 255 FM by Tremco.
  - 4) Urexpan NR-200 by Pecora Corporation.
  - 5) Sikaflex 2c SL by Sika Group.
- b. Two-Part Urethane: Non-Sag, ASTM C 920, Type M, Grade NS, Class 25.
  - 1) Chem-Calk 500 by Bostik.
  - 2) Sonolastic NP 2 by Sonneborn Building Products
  - 3) Vulkem 227 by Tremco.
  - 4) Dynatrol II by Pecora.
  - 5) Sikaflex-2c NS EX Mix by Sika.

- c. One-Part Urethane: Self-Leveling, ASTM C 920, Type S, Grade P, Class 25.
  - 1) Vulkem 45 by Tremco.
  - 2) Sonolastic SL 1 by Sonneborn.
  - 3) Urexpan NR-201 by Pecora.

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- d. One-Part Urethane: Non-Sag, ASTM C 920, Type S, Grade NS, Class 25.
  - 1) Chem-Calk 900 by Bostik.
  - 2) Sonolastic NP 1 by Sonneborn.
  - 3) Vulkem 116 by Tremco.

#### 2. Silicones:

a. One-Part Silicones: ASTM C 920, Type S, Grade NS, Class 25. Vertical Surfaces Only.

- 1) 795 Silicone Building Sealant Structural Glazing, Glazing and Weatherproofing Sealant by Dow Corning. (colors only)
- 2) Construction 1200 Sealant by General Electric Company.
- 3) 999-A Silicone Building and Glazing Sealant by Dow Corning.
- 4) 864 Architectural Silicone by Pecora.

b. One-Part Silicones: ASTM C 920, Type S, Grade NS, Class 25.

- 1) 786 Mildew Resistant Silicone Sealant by Dow.
- 2) Sanitary 1700 Silicone Sealant by General Electric.
- 3) 898 Sanitary Mildew Resistant Silicone Sealant by Pecora.

#### 3. Acrylics, Latex:

a. One-Part Acrylic Latex, Non-Sag, ASTM C 834.

- 1) Chem-Calk 600 by Bostik.
- 2) LC-130 Liquid Nails Caulk Window and Door Acrylic Latex by Macco Adhesives.
- 3) AC-20 Acrylic Latex Caulking, Non-Sag by Pecora.
- 4) Sonolac Acrylic Latex Caulk by Sonneborn.

#### 4. Acoustical Sealants:

a. AC-20 FTR Fire and Temperature Rated Acoustical and Insulation Sealant by Pecora.

b. Sheetrock Acoustical Sealant by United States Gypsum Co.

#### 5. Butyls:

a. One-Part Butyl, Non-Sag, FS TT-S-1657.

- 1) Chem-Calk 300 Butyl Rubber Caulk by Bostik.

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2) BC-158 Butyl Rubber Caulk by Pecora.

6. Performed Compressible & Non-Compressible Fillers:

a. Backer Rod - Closed cell polyethylene foam:

1) Chem-Rod / Closed by Bostik.

2) Expand-O-Foam by Williams Products.

3) HBR Backer Rod by Nomaco, Inc.

4) Sonofoam Closed-Cell Backer Rod by Sonneborn.

b. Backer Rod - Open cell polyurethane foam:

1) Denver Foam by Backer Rod Manufacturing.

2) Foam Pack II by Nomaco.

c. Neoprene compression seals:

1) WA and WE Series by Watson Bowman Acme.

d. Butyl Rod: Kirkhill Rubber Co.

7. Paving Sealants:

a. Two-Part Urethane: Self-Leveling, ASTM C 920, Type M, Grade P, Class 25.

1). Vulkem 202 by Tremco, (Jet Fuel Resistant) (FS SS-S-200E, Type H only).

2). NR-300 Urexpan by Pecora (FS SS-S-200E).

b. One-Part Urethane: Self-Leveling, ASTM C 920, Type S, Grade P, Class 25.

1). SONOMETRIC 1 Sealant by Sonneborn (FS SS-S-200E).

2). Vulkem 45 by Tremco.

D. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

## 2.2 MISCELLANEOUS MATERIALS

A. Joint Cleaner: Provide the type of joint cleaning compound recommended by the sealant manufacturer for the joint surfaces to be cleaned.

B. Joint Primer / Sealer: Type of joint primer / sealer recommended by the sealant manufacturer for the joint surfaces to be primed or sealed.

C. Bond Breaker Tape: Polyethylene tape or other plastic tape as recommended by the sealant manufacturer, to be applied to the sealant contact surfaces where bond to the substrate or joint filler must be avoided for proper performance of the sealant. Provide self-adhesive tape where applicable.

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D. Sealant Backer Rod: Compressible rod stock of polyethylene foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable, non-absorbable material as recommended by the sealant manufacturer for compatibility with the sealant.

E. Masking tape and similar accessories as necessary to protect adjacent surfaces from damage.

## 2.3 COLORS

A. Generally use sealant colors to match the color of the material in which the joint is located. Select from the manufacturer's standard colors.

B. Where a joint occurs between two materials of differing colors and the Contractor cannot determine which material to match, contact the Owner's representative for a decision.

## PART 3 EXECUTION

### 3.1 EXAMINATION

A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.

B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.

1. Verify that joint widths are in conformance with the sealant manufacturer's allowable limits.

2. Verify that contaminants capable of interfering with adhesion have been cleaned from joints.

3. Verify that joints has been properly prepared.

C. Report, in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

### 3.2 JOINT PREPARATION

A. Prepare and size joints in accordance with the manufacturer's instructions.

B. Clean joint surfaces immediately before installation of sealant. Remove dust, dirt, laitance, unsecured coatings, mortar, moisture and other substances which could interfere with bond of sealant or caulking compounds using a solvent or abrasion as recommended by the manufacturer. Remove loose materials and foreign matter which could impair adhesion of the sealant.

C. Etch concrete and masonry joint surfaces as recommended by the sealant manufacturer.

D. Roughen vitreous and glazed joint surfaces as recommended by the sealant manufacturer.

E. Prime or seal joint surfaces where indicated, and where recommended by the sealant manufacturer.

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- F. Verify that the sealant is suitable for the substrate.
- G. Verify that joint backing and release tapes are compatible with the sealant.
- H. Verify that the sealant is paintable if a paint finish is indicated.
- 3.3 INSTALLATION
- A. Install in accordance with the manufacturer's printed instructions, except where more stringent requirements are shown or specified, and except where the manufacturer's technical representative directs otherwise. Perform the work in accordance with ASTM C 1193 for latex base sealants.
- B. Prime or seal joint surfaces where recommended by the sealant manufacturer. Do not allow the primer or sealer to spill or migrate onto adjoining surfaces.
- A. Set joint filler units at the proper depth or position to coordinate with other work, including the installation of bond breakers, backer rods and sealants. Do not leave voids or gaps between the ends of joint filler units.
- B. Install sealant backer rods, except where shown to be omitted or recommended to be omitted by the sealant manufacturer for the application indicated.
- C. Install pre-formed compressible and non-compressible fillers in accordance with the manufacturer's published instructions.
- D. Install bond breaker tape where indicated and where required by the manufacturer's recommendations to ensure that elastomeric sealants will perform properly.
- E. Employ only proven installation techniques which will ensure that the sealants are deposited in uniform, continuous ribbons without gaps or air pockets, foreign embedded matter, ridges and sags, with complete wetting of joint bond surfaces equally on both sides.
- F. Except as otherwise indicated, fill sealant rabbet to a slight concave surface, slightly below the adjoining surfaces. Where horizontal joints are between a horizontal surface and a vertical surface, fill the joint to form a slight cove so the joint will not trap moisture and foreign matter.
- G. Dry tool joints. Do not use soap, water or solvent to tool the joints.
- H. Seal joints before adjacent surfaces are waterproofed or painted.
- I. Install sealants to the depths shown or, if not shown, as recommended by the sealant manufacturer, but within the following general limitations, measured at the center (thin section of the bead):
1. For sidewalks, pavements and similar joints sealed with elastomeric sealants and subject to traffic and other abrasions and indentation exposures, fill the joints to a depth equal to 75% of the joint width, but not less than 3/8" deep or more than 1/2" deep.
  2. For normal moving joints sealed with elastomeric sealants not subject to traffic, fill joints to a depth equal to 50% of the joint width, but not less than 1/4" deep or more than 2" deep.

