



Procurement Operations

Request for Competitive Sealed Proposals (RFCSP)

For

Roofing Services - 3100 Main Street

Project No. 12-08

REQUEST FOR PROPOSALS

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<u>Sample Contract Documents</u>	
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Exhibit A: Proposal /Award Form	
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HOUSTON COMMUNITY COLLEGE

REQUEST FOR COMPETITIVE SEALED PROPOSALS - SUMMARY

Date: August 27, 2012
Project Title: Roofing Services – 3100 Main Street
Project No.: 12-08

ISSUED BY:
Houston Community College
Procurement Operations
3100 Main Street (11th Floor)
Houston, Texas 77002

SUBMIT INQUIRES TO:
Name: Georgia Coats
Title: Purchasing Agent
Telephone: (713) 718-5004
Fax: (713) 718-2113
Email: georgia.coats@hccs.edu

1. **Project Overview:**

Houston Community College (“HCC”) is seeking proposals from qualified firms to provide Roofing Services – 3100 Main Street as described and specified in the Scope of Services, Attachment No. 3, and in accordance with the terms, conditions, requirements, plans and specifications attached hereto and made a part of the RFCSP.

PROPOSERS ARE CAUTIONED TO READ THE INFORMATION CONTAINED IN THIS RFP CAREFULLY AND TO SUBMIT A COMPLETE RESPONSE TO ALL REQUIREMENTS AND QUESTIONS AS DIRECTED.

2. **Award / Contract Approval:**

This Procurement, any award under this procurement, and the resulting contract, if any, is subject to approval by HCC Board of Trustees. Subsequent to Board approval, the only person authorized to commit HCC contractually is the Chancellor or designee. This solicitation is a request for proposals and neither this solicitation nor the response or proposal from any prospective proposer shall create a contractual relationship that would bind HCC.

3. **Pre-Proposal Meeting:** _____Mandatory ___X___Not mandatory

A pre-proposal meeting will be held in the Procurement Operations Department, 3100 Main Street (11th Floor, Room # 11A07) Houston, Texas 77002 on Wednesday, September 06, 2012 at 2:00 p.m. (local time).

4. **Proposal Due Date/Time:** HCC will accept sealed proposals in original form to provide Roofing Services - 3100 Main Street until 2:00 p.m. (local time) on September 20, 2012. Proposals will be received in the Procurement Operations Department, 3100 Main Street (11th Floor, Room 11A06), Houston, Texas 77002. **Late proposals properly identified will be returned to Proposer unopened. Late proposals will not be considered under any circumstances.**

5. **Contract Duration:** For the term of the project in accordance with the project schedules.

6. **Obligation and Waivers:**

This Request for Proposal does not obligate HCC to award a contract or pay any costs incurred by the proposer in the preparation and submittal of a proposal.

HCC, IN ITS SOLE DISCRETION, RESERVES THE RIGHT TO ACCEPT ANY PROPOSAL AND/OR REJECT ANY AND ALL PROPOSALS OR A PART OF A PROPOSAL, WITHOUT REASON OR CAUSE, SUBMITTED IN RESPONSE TO THIS SOLICITATION.

HCC RESERVES THE RIGHT TO REJECT ANY NON-RESPONSIVE OR CONDITIONAL PROPOSAL. HCC RESERVES THE RIGHT TO WAIVE ANY INFORMALITIES, IRREGULARITIES AND/OR TECHNICALITIES IN THIS SOLICITATION, THE PROPOSAL DOCUMENTS AND /OR PROPOSALS RECEIVED OR SUBMITTED.

BY SUBMITTING A PROPOSAL, PROPOSER AGREES TO WAIVE ANY CLAIM IT HAS, OR MAY HAVE, AGAINST HOUSTON COMMUNITY COLLEGE AND ITS TRUSTEES OR AGENTS ARISING OUT OF OR IN CONNECTION WITH (1) THE ADMINISTRATION, EVALUATION OR RECOMMENDATIONS OF ANY PROPOSAL; (2) ANY REQUIREMENTS UNDER THE SOLICITATION, PROPOSAL PACKAGE, OR RELATED DOCUMENTS; (3) THE REJECTION OF ANY PROPOSAL OR ANY PART OF ANY PROPOSAL; AND/OR (4) THE AWARD OF A CONTRACT, IF ANY.

HCC reserves the right to withdraw this solicitation at any time for any reason; remove any scope component for any reason and to issue such clarifications, modifications and / or amendments as deemed appropriate.

HCC is an equal opportunity/educational institution, which does not discriminate on the basis of race, color, religion, national origin, gender, age, disability, sexual orientation or veteran status.

7. **Vendor Registration:**

The Houston Community College Procurement Operations department has developed an online vendor application. This is designed to allow firms or individuals that are interested in doing business with HCC to register online and become part of our vendor database. Once registered, you will receive a password and personal login information that will allow you to modify your vendor information anytime a change occurs with your company. You will have the flexibility to add or delete commodity lines, update phone numbers and contact information, etc. This database will allow HCC to notify, via email, all companies that match the desired commodity criteria for procurement opportunities within Houston Community College. What a great way to never miss out on an HCC bid or proposal opportunity again.

Please take a moment to go to the Houston Community College Procurement Operations department website and register as a vendor. The website address to access the vendor registration form is <https://hccs.sbcompliance.com/FrontEnd/VendorsIntroduction.asp>

If you do not have internet access you are welcome to use a computer at any HCC library to access the website and register.

**A PROPERLY COMPLETED VENDOR APPLICATION IS REQUIRED AND IS A
CONDITON OF CONTRACT AWARD**

INSTRUCTIONS TO PROPOSERS

1. **Introduction**

HCC is seeking proposals under the negotiated method of procurement from qualified firms interested in providing Houston Community College ("HCC") with Roofing Services - 3100 Main Street in accordance with the Scope of Services contained in this solicitation (Attachment No. 3).

2. **Proposal Submittal**

Proposer(s) shall submit one (1) original and four (4) copies of the technical proposal and five (5) copies of the price proposal to the address shown below by the date and time specified in this solicitation. One electronic copy should also be included as part of your proposal; either CD or flash drive in non-editable PDF format and include the entire submission. In addition to the technical and price proposal, each proposer must complete and return the following documents, if appropriate:

- Proposal /Contract Award Form (Attachment No. 1)
- Schedule of Items and Prices (Attachment No. 2)
- Determination of Good Faith Effort (Attachment No.4)
- Small Business Unavailability Certificate (Attachment No. 5)
- Contractor & Subcontractor/Supplier Participation Form (Attachment No. 6)
- Small Business Development Questionnaire (Attachment No. 7)
- Proposer Certifications (Attachment No. 8)
- Conflict of Interest Questionnaire (Attachment No. 9)
- Disclosures Financial Interests and Potential Conflicts of Interests (Attachment No. 10)
- Response to Proposer Questionnaire (Attachment No. 11)

The envelope containing a proposal shall be addressed as follows:

- Name, Address and Telephone Number of Proposer;
- Project Description/Title;
- Project Number; and
- Proposal Due Date/Time.

All proposals shall be submitted to the following address:

Houston Community College
Procurement Operations
3100 Main Street (11th Floor)
Houston, Texas 77002
Ref: Project No. 12-08

Attn: Georgia Coats, Purchasing Agent

Late proposals properly identified will be returned to Bidder unopened. Late proposals will not be considered under any circumstances.

Telephone proposals are not acceptable when in response to the RFCSP.

Facsimile ("FAX") or electronic (email) proposals are not acceptable when in response to this RFCSP.

Firms wishing to submit a "No-Response" are requested to return the first page of the Proposal/Contact Award Form (ref. Attachment No. 1). The returned form should indicate your company's name and include the words "No-Response" in the right-hand column.

3. **Eligibility for Award**

- a. In order for a proposer to be eligible to be awarded the contract, the proposal must be responsive to the solicitation and HCC must be able to determine that the proposer is responsible and has the resources and capacity to perform the resulting contract satisfactorily.
- b. Responsive proposals are those that comply with all material aspects of the solicitation, conform to the solicitation documents and meet the requirements set forth in this solicitation. Proposals, which do not comply with all the terms and conditions of this solicitation will be rejected as non-responsive.

- c. Responsible proposers, at a minimum, must meet the following requirements:
- Have adequate financial resources, or the ability to obtain such resources as required during the performance of any resulting contract:
 - Be able to comply with the required performance schedule, taking into consideration all existing business commitments:
 - Have a satisfactory record of past performance:
 - Have necessary personnel and management capability to perform any resulting contract:
 - Be qualified as an established firm regularly engaged in the type of business necessary to fulfill the contract requirements:
 - Certify that the firm is not delinquent in any tax owed the State of Texas under Chapter 171, Tax Code; and is not delinquent in taxes owed to the Houston Community College; signing and submitting the proposal is so certifying to such non-delinquency:
 - Be otherwise qualified and eligible to receive an award under applicable laws and regulations.
- d. Proposer(s) may be requested to submit additional written evidence verifying that the firm meets the minimum requirements described in the above Section 3 (c) and as necessary to perform the requirements of the solicitation and be determined a responsible proposer. Failure to provide any requested additional information may result in the proposer being declared non-responsive and the proposal being rejected.
- e. A person is not eligible to be considered for award of this solicitation or any resulting contract or to be a subcontractor of the proposer or prime contractor if the person assisted in the development of this solicitation or any part of this solicitation or if the person participated in a project related to this solicitation when such participation would give the person special knowledge that would give that person or a prime contractor an unfair advantage over other bidders.
- f. A person or proposer shall not be eligible to be considered for this solicitation if the person or proposer engaged in or attempted to engage in prohibited communications as described in Section 13 (Prohibited Communications), below.

4. **Preparation of Proposal**

a. **Technical Proposal:**

Proposer shall prepare and submit as part of their response to this RFCSP a Technical Proposal in accordance with the requirements set forth in Attachment 11, Proposers Questionnaire, Section 11.3.

b. **Price Proposal:**

Proposer shall prepare and submit as part of their response to this RFCSP a Price Proposal. (Refer to Attachment No. 2, Schedule of Items and Prices).

5. **Evaluation Criteria**

An Evaluation Committee ("Committee") will review all proposals to determine which proposers have qualified for consideration according to the criteria stated herein. The committee's evaluations will be based on all available information, including qualification statements, subsequent interviews, if necessary, reports, discussions, reference checks, and other appropriate checks. The highest rated proposer(s) evaluated by the Committee **may** be invited to make an oral presentation of their written proposal to the Committee and/or the HCC Board of Trustees. Proposals will be evaluated using the following criteria:

<u>FACTOR</u>	<u>Percentage Weight</u>
• Qualifications and Experience of Firm	15%
• Project Management and Staffing	15%
• Past Performance	10%
• Safety Record & Training	10%
• Small Business Participation	Acceptable/Unacceptable
• Price Proposal	50%

Total: 100%

6. **Contract Award**

Award of a contract, if awarded, will be made to the proposer who (a) submits a responsive proposal; (b) is a responsible proposer; and (c) offers the best value to HCC, price and other factors considered. A responsive proposal and a responsible proposer are those that meet the requirements of and are as described in Section 3, above (Eligibility For Award) of this solicitation. HCC may award a contract, based on initial proposals received, without discussion of such proposals. Accordingly, each initial proposal should be submitted on the most favorable terms from a price and technical standpoint, which the proposer can submit to HCC.

Except as otherwise may be set forth in this solicitation, HCC reserves the right to waive any informalities, non-material errors, technicalities, or irregularities in the proposal documents submitted and consider the proposal for award.

7. **Postponement of Proposals Due Date/Time**

Notwithstanding the date/time for receipt of proposals established in this solicitation, the date and time established herein for receiving proposals may be postponed solely at HCC's discretion.

8. **Oral Presentations**

During the process of selecting a company to provide the required services, oral presentations may or may not be held. Each proposer should be prepared to make a presentation to HCC. The presentation must show that the proposer clearly understands the requirements of the solicitation, and has a strategic plan and approach to complete the work.

9. **Small Business Development Program (SBDP)**

a. HCC has adopted a Small Business Development Program for small businesses attempting to provide goods and/or services as prime contractors or as subcontractors to other prime contractors to HCC. The program is designed to prevent discrimination by ensuring that small, underutilized and disadvantaged businesses are informed and prepared to compete for HCC procurements. HCC will neither discriminate nor select vendors on the basis of race, color, national origin, religion, gender, age or disability in its procurement selection process.

b. Small businesses whose gross annual income averaged over the past three (3) years does not exceed the Small Business Administration's size standard as specified in 13 CFR Part 121 are eligible to apply for participation in the program.

c. For this solicitation, HCC has established **twenty-five percent (25%)** of the total amount of the proposal as its goal for Small Business participation.

d. Good Faith Efforts: HCC will make a good faith effort to utilize small businesses in all contracts. The annual program goals may be met by contracting directly with small businesses or indirectly through subcontracting opportunities. Therefore, any business that contracts with HCC will be required to make a good faith effort to award subcontracts to small businesses. The subcontracting goal applies to all vendors

regardless of their status. By implementing the following procedures, a contractor shall be presumed to have made a good faith effort:

- e. To the extent consistent with industry practices, divide the contract work into reasonable lots.
- f. Give notice to SBDP eligible firms of subcontract opportunities or post notices of such opportunities in newspapers and other circulars.
- g. Document reasons for rejecting a firm that bids on subcontracting opportunities.

10. **Small Business Compliance**

To ensure compliance with any stated small business participation goal, the selected contractor will be required to meet with the HCC Buyer and the HCC Small Business Representative at the 50% and 75% completion phases/dates of the project, to verify small business participation activity and to ensure compliance with the stated small business goal, if any.

11. **Prime Contractor/Contracts for Services**

The prime contractor must perform a minimum of 30% of any contract for services with its labor force and or demonstrate management of the contract for services to the satisfaction of HCC.

12. **Internship Program**

- a. HCC is expanding its student internship program. All vendors are encouraged to make a commitment to utilize certain HCC student(s) in an internship capacity with the company under any resulting contract for services required under this solicitation. The selected contractor will be expected to pay the student(s) at least the minimum wage required by law. HCC will provide the selected contractor with the name of student(s) eligible to participate in the internship program.
- b. For additional information regarding the internship program, please contact Dr. Freddie Wade, Director of Workforce Program Initiatives at (713) 718-7596.

13. **Prohibited Communications**

Except as provided in exceptions below, the following communications regarding this solicitation or any other invitation for bids, requests for proposal, requests for qualifications, or other solicitation are prohibited:

- [1] Between a potential vendor, subcontractor to vendor, service provider, proposer, offeror, lobbyist or consultant and any Trustee;
- [2] Between any Trustee and any member of a selection or evaluation committee; and
- [3] Between any Trustee and administrator or employee.