3. For joints sealed with non-elastomeric sealants, fill the joints to a depth in the range of 75% to 125% of the joint width.
- L. Epoxy Floor Joint Sealant: Install sealant at floor construction and control joints in accordance with the manufacturer's published instructions.
- 3.4 SPILLAGE
- A. Protect materials surrounding the work of this Section from damage and disfigurement. Do not allow sealants to overflow or spill onto adjacent surfaces, or to migrate into the voids of adjoining surfaces.
- B. Recess exposed edges of exposed joint fillers slightly behind the adjoining surfaces, unless otherwise shown, so the compressed units will not protrude from the joints.
- C. Bond ends of joint fillers together with an adhesive or weld by other means recommended by the manufacturer to ensure a continuous watertight and airtight installation.
- 3.5 CURING
- A. Cure sealants in compliance with the manufacturer's published instructions.
- 3.6 FIELD QUALITY CONTROL
- A. Section 01450 - Quality Control: Field Inspection.
- B. Inspect sealant work for proper installation, depth and adhesion.
- 3.7 CLEANING
- A. Section 01700 - Execution Requirements: Cleaning the installed work.
- B. Remove excess and spillage of sealants promptly as the work progresses using the materials and methods recommended by the sealant and substrate manufacturers.
- C. Clean adjoining surfaces to eliminate evidence of spillage without damage to the adjoining surfaces and finishes.
- 3.8 SEALANT SCHEDULE
- A. Exterior Joints:
1. Perimeters of exterior openings where frames and other penetrations meet the exterior face of the building; precast concrete, concrete, concrete masonry, polymer reinforced concrete:
    - a. Sealant No. 2.1, C.1.b
  2. Expansion and control joints in exterior surfaces of cast-in-place concrete walls and precast architectural wall panels:
    - a. Sealant No. 2.1, C.1.b
    - b. Sealant No. 2.1, C.1.d

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- c. Material No. 2.1, C.6.a
  - 3. Expansion and control joints in exterior surfaces of unit masonry walls, polymer reinforced concrete and metal panels:
    - a. Sealant No. 2.1, C.1.b
  - 4. Coping joints, coping-to-facade joints, cornice and wash, and horizontal surface joints not subject to foot or vehicular traffic:
    - a. Sealant No. 2.1, C.1.b
    - b. Sealant No. 2.1, C.1.d
  - 5. Exterior joints in horizontal wearing and non-wearing surfaces:
    - a. Sealant No. 2.1, C.1.a
    - b. Sealant No. 2.1, C.1.c
    - c. Material No. 2.1, C.6.a
  - 6. Paving joints and curb:
    - a. Sealant No. 2.1, C.1.d
    - b. Sealant No. 2.1, C.2.a
  - 7. Setting bed for thresholds and saddles:
    - a. Sealant No. 2.1, C.1.c
  - 8. Painted metal lap and flashing joints:
    - a. Sealant No. 2.1, C.2.a
- B. Interior Joints:
- 1. Seal the interior perimeters of exterior openings.
  - 2. Expansion and control joints on the interior of exterior cast-in-place concrete walls.
  - 3. Expansion and control joints on the interior of exterior precast, architectural wall panels.
  - 4. Expansion and control joints on the interior of exterior surfaces of unit masonry walls.
  - 5. Perimeters of interior aluminum and hollow metal frames.
  - 6. Interior masonry vertical control joints and intersecting unit masonry walls; masonry-to-masonry, masonry-to-concrete.
  - 7. For all of the above interior joints:
    - a. Sealant No. 2.1, C.1.b
    - b. Sealant No. 2.1, C.1.d
    - c. Sealant No. 2.1, C.1.a (for pre-finished materials only).
  - 8. Exposed interior control joints in drywall and concealed joints:
    - a. Sealant No. 2.1, C.3.a
    - b. Sealant No. 2.1, C.4
    - c. Sealant No. 2.1, C.4.c
    - d. Sealant No. 2.1, C.6.a
  - 9. Joints at the top of non-load-bearing unit masonry walls at the underside of cast-in-place concrete:
    - a. Sealant No. 2.1, C.1.b
    - b. Sealant No. 2.1, C.1.d
  - 10. Perimeters of architectural woodwork: overhead cabinets, base cabinets, vanities, countertops, shelving, etc.:
    - a. Sealant No. 2.1, C.2.b
  - 11. Perimeters of suspended acoustical ceilings where edge trim meets vertical surfaces:
    - a. Sealant No. 2.1, C.2.b
  - 12. Perimeters of toilet / bath fixtures: mirrors, sinks, urinals, tubs, vanities, waterclosets, accessories, etc.:
    - a. Sealant No. 2.1, C.2.b
  - 13. Interior expansion and control joints in floor surfaces exposed to foot traffic:
    - a. Sealant No. 2.1, C.1.a
    - b. Sealant No. 2.1, C.1.c
    - c. Material No. 2.1, C.6.a
  - 14. Interior saw-cut contraction joints in exposed concrete floors exposed to forklift traffic:
    - a. Sealant No. 2.1 C.7
  - 15. Interior non-moving joints, including control, contraction, and construction joints in interior floor slabs exposed to heavy duty traffic:
    - a. Sealant No. 2.1, C.7
  - 16. Painted metal lap joints:
    - a. Sealant No. 2.1, C.7

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- a. Sealant No. 2.1, C.2
- C. Glass and Glazing:
  - 1. Structural Glazing.
    - a. Sealant 2.1, C.2.a
  - 2. General Purpose Glazing.
    - a. Sealant 2.1, C.2.b
  - 3. End Damming.
    - a. Sealant 2.1, C.5

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel doors.
2. Steel door frames.
3. Steel window frames.
4. Door vision panels.
5. Louvers.
6. Accessories.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 03300 - Cast-In-Place Concrete: Substrate for anchorage.
2. Section 04230 - Reinforced Unit Masonry: Substrate for anchorage.
3. Section 08210 - Wood Doors: Doors installed in steel frames.
4. Section 08710 - Door Hardware: Hardware coordination.
5. Section 08800 - Glass and Glazing: Glass installed in vision panels in doors and steel window frames.
6. Section 09900 - Painting: Field painting and finishing of frames and doors.

1.2 DESCRIPTION OF WORK

A. The extent of standard steel doors and frames work is indicated on the Drawings and Schedule and as specified herein, and includes providing and installing exterior entrance and storefront assemblies, designed and fabricated to comply with the requirements for system performance characteristics below, as demonstrated by testing of the manufacturer's corresponding stock systems in compliance with the test methods designated.

B. Door hardware is specified in Section 08710.

1.3 REFERENCES

A. The publications listed below form a part of this Specification to the extent referenced.

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- Publications are referred to in the text by basic designation only.
- B.** American Society of Civil Engineers (ASCE):
1. ASCE / SEI 7 - Minimum Design Loads for Buildings and Other Structures.
- C.** American Society for Testing and Materials (ASTM):
1. ASTM A 153 / A 153M - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  2. ASTM A 568 / A 568M - Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.
  3. ASTM A 653 / A 653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by Hot-Dip Process.
  4. ASTM A 1008 / A 1008M - Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
  5. ASTM A 1011 / A 1011M - Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
  6. ASTM D 2201 - Practice for Preparation of Zinc-Coated and Zinc-Alloy-Coated Steel Panels for Testing Paint and Related Coating Products.
  7. ASTM E 90 - Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
  8. ASTM E 330 - Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
  9. ASTM E 413 - Classification for Rating Sound Insulation.
- D.** Americans with Disabilities Guidelines (ADAAG):
1. Accessibility Guidelines for Buildings and Facilities.
- E.** Door Hardware Institute (DHI):
1. DHI - The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
- F.** International Code Council:
1. International Building Code (IBC), 2009.
- G.** Steel Door Institute (SDI):
1. SDI-100 - Standard Steel Doors and Frames.
  2. SDI-105 - Recommended Erection Instructions for Steel Frames.
- H.** National Fire Protection Association (NFPA):
1. Standard No. 80 - Standard for Fire Doors and Other Opening Protectives.
- 1.4 SUBMITTALS**
- A.** Section 01330 - Submittal Procedures: Procedures for submittals.
1. Product Data: Identify door and frame materials, gauges, configurations, location of cutouts, hardware reinforcement, fire-rating and finish.
  2. Shop Drawings: Include elevations of each door type, details of each frame type, conditions at openings, details of construction, location and installation requirements of reinforcements and finish hardware, and details of joints and connectors. Show anchorages and accessory items. Indicate door elevations, internal reinforcement, closure method, sidelights, and cutouts for louvers and vision panels.
  3. Schedule: Provide for doors and frames using the same reference numbers for details and openings as those used on the Drawings.
  4. Samples: Full range of color samples for selection. Two (2) 6" x 6", minimum, of each color and texture selected from factory-finished doors and frames.
  5. Assurance / Control Submittals:
    - a. Certificates:
      - 1) Manufacturer's Certificate that the products meet or exceed the specified requirements.
      - 2) Manufacturer's certification that hot-dip galvanizing for doors and frames comply with the requirements.
      - 3) Manufacturer's certification that oversized fire-rated frame and door assemblies have been constructed with materials and methods equivalent to the requirements for labeled construction.
    - b. Calculations indicating that exterior doors, frames and anchorages satisfy the performance requirements.
    - c. Documentation of experience indicating compliance with the specified qualifications requirements.
- B.** Section 01780 - Closeout Submittals: procedures for closeout submittals.
1. Warranty: Submit a written special Warranty with forms completed in the name of the Owner and registered with the manufacturer.
- 1.5 QUALITY ASSURANCE**
- A.** Qualifications:
1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience.
  2. Installer: Company experienced in performing work of this Section with a minimum of five (5) years documented experience.

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3. Provide frames and doors complying with Steel Door Institute, SDI-100 Recommended Specifications: Standard Steel Doors and Frames® and as specified herein.
- B. Performance Requirements:
1. Provide the capacity to withstand the following loading requirements for exterior units:
    - a. Design and install to resist combined positive and negative windloading in accordance with IBC 2009, Section 1609 with a Vmph of 170, qs of 74.0 psf, exposure [B][C][D], and importance factor [1.0][1.25][1.5], as applicable per ASCE 7.
  2. Fire-Rated Assemblies: Provide fire-rated doors investigated and tested as fire door assemblies, complete with type of hardware to be used. Identify each fire door with recognized testing laboratory labels indicating the applicable fire-rating. Construct and install assemblies to comply with NFPA, Standard No. 80, and as herein specified.
- 1.6 DELIVERY, STORAGE AND PROTECTION
- A. Section 01600 - Product Requirements: Transport, handle, store, and protect the products.
  - B. Deliver hollow metal work cartoned or crated for protection during transit and storage.
  - C. Provide additional sealed plastic wrapping for factor-finished doors.
  - D. Deliver products to the Project Site in the manufacturer's original, unopened packages, dry and undamaged with seals and labels intact.
  - E. Inspect products for damage. Minor damages may be repaired provided the finish items are equal, in all respects, to new work, and acceptable to the Owner's representative; otherwise remove and replace the damaged items.
  - F. Store under cover in dry, weathertight conditions. Place units on 4" high wood sills or store otherwise in a manner to prevent rust and damage. Provide 1/4" space between stacked doors to allow for air circulation. Avoid the use of non-ventilated plastic or canvas shelters. If the cardboard wrapper becomes wet, remove the carton immediately.
  - G. Break seals to permit ventilation.
- 1.7 WARRANTY
- A. Section 01780 - Closeout Submittals: Procedures for closeout.
  - B. Special Warranty:
    1. Provide a written Warranty, signed by the door manufacturer, and the door installer agreeing to repair or replace doors that do not meet the requirements, or that fail in materials or workmanship.
    2. Warranty Period: Two (2) years from the date of Substantial Completion.

PART 2 PRODUCTS  
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2.1 MANUFACTURERS

- A. Subject to compliance with the Project requirements, manufacturers offering items which may be incorporated in the work include the following:
1. Amweld Building Products.
  2. Ceco Door Products.
  3. Republic Doors and Frames.
  4. Steelcraft.
  5. Curries.
- B. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

2.2 MATERIALS

- A. Hot-Rolled Steel Sheets and Strip: Commercial quality carbon steel, pickled and oiled, complying with ASTM A 1011 / A 1011M and ASTM A 568 / A 568M.
- B. Cold-Rolled Steel Sheets: Commercial quality carbon steel, complying with ASTM A 1008 / A 1008M and ASTM A 568 / A 568M.
- C. Galvanized Steel Sheets: Zinc-coated carbon steel sheets of commercial quality, complying with ASTM A 653 / A 653M, ASTM D 2201, G60 zinc coating, mill phosphatized.
- D. Supports and Anchors: Fabricate of not less than 18 gage galvanized sheet steel.
- E. Inserts, Bolts and Fasteners: Manufacturer's standard units, hot-dip galvanized complying with ASTM A 153 / A 153M, Class C or D, as applicable.

2.3 FABRICATION

- A. Fabricate units rigid, neat in appearance, and free from defects, warp, twist and buckle. Fit and assemble units in the manufacturer's plant. Fabricate KD or welded. Clearly identify work that cannot be permanently factory-assembled before shipment to assure proper assembly at the Project Site.
- B. Weld the exposed surface of joints continuously; grind, dress, and make joints smooth, flush and invisible. When prime painted, the use of metallic filler to conceal manufacturing defects is not acceptable.
- C. Fabricate exposed faces of doors and panels, including stiles and rails of non-flush units from only cold-rolled steel.
- D. Fabricate frames, concealed stiffeners, reinforcement, edge channels, louvers and molding from either cold-rolled or hot-rolled steel (fabricator's option), galvanized.
- E. Fabricate doors, panels and frames from galvanized sheet steel. Close top and bottom edges of doors as an integral part of the door construction or by the addition of inverted steel channels.
- F. Exposed Fasteners: Unless otherwise indicated, provide countersunk flat Phillips head for exposed screws and bolts; galvanized.

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1. Cold-rolled steel; factory mitered corners and full-welded construction; 2" face, jamb dept as shown on the Drawings; galvanized to ASTM D 2201.
  2. 14 gage for exterior frames and other frames wider than 48".
  3. 18 gage for all other frames.
- C. Interior Frames:
1. Cold-rolled steel; 2" face, jamb depth as required or as shown on the Drawings.
  2. 16 gage.
  3. Fire-rated frames per NFPA, Standard No. 80.
- D. Silencers: Except on weatherstripped frames, drill stops to receive three (3) silencers on the strike jambs of single-swing frames and two (2) silencers on the heads of double-swing frames. Install plastic plugs to keep holes clear during construction.
- E. Plaster Guards: Provide 26 gage, steel plaster guards or mortar boxes welded to the frames at the back of door hardware cutouts where mortar or other materials might obstruct hardware operation.
- F. Anchors: Equip frames with one welded-in floor anchor in each jamb. Furnish a minimum of three (3) steel jamb anchors and two (2) head anchors for field insertion at a maximum of 24" o.c. Anchors shall be of the proper type for the particular construction involved, i.e., concrete, masonry, metal framing, etc. Conceal fastenings unless indicated otherwise.

#### 2.5 STANDARD STEEL DOORS

- A. Exterior Doors: Extra Heavy-Duty, Grade III per SDI-100, 1-3/4" thick, types and styles as indicated on the Drawings; top edge closed flush; 14 gage cold-rolled steel, galvanized to ASTM D 2201; insulated core.
- B. Interior Doors: Standard-duty, Grade I per SDI-100, 1-3/4" thick, types and styles as indicated on the Drawings; top edge closed flush; 16 gage cold-rolled steel. Fire-rated UL labeled where indicated or required by the Building Code.
- C. Fire-Rated Doors: Per NFPA, Standard No. 80.
- D. Vision Panels: Laminated glass in metal frames as required by the fire-rating. Install removable steel stops on the room side of the doors.
- E. Louvers:
1. Exterior: Weatherproof, stationary, where shown on the Drawings. Construct of AZ<sup>®</sup> shaped, 16 gage, hot-dip galvanized steel blades. Space blades not more than 1-1/2" o.c. Provide removable 1/4" stainless steel wire mesh screen at the interior face of doors, in formed metal frame with removable clips. Provide insect screens at louvers in exterior doors.
  2. For fire-rated openings, provide tightly fitted, spring-loaded, automatic closing louvers with operable blades equipped with a fusible link; arranged so metal overlaps metal at every joint.
  3. Provide louvers complying with UL or NFPA standards only, and factory-applied in doors.

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#### G. Sound-Rated (Acoustical) Assemblies:

1. Where shown or scheduled, provide frame and door assemblies which have been fabricated as sound-reducing type, tested in accordance with ASTM E 90 and classified in accordance with ASTM E 413.