The communications prohibition shall be imposed from the day the solicitation is first advertised through the day the contract documents are signed by all parties. During this period, no HCC Trustee and no Vendor Shall communicate in any way concerning any pending Solicitation involving that Vendor, subject to the penalties stated herein.

In the event the Board refers the recommendation back to staff for reconsideration, the communication prohibition shall be re-imposed.

The communications prohibition shall not apply to the following:

- [1] Duly noted pre-bid or pre-proposal conferences.
- [2] Communications with the HCC General Counsel.
- [3] Emergency contracts.
- [4] Presentations made to the Board during any duly-noticed public meeting.
- [5] Unless otherwise prohibited in the solicitation documents, any written communications between any parties, provided that the originator shall immediately file a copy of any written communication with the Board Services Office. The Board Services Office shall make copies available to any person upon request.

- [6] Nothing contained herein shall prohibit any person or entity from publicly addressing the Board during any duly-noticed public meeting, in accordance with applicable Board policies, regarding action on the contract.

Any potential vendor, subcontractor vendor, service provider, bidder, offeror, lobbyist or consultant who engages or attempts to engage in prohibited communications shall not be eligible for the award of any resulting contract under this solicitation. Any other direct or indirect actions taken to unduly influence competitive purposes, to circumvent equal consideration for competitive bidders, or to disregard ethical and legal trade practices will disqualify bidders, vendors, service providers, lobbyist, consultants, and contractors from both this current and any future consideration for participation in HCC orders and contracts.

14. **Drug Policy**

HCC is a drug-free workforce and workplace. The manufacture, sale, distribution, dispensation, possession or use of illegal drugs (except legally prescribed medications under physician's prescription and in the original container) or alcohol by vendors or contractors while on HCC's premises is strictly prohibited.

15. **Taxes**

HCC is tax exempt as a governmental subdivision of the State of Texas under Section 501C (3) of the Internal Revenue Code. Limited Sales Tax Number: 1-74-1709152-1. No proposal shall include any costs for taxes to be assessed against HCC.

16. **Explanation to Proposers**

Any explanation desired by a prospective proposer regarding the meaning or interpretation of the solicitation documents must be requested in writing via e-mail to Georgia Coats, Purchasing Agent, at georgia.coats@hccs.edu, no later than 5:00 p.m. on Thursday, September 13, 2012, for a response to reach prospective proposers before the submission of their proposals. Any HCC response will be in the form of an amendment of the solicitation or an informational letter. The response will be made available to all prospective proposers via HCC website at www.hccs.edu.

17. **Texas Public Information Act**

HCC considers all information, documentation and other materials requested to be submitted in response to this solicitation to be of a non-confidential and/or non-proprietary nature, and therefore, shall be subject to public disclosure under the Texas Public Information Act (Texas Government Code, Chapter 552.001, et seq.) ("the Act") after a contract if any, is awarded. If the proposer considers any information submitted in response to this request for proposal to be confidential under law or constitute trade secrets or other protected information, the proposer must identify such materials in the proposal response. Notwithstanding the foregoing, the identification of such materials would not be construed or require HCC to act in contravention of its obligation to comply with the Act and the proposer releases HCC from any liability or responsibility for maintaining the confidentiality of such documents.

18. **Appropriated Funds**

The purchase of service or product, which arises from this solicitation, is contingent upon the availability of appropriated funds. HCC shall have the right to terminate the resulting contract at the end of the current or each succeeding fiscal year if funds are not appropriated by the HCC Board of Trustees for the next fiscal year that would permit continuation of the resulting contract. If funds are withdrawn or do not become available, HCC reserves the right to terminate the resulting contract by giving the selected contractor a thirty (30) day written notice of its intention terminate without penalty or any further obligations on the part of HCC or the contractor. Upon termination of the contract HCC shall not be responsible for any payment of any service or product received that occurs after the end of the current contract period or the effective date of termination, whichever is the earlier to occur. HCC's fiscal year begins on September 1 and ends on August 31st.

19. **Conflict of Interest**

If a firm, proposer, contractor or other person responding to this solicitation knows of any material personal interest, direct or indirect, that any member, official or employee of HCC would have in any contract resulting from this solicitation, the firm must disclose this information to HCC. Persons submitting a proposal or response to this solicitation must comply with all applicable laws, ordinances, and regulations of the State of Texas Government Code, including, without limitation, Chapter 171 and 176 of the Local Government Code. The person /proposer submitting a response to this solicitation must complete (as applicable), sign and submit **Attachment No. 9, Conflict of Interest Questionnaire Form, and Attachment No. 10, Disclosures – Financial Interest and Potential Conflict of interests** with the proposal package. HCC expects the selected contractor to comply with Chapter 176 of the Local Government Code and that failure to comply will be grounds for termination of the contract.

Note: Attachment No. 9 and Attachment No. 10 shall be completed signed and returned to HCC. Enter N/A in those areas on the Attachments that are not applicable to your company. Failure to complete, sign and notarize Attachment No. 10 shall render your proposal non-responsive.

20. **Ethics Conduct**

Any direct or indirect actions taken to unduly influence competitive purposes, to circumvent equal consideration for competitive bidders, or to disregard ethical and legal trade practices will disqualify vendors and contractors from current and future consideration for participation in HCC orders and contracts.

21. **No Third Party Rights**

This Contract is made for the sole benefit of the HCC and the Contractor and their respective successors and permitted assigns. Nothing in this Contract shall create or be deemed to create a relationship between the Parties to this Contract and any third person, including a relationship in the nature of a third-party beneficiary or fiduciary.

ATTACHMENT NO. 1

**HOUSTON COMMUNITY COLLEGE
REQUEST FOR COMPETITIVE SEALED PROPOSALS
PROPOSAL/CONTRACT AWARD FORM**

PROJECT TITLE: Roofing Services- 3100 Main Street
PROJECT NO.: 12-08

Name of Proposer/Contractor: _____

Federal Employer Identification Number _____
(Note: please refer to RFCSP-Summary, Item 7: Vendor Registration Instructions)

Address: _____

Telephone: _____

Fax: _____

E-mail: _____

In compliance with the requirements of this Request for Competitive Sealed Proposals for providing Roofing Services - 3100 Main Street, the undersigned hereby proposes to furnish all necessary resources required to perform the services in accordance with our Technical Proposal and Price Proposal dated _____ and as mutually agreed upon by subsequent negotiations, if any.

The undersigned certifies that he/she has read, understands and agrees to be bound by the requirements and terms and conditions set forth in this Solicitation and any and all amendments issued and made a part hereof. The undersigned further certifies that he/she is legally authorized to make the statements and representations in the Solicitation and that said statements and representations are true and accurate to the best of his/her knowledge. The undersigned understands and agrees that when evaluating proposals and making an award decision, HCC relies on the truth and accuracy of the statements and representations presented in the proposal response. Accordingly, HCC has the right to suspend or debar the undersigned from its procurement process and/or terminate any contract award that may have resulted from this solicitation if HCC determines that any statements or representations made were not true and accurate.

Signed By: _____ Name: _____
(Type or Print)

Title: _____
(Type or Print)

State of _____

Sworn to and subscribed before me at _____, _____,
(City) (State)

this the _____ day of _____, 2012.

Notary Public for the State of: _____

ACCEPTANCE AND CONTRACT AWARD FORM

(Note: This page will be completed by HCC.)

Purchase Order No. _____ (for payment purposes only)

Project No. 12-08

Contractor to perform the work required herein in accordance with Purchase Order(s) issued by HCC and the Terms and Conditions of Purchase posted on the HCC website at www.hccs.edu, incorporated herein by reference, and the prices, scope of services and general terms and conditions attached hereto and made a part hereof.

HOUSTON COMMUNITY COLLEGE

Executed for and on behalf of the Houston Community College pursuant to approval by the Board of Trustees on _____, 2012.

Signed By: _____

Title: COO/Deputy Chancellor

ATTACHMENT NO. 2

SCHEDULE OF ITEMS AND PRICES
FOR
ROOFING SERVICES - 3100 MAIN STREET
PROJECT # 12-08

The Proposer/Contractor shall furnish all resources and services necessary and required to provide ROOFING SERVICES - 3100 Main Street, in accordance with the **Scope of Services**, and the general terms and conditions of the sample contract documents for the proposed price(s) listed below.

<u>Item No.</u>	<u>Description of Services</u>	<u>Proposed Cost</u>
001	Remove and replace damaged concrete decking	\$_____s/f
002	Remove and replace damaged or rusted metal decking	\$_____s/f
003	Remove and replace damaged or wet lightweight insulation	\$_____s/f
004	Remove and replace deteriorated nailers	\$_____per board foot

Total Proposed Price (Items 001-004): \$_____

Note: Total proposed price must equal the total line item cost for items 001-004

Proposer's Maximum Project Duration in Calendar Days: _____

***NOTE:** No overtime rates are applicable to this project. Contractor shall provide hours to complete project within sixty (60) days from issuance of contract. Liquidated damages for days past the sixty (60) day time frame will be \$500.00 per day. Rain days will not be included in the sixty (60) day time frame. A rain day is defined as a day with rain chances greater than 30% by the National Weather Service.

ATTACHMENT NO. 3
SCOPE OF SERVICES
FOR
Roofing Services - 3100 MAIN STREET
PROJECT # 12-08

Scope

This Scope of Service covers the requirements for the Contractor to provide ROOFING AND WATERPROOFING AS OUTLINED IN THE PLANS AND SPECIFICATIONS - 3100 Main Street to Houston Community College (HCC).

To furnish all labor, material, tools, equipment, transportation, bonds, permits, all applicable taxes, incidentals, and other facilities, and to perform all work for the said roofing and waterproofing for the following areas: Work shall include:

(Main Roof Area)

1. Remove the existing roof system to the substrate except exterior parapet walls.
2. At parapet walls, remove the existing stainless steel counter flashing only and replace. Existing coping and membrane are to remain.
3. All debris removed shall be taken to street level of structure using a construction debris chute only. All debris and new material can only be moved late evenings (8:00 P.M.) and early mornings - 6:00 A.M.).
4. All roof components shall be installed using cold process applications. Low rise foam adhesives are to be used for the insulation and recover board, and membrane manufacturer's cold process adhesives for the base, interply and cap sheet.
5. Prime the existing concrete with specified primer, torch apply one layer of smooth SBS modified bitumen memberane (minimum 90 mils).
6. Fully adhere one layer of one and one-half (1-1/2") polyisocyanurate insulation.
7. Fully adhere tapered polyisocyanurate (one-eighth inch (1/8") per foot) insulation to ensure positive drainage to the roof drains. Ponding is not acceptable.
8. Fully adhere one layer of one-half inch (1/2") gypsum core recover board.
9. Fully adhere one ply of membrane manufacturer's SBS 80 mil modified interply sheet.
10. Fully adhere one layer of 100 mil plus fleece backed Elvaloy thermoplastic membrane.
11. All new flashings shall be a minimum of 60 mil Elvaloy membrane adhered to the modified interply sheet.
12. All materials shall be manufactured and supplied by the membrane manufacturer issuing the warranty.
13. All materials shall be installed per the membrane manufacturer's guidelines and the specifications.
14. Install new nailers to fasten the existing beams over the cooling towers to receive new low Profile standing seam stainless steel marine grade coping.

15. Adhere one layer of 60 mil Elvaloy membrane over the cooling tower beams, install new low profile standing seam stainless steel coping with continuous clip.
16. Install new stainless steel counter flashings. All counter flashings are to have a continuous clip.
17. There shall be no drilling or fastening into the granite fascia.
18. Provide floor and wall protection at elevator, halls and loading dock areas to protect finishes.

(Penthouse Raised Roof Area)

18. Remove the existing roof to the substrate on the raised roof area of the main roof.
19. Mechanically fasten one ply of vented base sheet per ASCE 7 Guidelines.
20. Fully adhere one layer of one and one-half (1-1/2") polyisocyanurate insulation.
21. Fully adhere tapered polyisocyanurate (one-eighth inch (1/8") per foot) insulation to ensure positive drainage to the roof drains. Ponding is not acceptable.
22. Fully adhere one layer of one-half inch (1/2") gypsum core recover board.
23. Fully adhere one ply of membrane manufacturer's SBS 80 mil modified interply sheet.
24. Fully adhere one layer of 100 mil plus fleece backed Elvaloy thermoplastic membrane.
25. All new flashings shall be a minimum of 60 mil Elvaloy membrane adhered to the modified interply sheet.
26. All materials shall be manufactured and supplied by the membrane manufacturer issuing the warranty.
27. All materials shall be installed per the membrane manufacturer's guidelines and the specifications.
28. At all roof areas, provide Manufacturer's twenty (20) year NDL warranty with 120 MPH wind rider to meet ASCE 7 guideline wind speed.
29. At rise walls above main roof, mechanically fasten one layer of three-fourths inch (3/4") exterior grade plywood, adhere one layer of 60 mil reinforced membrane flashing as specified.
30. First level of granite below roof areas and all vertical and horizontal metal to masonry and masonry to masonry to masonry joints shall be removed and replaced with new backer rod and elastomeric sealants.
31. Provide Contractor's two (2) year warranty.
32. Recertify lightning suppression system.
33. Contractor to verify all drains are in working order by use of camera.
34. Install walk pads from the stairwell landing on the roof side.

ATTACHMENT NO. 4

DETERMINATION OF GOOD FAITH EFFORT

Proposer _____

Address _____

Phone _____

Fax Number _____

In making a determination that a good faith effort has been made, HCC requires the Proposer to complete this form as directed below:

Section 1.

After having divided the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, the Proposer must determine what portion(s) of work, including goods or services, will be subcontracted. Check the appropriate box that identifies your subcontracting intentions:

_____ Yes, I will be subcontracting portion(s) of the contract.
(If Yes, please complete Section 2, below and Attachments No. 6 and No. 7)

_____ No, I will not be subcontracting any portion of the contract, and will be fulfilling the entire contract with my own resources.
(If No, complete Section 3, below.)

Section 2.

In making a determination that a good faith effort has been made, HCC requires the Proposer to complete this form Section and submit supporting documentation explaining in what ways the Proposer has made a good faith effort to attain the goal. The Proposer will respond by answering "yes" or "no" to the following and provide supporting documentation.

_____ (1) Whether the Proposer provided written notices and/or advertising to at least five (5) certified small businesses or advertised in general circulation, trade association and/or small businesses focus media concerning subcontracting opportunities.

_____ (2) Whether the Proposer divided the work into the reasonable portions in accordance with standard industry practices.

_____ (3) Whether the Proposer documented reasons for rejection or met with the rejected small business to discuss the rejection.

_____ (4) Whether the Proposer negotiated in good faith with small businesses, not rejecting qualified subcontractors who were also the lowest responsive bidder.