2. Unless otherwise indicated, the minimum sound rating for acoustical assemblies shall be STC 33.

#### H. Door Hardware Preparation:

1. Prepare doors and frames to receive mortised and concealed finish hardware in accordance with final Finish Hardware Schedule and templates provided by the hardware supplier. Comply with applicable requirements of ANSI A115 series specifications for door and frame preparation for hardware.
2. For concealed overhead door closers, provide space, cutouts, reinforcing and provisions for fastening in the top rail of doors or heads of frames, as applicable.
3. Reinforce doors and frames to receive surface-applied hardware. Drilling and tapping for surface-applied finish hardware may be done at the Project site.
4. Locate finish hardware as shown on final Shop Drawings or, if not shown, in accordance with Recommended Locations for Builder's Hardware, published by the Door and Hardware Institute and ADA Accessibility Guidelines.

I. Prepare frame for silencers. Provide three single rubber silencers for single doors; two single silencers on the frame head at double doors without mullions.

J. Equip frames with one welded-in floor anchor in each jamb. Furnish a minimum of three (3) steel jamb anchors and two (2) head anchors for field insertion at a maximum of 24" o.c. Anchors shall be of the proper type for particular construction involved (i.e., masonry, concrete, metal framing, etc).

K. Factory install louvers and vision panels in prepared openings.

#### L. Shop Painting:

1. Clean steel surfaces of mill scale, rust, oil, grease, dirt, and other foreign materials before application of paint.
2. Clean, treat and paint exposed surfaces of steel doors, louvers and frames including galvanized surfaces.
3. Apply one shop coat of rust-inhibitive enamel or primer paint, either air-dried or baked-on, of even consistency, and suitable as a base for the specified finish paint.

#### 2.4 STANDARD STEEL FRAMES

A. Provide galvanized steel frames for doors, transoms, sidelights, borrowed lights, windows and other openings of the types and styles shown on the Drawings.

B. Exterior Frames including sidelights, if required:

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4. Interior (Non-fire-rated): Roll-formed, 20 gage, galvanized steel, inverted AY® blades, sight-proof, prime painted for field applied finish paint; size as indicated on the Drawings.
- 2.6 CORE CONSTRUCTION
- A. Provide one of the following types of core construction (Contractor's option):
1. Kraft Honeycomb; Phenolic treated.
  2. Polyurethane: Foamed-in-place or laminated. 20 psi strength, 1.8 pcf density, 1/2" maximum voids in any direction. Strength of bond between the core and the steel face sheets shall exceed strength of core so delamination will not occur during operating conditions.
  3. Polystyrene: Rigid core of polystyrene foam board, 1500 psf compressive strength, 18 psi shear strength. Strength of the bond between the core and the steel face sheets shall exceed strength of core so that delamination will not occur under operating conditions.
  4. Vertical Steel Stiffeners: 22 gage vertical steel stiffeners, spaced 6" apart and spot welded to the face sheets at 6" on center. Insulate the spaces between stiffeners with loose fill insulation the full height of the door.

### 2.7 PROTECTIVE COATINGS

- A. Bituminous Coating: Apply fibered asphalt emulsion at grout filled frames.
- B. Primer: Exposed surfaces shall be cleaned, treated with Bonderite chemical and given one baked-on shop coat of grey synthetic primer.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.
- C. Report in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION

- A. General: Install standard steel doors, frames and accessories in accordance with the final Shop Drawings, the manufacturer's published instructions, as herein specified, and at the locations shown on the Drawings.
- B. Door Installations:
1. Fit hollow metal doors accurately in frames, within clearances specified in SDI-100.

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2. Install fire-rated doors with the clearances specified in NFPA, Standard No. 80.
- C. Frame Installations:

1. Comply with the provisions of SDI-105. Recommended Erection Instructions for Steel Frames®, unless indicated otherwise.
2. Except for frames located at in-place concrete or masonry and at drywall installations, place frames prior to construction of the enclosing walls. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After the wall construction is completed, remove temporary braces and spreaders leaving the surfaces smooth and undamaged.
3. At in-place concrete construction, set frames and secure to adjacent construction with machine screws and masonry anchorage devices.
4. In masonry construction, locate wall anchors at the hinge and strike levels. Building-in of anchors and grouting of frames is specified in Division 4 and as shown on the Drawings.
5. In steel framed partitions, install wall anchors at the hinge and strike levels. In open steel stud partitions, place studs in wall anchor notches and wire tie. In closed steel stud partitions, attach wall anchors to studs with tapping screws.
6. Install fire-rated frames with clearances specified in NFPA, Standard No. 80.

- D. Field Finish: Field paint door, frames, louvers and vision panel frames as specified in Section 09900 - Painting.

### 3.3 CONSTRUCTION

#### A. Interface with Other Work:

1. Coordinate frame installations for size, location, and the particular construction involved.
2. Coordinate with the door opening construction, door frames, door hardware, door louver and vision panel glazing installation.

#### B. Site Tolerances:

1. Maximum Diagonal Distortion: 1/16" measured with straight edge from corner to corner.

### 3.4 ADJUSTING

- A. Section 01700 - Execution Requirements: Adjusting the installed work.
- B. Immediately after installation, sand smooth any rusted or damaged areas of the prime coat and touch-up with a compatible air-drying primer.
- C. Check and readjust operating door hardware items. Leave steel doors and frames undamaged and in complete and proper operating condition.
- D. Adjust hardware for smooth and balanced door and window movement.

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CENTRAL POLICE PRECINCT

3.5 FIELD QUALITY CONTROL

- A. Section 01450 - Quality Control: Field inspection.
  - B. Inspect metal door, frame and window installations, alignment, attachment to structure, and operation.
- 3.6 CLEANING
- A. Section 01700 - Execution Requirements: Cleaning installed Work.
  - B. Immediately prior to final inspection, remove protective plastic wrappings from prefinished doors.
  - C. Wipe down all doors and frames before final acceptance inspection.

END OF SECTION

SECTION 08210  
WOOD DOORS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Flush solid core wood doors with wood veneer.
2. Flush solid core wood doors with plastic laminate face.
3. Flush hollow core wood doors with veneer face.
4. Paneled wood doors with solid wood stiles, rails and panels.
5. Furnishing and installation of louvers in wood doors.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 06200 - Finish Carpentry: Wood door frames.
2. Section 08710 - Door Hardware: Hardware coordination for wood doors.
3. Section 08800 - Glass and Glazing: Glass installed in wood doors.
4. Section 09900 - Painting: Field painting of wood doors.

1.2 DESCRIPTION OF WORK

A. The extent of the wood doors work is indicated on the Drawings and Schedules and as specified herein, and includes providing and installing standard hollow core and solid core wood doors, panel doors and louvers.

1.3 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.
- B. American Society of Civil Engineers (ASCE):
  1. ASCE / SEI 7 - Minimum Design Loads for Buildings and Other Structures.
- C. Americans with Disabilities Act Accessibility Guidelines (ADAAG):
  1. Accessibility Guidelines for Buildings and Facilities.
- D. National Electrical Manufacturers Association (NEMA):

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1. NEMA LD-3 - High Pressure Decorative Laminates.
- E. Architectural Woodwork Institute (AWI):
1. Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program.
  2. AWI 1300 - Architectural Flush Doors.
- F. International Code Council:
1. International Building Code (IBC), 2009.
- G. National Wood Window and Door Association (NWWDA):
1. I.S.-1. A Industry Standard for Wood Flush Doors®.
- H. National Woodwork Manufacturers Association (NWWMA).
1. aCare and Finishing of Wood Doors®.
- I. Woodwork Institute (WI):
1. aManual of Millwork® - Designations for wood door grades and core construction.
- 1.3 SUBMITTALS
- A. Section 01330 - Submittal Procedures: Procedures for submittals.
1. Product Data: Door manufacturer's product data, specifications and installation instructions for each type of door. Include details of core and edge construction, and louvers, if any, and similar components.
  2. Shop Drawings: Indicate locations and size of each door, elevation of each kind, details of construction, locations and extent of hardware blocking, swings, and other pertinent information. Indicate cutouts for vision panels and louvers, if any.
  2. Samples: For review and approval of color and texture only. Compliance with other requirements is the exclusive responsibility of the Contractor. Submit the following:
    - a. 8" x 10" representative finished veneer sheet for each available flitch to be used for face veneer of transparent finished doors.
    - b. 3" x 10" solid wood strips of species to be used for exposed edges, trim and other solid wood components.
  3. Assurance / Control Submittals:
    - c. Manufacturer's certificate that the products meet or exceed the specified requirements.
    - d. Documentation of experience indicating compliance with the specified qualifications requirements.
- B. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
1. Special Warranty: Submit written special Warranty forms completed in the name

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of the Owner and registered with the manufacturer.

1.4 QUALITY ASSURANCE

- A. Qualifications:
1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience.
- B. Obtain doors from a single manufacturer to ensure uniformity in quality of appearance and construction, unless approved otherwise.
- C. Mark each door with NWWDA, Wood Flush Door Certification Hallmark certifying compliance with applicable requirements of ANSI / NWWDA I.S.-1. For manufacturer's not participating in the NWWDA Hallmark Program, a certification of compliance may be substituted for marking of the individual doors.
- D. Perform Work in accordance with AWI 1300 for Custom Grade doors.
- F. Performance Requirements:
1. Fabricate and install to withstand the following loading requirements for exterior units:
    - a. Combined positive and negative windloading in accordance with IBC 2009, Section 1609 with a Vmph of 170, qs of 74.0 psf, exposure [B] [C] [D], and importance factor of [1.0] [1.25] [1.5], as applicable per ASCE 7.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Section 01600 - Product Requirements: Transport, handle, store and protect doors from damage, soiling and deterioration.
- B. Ship doors individually wrapped.
- C. Deliver products to the Project Site in the manufacturer's original, unopened packaging, dry and undamaged with seals and labels intact.
- D. Comply with the aOn-Site Care® recommendations of NWWMA pamphlet aCare and Finishing of Wood Doors® and with the manufacturer's instructions.
- E. Store under cover in dry, weathertight conditions.

1.6 COORDINATION

- A. Design intent: It is the intent of the design that similar woodwork throughout the Project match. Coordinate work between the separate installers providing similar woodwork to ensure that the design intent is achieved to the satisfaction of the Owner's representative.
- B. Pre-Construction Meetings: Prior to the purchase and fabrication of materials and prior to installation of the scheduled work, conduct meetings with the various related woodwork installers to coordinate efforts to achieve the design intent. Participants to include the Contractor, finish carpentry installer, architectural woodwork installer, painting applicator and the Owner's representative.

1.7 JOB CONDITIONS

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- A. Condition doors to the average prevailing humidity in the installation areas prior to installation.
- 1.8 WARRANTY
- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
- B. Special Warranty:
1. Provide a written Warranty, signed by the door manufacturer agreeing to repair or replace doors that do not meet the requirements, or that fail due to delamination of veneer, warping beyond the specified installation tolerances, defective materials or telegraphing of the core construction.
  2. Warranty Period:
    - a. Exterior Doors: Two (2) years from the date of Substantial Completion.
    - b. Interior Doors: Life of the installation.
    - c. Stile and Rail Doors: Fabricator's special warranty for two (2) years against defects in materials and workmanship including, but not limited to, defects against warpage and wracking.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the Project requirements, manufacturers offering products which may be incorporated into the work include the following:
1. Cal-wood Door Div., Timberland Industries.
  2. Eggers Industries, Architectural Door Div.
  3. Mohawk Flush Doors, Inc.
  4. Weyerhaeuser Co.
  5. SUN-DOR-CO.
- B. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

2.2 MATERIALS

- A. Solid Core Wood Doors (interior doors): AWI 1300.
1. Type: Institutional, flush, solid core wood, AWI, [premium][custom] grade.
  2. Thickness: As indicated on the Drawings.
  3. Core: Mat-formed wood particleboard with closed grain hardwood stiles, commercial Standard CS 236-66, Type 1, Density  $\Delta$ C<sub>66</sub>, Class 1, Minimum 30 pounds per cubic foot density. Mineral core with UL label for fire-rated doors.

4. Face Finish: Veneer shall be premium grade sliced hardwood for doors with a transparent finish; custom grade, medium density overlay for doors scheduled for paint finish; conform to commercial standard CS35; minimum, 1/8" thick. Wood species as selected. Plastic laminate where indicated.
  5. Stiles and Rails: One piece hardwood stiles and top and bottom rails with wood species to match the face veneer. Where door closers are specified, the top rail width shall be doubled.
    - a. The bottom rail of a transom panel shall run the full width of the panel.
  6. Plastic Laminate: High pressure laminate. Color and texture as selected.
- B. Hollow Core Wood Doors:
1. Type: Institutional, flush hollow core, AWI, [premium][custom] grade.
  2. Thickness: As indicated on the Drawings.
  3. Core: Expanded corrugated core with wood lock blocks.
  4. Face Finish: Veneer shall be premium grade, plain sliced hardwood for doors with a transparent finish; custom grade, medium density overlay for doors scheduled for paint finish. Wood species as selected.
  5. Plastic Laminate: High pressure laminate. Color and texture as selected.

C. Panel Doors:

1. Type: Custom fabricated, solid wood construction. AWI, [premium][custom] grade.
  2. Stiles, Rails and Panels: Fabricated from clear, kiln dried solid lumber core with sliced veneer faces and edges as scheduled and solid trim pieces as required. Wood species as scheduled or selected. Vertical stiles shall be of the same species and color as the face veneer.
- D. Lowered / Half-Louvered Doors: Minimum 1-3/8" thick; conform to NWWDA, I.S.-6.

E. Louvers:

1. Wood: Door manufacturer's standard solid wood louvers of the same species as the door face veneer, unless indicated otherwise and of the size, type and profile shown. Factory install in prepared openings.

- F. Transom and Side Panels: Where transom or side panels are shown in the same framing system as wood doors, provide panels which match the quality and appearance of the associated wood doors, unless otherwise indicated. Fabricate matching panels with the same construction, exposed surfaces and finish as specified for the associated doors.

- G. Adhesive: Type 1, waterproof bond.

2.3 FABRICATION

- A. Fabricate non-fire-rated doors in accordance with AWI 1300.
- B. Furnish and install lock blocks at lock edge, and at the top of doors for closer hardware reinforcement.

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- C. Bond edge banding to the core.
  - D. Factory machine doors for door hardware in accordance with the hardware requirements and dimensions. Do not machine for surface hardware.
  - E. Factory install louvers in prepared openings.
  - F. Factory fit doors for the frame opening dimensions identified on the approved Shop Drawings.
  - G. Doors may be provided pre-fitting, set in frames and ready for installation in rough openings.
  - H. Before delivery of doors to the Project Site, shop-prime all wood surfaces per Section 09900 - Painting.
- PART 3 EXECUTION**
- 3.1 EXAMINATION**
- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
  - B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive the work.
  - C. Installer must examine door frames and verify that the frames are the correct type and have been installed as required for the proper hanging of corresponding doors.
  - D. Report, in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.
- 3.2 INSTALLATION**
- A. Condition doors to average prevailing humidity in the installation areas prior to hanging.
  - B. Install wood doors in accordance with the manufacturer's instructions and as shown.
  - C. Install non-fire-rated doors in accordance with AWI Quality Standards requirements.
  - D. Job Fit Doors: Align doors to the frames for proper fit and uniform clearance at each edge and machine for hardware. Seal cut surfaces after fitting and machining.
    - 1. Bevel non-fire rated doors 1/8" in 2" at lock and hinge edges.
  - E. Machine cut doors for the hardware. Install the door hardware specified in Section 08710.
  - F. Clearance: For non-fire rated doors provide a clearance of 1/8" at jambs and heads, 1/8" at meeting stiles for pairs of doors, and 3/16" from the bottom of the door to the top of decorative floor finish or covering. Where thresholds are shown or scheduled, provide 1/4" clearance from the bottom of the door to the top of the threshold.
  - G. Tolerance: Conform to AWI 1300 for requirements for maximum diagonal warp.

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- H. Install door louvers plumb and level.
  - I. Job Site Finished Doors: For requirements for finishing wood doors, louvers and vision panel frames see Section 09900 - Painting.
- 3.3 ADJUSTING**
- A. Section 01700 - Execution Requirements: Adjusting and cleaning the installed work.
  - B. Rehang or replace doors which do not swing or operate smoothly.
- 3.4 FIELD QUALITY CONTROL**
- A. Section 01450 - Quality Control: Field inspection.
  - B. Inspect door installations for alignment, hardware installations and door operation.
- 3.5 PROTECTION**
- A. Section 01700 - Execution Requirements: Protecting the installed work.
  - B. Implement procedures for the protection of installed wood doors from damage and deterioration until final acceptance.
  - C. Refinish or replace doors damaged during installation as directed by the Owners representative.