NOTE: If the Proposer is subcontracting a portion of the work and is unable to meet the solicitation goal or if any of the above items (1-4) are answered "no", the Proposer must submit a letter of justification.

Section 3.

SELF PERFORMANCE JUSTIFICATION

If you responded "No" in SECTION 1, please explain how your company will perform the entire contract with its own equipment, supplies, materials, and/or employees.

Signature of Proposer

Title

Date

**ATTACHMENT NO. 5
SMALL BUSINESS UNAVAILABILITY CERTIFICATE**

I, _____, _____, of
 (Name) (Title)

_____,
 (Name of proposer's company) certify that on the date(s) shown, the small businesses listed herein were contacted to solicit Proposals for Materials or Services to be used on Project #12-08.

DATE CONTACTED	SMALL BUSINESS Name	TELEPHONE NO.	CONTACT PERSON	MATERIALS OR SERVICES	RESULTS
1.					
2.					
3.					
4.					
5.					
6.					

To the best of my knowledge and belief, said small business was unavailable for this solicitation, unable to prepare a proposal or prepared a proposal that was rejected for the reason(s) stated in the RESULTS column above.

The above statement is a true and accurate account of why I am unable to commit to awarding subcontract(s) or supply order(s) to the small business listed above.

NOTE: This form to be submitted with all Proposal documents for waiver of small business participation. (See Instructions to Proposers)

Signature: _____

CONTRACTOR AND SUBCONTRACTOR PARTICIPATION FORM

Proposer/offeror presents the following participants in this solicitation and any resulting Contract. All proposers / offerors, including small businesses submitting proposals as prime contractors, are required to demonstrate good faith efforts to include eligible small businesses in their proposal submissions.

CONTRACTOR	Specify in Detail Type of Work to be Performed	Indicate below, the following: Small Business (SB) and Certification Status, if any (i.e. SB – COH, METRO, etc.)	Percentage of Contract Effort	Price
Business Name:				
Business Address:				
Telephone No. :				
Contact Person Name/E-mail:				
SMALL BUSINESS SUBCONTRACTOR(S) (Attach separate sheet if more space is needed.)				
Business Name:				
Business Address:				
Telephone No. :				
Contact Person:				
NON-SMALL BUSINESS SUBCONTRACTOR(S) (Attach separate sheet if more space is needed.)				
Business Name:				
Business Address:				
Telephone No. :				
Contact Person:				
NON-SMALL BUSINESS SUBCONTRACTOR(S) (Attach separate sheet if more space is needed.)				
Business Name:				
Business Address:				
Telephone No. :				
Contact Person:				
NON-SMALL BUSINESS SUBCONTRACTOR(S) (Attach separate sheet if more space is needed.)				

Business Name: _____ Submitted By (Name): _____

Address: _____

Telephone/Fax: _____ Date: _____

Contractor 's Price/Total: \$ _____
 Small Business
 Subcontractor (s) Price/Total: \$ _____
 Non-Small Business
 Subcontractors Price/Total: \$ _____
 Grand Total: \$ _____

**ATTACHMENT NO. 7
SMALL BUSINESS DEVELOPMENT QUESTIONNAIRE**

Note: Vendors are to complete this form along with a **copy** of the Contractor and Subcontractor/Supplier Participation Form and return it in a separate envelope with your proposal.

FIRM NAME: _____

FIRM ADDRESS: _____

TELEPHONE: _____

FAX NUMBER: _____

EMAIL ADDRESS: _____

CONTACT PERSON'S NAME AND PHONE NO. _____

SIGNATURE OF FIRM'S AUTHORIZED OFFICIAL: _____

NAME AND TITLE (Type or Print): _____

COMPANY MAJORITY OWNERSHIP (Check one in each column)

<u>ETHNICITY</u>	<u>GENDER</u>	<u>LOCATION</u>
____ African American (AA)	____ Male	____ Houston (H)
____ Asian Pacific American (APA)	____ Female	____ Texas (T)
____ Caucasian (C)		____ Out of State (O)
____ Hispanic American (HA)		Specify State _____
____ Native American (NA)		____ Public Owned (PO)
____ Other (O) Specify _____		

BUSINESS CLASSIFICATION

____ DBE Disadvantaged Business Enterprise	____ SB Small Business
____ WBE Women Owned Business Enterprise	____ MBE Minority Business Enterprise
____ HUB Historically Underutilized Business	____ Other: _____

Please provide information regarding certifying agency (if any)

Name of Agency	Certificate Number	Expiration Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

ATTACHMENT NO. 8

RESPONDENT CERTIFICATIONS PROJECT NO. 12-08

1. NON-DISCRIMINATION STATEMENT:

The undersigned certifies that he/she will not discriminate against any employee or applicant for employment or in the selection of subcontractors because of race, color, age, religion, gender, national origin or disability. The undersigned shall also take action to ensure that applicants are employed, and treated during employment, without regard to their race, color, religion, gender, age, national origin or disability. Such action shall include, but shall not be limited to, the following non-discriminatory employment practices: employment, upgrading or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other compensation and selection for training, including apprenticeship.

2. ASSURANCE OF SBDP GOAL:

The undersigned certifies that he/she has read, understands and agrees to be bound by the small business provisions set forth in this Solicitation. The undersigned further certifies that he/she is legally authorized to make the statements and representations in the Solicitation and that said statements and representations are true and accurate to the best of his/her knowledge. The undersigned will enter into formal agreement(s) for work identified on the CONTRACTOR AND SUBCONTRACTOR PARTICIPATION form conditioned upon execution of a contract with HCC. The undersigned agrees to attain the small business utilization percentages of the total offer amount as set forth below:

Small Business Participation Goal = Twenty-Five (25%)

The undersigned certifies that the firm shown below has not discriminated against any small business or other potential subcontractor because of race, color, religion, gender, age, veteran's status, disability or national origin, but has provided full and equal opportunity to all potential subcontractors irrespective of race, color, religion, gender, age, disability, national origin or veteran status.

The undersigned understands that if any of the statements and representations are made knowing them to be false or there is a failure to implement any of the stated commitments set forth herein without prior approval of HCC's Chancellor or the duly authorized representative, the Respondent may be subject to the loss of the contract or the termination thereof

3. BLACKOUT PERIOD COMPLIANCE:

The undersigned certifies that he/she has read, understands and agrees to be bound by the Prohibited Communications provision set forth in the RFQ. The undersigned further understands that the Respondent shall not communicate with a HCC Trustee, employee, or any member of the selection/evaluation committee in any way concerning this Solicitation from the day it is first advertised through the day the contract documents are signed by all parties. This period is known as the "Blackout Period," as further defined in Section 1.7.10 and 3.3 of the Procurement Operations Manual. Violation of the Blackout Period is considered unethical conduct and will be handled as such with regard to a Trustee and all applicable federal and state laws and regulations, local ordinances, board policies and procurement procedures with respect to their conduct as public officials involved in the procurement process.

With regard to a Respondent, violation of the Blackout Period may result in the cancellation of the referenced transaction, disbarment, disqualification from future procurement solicitations and prosecution in accordance with the Laws of the State of Texas.

4. CERTIFICATION AND DISCLOSURE STATEMENT:

A person or business entity entering into a contract with HCC is required by Texas Law to disclose, in advance of the contract award, if the person or an owner or operator of the business entity has been convicted of a felony. The disclosure should include a general description of the conduct resulting in the conviction of a felony as provided in section 44.034 of the Texas Education Code. The requested information is being collected in accordance with applicable law. This requirement does not apply to a publicly held corporation.

If an individual:

Have you been convicted of a felony? YES or NO

If a business entity: YES or NO

Has any owner of your business entity been convicted of a felony? _____

Has any operator of your business entity been convicted of a felony? _____

If you answered yes to any of the above questions, please provide a general description of the conduct resulting in the conviction of the felony, including the Case Number, the applicable dates, the State and County where the conviction occurred, and the sentence.

5. PROHIBITED POLITICAL CONTRIBUTIONS:

The undersigned certifies that he/she has accurately completed the attached Exhibit 1 "Ownership Interest Disclosure List." For the purposes of this section, in accordance with Board Bylaws, the term "Contractors" shall include any member of the potential vendor's board of directors, its chairperson, chief executive officer, chief financial officer, chief operating officer, any person with an ownership interest of 10% or more. This requirement shall also apply to any Subcontractor listed on the "Contractor and Subcontractor Participation Form."

6. PROHIBITED CONTRACTS/PURCHASES:

The undersigned certifies that he/she has read, understands and is eligible to receive a contract in accordance with HCC Board of Trustees Bylaw regarding Prohibited Contracts/Purchases as further defined in the attached Exhibit 2.

I attest that I have answered the questions truthfully and to the best of my knowledge.

Signed: _____

Name of Company: _____

Address of Company: _____

State of _____

Sworn to and subscribed before me at _____, _____,
(City) (State)

this the _____ day of _____, 2012.

Notary Public for the State of: _____

EXHIBIT 1 - TO ATTACHMENT NO. 8
OWNERSHIP INTEREST DISCLOSURE LIST

Instruction: Using the following table, please fill in the names of any member of the Respondent's company who is a "Contractor" (as defined in Section 5 above); any person with an ownership interest of 10% or more; and any Subcontractor listed on the "Contractor and Subcontractor Participation Form."

Name	Title	Company Name

EXHIBIT 2 - TO ATTACHMENT NO. 8
PROHIBITED CONTRACTS/PURCHASES

The College shall not contract with a business entity in which a Board Member, Senior Staff Member, or a relative of a Board member or Senior Staff Member within the first degree of consanguinity or affinity, has any pecuniary interest. All such contracts executed prior to June 21, 2012 shall continue to be in full force and effect.

Further, the College shall not contract with a business entity that employs, hires, or contracts with, in any capacity, including but not limited to, a subcontractor, employee, consultant, advisor or independent contractor, a Board Member or a Senior Staff Member.

Further, the College shall not contract with a business entity that employs an officer or director who is a relative of a Board member or a Senior Staff Member within the first degree of consanguinity or affinity.

Definitions:

"Business entity" shall not include a corporation or a subsidiary or division of a corporation whose shares are listed on a national or regional stock exchange or traded in the over-the-counter market. "Business entity" shall not include non-profit corporations or religious, educational, and governmental institutions, except that private, for-profit educational institutions are included in the definition of Business entity.

"Director" is defined as an appointed or elected member of the board of directors of a company who, with other directors, has the responsibility for determining and implementing the company's policy, and as the company's agent, can bind the company with valid contracts.

"Officer" is defined as a person appointed by the board of directors of a company to manage the day-to-day business of the company and carry out the policies set by the board. An officer includes, but is not limited to, a chief executive officer (CEO), president, chief operating officer (COO), chief financial officer (CFO), vice-president, or other senior company official, as determined by the Board.

"Senior Staff Member" shall have the meaning as defined in Article A, Section 3 of the Board Bylaws which includes:

- a. Any member of the Chancellor's Advisory Council;
- b. HCC employees classified as E-10 and above;
- c. All procurement and purchasing personnel;
- d. Any employee who participates on an evaluation or selection committee for any HCC solicitation for goods or services; and
- e. Any employee who participates in the evaluation of goods or services provided by a vendor or contractor.

Absent other legal requirements, all contracts entered into by the College in violation of this policy shall be voided within 30 days of notice of the violation.

ATTACHMENT NO. 9

CONFLICT OF INTEREST QUESTIONNAIRE		FORM CIQ
For vendor or other person doing business with local governmental entity		
<p>This questionnaire reflects changes made to the law by H.B. 1451, 80th Leg., Regular Session.</p> <p>This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).</p> <p>By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>	OFFICE USE ONLY Date Received	
1 Name of person who has a business relationship with local governmental entity.		
2 <input type="checkbox"/> Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)		
3 Name of local government officer with whom filer has employment or business relationship.		
<hr style="width: 50%; margin: 0 auto;"/> Name of Officer		
This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.		
A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?		
<input type="checkbox"/> Yes <input type="checkbox"/> No		
B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?		
<input type="checkbox"/> Yes <input type="checkbox"/> No		
C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?		
<input type="checkbox"/> Yes <input type="checkbox"/> No		
D. Describe each employment or business relationship with the local government officer named in this section.		
4		
<hr style="width: 80%; margin: 0 auto;"/> Signature of person doing business with the governmental entity		<hr style="width: 80%; margin: 0 auto;"/> Date

Adopted 06/29/2007

Note: When completing this Questionnaire, please be certain to answer each and every question; indicate "Not Applicable", if appropriate

ATTACHMENT NO. 10
FINANCIAL INTERESTS AND POTENTIAL CONFLICTS OF INTERESTS

Texas Local Government Code Chapter 176 requires that vendors desiring to enter into certain contracts with a local governmental entity must disclose the financial and potential conflict of interest information as specified below.

Vendor shall disclose the financial interest and potential conflict of interest information identified in Sections 1 through 3 below as a condition of receiving an award or contract. Submit this information along with your bid, proposal, or offer. **This form must be completed, signed and received by HCC as part of your proposal submittal.** Completed forms must be **NOTARIZED.**

This requirement applies to contracts with a value exceeding \$50,000.

Section 1 - Disclosure of Financial Interest in the Vendor

a. If any officers or employees of HCC ("individuals") have one of the following financial interests in the vendor (or its principal) or its subcontractor(s), please show their name and address and check all that apply and (include additional documents if needed):

Name: _____
Address: _____

b. For each individual named above, show the type of ownership/distributable income share:

Ownership interest exceeding 10%	(_____)
Ownership interest exceeding \$15,000 or more of the fair market value of vendor	(_____)
Distributive Income Share from Vendor exceeding 10% of individual's gross income	(_____)
Real property interest with fair market value of at least \$2,500	(_____)
Person related to or married to individual has ownership or real property interest in Vendor	(_____)
No individuals have any of the above financial interests (If none go to Section 4)	(_____)

sole proprietorship ___ stock ___ partnership ___
other (explain): _____

c. For each individual named above, show the **dollar value or proportionate share** of the ownership interest in the vendor (or its principal) or its subcontractor (s) as follows:

If the proportionate share of the named individual(s) in the ownership of the vendor (or its principal) or subcontractor of vendor is 10% or less, and if the value of the ownership interest of the named individual(s) is \$15,000 or less of the fair market value of vendor, check here (___).

If the proportionate share of ownership exceeds 10%, or the value of the ownership interest exceeds \$15,000 of the fair market value of vendor, show either:

the percent of ownership _____ %, or
the value of ownership interest \$ _____ .

Section 2 - Disclosure of Potential Conflicts of Interest

For each of the individuals having the level of financial interest identified in Section 1 above, and for any other HCC individual not identified in Section 1 above check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If "Yes," please describe (use space under applicable section-attach additional pages as necessary).

a. Employment, currently or in the previous 3 years, including but not limited to contractual employment for services for vendor.