END OF SECTION



SECTION 09300

TILE

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Floor tile and base tile.
2. Quarry floor and base tile.
3. Ceramic wall tile, shapes and trim units.
4. Porcelain floor tile.
5. Stair tile.
6. Marble threshold.
7. Mortar and grout.
8. Sealer.
9. Metal edge strips.
10. Waterproofing membrane.
11. Tile feature strips and patterns set in paving.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 03300 - Cast-In-Place Concrete: Substrate for application.
2. Section 04230 - Reinforced Unit Masonry: Substrate for application.
3. Section 09250 - Gypsum Board: Substrate for application.
4. Section 07900 - Joint Sealers: Sealant at tile penetrations and dissimilar materials.

1.2 DESCRIPTION OF WORK

A. The extent of the tile work is indicated on the Drawings and Schedules and as specified herein, and includes providing and installing floor, base and wall units made from clay and other ceramic materials, marble thresholds, waterproofing membrane under tile, metal edge strips, mortar and grout, sealing of expansion and other joints, and feature strips, patterns and accent tiles.

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B. Definition: The term **Tile**® includes ceramic surfacing units and trim made from clay or other ceramic materials.

C. Joint sealants are specified in Section 07900 - Joint Sealers.

1.3 REFERENCES

A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.

B. American National Standards Institute (ANSI):

1. ANSI A108.4 - Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive.
2. ANSI A108.5 - Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
3. ANSI A108.10 - Installation of Grout in Tilework.
4. ANSI A118.1 - Specifications for Dry-Set Portland Cement Mortar.
5. ANSI A118.4 - Specifications for Latex-Portland Cement Mortar.
6. ANSI A118.6 - Specifications for Standard Cement Grouts for Tile Installation.
7. ANSI A136.1 - Organic Adhesives for Latex Portland Cement Mortar.
8. ANSI A137.1 - Specification for Ceramic Tile.

C. American Society for Testing and Materials (ASTM):

1. ASTM C 373 - Test Method for Water Absorption, Bulk Density, Apparent Porosity, and Apparent Specific Gravity of Fired Whiteware Products.
2. ASTM C 482 - Test Method for Bond Strength of Ceramic Tile to Portland Cement Plaster.
3. ASTM C 485 - Test Method for Measuring Warpage of Ceramic Tile.
4. ASTM C 499 - Test Method for Facial Dimensions and Thickness of Flat, Rectangular Ceramic Wall and Floor Tile.
5. ASTM C 501 - Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser.
6. ASTM C 502 - Test Method for Wedging of Flat, Rectangular Ceramic Wall and Floor Tile.
7. ASTM C 648 - Test Method for Breaking Strength of Ceramic Tile.
8. ASTM C 650 - Test Method for Resistance of Ceramic Tile to Chemical Substances.
9. ASTM C 1028 - Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter

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- Method.
- D. Americans with Disabilities Act Accessibility Guidelines (ADAAG);
  - 1. Accessibility Guidelines for Buildings and Facilities.
- E. Tile Council of America, Inc. (TCA);
  - 1. Handbook for Ceramic Tile Installation.
- 1.4 SUBMITTALS
  - A. Section 01330 - Submittal Procedures: Procedures for submittals.
    - 1. Product Data: Manufacturer's technical information and installation instructions for the materials required.
    - 2. Shop Drawings: Layout drawings and details for proper installation of the work.
    - 3. Samples:
      - a. Initial Selection:
        - 1) Manufacturer's color charts of actual tiles or sections of tile showing the full range of colors, textures and patterns available for each type of tile indicated.
        - 2) Grout and accessories requiring color selection.
      - b. Final Selection:
        - 1) Full size samples of each type of tile and each color and texture selected.
        - 2) Full size samples of each type of trim, accessory, and for each color.
        - 3) Marble thresholds, 6" long.
        - 4) Stair tread and nosing, full size.
        - 5) Metal edge strip, 6" long.
    - 4. Mock up:
      - a. Waterproof membrane.
      - b. 30 SF of tile for pattern and joint width conformation.
      - c. Expansion and control joints and metal edge strip installations.
  - 5. Assurance / Control Submittals:
    - a. Manufacturer's certificate that the products meet or exceed the specified requirements.
- 1.5 COORDINATION
  - A. Pre-Installation Meeting: Convene a Pre-Installation Meeting at the Project Site prior to beginning the work of this Section.
    - 1. Require attendance of the Contractor, Owner's representative, Architect, and all impacted trades.
    - 2. Review coordination and environmental controls required for proper installation and ambient conditions in the areas to receive tile work.
    - 3. Review preparation and installation procedures, and the coordination and scheduling required with the related work.
- 1.6 QUALITY ASSURANCE
  - A. Qualifications:
    - 1. Manufacturer: Company specializing in manufacturing the products specified with a minimum of five (5) years documented experience.
    - 2. Installer: Company experienced in performing the work of this Section with a minimum of five (5) years documented experience.
  - B. Provide materials from a single source for each type and color of tile, grout, setting material and accessory.
- 1.7 DELIVERY, STORAGE AND HANDLING
  - A. Section 01600 - Product Requirements: Transport, handle, store, and protect the products.
  - B. Deliver tile and setting material to the Project Site in the manufacturer's original, unopened cartons, bearing the name of the manufacturer, the certification mark of the Tile Council of America, and ready for use.
  - C. Store materials under cover in a manner to prevent damage and contamination.
  - D. Prevent damage and contamination of materials by water, foreign matter and other causes.
- 1.8 JOB CONDITIONS
  - A. Environmental Requirements:
    - 1. Maintain adequate lighting for the installation of tile work. Lighting level shall be equal to permanent lighting level designed for areas receiving the tile work.
    - 2. Maintain sufficient ventilation in areas where the work of this Section is being performed to allow the ceramic tile to properly set.
- B. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
  - 1. Extra Products: Provide extra products as specified herein below.
- b. Documentation of experience indicating compliance with the specified qualifications requirements.

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3. Maintain environmental conditions and protect the work during and after installation to comply with the referenced standards and the manufacturer's printed recommendations.

#### 1.9 MAINTENANCE

- A. Section 01780 - Closeout Submittals: Procedures for closeout submittals.
- B. Extra Products: Upon completion of the installation, deliver to the Owner's representative, replacement materials from the same production run as the installed materials; 2% of the total amount of each size, style and color.

#### PART 2 PRODUCTS

##### 2.1 GENERAL

- A. ANSI Standard For Ceramic Tile: Comply with ANSI A137.1 for the types and grades of tile indicated.
- B. ANSI Standard For Tile Installation Materials: Comply with the ANSI Standard referenced with the installation products and materials indicated.
- C. Colors, Texture and Patterns: For tile and other products requiring the selection of colors, surface textures and other appearance characteristics, provide products to match the characteristics indicated or, if not otherwise indicated, as selected from the manufacturer's standards.
- D. Mounting:
  1. Where factory-mounted tile is required, provide back or edge mounted tile assemblies as standard with the manufacturer, unless another mounting method is indicated.
  2. Where tile is indicated for installation in pools, fountains or at exterior or in wet areas, do not use back or edge mounted tile assemblies unless the tile manufacturer specifies that such type of mounting is suitable for that kind of use and has been successfully used on other projects.
- E. Trim Units: Provide tile trim units to match the characteristics of the adjoining flat tile and to comply with the following requirements:
  1. Size: As indicated, coordinate with the sizes and coursing of the adjoining flat tiles, where applicable.
  2. Shapes: As follows, selected from the manufacturer's standard shapes:
    - a. Base for Portland Cement Mortar Installations: Coved.
    - b. Base for Thinset Mortar Installations: Coved.
    - c. Wainscot Cap for Thinset Mortar Installations: Surface bullnose.
    - d. External Corners for Thinset Installations: Surface bullnose.
    - e. Internal Corners: Internal cove with cap angle designed to member with

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the stretcher shapes.

- f. Stair tread with nosing.

- F. Coefficient of Friction (COF): ADAAG recommends a 0.6 or higher coefficient or higher in dry conditions to meet ADAAG requirements. Typically the COF is indicated in a wet and a dry number under those conditions for the average of the test results. In a situation where there is a potential for water, the tile should meet the COF of 0.6 or higher under wet conditions. ADAAG recommendation for COF on a ramped surface is 0.8. Static coefficient of friction tests are performed according to ASTM C 1028.

#### 2.2 MANUFACTURERS

- A. Subject to compliance with the Project requirements, manufacturer's offering products which may be incorporated into the work include the following:

1. Tile:
  - a. American Olean.
  - b. Dal-Tile Corp.
  - c. Crossville Inc.
2. Mortar and Grout:
  - a. Hydromont by Bostik.
  - b. LATICRETE.
  - c. MAPEI Corp.
3. Latex-Portland Cement Mortar and Grout:
  - a. ProSpec (formerly Bonsal).
  - b. Hydromont by Bostik.
  - c. LATICRETE.
  - d. Summitville Tiles, Inc.

- B. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

#### 2.3 TILE, GENERAL

- A. Tile: ANSI A137.1.
  1. Stain Resistance, CTI Stain Test: Unstainable.
  2. Surface Water Absorption, ASTM C 373: 0.5% Max.
  3. Abrasive Wear, ASTM C 501: 100.
  4. Breaking Strength, ASTM C 648: 250 lbs.

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5. Bond Strength, ASTM C 482: 50 psi.
  6. Facial Dimension (range), ASTM C 499: 1.5% Max.
  7. Range of Thickness, ASTM C 499: 0.04" Max.
  8. Warpage (Diagonal), ASTM C 485:  $\leq 0.75\%$  Max.
  9. Wedging, ASTM C 502: 1% Max.
  10. Chemical Resistance, ASTM C 650: Unaffected.
  11. Coefficient of Friction, ASTM C 1028:
    - a. Dry  $> 0.7$ .
    - b. Wet  $> 0.6$ .
  12. Scratch Hardness, Moh's Scale:  $\geq 8$ .
- 2.4 QUARRY TILE
- A. Dal-Tile, quarry tile, 4" x 8", or size and shape as selected.
  - B. Color as selected.
- 2.5 CERAMIC TILE
- A. American Olean, 2" x 2", ceramic mosaic floor tile.
  - B. American Olean, 4" x 4", ceramic glazed wall tile.
  - C. Color as selected. Accent tile shall be a contrasting color to the field tile color.
- 2.6 PORCELAIN TILE.
- A. 20" x 20" or size and shape as selected, glazed floor tile by Dal-Tile.
  - B. 6" x 6" or as indicated unglazed floor tile at the exterior by Dal-Tile.
  - C. Color as selected.
    1. Accent tiles shall be a contrasting color to the field tile color.
- 2.7 MARBLE THRESHOLD
- A. Alabama Marble Tile Co., Inc.
  - B. Dal-Tile.
  - C. Thornton Tile and Marble, Inc.
  - D. Size, shape and color as shown, or as selected.
  - E. Section 01600 - Product Requirements: Product Options: Substitutions permitted.

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2.8 WATERPROOF MEMBRANE

- A. Liquid Applied Membrane: Thin, load-bearing, flexible waterproofing system, self-curing liquid rubber polymer, cold-applied with integral reinforcing fabric to form a seamless membrane.
- B. LATICRETE #9235 Waterproofing Membrane by LATICRETE or approved equal.

2.9 MISCELLANEOUS MATERIALS

- A. Metal Edge Strip: Brass or stainless steel, as selected; 1/8" wide at the top edge with integral provision for anchorage to mortar bed or substrate, unless otherwise indicated. Style to be as indicated, or appropriate to the use; as manufactured by Schluter Systems, or approved equal. Style to be as appropriate for the use intended
  - B. Wall Access Panel: Schluter-REMA by Schluter Systems or approved equal.
  - C. Adhesives: Water-resistant organic; ANSI A136.1.
  - D. Water: Clean and potable.
  - E. Reinforcing Mesh: 2" x 2", 16 gauge, galvanized, welded wire.
  - F. Tile / Grout Sealer: Non-flammable, water-soluble, penetrating methyl silicone clear solution, stain-resistant, matte sealer.
  - G. Tile, Grout and Masonry Cleaner: As approved by the tile, grout and sealer manufacturers.
- 2.10 MORTAR AND GROUT MIX
- A. Mix and proportion mortar and grout materials in strict accordance with the manufacturer's instructions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting the work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates slope to drains and conditions are as required, and ready to receive the work.
  1. Examine areas to be covered for surface contamination which requires correction before work begins.
- C. Report in writing, prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with the work until the unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Do not use sealers or curing compounds on concrete slabs to be covered with tile. Slabs shall be covered and wet cured for a minimum of seven (7) days. Surfaces to receive tile

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- installed by the thin set method shall have a wood float finish, be true to within 1/8" in 10 feet, and pitched to drains where required.
- B. Areas requiring fill, patching or leveling shall be prepared by the General Contractor. Do not use gypsum or asphalt leveling compounds.
  - C. Seal substrate surface cracks with filler.
  - D. Clean substrate surfaces to remove dust, dirt, mortar, etc.
  - E. Surfaces to be covered shall be left clean, free of dust, plaster, sealer or curing compounds and form oil. Any such contamination shall be removed by the responsible trade.
  - F. Prepare substrate surfaces for adhesive installation in accordance with adhesive manufacturer's instructions.
  - G. Protect surrounding work from damage or disfiguration.
  - H. Vacuum clean existing substrate and damp clean.
  - I. Wet down or wash and remove excess water from dry or dusty concrete or masonry surfaces just prior to the application of pavers.

### 3.3 INSTALLATION

- A. Installation Methods: Install ceramic tile in accordance with the TCA, <sup>3</sup>A Handbook for Ceramic Tile Installation<sup>®</sup>, ANSI A108.4, and ANSI A108.5.
- B. Waterproof Membrane: Install waterproof membrane for all elevated slab floors exposed to water or wind blown rain. For example, install at elevated slabs where Showers, Baths, Kitchens, washing and other wet activities occur, and at terraces and roofs over interior spaces.
  - 1. Contractor shall obtain architect or owner's representative approval of membrane prior to proceeding with the work.
- C. Installation by Thick Bed Method:
  - 1. Spread mortar to approximately one-half the desired bed thickness, then place reinforcing mesh. Lap mesh 3", minimum, and place additional mortar over the mesh to bring the bed to the desired thickness. Rod and compact mortar with a steel trowel. The setting bed shall be, minimum, 1-1/2" thick.
    - a. Note: The setting bed may be reduced to a nominal 1" thickness and the reinforcing omitted when bonding directly to concrete slabs or a load-bearing membrane.
  - 2. Before placing tile on a green or wet screed bed, apply a slurry of bond coat to the mortar bed using a flat trowel.
  - 3. Tile shall be placed in the wet slurry coat before the surface dries, or apply a slurry bond coat applied to the back of each tile just prior to placing the tile on the bed.
  - 4. Before the mortar takes initial set, place and beat each tile into place with a wooden block or rubber mallet to embed it and to even the surface.

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- 5. Maintain uniform joint widths.
  - 6. The surface shall be pitched to drains, where indicated, or as required.
  - 7. On hardened screed or mortar bed, tiles may be installed by the thin set method if proper tolerances are provided.
- D. Installation by Thin Set Method:
- 1. Apply mortar with a notched trowel using a scraping motion to work the material into good contact with the substrate to be covered. A trowel having notches approximately 1/4" x 3/8" is recommended for pavers. Apply only as much mortar as can be covered within 30 minutes, or while the surface is still tacky.
  - 2. Trowel a small quantity of mortar onto the back of each piece of tile. Set the tile in place and tap with a small beating block to ensure 100% full bedding and a true surface.
  - 3. Align tile to provide uniform joints and then allow to set until firm.
  - 4. Clean excess mortar from the surface of tiles with a wet cloth or sponge while the mortar is still fresh.

### E. Mortar:

- 1. Machine Mixing: Mortar mixer shall be the rotating blade type. Place mixing liquid in the mixer, start the machine and add sand, then cement. Mix only long enough to wet out the batch. Stop the mixer and dump the mortar promptly. Do not overmix.
- 2. Hand Mixing: Pre-mix the dry ingredients (sand and cement). Place mixing liquid in a clean container or mixing box, add the dry materials and mix. Adjust the amount of liquid or dry materials to obtain the proper consistency.