Yes _____ No _____

b. Employment of individual's spouse, father, mother, son, or daughter, including but not limited to contractual employment for services for vendor in the previous 2 years.

Yes _____ No _____

Section 3- Disclosure of Gifts

For each of the individuals having the level of financial interest identified in Section 1 above, and for any other HCC individual not identified in Section 1 above check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If "Yes," please describe (use space under applicable section-attach additional pages as necessary).

a. Received a gift from vendor (or principal), or subcontractor of vendor, of \$250 or more within the preceding 12 months.

Yes _____ No _____

b. Individual's spouse, father, mother, son, or daughter has received a gift from vendor (or principal), or subcontractor of vendor, of \$250 or more within the preceding 12 months.

Yes _____ No _____

Section 4- Other Contract and Procurement Related Information

Vendor shall disclose the information identified below as a condition of receiving an award or contract.

This requirement is applicable to only those contracts with a value exceeding \$50,000. You must submit this information along with your bid, proposal, or offer.

a. Vendor shall identify whether vendor (or its principal), or its subcontractor(s), has current contracts (including leases) with other government agencies of the State of Texas by checking:

Yes _____ No _____

b. If "yes" is checked, identify each contract by showing agency name and other descriptive information such as purchase order or contract reference number (attach additional pages as necessary).

c. Vendor shall identify whether vendor (or its principal) or its subcontractor(s) has pending contracts (including leases), bids, proposal, or other ongoing procurement relationships with other government agencies of the State of Texas by checking:

Yes _____ No _____

d. If "yes" is checked, identify each such relationship by showing agency name and other descriptive information such as bid or project number (attach additional pages as necessary).

This disclosure is submitted on behalf of:

(Name of Vendor)

Certification. I hereby certify that to the best of my knowledge and belief the information provided by me in this disclosure statement is true and correct. I understand that failure to disclose the information requested may result in my bid, proposal, or offer, being rejected, and/or may result in prosecution for knowingly violating the requirements of **Texas Local Government Code Chapter 176**. I understand that it is my responsibility to comply with the requirements set forth by HCC as it relates to this disclosure. I also understand that I must submit an updated disclosure form within seven (7) days of discovering changes in the significant financial interests of the individuals I identified in Section 1 of this disclosure or if individuals that were not identified, later receive a financial interest in my company or is a subcontractor of my company.

Official authorized to sign on behalf of vendor:

Name (Printed or Typed) _____ Title _____

Signature _____ Date _____

"NOTE: RESPONDENT MUST COMPLETE THE ABOVE "DISCLOSURE OF FINANCIAL INTERESTS AND POTENTIAL CONFLICTS OF INTERESTS" FORM. FAILURE TO COMPLETE AND RETURN THIS FORM WITH YOUR OFFER MAY RESULT IN YOUR OFFER BEING CONSIDERED AS "NON-RESPONSIVE" TO THIS SOLICITATION."

For assistance with completing this form, please contact the **Office of System-wide Compliance** at (713) 718-2099.

State of _____

Sworn to and subscribed before me at _____, _____,
(City) (State)

this the _____ day of _____, 2012.

Notary Public for the State of: _____

ATTACHMENT NO. 11

PROPOSER'S QUESTIONNAIRE

Proposers are requested to submit a complete response to each of the below listed items. Responses requiring additional space should be brief and submitted as an attachment to your proposal package. Please reference each response by its item number indicated below.

11.1 COMPANY PROFILE

FIRM NAME: _____

FIRM ADDRESS: _____

TELEPHONE: _____

FAX NUMBER: _____

EMAIL ADDRESS: _____

Federal Employers Identification No.: _____

CONTACT PERSON'S NAME AND PHONE NO. (Type or Print):

_____ Tel # _____

Do you or any officer, partner, owner, sales representative and/or spouse work for Houston Community College? _____ Yes _____ No

If yes, please specify: _____

State in which your home office / headquarters is located? _____

If headquarters is located out of state, does that state have preferential treatment on Proposals?

If yes, list percentage. _____%

Name of Financial Institution _____ Tel: _____

Contact Person _____ Title _____

Please indicate how you became aware of this procurement? Source: _____

Example: Newspapers (Chronicle, El Dia, Voice of Asia, African American News, etc.) Houston Minority Business Council, HCC Website, Chamber of Commerce, etc.)

11.2 Customer References:

11.2.1 Your response must include a listing of at least three (3) customers for which you have provided Roofing Services of the type and kind required by this RFCSP. Your customer reference list shall include the company name; contact person including telephone #; scope of services, annual sales volume (\$), and the period of time for which work was performed.

11.2.2 Provide a reference list of all customers for whom you have performed work during the past three (3) years. The List to include company name, contact person, telephone #, and email address (if known).

11.3 Technical Proposal:

Please provide a Technical Proposal that clearly reflects your understanding of the requirements and Scope of Services set forth in Attachment 3; defines the products and services meeting these requirements. Your Technical Proposal shall include, at a minimum the following:

- A. **Cover Letter:** The cover letter shall not exceed 2 pages in length, summarizing key points in the proposal.
- B. **Qualifications and Experience of Firm:** This section shall include a description of the firm, including firm's history, size and professional staff composition.
- C. **Qualifications and Experience of Personnel:** This section shall include a project-staffing plan including resumes for all proposed "key" staff members who will be assigned to this project; include organizational chart. If personnel substitutions are contemplated on a contingency basis, they should also be identified.
- D. **Small Business Participation:** This section shall include a clear statement of the firm's commitment and plan to meet the small business goal specified in this solicitation, if any.
- E. **Safety Program:** Your response shall include policies and procedures that the firm has in place to ensure employee safety, compliance with OSHA regulation standards, firm's code of safety practices and safety policy statement outlining the goals of the program. Firm shall identify the safety program coordinator and the methods by which your firm will utilize to communicate the importance of safety to the employees. Firm must provide procedure for accident investigation and reporting policies with instructional materials used when conducting accident investigations.
- F. **Student Intern Participation:** The section shall include a clear statement of the firm's commitment and plan to utilize HCC Student in an internship capacity.
- G. **Response to Questions:** Proposal shall provide a complete response to each of the below questions in the order they are presented.
- H. **Questions:**
 - 1. Provide a detailed narrative demonstrating your understanding of the work and tasks in providing ROOFING Services, as described in the Scope of Services, Attachment 3, and your ability to perform.
 - 2. Provide an implementation plan and project schedule that details your approach from beginning to end. Also include your plan regarding project duration.
 - 3. Describe how you internally evaluate or assess your performance on a contract or project.

3. Provide a detailed summary of all HCC responsibilities, and any other resources you require from HCC.
4. Provide a detailed summary of how you choose your sub-contractors.
5. Describe any potential conflicts or litigations that you are currently involved in.
6. Describe your past and current press relations.
7. What challenges do you anticipate in performing work for HCC and how do you plan to manage these challenges?
8. What are the advantages of HCC selecting your company?

ATTACHMENT NO. 12

GENERAL REQUIREMENTS 3100 MAIN REROOFING AND WATERPROOFING

SECTION 01100 GENERAL REQUIREMENTS

1.01 DESCRIPTION OF WORK

- A. It is the intent of the specification that the new work will provide a watertight facility. The attached specifications describe the minimum acceptable standards of construction and finish. Work is as described in the scope of work for the project.

1.02 CHANGES

- A. Changes to specifications and drawings will not be acceptable unless approved in writing by the manufacturer and the Owner.

1.03 WORKING TIME

- A. A working day is defined as a calendar day, not including Saturdays, Sundays, or Legal holidays, in which weather or other conditions not under the control of the company will permit the performance of the principal units of work underway for a continuous period of not less than seven (7) hours between 7:00 A.M. and 6:00 P.M. For every Saturday on which the company chooses to work, one day will be charged against the working time when weather conditions will permit seven (7) hours of work as delineated above. A principal unit of work shall be that unit which controls the completion time of the agreement. Nothing in this item shall be construed as prohibiting the company from working on Saturdays if it so desires. If Sunday work is permitted by the Owner, working time will be charged on the same basis as weekdays.

1.04 INSPECTION

- A. An inspection shall be made by a representative of the material manufacturer of the completed project to ensure that said project was installed in accordance with the manufacturer's specifications and illustrated details. Upon this approval of the project, the specified warranty or warranties shall be written.

1.05 QUALITY ASSURANCE

- A. All work and materials hereinafter specified shall be best of kind described and, unless specified otherwise, shall be new and of best quality. The specified Roofing system shall have been used successfully in the United States for a minimum of ten (10) years.
- B. All materials will be securely fastened in place in a watertight, neat and workmanlike manner. All workmen shall be thoroughly experienced in the particular class of work upon which employed. All work shall be done in accordance with these specifications and shall meet the approval in the field of

the Owner's representative. Contractor's representative and/or job supervisor shall have a complete copy of specifications and drawings on job site at all times.

- C. Contractor shall plan and conduct the operations of the work so that each section started on one day is complete, details installed and thoroughly protected before the close of work for that day.
- D. Where any material is specified by proprietary name, trade name, name of manufacturer, generic name, or catalog number with the addition of such expressions as "or equal"/"or approved equal", it is understood that the material named is intended and no substitution will be allowed without written approval by the Owner's representative three (3) calendar days prior to proposal due date.
- E. Should a specified material not be available, a substitution shall require approval (in writing) of the Owner's representative and the roof system manufacturer issuing the warranty before being utilized on this project.
- F. Unless otherwise indicated, the materials to be used in this specification are those specified and denote the type, quality, performance, etc. required. All proposals shall be based upon the use of specified material.
- G. A Contractor who proposes to quote on the basis of an "or equal"/"or approved equal" alternate material or system shall submit to the Owner's representative the following information, at least five (5) calendar days prior to scheduled proposal opening. Only one request for substitution will be considered for each material or system. When substitution is not accepted, specified product or system shall be used.
 - 1. A five (5) gallon sample of any adhesive, coating, mastic, or sealant and a three foot by five foot (3' x 5') sample of any sheeting or rolled goods as may be specified.
 - 2. A certificate from an accredited testing laboratory comparing the physical and performance attributes of the proposed material with those of the specified materials.
 - 3. A list of at least three (3) local jobs where the proposed alternate material was used under similar conditions and written documentation showing successful installation in the United States of similar size and scope for a minimum of ten (10) years. These jobs must be available for inspection by the Owner's representative.
 - 4. In the event a substitution is acceptable by the Owner, all contractors shall be notified of the acceptable alternate within three (3) calendar days prior to proposal opening.
 - 5. During the course of work, the Owner's representative may secure from the containers at the job site, samples of the materials being used and submit the samples to an independent testing laboratory for comparison. If the results of the independent testing laboratory prove that the materials are not comparable and equal to the specified materials, the Contractor shall pay for the testing and the Owner reserves the right to reduce the amount of the proposal by twenty percent (20%) if all work has already been completed before the test results become known. If the contract work is not completed when the test results become known, the Owner shall impose a penalty in proportion to the amount of work already completed, and all remaining work shall be completed with the specified materials.

- H. Application of materials shall be in strict accordance with the manufacturer's recommendations. In the instance of a conflict between these specifications and those of the manufacturer, the most stringent shall take precedence.
- I. Roofing system manufacturer shall have approval for FM Global wind uplift requirements and shall meet Underwriter's Laboratory fire rating.
- J. Roof system shall be installed in accordance with FM Global requirements.

1.06 PROCEDURE FOR USE OF SUBSTITUTION REQUEST FORM

- A. Substitution request **including all required documentation** must be delivered to the Owner's Representative's office no later than the date indicated in the specifications. Requests submitted late will not be considered.
- B. The Individual or Firm requesting a substitution must document that the requested substitution is equal or superior to the specified product. Failure to provide clear, accurate, and adequate documentation will be grounds for rejection.
- C. Required documentation shall consist of applicable information which would aid the Architect in making an informed decision. Include **side by side product comparisons**, technical data, laboratory test results, product drawings, etc.
- D. If use of the proposed product would result in changes to the design of the building, the submittal shall describe fully the changes required to the drawings or specifications. Any cost differences resulting from modifications to the drawings and specifications and the cost of making the changes shall be borne by the Product Supplier.
- E. **No** product will be considered "as equal" to the product specified until it has been included as an allowable substitution, in a written Addendum to the project.

1.07 WATERPROOFING

- A. All work described in this section shall be performed by a Contractor or Subcontractor who has a proven reputation and expertise in the waterproofing of exterior building surfaces, and in performing all of the types of work described or required for patching, sealing, coating and waterproofing.
- B. The Contractor shall furnish the Owner's representative with satisfactory evidence that he or his Subcontractors have previously been successfully engaged in business as a specialist in the work which he proposes to perform. Such evidence shall include a list of comparable and representative completed projects, project locations, names and addresses of owners and architects or engineers for such projects, and the approximate date at which the work was done.
- C. In preparation for this work, the Contractor and any Subcontractors employed by him are expected to visit the site and examine all surfaces and conditions that may affect their work and the warranty required under this contract. All shall especially note the location and extent of existing conditions, and damaged surfaces on the exteriors of the buildings affected.

- D. It is the intent of the drawings and specifications that the new work required will provide a complete weather seal and will prevent the recurrence of water penetration and such damage in the future, at any location in the buildings.
- E. The Contractor or his Subcontractors, having special qualifications, expertise, and previous experience (as required in the previous paragraph), shall employ these qualities during initial examination at the site and throughout the execution of the work.
- F. The requirements described and stated in the drawings and specifications represent a specific minimum that is required of the Contractor. However, the Contractor, in bidding on and accepting a contract for the work, expressly agrees in advance that this minimum does not limit his responsibility to provide complete waterproofing.
- G. In submitting a proposal to the Owner, the Contractor agrees that his responsibility shall include the work described in the drawings and specifications as well as such other leak repairs and/or work as may be required to assure complete waterproofing.

1.08 EXAMINATION OF PREMISES

- A. Before submitting proposals for his work, each contractor shall be held to have examined the premises and satisfied himself as to the existing conditions under which he will be obliged to work.

1.09 PROTECTION OF WORK AND PROPERTY

- A. Work: The contractor shall maintain adequate protection of all his work from damage and shall protect the Owner's and adjacent property from injury or loss arising from this contract. He shall provide and maintain at all times any OSHA required danger signs, guards, and/or obstructions necessary to protect the public and his workmen from any dangers inherent with or created by the work in progress. All federal, state, and city rules and requirements pertaining to safety and all EPA standards, OSHA standards, NESHAP regulations pertaining to asbestos as required shall be fulfilled by the contractor as part of his bid.
- B. Property: Protect existing planting and landscaping as necessary or required to provide and maintain clearance and access to the work of this contract. Examples of two categories or degrees of protection are generally as follows:
 1. Removal, protection, preservation, or replacement and replanting of plant materials.
 2. Protection of plant materials in place, and replacement of any damage resulting from the contractor's operations.
- C. Twenty-four Hour Call: The contractor shall have personnel on call twenty-four (24) hours per day, seven (7) days per week for emergencies during the course of a job. The Owner's project manager is to have the twenty-four (24) hour numbers for the contact. Contractor must be able to respond to any emergency call and have personnel on-site within two (2) hours after contact. Numbers available to the Owner's project manager are to be both home and office numbers for:

1. Job Foreman
2. Job Superintendent
3. Owner or Company Officer

1.10 PROTECTION OF PERSONS AND PROPERTY

- A. Safety Precautions and Programs: The contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.
- B. Safety of Persons and Property: The contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:
 1. Employees on the work and other persons who may be affected thereby.
 2. The work, materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the contractor or the contractor's Subcontractors or Sub-subcontractors.
 3. Other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- C. The contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.
- D. The contractor shall erect and maintain, as required by existing conditions and performance of the contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.
- E. The contractor shall comply to all OSHA requirements and any other local, state or federal regulations pertaining to protection and safety of persons or property.
- F. The contractor and all Subcontractors shall take all necessary precautions to keep the premises free of fire and safety hazards. The contractor shall prevent all agents, employees, licensees and invitees of the contractor from smoking on the Owner's premises and from operating or using any flame, sparks or explosion hazard producing devices anywhere on or about the premises without the written approval of the Owner's representative.
- G. The contractor shall designate a responsible member of the contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the contractor's superintendent unless otherwise designated by the contractor in writing to the Owner's representative.
- H. The contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

1.11 PRE-CONSTRUCTION CONFERENCE

- A. A conference shall be scheduled by the Owner's representative and conducted at the work site prior to start of work. The Contractor's project supervisor or foreman and the Owner's representative shall attend. Job schedule, submittals, existing

conditions, and specifications shall be reviewed and any questions arising shall be resolved to the satisfaction of all parties prior to start of work. Contractor shall begin work within five (5) calendar days following Owner's signing of contract and/or issuance of the written notice to proceed with work, weather permitting.

1.12 SUBMITTALS

- A. Upon receipt of Notice of Acceptance of this proposal, the Contractor shall submit the following items. All submittals shall be submitted to the Owner/Owner's representative within ten (10) calendar days of the date on the Notice of Acceptance and prior to the award of contract.
1. Contractor's executed insurance certificate.
 2. Material manufacturer's approval/acceptance of the specifications and details as written or noted for this project, fastener pattern layout, insulation, fasteners and all related materials.
 3. Contractor's executed payment and performance bonds as required.
 4. Shop drawings of all perimeter 1 and projection details, and sheet metal details approved by manufacturer, for Owner's approval if proposed details differ from those included with this proposal package. These drawings shall be approved by the membrane manufacturer and submitted at the preconstruction conference for Owner review and approval prior to work start.
 5. Approved applicator must submit a roof drawing which will be employed in the project if proposed drawing differs from that included with this proposal package.
 6. Contractor shall submit written statement that their company or any Subcontractor they may use is not employing workers classified as undocumented workers on this project.
 7. Samples of all materials not supplied or prior approved by the Roofing membrane manufacturer shall be submitted to the manufacturer for written approval prior to installation start.
 8. Submit waterproofing product data, including detailed test results of material applied to surfaces similar to requirements of this Section. Submit manufacturer's instructions for methods and application procedures.

1.13 USE OF PREMISES

- A. The Contractor is advised that the Owner will occupy the building at all times, and the Contractor must provide all safeguards required to protect personnel and to keep noise levels as low as reasonably possible for each operation.
- B. The Contractor shall:
1. Coordinate work in such a manner as to not interfere with the normal operation of the building.
 2. Assume full responsibility for protection and safekeeping of product stored on premises.
 3. Agree to hold the Owner harmless in any and all liability of every nature and description that may be suffered through bodily injuries, including death of any persons by reason of negligence of the Contractor, agents, employees, or Subcontractors.
 4. The Contractor and all Subcontractors shall take all necessary precautions to prevent the use of alcoholic beverages on the Owner's premises.

1.14 SAFETY

- A. The contractor and all Subcontractors shall take all necessary precautions to keep the premises free of fire and safety hazards. The contractor shall prevent all agents, employees, licensees and invitees of the contractor from smoking on the Owner's premises and from operating or using any flame, spark or explosion hazard producing devices anywhere on or about the premises without the written approval of the Owner's representative.

1.15 INSPECTION OF WORK IN PROGRESS

- A. The Owner's representative will require the material manufacturer's representative to periodically examine the work in progress, as well as on completion, in order to assist in ascertaining the extent the materials and labor procedures conform to the requirements of the specifications.
- B. The authorized material manufacturer's field representative shall be responsible for:
 - 1. Keeping the Owner's representative informed after periodic inspections as to the progress and quality of the work observed.
 - 2. Calling to the attention of the Contractor those matters observed which are considered to be in violation of the contract requirements.
 - 3. Reporting to the Owner's representative, in writing, any failure or refusal of the Contractor to correct unacceptable practices called to his attention.
 - 4. Confirming, after completion of the work and based on his observation and test, that he has observed no application procedures in conflict with these specifications. Final payment will not be released until all specified warranties have been received by the Owner.

1.16 FIELD INSPECTION AND CONTRACTOR RESPONSIBILITY

- A. The Owner's representative shall at all times have access to the job site and work areas. The Contractor will provide proper and safe facilities for such access and inspection.
- A. Any time during the course of the project, an inspection may be deemed necessary by the Owner/Owner's representative to have one or all of the following members of the Contractor's organization present in person to inspect the work along with the Owner/Owner's representative: Owner, a Majority Stockholder, President and/or Chief Executive Officer of the contracting firm.
- C. The Owner/Owner's representative, if deemed necessary, will notify in writing who in the Contractor's organization they want to inspect the work on the roof in addition to the Contractor's normal inspection. If the designated person or persons requested by the Owner/Owner's representative fails to respond within forty-eight (48) hours to the request, the work may be suspended, payment withheld and/or liquidated damages outlined in the specifications assessed until such time the individual(s) inspect(s) the work with the Owner/Owner's representative.
- D. Neither the presence nor absence of the Owner's representative nor the manufacturer's representative, nor an inspection by the manufacturer of the work or operation of the Contractor, nor any failure by the manufacturer to detect,

pinpoint, or object to any defect in the work completed, nor any deviation from these specifications, nor the acceptance by the manufacturer of any such defect or the approval of the manufacturer of any such deviation shall relieve the Contractor, or reduce, or in any way limit or divide, his full responsibility for the full performance of the work required of him under these specifications.

- E. It shall be understood that such field inspection as the Owner's representative may cause to be performed by the material manufacturer will be performed by the material manufacturer solely for the benefit of the Owner and in an attempt to assist with the requirements of this specification. These requirements bind the Contractor even without such inspection.
- F. No inspection or any act or omission of either the Owner's representative or the manufacturer's representative in connection with such inspection shall prejudice the Owner's right to strict conformance, or under any circumstances be construed to excuse or mitigate any mistake or non-conformance by the Contractor.

1.17 ON-SITE SUPERVISION

- A. The Contractor is responsible for the management and control of the work. He shall give his personal superintendence of the work or have a competent resident manager or superintendent satisfactory to the Owner on the job site at all times while work is in progress, with full authority to act for the Contractor as his agent.

1.18 CHANGES OR EXTRA WORK

- A. No change or addition shall be made except upon receipt by the Contractor of a signed order from the Owner authorizing such a change. No claims for an extra to the contract price shall be valid unless so authorized.

1.19 ROOFTOP EQUIPMENT

- A. All air conditioning units and other rooftop equipment shall be moved by the Roofing Contractor as required to install Roofing materials complete and in accordance with the plans and specifications. When units or equipment are to be moved, they shall be disconnected and moved by the Roofing Contractor to a protected area so as not to damage any part or component thereof, and shall be reset by the Roofing Contractor and reconnected at the Contractor's expense, all according to local building codes. All disconnection and reconnection shall be performed by a mechanical and/or electrical company licensed to perform such work and approved by the Owner's representative.
- B. Contractor shall follow refrigerant recycling requirements as outlined in section 608 of the Clean Air Act, 1990, as amended (CAA), including final regulations published on May 14, 1993 (58 FR 28660), and the prohibition on venting that became effective on July 1, 1992.
- C. Where mechanical items, conduits, cables, raceways, piping or any other roof-top mounted item must be moved in any manner, or disconnected and reconnected as made necessary by the roofing of the specified areas at the facility, all roof-top equipment, piping, insulation, wires, fiber optic cable, any information systems components, conduits, panels, motor starters, raceways, switches, antennas, satellite components, etc. shall be replaced or renewed to match existing if damaged by Contractor

NOTE: It is the responsibility of the Contractor to review the condition of any and all of the above noted, or similar, items with authorized Owner personnel to determine condition of said items PRIOR TO START OF WORK. If this review is not completed as prescribed, any and all damage found at the end of the work will be repaired solely at the contractor's expense.

- D. Any action by Roofing contractor personnel which causes interruption of the ongoing works of the Owner's facility will be repaired at the sole expense of the Roofing contractor. Upon interruption of the Owner's ability to meet required tasks, Owner may immediately, and without the contractor's permission, take such action as necessary to repair said damage so that the Owner's work may be resumed. The Owner has the obligation to notify the contractor of such action as soon as possible, but in all cases must notify the contractor in writing within 48 hours of the occurrence of the incident.

1.20 FINAL INSPECTION

- A. Upon job completion, a final inspection will be made by Owner's representative. Final payment will not be authorized for the work done until such inspection has been made and all work is found to have been performed in accordance with the specifications and to the satisfaction of the building Owner, and the specified warranties are issued.
- B. The Contractor shall promptly remove any work that does not meet the requirements of the plans and specifications or is incorrectly installed or otherwise disapproved by the Owner as failing to meet with the plans and specifications. The Contractor shall promptly replace any such work without expense to the Owner and shall bear the cost of making good all work of other contractors or the Owner, destroyed or damaged by such removal or replacement.

1.21 WAGES AND OVERTIME

- A. Overtime: Work that the Contractor performs on overtime for the Contractor's benefit is not billable to the Owner. The work that the Owner requests in writing to be performed during off hours is billable to Owner by the Contractor at the rate as proposed under unit cost.

B. Wage Rates:

1. Requirements:
 - a) Pay not less than the minimum wage scale and benefits indicated on the "Minimum Wage Schedule" provided herein.
 - b) Wages listed are minimum rates only.
 - c) No claims for additional compensation will be considered by the Owner because of payments of wage rates in excess of the applicable rate contained herein.
2. Applicable Statutes: Vernon's Civil Statutes, Section 2 of Article 5159a, which states as follows:

"...The Contractor shall forfeit as a penalty to the State, County, City and County, City, Town, District or other political subdivision on whose behalf the contract is made or awarded, ten dollars (\$10.00) for each laborer, workman or mechanic, for each working day, or portion thereof, such laborer, workman or mechanic is paid less than the said stipulated rates for any work done under said contract, by him, or by any Subcontractor under him, and the public body awarding the contract shall cause to be inserted in the contract a stipulation to this effect..."

- 3. Payroll: In compliance with Article 5159a, 1 Sections 2 and 3, of the Revised Civil Statute referenced above, the Owner reserves the rights as defined by Section 3 which states as follows:

"Sec. 3. The Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all laborers, workmen and mechanics employed by him, in connection with the said public work, and showing also the actual per diem wages paid to each of such workers, which record shall be open at all reasonable hours to the inspection of the public body awarding the contract, its officers and agents."

- 4. Minimum Wage Rates:

a) Pay prevailing basic wage listed, plus any applicable fringe benefits.

PREVAILING WAGE SCALE NOTICE

i. Prevailing wages shall not be construed to prohibit the payment of more than the rates named. Under no condition shall any laborer, workman or mechanic employed on this job be paid less than the minimum wage scale.

ii. In execution of this contract, the Contractor must comply with all applicable state and federal laws, including, but not limited to, laws concerned with labor, equal employment opportunity, safety, and minimum wage.

iii. The following wage rates have been represented to the Owner as being relatively current and accurate. Anyone knowing these wage rates to be in error shall bring this to the attention of the Owner's representative so an Addendum can be issued, if the new rates can be substantiated. The Owner and Owner's representative shall not be held responsible for errors in these wage rates.

b) Basic Rates:

<u>Classification (Trade/Craft)</u>	<u>Basic Wage Rates</u>
Asbestos Worker/Insulator (Including Application of All Insulating Materials, Protective Coverings, Coatings and Finishing to All Type of Mechanical Systems)	\$ 20.63
Boilermaker	24.70

Carpenter (Including Acoustical Ceiling Work)	21.00
Electrician (Including Pulling Wire and Low Voltage Wiring and Installation of Fire Alarms, Security Systems, Telephones, and Computers)	24.85
Elevator Mechanic	34.95
Plasterer	19.42
Plumbers (Excluding HVAC Pipe)	28.54
Pipefitters (HVAC Pipe Only)	28.07
Sprinkler Fitter (Fire Sprinklers)	25.90
Sheet Metal Worker (Including HVAC Duct and System Installation)	25.74
Asbestos Abatement Worker (Ceilings, Floors, and Walls Only)	14.00
Bricklayer	18.00
Cement Mason/Concrete Finisher	12.83
Drywall Finisher/Taper	12.13
Drywall Hanger, Including Metal Studs Installation	12.96
Formbuilder/Formsetter	11.82
Glazier	14.92
Insulator-Batt and Foam	10.00
Ironworkers:	
Reinforcing	12.06
Structural	15.68
Laborers:	
Common	9.29
Mason Tender (Brick)	10.13
Mason Tender (Cement)	9.86
Pipelayer	12.35
Plaster Tender	12.90
Lather	16.90
Painter (Brush, Roller and Spray)	11.17
Pipefitters (Excluding HVAC Pipe)	19.20
Power Equipment Operator:	
Asphalt Paver	13.50
Backhoe	12.54

Crane	17.95
Forklift	15.46
Slab and Wall Saw	15.54

Roofer	11.51
Tile Finisher	12.00
Tile Setter	15.70
Truck Driver	10.78

Welders: Receive rate prescribed for craft performing operation to which welding is incidental.

c) Apprentice Pay - All Trades and Crafts: 1 The minimum rate for apprentices shall be in accordance with the scale determined by an approved apprenticeship program or \$1.00 per hour less than journeyman's rates, whichever is lower. An approved apprenticeship program is one approved by the U.S. Department of Labor, Bureau of Apprenticeship Training, and only apprentices enrolled in an approved program may be paid apprenticeship rates.

d) Base Per Diem Rate: Hours worked per day, times base hourly rate.

e) Multipliers for Overtime Rates:

- i. Over 40 hours per week: Base hourly rate times 1.5.
- ii. Holidays: Base hourly rate times 1.5.