### F. Joints: 1/8" width for tiles less than 12", 3/16" for tiles to 25"; 1/4" for quarry tile.

### G. Expansion and Control Joints:

- 1. Existing joints in concrete subfloors must be carried through the tile and shall conform to the architectural details.
- 2. Expansion joints shall be installed where tile abuts restraining surfaces, such as perimeter walls, curbs, columns, corners, etc.
- 3. Interior installations shall have expansion joints spaced a maximum of 30 feet o.c. in both directions. Exterior areas shall have expansion joints spaced a maximum of 15' in both directions. Expansion joints shall be raked out or cut through the setting bed to the supporting slab or structure below.

### H. Edge Strips: Install at transitions to other flooring materials, for control joints, or as indicated.

### I. Grouting and Pointing Joints:

- 1. Joints shall be grouted or pointed with Latex-Portland Cement Grout or Epoxy Grout.

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- 2. Joints shall be packed full and free of voids and pits. Tool or rake as specified.
  - 3. Excess mortar shall be cleaned from the surface of tiles with water and a damp sponge as the work progresses, while the mortar is fresh and before it hardens.
- J. Provide a slope in tile setting material as required to slope surfaces at floor transitions and floor drains.
- K. Lay tile to the pattern indicated. Do not interrupt the tile pattern through wall openings.
- L. Cut and fit tile to penetrations through the tile leaving a sealant joint space. Form corners and bases neatly. Align floor, base, and wall joints.
- M. Place tile joints uniform in width, subject to variance in the tolerance allowed in the tile size. Make joints watertight, without voids, cracks, excess mortar or excess grout.
- N. Sound the tile after setting. Replace hollow sounding units.
- O. Expansion, Contraction, Control Joints and Separation: Install tile and a pair of metal edge strips in accordance with the applicable TCA Handbook methods. Keep joints free of adhesive, mortar, and grout, seal. Refer to Section 07900 - Joint Sealers.
- P. Allow tile to set for a minimum of 48 hours prior to grouting.
- Q. Grout tile joints in accordance with ANSI A108.10.
- R. Caulk plumbing penetrations thru floor tiles and plumbing and electrical penetrations thru wall tiles.
- S. Apply sealant to the junction of tile and dissimilar materials and at the junction of dissimilar planes as specified in Section 07900 - Joint Sealers. Apply in strict accordance with the manufacturer's instructions.
- T. Install metal edge strips at transitions to other flooring materials, and where tile edges are exposed. Lock solidly into the setting bed.

### 3.4 INSTALLATION SCHEDULE

- A. Paver Tiles: Install by thick (mortar) bed method. Place waterproof membrane under exterior pavers with occupiable space below. Apply sealer per manufacturer's instructions.
- B. Quarry Tiles: Install by thin set on hardened thick bed method at Freezer floors; thick bed method at Kitchens, thin set at Bars. Place waterproof membrane at Dishwashing, garbage areas and exterior spaces over structural slabs and other wet areas.
- C. Ceramic Tiles: Install by thin set or thick (mortar) bed method. Place waterproofing membrane at Baths, Shower Rooms, areas on structural slabs subject to wind blown water and other wet areas.

### 3.5 TOLERANCE

- A. Maintain an even and flat plane with variation not to exceed 1/8" in 8 feet. Adjacent tile shall be flush with no protruding or recessed tile edges. The tiles shall be cut neatly and fit to built-in work, penetrations, corners, changes in elevations and other variations.

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### 3.6 FIELD QUALITY CONTROL

- A. Section 01450 - Quality Control: Field inspection.
- B. Inspect installations for joint widths, alignment, edge treatments, sound bonding to the substrates.

### 3.7 CLEANING

- A. Section 01700 - Execution Requirements: Cleaning the installed work.
- B. Upon the completion of placement and grouting, clean all ceramic tile surfaces free of foreign matter.
- C. Remove excess mortar and grout from floor, base, and wall surfaces without damaging the surfaces.
- D. Clean unglazed tiles with acid solutions only when permitted by the tile and grout manufacturer's printed instructions, but not sooner than fourteen (14) days after installation. Protect metal surfaces, cast iron and vitreous plumbing fixtures from the effects of acid cleaning. Flush surfaces with clean water before and after cleaning.
- E. Clean tile only with cleaning materials recommended by tile and grout manufacturers.
- F. Remove hardened grout film or haze using Laticrete TC-500, Grout and Masonry Cleaner.
  - 1. Saturate grout joints with water, then dampen the surface with the cleaner.
  - 2. Allow to soak 15 - 30 minutes and then use a power scrubbing machine with a coarse texture nylon pad to remove the grout film.
- G. Clean unglazed pavers by sprinkling fine sand (30 - 60 mesh) over the surface before scrubbing.
  - 1. Caution: Do not use sand on soft glazed tiles.
- H. Do not use acid type cleaners on colored grout joints.
- I. Leave finished installations clean and free of cracked, chipped, broken, un-bonded and otherwise defective work.

### 3.8 PROTECTION

- A. When recommended by the tile manufacturer, apply a protective coat of neutral protective cleaner to the completed floor and wall tiles.
- B. Protect installed tile work with kraft paper or other heavy covering to prevent staining, damage and wear.
- C. Prohibit foot and wheel traffic from tiled floors for at least seven (7) days after grouting has been completed.
- D. Immediately before final inspection, remove the protective coverings and rinse the neutral cleaner from the tile surfaces.

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E. Before final inspection, remove protective coverings and rinse neutral cleaner from the tile surfaces.

SECTION 09650  
RESILIENT FLOORING

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vinyl composition tile.
2. Sheet vinyl flooring.
3. Resilient edge strip.
4. Rubber base.
5. Accessories.

B. Related Documents: The Contract Documents, as defined in Section 01010 - Summary of Work, apply to the work of this Section. Additional requirements and information necessary to complete the work of this Section may be found in other Documents.

C. Related Sections:

1. Section 03300 - Cast-In-Place Concrete: Substrate for resilient flooring.
2. Section 09250 - Gypsum Board: Substrate for rubber base.
3. Section 09680 - Carpet: Floor finish for rubber base.

1.2 DESCRIPTION OF WORK

A. The extent of resilient flooring work is indicated on the Drawings and Schedule and as specified herein, and includes providing and installing adhesively applied vinyl composition tile, sheet vinyl flooring, resilient edge strips, rubber base and resilient accessories.

1.3 REFERENCES

A. The publications listed below form a part of this Specification to the extent referenced. Publications are referred to in the text by basic designation only.

B. American Society for Testing and Materials (ASTM):

1. ASTM E 648 - Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
2. ASTM E 662 - Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
3. ASTM F 1066 - Specification for Vinyl Composition Floor Tile.
4. ASTM F 1303 - Specification for Sheet Vinyl Floor Covering with Backing.
5. ASTM F 1861 - Specification for Resilient Wall Base.

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RESILIENT FLOORING

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- B. Make all necessary arrangements with the serving utilities, and pay all costs and fees, assessed to the project by the serving utilities. All work shall be in accordance with serving utilities standards and subject to their approval. Coordinate the installation of service entrance equipment with GPA prior to start of construction.
- C. Application for power service must be submitted to GPA eight months before service connection to allow for timely delivery of transformers.

1.17 PRODUCT HANDLING: Comply with pertinent provisions of Division 1.

1.18 WARRANTY: Provide one year warranty on all labor and materials.

1.19 AS-BUILT DRAWINGS

- A. The Contractor shall maintain at the site one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders, and other modifications, in good order, and marked to record all changes made during construction. These shall be made available to the Contracting Officer.
- B. At the conclusion of the work, the Contractor will be furnished by the Contracting Officer, at the Contractor's expense, a set of reproducible made from original contract plans. The Contractor shall then incorporate all changes made, as recorded, into the set of reproducible in a clear, legible and reproducible manner. All feeders, main alarm and communication lines, service entrance, and stub-outs shall be dimensionally located within the building structure. As a condition for acceptance of work, "as-built" reproducible shall be signed by Contractor attesting that all changes have been incorporated, dated and delivered to the Contracting Officer.

1.20 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra Products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed; obtain receipt prior to final payment.

END OF SECTION

BASIC ELECTRICAL MATERIALS AND METHODS 16050-6



**Specification  
for the**

**Phase II Design & Development of Transitional Housing**

**OWNER  
Guam Housing and Urban Renewal Authority**

**BY:** \_\_\_\_\_  
Elizabeth F. Napoli, EXECUTIVE DIRECTOR

**Contractor:** \_\_\_\_\_

**By:** \_\_\_\_\_  
Signature and Title

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

**END OF SPECIFICATION**