1.22 PERMITS

- A. The Contractor shall obtain and pay for all permits required, give all legal notices and pay all fees required for the work. Contractor shall comply with all ordinances and laws. Any and all work done which does not meet requirements of any local authorities must be properly redone, and incidental work replaced by the Contractor, without cost to the Owner.

1.23 SUBCONTRACTING OF WORK

- A. The Owner shall have the right to accept or reject the use of any subcontractor. The Contractor shall submit a list of proposed Subcontractors with his proposal.

1.24 REJECTION OF PROPOSALS

- A. The Owner reserves the right to reject any one or all proposals, to waive any formalities or irregularities, and to award the contract in the best interest of the College System.

1.25 SELECTION CRITERIA FOR QUALIFYING ROOFING PROPOSALS

- A. It is not the policy of the Houston Community College to purchase on the basis of low price alone. In evaluating proposals submitted, the College has the right under the Texas Education Code, Section 44, to take several items into consideration before entering into a contract. These considerations can include, but are not limited to:
 - 1. Unit price.
 - 2. Total proposal price.
 - 3. Suitability for the intended use.
 - a) Proposed system shall follow NRCA guidelines and the system manufacturer's

- published specifications, and be installed in accordance with governing building codes, FM Global, Underwriter's Laboratories, SMACNA, etc.
- b) Is lap integrity dependent upon: 1) hot-air fusion monolithic weld, membrane to membrane; 2) adhered, cold adhesive; 3) adhered, hot bitumen; 4) laminated, torch applied SBS or APP product?
 - c) To substantiate Quality Assurance, please submit:
 - i. Sample of field report.
 - ii. Number of weekly jobsite visits to be performed.
 - iii. Sample of job manifest.
 - d) Warranty Comparison
 - i. Warranty must be provided by manufacturer of membrane.
 - ii. Submit disclaimers that 1 affect proposed warranty. Does the published warranty list an exclusion for hail; i.e., is the warranty voided by hail? If there is no disclaimer in the published warranty, submit documentation stating what size hail the system is warranted up to, including historical supporting data and testing.
 - iii. Submit documentation stating who is responsible for maintaining the integrity of laps in proposed system after contractor warranty expires.
 - iv. Submit documentation to designate what specifically constitutes Owner's responsibilities concerning roof maintenance and what maintenance is specifically manufacturer's responsibility.
 - v. Submit documentation stating that standard warranty shall cover all base flashing, parapet wall flashing, and top of parapet wall flashing.
 - e) Institutional Insurance Discount: Provide documentation to show that property insurance rates have been discounted as a direct result of the roof system's capabilities to perform in a hail event.
4. Attendance at Pre-Proposal Conference
 5. Probability of continuous availability and total long-term prices to acquire the vendor's goods and services.
 6. The reputation of the vendor and the vendor's goods and services.
 7. The quality of the vendor's goods and services.
 8. The extent to which the goods or services meet the College's needs.
 9. The vendor's past relationship and past performance with the College.
 10. Date of proposed delivery and placement.
 11. Safety record of vendor.
 12. Financial and technical resources of contractor adequate to service contract.
 13. Any relevant factor that a private business entity would consider in selecting a vendor.
 14. Qualification of insurance and bonds.

1.26 DEMOLITION

- A. All abandoned pitch pans, equipment, vents, curbs, and other such debris shall be removed by the Contractor. Abandoned items that require deck placement shall be marked by the Owner prior to proposal due date and/or the commencement of work. Contractor shall install new decking of like dimensions to provide a suitable substrate in areas where penetrations through the deck are removed.

1.27 CREWS AND EQUIPMENT

- A. Contractor shall provide sufficient crews and equipment so that the project may progress without interruption or unnecessary delay.

1.28 FUTURE REPAIRS

- A. Contractor certifies by acceptance of this project that any future repairs or alterations he might be called upon to execute after the project is complete, will be performed in accordance with the manufacturer's recommended procedures so as to not void the warranty.

1.29 NAILERS AND ROOF DECK

- A. Contractor shall notify the Owner's representative of unforeseen areas of damaged decking, wet fill material or deteriorated nailers. Where the damage is serious and extensive, it will be the Owner's prerogative to authorize removal and replacement.
- B. Any areas of unusual deck deflection noticed by the Contractor during the course of the job that will cause an area of ponding water should be brought to the attention of the Owner's representative by the Contractor.
- C. The Contractor shall furnish the Owner with a unit price for removal and replacement of the damaged decking, fill material or deteriorated nailers. All nailers required for the new Roofing application shall be provided by the Roofing Contractor, and included in the proposal amount. Unit cost for nailers applies only to existing deteriorated nailers. If lumber is required to make "flush" interior parapet wall, cost shall be included in Base Proposal.

1.30 CONTRACT DOCUMENTS

- A. In the event of a conflict between the roofing specifications and the Owner's contract documents, the Owner's contract documents shall take precedence.

1.31 FIELD SAMPLES FOR WATERPROOFING

- A. Prepare field samples. Apply cleaning and coating to field sample test areas to illustrate color change and surface sheen. Coordinate with field sample required under Joint Sealers section. Field samples shall have cleaning, repair and finish coating applied. Repair shall not mirror through finish coating. All above are subject to Owner's approval.

END OF SECTION 01100

**SECTION 07535
FULLY ADHERED MULTI-PLY ROOF SYSTEM**

PART 1 - GENERAL

1.01 AREA COVERED

- A. Main Building Roof Area

1.02 INSTALLER QUALIFICATIONS

- A. Roofing Installer must be:
 - 1. Currently prequalified with the Owner in accordance with Owner's prequalification requirements.
 - 2. Currently in good standing with the manufacturer.
- B. It shall remain each Contractor's responsibility to determine his current status with the manufacturer's certification plan.

1.03 QUALITY ASSURANCE

- A. Applicator/Installer:
 - 1. Acceptable to roof material manufacturer for the manufacturer's warranty requirements.
 - 2. Five (5) years successful experience on projects similar in size and scope.
 - 3. Experienced in the type of Roofing work required.
 - 4. Successfully completed previous projects warranted by the manufacturer.
- B. Testing Laboratory Services: Test results shall meet or exceed established standards.
- C. Underwriters Laboratories, Inc.; Roofing Covering: Class A fire hazard classification.
- D. Comply with governing local, state, and federal regulations, safety standards, and codes.

1.04 REFERENCES (INCLUDING LATEST REVISIONS)

- A. American Society for Testing and Materials:
 - 1. ASTM B 209 - 90, Specification for Aluminum and Aluminum Alloy Sheet and Plate
 - 2. ASTM C 719 - 86, Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cycle Movement (Hockman Cycle)
 - 3. ASTM C 794 - 80 (1986), Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
 - 4. ASTM C 920 - 87, Specification for Elastomeric Joint Sealants
 - 5. ASTM D 312 - 89, Specification for Asphalt Used in Roofing
 - 6. ASTM D 1863 - 86, Specification for Mineral Aggregate Used on Built-up Roofs
 - 7. ASTM D 2178 - 89, Specification for Asphalt Glass Felt Used in Roofing and Waterproofing

8. ASTM D 2824 - 85, Specification for Aluminum - Pigmented Asphalt Roof Coatings
9. ASTM D 4586 - 86, Specification for Asphalt Roof Cement, Asbestos Free
10. ASTM A 361 - 90, Sheet Steel, Zinc-Coated (1 Galv.) by the Hot-Dip Process for Roofing and Siding
11. ASTM C 177, Test for Thermal Laboratory Services
12. ASTM C 728, Perlite Thermal Insulation Board

B. Federal Specifications:

1. LLL-I-535B
2. SS-A-701B
3. SS-C-153
4. SS-C-153C
5. SS-R-620B
6. TT-C-498C
7. TT-P-320D
8. TT-S-00227E
9. TT-S-00230C
10. SS-S-001534 (GSA-FSS)
11. L-P-375

C. Industry Standards:

1. The National Roofing Contractors Association (NRCA) - Roofing and Waterp Roofing Manual
2. Single-ply Roofing Institute (SPRI) - A Professional Guide to Specifications Manual
3. Sheet Metal and Air Conditioning Contractors National Association (SMACNA) -Architectural Sheet Metal Manual

1.05 SUBMITTALS

- A. Samples and Manufacturer's Submittals: Submit prior to delivery or installation.
1. Samples of all Roofing system components including all specified accessories.
 2. Submit samples of proposed warranty complete with any addenda necessary to meet the warranty requirements as specified.
 3. Submit latest edition of manufacturer's specifications and installation procedures.
Submit only those items applicable to this project.
 4. A written statement from the Roofing materials manufacturer approving the installer, specifications and drawings as described and/or shown for this project and stating the intent to guarantee the completed project.
 5. Manufacturer's Equiviscous Temperatures (EVT) for the specified bitumens.
- B. Shop Drawings: Provide manufacturer's approved details of all perimeter conditions, projection conditions, and any additional special job conditions which require details other than indicated in the drawings.
- A. Maintenance Procedures: Within ten days of the date of Substantial Completion of the project, deliver to the Owner three copies of the manufacturer's printed instructions regarding care and maintenance of the roof.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened containers and rolls with all labels intact and legible including labels indicating appropriate warnings, storage conditions, lot numbers, and usage instructions. Materials damaged in shipping or storage shall not be used.
- B. Deliver materials requiring fire resistance classification to the job with labels attached and packaged as required by labeling service.
- C. Deliver materials in sufficient quantity to allow continuity of work.
- D. Handle and store material and equipment in such a manner as to avoid damage. Liquid products shall be delivered sealed, in original containers.
- E. Handle rolled goods so as to prevent damage to edge or ends.
- F. Select and operate material handling equipment so as not to damage existing construction or applied Roofing.
- G. Moisture-sensitive products shall be maintained in dry storage areas and properly covered. Provide continuous protection of materials against wetting and moisture absorption. Store Roofing and flashing materials on clean raised platforms with weather protective covering when stored outdoors.
- H. Store rolled goods on end.
- I. Protect materials against damage by construction traffic.
- J. The proper storage of materials is the sole responsibility of the contractor and any wet or damaged Roofing materials shall be discarded, removed from the project site, and replaced prior to application.
- K. Comply with fire and safety regulations, especially with materials which are extremely flammable and/or toxic. Use safety precautions indicated on labels.
- L. Products liable, such as emulsions, to degrade as a result of being frozen shall be maintained above 40° F in heated storage.
- M. No storage of materials shall be permitted on roof areas other than those materials that are to be installed the same day.
- N. Caution should be taken regarding staging materials on roof area.

1.07 SITE CONDITIONS

- A. Job Condition Requirements:
 - 1. Apply Roofing in dry weather.
 - 2. Do not apply Roofing when ambient temperature is below 40° F (4° C).
 - 3. Coordinate the work of the contractor 1 with the work to be performed by the Owner's personnel, to ensure proper sequencing of the entire work. The Owner's personnel will be erecting interior protection for equipment, if required. The contractor is to schedule his work so that adequate time is allowed for the Owner's personnel to perform the work. No roof work shall

be performed until the Owner's personnel have completed erection of the interior protection in that area.

4. Proceed with Roofing work only when weather conditions are in compliance with manufacturer's recommended limitations, and when conditions will permit the work to proceed in accordance with specifications.
5. Schedule the work so the building will be left watertight at the end of each day. Do not remove more Roofing material than can be reinstalled in any working day.
6. All surfaces to receive new Roofing shall be smooth, dry, and free from dirt, debris, and foreign material before any of this work is installed. Competent operators shall be in attendance at all times equipment is in use. Materials shall be stored neatly in areas designated by the Owner. Load placed on the roof at any point shall not exceed the safe load for which the roof is designed.
7. The contractor shall take all necessary precautions to protect the roof mat and deck from damage. The contractor shall be responsible for repairing all new areas of damage caused by the negligence of the contractor, at the contractor's expense. The Owner's on-site representative shall determine damage caused by contractor negligence.
8. The contractor shall follow local, state, and federal regulations, safety standards, and codes for the removal, handling, and disposal of asbestos containing materials, if present. When a conflict exists, use the stricter document.
9. Follow insurance underwriter's requirements acceptable for use with specified products or systems.
10. Due caution should be exercised so as not to alter the structural integrity of the deck. When cutting through any deck, care should be taken so as not to damage the deck or any part of the deck, such as post tension cables, etc.
11. The contractor is to verify the location of all interior ducts, electrical lines, piping, conduit, and/or similar obstructions. The contractor is to perform all work in such a manner as to avoid contact with the above mentioned items.
12. Surface and air temperatures should be a minimum 45° F during applications of cleaner and waterproof coating and remain above 45° F for a minimum of four (4) hours following applications. Verify compatibility of cleaner with coatings, paints, primers and joint sealers specified. Advise Owner's representative of any problems in this regard prior to commencing cleaning operations.
14. Temporary Sanitary Facilities: The contractor shall furnish and maintain temporary sanitary facilities for employees use during this project. These will be removed after the completion of the project. All portable facilities shall comply with local laws, codes, and regulations.

B. Protection of Work and Property:

1. Work: The contractor shall maintain adequate protection of all his work from damage and shall protect the Owner's and adjacent property from injury or loss arising from this contract. He shall provide and maintain at all times any OSHA required danger signs, guards, and/or obstructions necessary to protect the public and his workmen from any dangers inherent with or created by the work in progress. All federal, state, and city rules and requirements pertaining to safety and all EPA standards,

- OSHA standards, NESHAP regulations pertaining to asbestos as required shall be fulfilled by the contractor as part of his proposal.
2. Property: Protect existing planting 1 and landscaping as necessary or required to provide and maintain clearance and access to the work of this contract. Examples of two categories or degrees of protection are generally as follows: a) removal, protection, preservation, or replacement and replanting of plant materials; b) protection of plant materials in place, and replacement of any damage resulting from the contractor's operations.
 3. Twenty-four Hour Call: The contractor shall have personnel on call 24 hours per day, seven (7) days per week for emergencies during the course of a job. The Owner's Project Manager is to have the 24 hour numbers for the contact. Contractor must be able to respond to any emergency call and have personnel on-site within two (2) hours after contact. Numbers available to the Owner's Project Manager are to be both home and office numbers for:
 - a) Job Foreman
 - b) Job Superintendent
 - c) Owner or Company Officer
- C. Damage to Work of Others: The contractor shall repair, refinish, and make good any damage to the building or landscaping resulting from any of his operation. This shall include, but is not limited to, any damage to plaster, tile work, wall covering, paint, ceilings, floors, or any other finished work. Damage done to the building, equipment, or grounds must be repaired at the successful contractor's expense holding the Owner harmless from any other claims for property damage and/or personal injury.
- D. Measurements: It will be the contractor's responsibility to obtain and/or verify any necessary dimensions by visiting the job site, and the contractor shall be responsible for the correctness of same. Any drawings supplied are for reference only.
- E. Use of Premises:
1. The contractor is advised that the Owner will occupy the building at all times, and the contractor must provide all safeguards required to protect personnel and to keep noise levels as low as reasonably possible for each operation.
 2. The contractor shall:
 - a) Coordinate work in such a manner as to not interfere with the normal operation of the building.
 - b) Assume full responsibility for protection and safekeeping of products stored on premises.
 - c) Agree to hold the Owner harmless in any and all liability of every nature and description which may be suffered through bodily injuries, including death of any persons by reason of negligence of the contractor, agents, employees, or subcontractors.
- F. Cleaning and Disposal of Materials:
1. Contractor shall keep the job clean and free from all loose materials and foreign matter. Contractor shall take necessary precautions to keep outside walls clean and shall allow no Roofing materials to remain on the outside walls.

2. All waste materials, rubbish, etc., shall be removed from the Owner's premises as accumulated. Rubbish shall be carefully handled to reduce the spread of dust. The construction debris chute must be used to remove the roofing debris, Provide floor and wall protection at elevator and halls to protect the finishes. At completion, all work areas shall be left broom clean and all contractor's equipment and materials removed from the site.
3. All bituminous or Roofing related materials shall be removed from ladders, stairs, railings, and similar parts of the building not exceptions.
4. Debris shall be deposited at an approved disposal site.

1.08 WARRANTY

- A. Twenty (20) Year NDL with no exclusion for 2" hail occurrence Warranty and wind rider to 120 MPH to meet the ASCE 7 wind speed for the areas: The complete Roofing system shall be guaranteed for a minimum of twenty (20) years from the date of Substantial Completion for this project. Guarantee responsibilities shall be as follows:
 1. Roofing contractor shall guarantee the entire Roofing system for a period of two (2) years from the date of Substantial Completion.
 2. The materials manufacturer shall guarantee the entire Roofing system for a total period of / twenty (20) years from the date of substantial completion.
 3. Membrane manufacturer shall provide the written warranty as specified.
 4. The entire Roofing system shall be guaranteed to be watertight and against any failures of workmanship and materials. Repair of the system, including materials and labor, shall be done at no cost to the Owner.
 5. Warranty repairs shall be performed by a certified installer. The repairs shall be performed in accordance with the manufacturer's written instructions and recommended procedures so as to not void the warranty.
- B. During the proposal period each Contractor shall make arrangements with the Materials manufacturer to provide the required warranty. Refer to paragraph 1.05 SUBMITTALS for requirements concerning submittals of warranty.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Compatibility: Provide materials that are recommended by manufacturers to be fully compatible with indicated substrates, or provide separation materials as required to eliminate contact between incompatible materials.
- B. Materials herein specified shall be supplied or approved in writing by the manufacturer issuing the warranty.
- C. The white polyester reinforced fleece backed adhered Elvaloy® Roofing system shall only be applied by manufacturer approved and trained Roofing contractors.
- D. All materials used on the project shall be asbestos free.

2.02 ROOFING MEMBRANE

- A. The white 100 mil polyester reinforced fleece backed Elvaloy membrane shall have the following minimum physical properties.

<u>Property</u>	<u>Test Procedure</u>	<u>Physical Properties</u>
Color		White
Thickness	ASTM D 751	.100" Nominal
Breaking Strength	ASTM D 751	>325 lbs.
Tensile Strength	ASTM D 638	MD 1844/TD 2111
Elongation	ASTM D 638	MD 183/TD 108
Shore "A" Hardness	ASTM D 2240	85
Heat Aging	ASTM D 0573	90% of Original
Cold Resistance	ASTM D 2136	-40° F
Water Vapor Permeability	ASTM E 96	3.5g/m2/day
Wt. Change After Immersion	ASTM D 570	1.5% max.
Seam Strength	ASTM D 751	80% of sheet
Dimensional Stability	ASTM D 1240	0.5%
Accel. Weathering (Xenon Arc)	ASTM D 2565	10M hrs. (No Change)
Oil Resistance	Mil-20696C	No cracking, swelling or leaking
Hydrocarbon Resistance	Mil-20696C	No cracking, swelling or leaking
Underwriters Laboratories		Class A
Factory Mutual		Class 1-90
Solar Reflectivity	CRRC	0.811
Solar Emissivity	CRRC	0.919

2.03 FLASHING MEMBRANE

The flashing membrane shall be a white Elvaloy® polyester reinforced flexible sheet.

<u>Property</u>	<u>Test Procedure</u>	<u>Physical Properties</u>
Color		White
Thickness	ASTM D 751	.060" Nominal
Breaking Strength	ASTM D 751/D 638	>340 lbs.
Elongation	ASTM D 751/D 638	100%
Puncture Resistance	FS 1010, Method 2031	260 lbs.
Shore "A" Hardness	ASTM D 2240	83
Heat Aging	ASTM D 3045	90% of Original
Cold Resistance	ASTM D 2136	-40° F
Water Vapor Permeability	ASTM E 96	3.5g/m2/day
Wt. Change after Immersion	ASTM D 570	1.5% max.
Seam Strength	ASTM D 751	80%
Dimensional Stability	ASTM D 1204	0.5% or less
46 Accel. Weathering (Xenon Arc)	ASTM D 2565	after 10M hrs. (No Change)
Underwriters Laboratories		Class A
Factory Mutual		Class 1-90
Exceed	ASTM D 4434	
Solar Reflectivity	CRRC	0.811
Solar Emissivity	CRRC	0.919

2.04 NON-REINFORCED MEMBRANE

- A. The non-reinforced membrane shall have the following minimum properties.
1. Description: Non-reinforced thermoplastic white membrane, thickness approximately 45 mils.
 2. Use: Inside/outside corners, multi-angled intersections, sealant pockets and other conditions where molding of the membrane is required.

2.05 COLD APPLIED FIELD ADHESIVE

- A. Shall have the following minimum properties, as manufactured by membrane manufacturer.

<u>Property</u>	<u>Characteristics</u>
Type	Rubber, asphalt, resin dispersion; Water vehicle
Color Dried Film	Black
Viscosity	Approximately 18,000 cps. (Brookfield at 77° F)
Solids, Wt. %	Heavy paint consistency -- readily pourable
Application Procedure	Approximately 75%
Working Period	Brush, squeegee or roller
Application Limits (Temp.)	Remains tacky permitting wet or dry combining over wide range of conditions.
Service After Application	Between 50 and 100° F. However apply at near mid-temperature range whenever possible.
Caution	Not affected by extremes in atmospheric conditions. Maintains good bond over range minus 20° F to plus 200° F. Excellent water and moisture resistance.
Weight per Gallon Net	Keep from freezing. Store above 40° F
Container Sizes	Approximately 8.4 lbs.
Primer Use	5 gallon
	When the product is used over cementitious surfaces, the surface must first be primed 24 hours before adhesive applications. The primer should be a solvent base asphalt cut back. The application rate is approximately 3/4 gallon per 100 square feet.

2.06 CAULKS

- A. Sealant for use at coping joints, reglet joints, etc., shall be a one-component urethane non-sag, gun grade sealant designed for use in active exterior joints, and shall meet or exceed Federal Specification No. 1 TT-S-00230C, Type II, Class A, ASTM C 920. Where joint surfaces are contained or are contaminated with bituminous materials, provide manufacturer's modified-type sealant (modified with coal-tar or asphalt as required).
- B. Sealant shall be a thermosetting, solvent free, non-slump, self-fixturing, multipurpose structural sealant which shall meet the following physical and performance properties.

<u>Properties</u>	
Specific Gravity	1.62 (13.5 lbs./gallon)
Viscosity	800,000 cps Brookfield RTV, TF spindle, 4 rpm 70° F.
Shear Strength (ASTM D-1002)	300 psi+ (7 day ambient cure)
Elongation @ break (ASTM D-412)	300% (7 day ambient cure)
Hardness Shore A (ASTM C-661)	50 – 55 (14 day ambient cure)
Tack free time (ASTM C-679)	35 minutes
Low temperature flex	Minus 20° F: PASS
Slump (sag) (ASTM C-639)	Zero slump
Shrinkage (ASTM D-2453)	No measurable shrinkage (14 day cure)
Service temperature	-40° F to 200° F

2.07 FELTS

- A. Shall be Underwriters Laboratory approved and listed in the FM Global Approval Guide.
- B. Shall be venting base sheet, Type G-2, with 5/8" perforations on three inch (3") centers meeting ASTM D 4897 Type II and ASTM D 3672 Type II, listed in FM Global Approval Guide.
- C. Shall be venting base sheet, Underwriters 1 Laboratory Type G-2, ASTM D 3672, Type II
- D. Shall be SBS sanded smooth fiberglass sheet, Underwriters Laboratory Type G-2, meeting Federal Specification No. SS-R-6208B, Type II, as manufactured by the membrane manufacturer.

2.08 INSULATION

- A. All insulation shall be approved in writing by the membrane manufacturer as to thickness, type, and manufacturer. All insulation must be approved for the specific application, Underwriters Laboratory approved, and be listed in the FM Global Approval Guide.
- B. Tapered Polyisocyanurate Roof Insulation: Shall be tapered polyisocyanurate board per Federal Specification No. HH-I-1972/1 or 2, with a 20 psi minimum compressive strength and 2.0 pcf density minimum. Insulation shall be of thickness required for one-eighth inch (1/8") slope per foot to roof drains as shown on drawings. Insulation shall be surfaced on two (2) sides with a non-asphaltic facer material.
- C. Recovery Board: Non-structural glass mat faced, non-combustible, moisture resistant, gypsum core panel. Thickness shall be 1/2" (R-Value not less than 0.56), with a nominal board size of four feet by eight feet (4' x 8').

2.09 CANT STRIP

- A. Shall be treated solid wood meeting NRCA, FM Global and Underwriters Laboratory guidelines.

2.10 WOOD

- A. All nailers, cants and wooden curbs shall be treated lumber as required by NRCA, FM Global and Underwriters Laboratory guidelines.

2.11 FASTENERS

- A. Fasteners and fastening plates or bars shall be listed in the FM Global Approval Guide, and be as recommended by the fastener manufacturer for the specific application.
- B. Fastener for Lightweight Concrete Deck: Shall be a split shank, one piece fastener, to be used with a two and three-fourths inch (2-3/4") bilateral metal plate, both G-90 galvanized. Fasteners and plates shall be listed in the FM Global Approval Guide.

- C. Fastener for Brick: Shall be one-fourth inch by two inches (1/4" x 2"), zinc with plated steel or stainless steel nail, one piece unit, flat head.
- D. Fastener for Concrete Deck: Shall be a #14 fastener, fluorocarbon coated, with CR-10 coating. A minimum .200 diameter shank and .250 diameter thread. To be used with round pressure plates or bar, and having a fluorocarbon CR-10 coating, when subjected to thirty (30) Kesternich cycles (DIN 50018) shows less than ten percent (10%) red rust which surpasses FM Global Approval Standard 4470. Fasteners, plates, and/or bars shall be listed in the FM Global Approval Guide.
- E. Fastener for Lightweight Concrete Deck: Shall be a split shank, one piece fastener, to be used with a two and three-fourths inch (2-3/4") bilateral metal plate, both G-90 galvanized, as supplied by the membrane manufacturer. Fasteners and plates shall be listed in the FM Global Approval Guide.

2.12 ROOFING INSULATION ADHESIVE

- A. Shall be a dual component, reaction cure polyurethane adhesive, meeting the following physical properties as manufactured by the membrane manufacturer.

Density	ASTM D-1622	Free Rise 3.2 lb/cf
Compressive Strength	ASTM D-1621	Parallel 38 psi @ 6% deflection
Tensile Strength	ASTM D 1623	35 psi
Water Absorption	ASTM D 2843	5.1%
Closed Cell Content	ASTM D 2856	90% min.; R-value= 3.8 new
Weight/Gallon (Liquid Components)		"Part 1" Component = 10.32 lbs. "Part 2" Component = 8.54 lbs. "Part 1" Component = 225 cps "Part 2" Component = 275 cps

2.13 PITCH PAN SEALANT

- A. Shall be one-part, self-leveling polyurethane sealant meeting Federal Specification No.TT-S-00230C, Type I, Class A, ASTM C 920, Type S, Grade P, Class 25, for use in new pitch pans.

2.14 ASPHALT ROOF PRIMER

- A. Quick-dry asphalt-based primer for priming of asphalt roof surfaces.

Applicable Federal Specification	SS-A-701B
ASTM	D 41
Flash Point	105° F
Viscosity at 80° F (ASTM D 217)	50-60 K.U.
Weight per gallon	7.4 pounds
Drying time (to touch)	Min. 4 hours

2.15 BONDING ADHESIVE FOR FLASHING

- A. Description: Adhesive is a bonding cement of synthetic rubber for fully adhering membranes to various substrates, Produced by Ashland Chemical, or approved equal.

Typical Liquid Properties (Room Temperature)

Color	Amber/Yellow
Base Product	Neoprene
Solids	25%
Specific Gravity	.87
Pounds/Gallon	7.25
Viscosity (CPS)	2500
Solvents	Ketone, Toluene, Aliphatic Hydrocarbon, Zylene
Estimated Coverage	
2 Sided Application	55/70 sq. ft. (2/2.5 mils dry)
DOT Label Required	Flammable Liquid
Code - 584661	

- B. Handling: Contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.

2.16 COLD APPLIED FIELD ADHESIVE

- A. Shall have the following minimum properties, as manufactured by membrane manufacturer.

<u>Property</u>	<u>Characteristics</u>
Type	Rubber, asphalt, resin dispersion; Water vehicle
Color Dried Film	Black
Viscosity	Approximately 18,000 cps. (Brookfield at 77° F) Heavy paint consistency -- readily pourable
Solids, Wt. %	Approximately 75%
Application Procedure	Brush, squeegee or roller
Working Period	Remains tacky permitting wet or dry combining over wide range of conditions.
Application Limits (Temp.)	Between 50 and 100° F. However apply at near mid-temperature range whenever possible.
Service After Application	Not affected by extremes in atmospheric conditions. Maintains good bond over range minus 20° F to plus 200° F. Excellent water and moisture resistance.
Caution	Keep from freezing. Store above 40° F
Weight per Gallon Net	Approximately 8.4 lbs.
Container Sizes	5 gallon
Primer Use	When the product is used over cementitious surfaces, the surface must first be primed 24 hours before adhesive applications. The primer should be a solvent base asphalt cut back. The application rate is approximately 3/4 gallon per 100 square feet.

2.17 WALKWAY PAD FOR LOCATIONS AT THE STAIRWELL AND MECHANICAL YARD

- A. The walkway pad shall have the following minimum physical properties, and be applied with edges heat or solvent welded, as manufactured by membrane manufacturer.

<u>Property</u>	<u>Test Procedure</u>	<u>Physical Properties</u>
Color		Blue
Size		30" wide x 60' long
Thickness	ASTM D 638	125" nominal
Specific Gravity	ASTM D 792	1.32g/cm ³
Tensile Strength	ASTM D 638	>2500 psi
Elongation	ASTM D 638	>300%
Cold Resistance	ASTM D 1043	-40° F
Water Vapor Permeability	ASTM E 96	2.8g/m ² /day
Dimensional Stability	ASTM D 1240	0.5% or less
Ultraviolet Stability		12,000 hrs. Excellent

2.18 TRIM STRIP

- A. The trim strip shall be six inch (6") wide re-enforced 60 mil thermoplastic used for capping butted ends of rolls. The trim strip shall be seamed with the use of hot-air welding.

2.19 PIPE BANDS

- A. Pipe bands shall be stainless steel bands with self-locking heads and shall be tightened with hand tool for tension control and flush cut off.

2.20 PRE-MOLDED BOOTS

- A. Non-reinforced thermoplastic tapered molds for various pipes, heat welded to field membrane and sealed at top with stainless steel pipe bands and seam sealer.

2.21 DELIVERY AND STORAGE

- A. All materials shall be delivered with appropriate carton and can labels indicating appropriate warnings, storage conditions, lot numbers, and usage instructions. Materials damaged in shipping or storage shall not be used.

2.22 PRECAUTIONS

- A. Some of the indicated materials are extremely flammable and/or toxic. Use precautions indicated on can and carton labels.

2.23 VERTICAL WALL SHIMMING MATERIAL

- A. Shall be one of the following unless otherwise accepted by Owner's representative: OSB, exterior grade plywood, gypsum core board or concrete core board. Proper selection of material is required to achieve FM Global and UL guidelines.

2.24 MISCELLANEOUS MATERIALS

- A. Other materials shall be as specified or of the best grade for the proposed use as recommended by the manufacturer.

PART 3 - EXECUTION

3.01 REFERENCE

- A. The manufacturer's Technical Specifications shall be considered a part of this specification and should be referred to for more specific application procedures and recommendations.
- B. Application of materials shall be in strict accordance with the manufacturer's recommendations except where more stringent requirements are shown or specified. In the instance of a conflict between these specifications and those of the manufacturer, the more stringent specifications shall take precedence.
- C. General Installation:
 - 1. Protect adjacent areas with tarpaulin or other durable materials.
 - 2. Contractor shall prevent overspray, and be responsible for parking lot areas and/or adjoining areas not part of this contract.
 - 3. Contractor shall be responsible for sealing, as required, all openings that may allow bitumen migration or drippage, i.e. pitch dams, envelopes, and filler strips.
 - 4. Prepare surfaces according to manufacturer's or applicator's published instructions. All metal that is to receive bitumen, or come in contact with bitumen or adhesive, shall be first primed with appropriate primer. Any prefinished sheet steel that is to receive bitumen, or come in contact with bitumen or adhesive, shall be scored, scuffed or abraded prior to receiving primer.
 - 5. Use cleaning materials 1 or primers necessary to render an acceptable surface/substrate.
 - 6. All surfaces/substrates shall be clean and dry prior to application of materials.
 - 7. Prior to application of felts and membrane, all foreign matter, gravel, etc., shall be removed from the insulation and/or substrate. Gravel or debris between the insulation/substrate and plies is not acceptable.
 - 8. Ambient temperature shall be 45° F and rising.
 - 9. Wrinkles, buckles, kinks, and fishmouths are not acceptable when laying membrane.
 - 10. Where deteriorated base flashing is removed, primed cant strips shall be installed at the intersection of the deck and the vertical surfaces. All flashings shall be mechanically top-fastened with a termination bar a minimum of six inches (6") on center at the top leading edge, and be a minimum of eight inches (8") in height from finished membrane.
 - 11. On slopes greater than one inch (1") in twelve inches (12"), refer to NRCA and/or manufacturer's guidelines for backnailing procedures and follow the more stringent guidelines for all specified materials.

3.02 SUBSTRATE PREPARATION

- A. Tear-off: Remove all built-up Roofing, flashing, insulation, and sheet metal down to the roof deck or original substrate. Substrate shall be smooth, free of debris, sharp edges, and other surface irregularities prior to starting Roofing application. Substrate repair shall be performed as required to minimum of NRCA standards.

- B. Above-Deck Fills:
 - 1. Roofing substrate must be acceptable to the manufacturer prior to application of roof materials.
 - 2. Nailable fills shall receive venting base sheet properly fastened with suitable fasteners.
 - 3. Fill shall be patched with quick setting cement as required to provide a smooth substrate for installation.

- C. Concrete Decks:
 - 1. Surface irregularities shall be corrected with quick-setting mortar mix.
 - 2. Joints should be filled with quick-setting mortar mix to provide a level surface.
 - 3. Concrete must be primed and allowed to dry before applying any asphalt.
 - 4. The following shall be used and passed as an acceptable means of testing the dryness of a concrete roof deck:
 - a) Use approximately one (1) pint of bitumen that is specified for use in the roof membrane, heated to a temperature that will ensure an application temperature of 400° F.
 - b) Pour the bitumen on the surface of the deck. If the bitumen foams, the deck is NOT dry enough to roof.
 - c) After the bitumen has cooled, an attempt should be made to strip the bitumen from the deck surface. If the bitumen strips clean from the deck, the deck is NOT dry enough to roof.
 - 5. Prestressed, precast concrete slabs require the following preparation:
 - a) If there is a screeded fill over the slabs, the joints of the slabs should be left open.
 - b) Before applying the membrane strips to the joints, a leveling fill of quick-setting mortar must be used whenever slab edges are out of plane by more than one-half inch (1/2").

3.03 NAILERS

- A. Wooden nailers shall be installed at gravel stops, drip edges, and expansion joints on outside perimeter of building according to NRCA, Underwriters Laboratory and IBC guidelines.

- B. All Construction: Nailers shall be the same height as the new recovery board being installed where required. Nailers shall be raised if necessary by anchoring an additional nailer of appropriate height to the existing nailer if the existing nailer is not to be replaced. Nailers shall be anchored to resist a pull-out force of one hundred seventy-five pounds (175#) per foot. Fasteners shall be no less than two (2) per nailer, and be spaced at three feet (3') on center maximum. Expansion joint nailers shall extend upward a minimum of eight inches (8") above finish roof height.

3.04 WOOD CANTS

- A. Toe of cant shall be level with the surface to receive new roof membrane and in all cases anchored according to NRCA, Underwriters Laboratory and IBC guidelines.

3.05 RECOVERY BOARD

- A. Manufacturer's Instructions: In regard to attachment, the manufacturer's instructions or specifications shall determine the suitability for an application.

- B. Recovery boards shall be laid on the substrate in parallel rows with end joints staggered and butted as close as possible. All joints shall be tight and at the roof perimeter and roof penetrations, recovery boards shall be cut neatly and fitted to reduce openings to a minimum. All openings one-fourth inch (1/4") or larger shall be filled with insulation.
- C. Recovery board shall be tapered or feathered at drains and scuppers to provide proper drainage (if applicable).
- D. No more recovery board shall be installed than can be covered by the completed roof system by the end of the day or the onset of inclement weather.

3.06 MECHANICALLY FASTENED BASE PLY

- A. Substrate shall be covered with a venting base sheet mechanically fastened as follows:

Securement shall conform to the ASCE 7 criteria for wind uplift as dictated by wind zone applicable to location of project. Fasteners and fastening patterns shall be determined by building height, location and geographical area of the United States. It is the contractor's responsibility to consult current publications, literature, and bulletins of IBC and the fastener manufacturer that are in effect at the time of this project.

3.07 FULLY ADHERED BASE PLY

- A. Substrate shall be covered with a perforated venting base sheet adhered as follows:

The concrete deck shall be primed with concrete primer in accordance with manufacturer's recommended procedures and allowed to dry. Following the application of the primer, the perforated venting base sheet shall be rolled out, granule side down, dry, each sheet lapped two inches (2") at edges and approximately six inches (6") at end laps. The perforated venting base sheet shall be lapped so the flow of water is over or parallel to, but never against the laps. Extend base sheet to the top of cant strips at the bases of walls and vertical surfaces.

3.08 INSULATION

- A. Manufacturer's Instructions: In regard to attachment, the manufacturer's instructions or specifications shall determine the suitability for an application.
- B. Precautions: The surface of the insulation must not be ruptured due to overdriving of fasteners.
- C. Thermal insulation boards shall be laid on the substrate in parallel rows with end joints staggered and butted as close as possible. All joints shall be tight and at the roof perimeter and roof penetrations, insulation shall be cut neatly and fitted to reduce openings to a minimum. All openings one-fourth inch (1/4") or larger shall be filled with insulation.
- C. Insulation shall be tapered or feathered at drains and scuppers to provide proper drainage (if applicable).

- E. No more insulation shall be installed than can be covered by the completed roof system by the end of the day or the onset of inclement weather.
- F. Tapered insulation and crickets, when specified, shall be placed in accordance with the drawings and/or as required to minimum of NRCA standards.
- G. Specified insulation shall be bonded to the venting base sheet with membrane manufacturer adhesive, as required by slope (NRCA), at the minimum rate required by the membrane manufacture and immediately walked in place.
- H. The top surface of the first layer of insulation shall have adhesive, as required by the membrane manufacture and immediately walked in place. second layer of insulation shall be applied using offset joints, so that each layer breaks joints to a minimum of six inches (6") both ways with the preceding layer, and immediately walked in place.

3.09 APPLICATION OF PLY SHEET

- A. Recover Board shall be covered with one (1) layer of fiberglass SBS 80 mil sheet fully adhered as follows:

All layers shall be adhered solid at the nominal rate required by the membrane manufacturer. Specified layers shall be applied in accordance with the manufacturer's recommendations and in accordance with general practices as set forth by the NRCA Roofing Manual.

3.10 APPLICATION OF FLEECE BACKED MEMBRANE

- A. Fully Adhered Application: Fully adhere membrane to acceptable substrate manufacturers adhesive applied at the rate specified by the manufacturer.
 1. The roof surface must be clean, dry and free of foreign material.
 2. Position sheets as indicated on approved shop drawings.
 3. Fold one end of the Elvaloy® sheet on top of itself until both ends meet. Apply adhesive to the prepared roof surface. The sheet can then be pulled and laid into the bonding material using care not to create any wrinkles.
 4. Carefully push into place from fold line to overlap, 1 avoiding wrinkles and air pockets. Roll or broom membrane flat.
 5. Repeat procedure for other sheet half.
 6. Lap seams shall be done by lapping the two inch (2") selvedge edge over the non-selvedge edge of the previous roll. The selvedge edge seam shall be made with the heat gun method.
 7. Roll ends are butted together and capped with a six inch (6") wide trim strip. The trim strip is then seamed with the heat gun.
- B. Lap Seaming Procedure: Overlap membrane for attachment method specified and hot-air welded with manufacturer's approved equipment.
 1. All surfaces to be weld shall be clean, dry and free of foreign material.
 2. All seams must then be checked with a needle probe and any voids repaired with the heat gun.
 3. **ALL SEAMS SHALL BE PROBED AND WELDED DAILY.**

3.11 FLASHING

- A. Flash all penetrations, metal edge systems, walls, curbs, expansion joints, drains as shown on details and approved shop drawings with white reinforced Elvaloy® flashing membrane.
 - 1. Use prefabricated flashing accessories or components such as sealant pockets, premolded vent/pipe flashing.
 - 2. Mechanically fasten flashing at terminations according to approved details.
 - 3. Fastening membrane flashing through metal counterflashing is not acceptable.
 - 4. **ALL SEAMS SHALL BE PROBED AND WELDED DAILY.**
- B. Any lumber or shimming required for attachment or to make material flashing flush or level with offsets and/or transitions shall be incorporated in the flashing specifications.

3.12 WOOD NAILERS

- A. Locate and install as shown on details, along gravel stops and drip edges and other areas as required by membrane manufacturer.
- B. Anchor nailer to structural deck with manufacturer's approved fasteners, spaced appropriately for the specified installation; minimum withdrawal resistance: one hundred (100) pounds.
- C. Height and Taper: Match top of adjacent construction within one-fourth inch (1/4"). Taper as required to provide continuous contact surface without creating ponding.

3.13 ROOF DRAINS

- A. Inspect and test drain and drain lines prior to start of work in contact area. Open if blocked or clogged and repair/replace all broken, missing drain components and lines as required. Verify in writing that all drains and lines are free flowing and watertight prior to substantial completion. Comply with local plumbing codes.
- B. Remove strainer and clamping ring repair (or replace if damaged) and reset.
- C. Insert Drains (If Required): Install new drain inserts 1 with permanent gaskets between insert and drain wall to prevent backflow of water and leakage.
- D. Replacement Drains (If Required): Sized to match existing drain system. Install watertight to existing lines. Follow drain manufacturer's installation requirements.

3.14 WALKWAY PADS

- A. Fully adhere and heat weld walkway pads where shown on drawings or where required to provide protected pathways from rooftop access points to mechanical or other equipment requiring rooftop maintenance.

3.15 CLEANING

- A. Clean exposed surfaces of excess cement, adhesive, sealants, mortar and paint associated with the new work.
- B. Clean work area of excess Roofing materials and installation debris daily.
- C. Repair or replace defaced or disfigured finishes caused by the work.
- D. Upon completion of the project the entire roof shall be cleaned using pressure washer with fan tip nozzle.

3.16 PROTECTION

- A. Protect all building surfaces against damage from Roofing work.
- B. Where traffic must continue over finished, installed Roofing system, protect membrane, underlayment accessories and finishes from damage.

3.17 MEMBRANE PROTECTION

- A. Where equipment pads, wood sleepers, or walkway slabs are to be installed over the Roofing membrane, an additional layer of the Roofing membrane shall be installed between the Roofing membrane and the pad, sleeper, or slab. Due caution shall be exercised to prevent Roofing membrane damage during placement. Where required, membrane shall be welded to field membrane to prevent slippage.

3.18 PIPING/CONDUIT

- A. Piping/conduit shall be raised to NRCA recommended heights, and new supports furnished. Permanent supports shall be installed upon pads approved by membrane manufacturer. Coordinate work with Owner's representative.
- B. All gas lines, piping, and conduits shall be coated with specified aluminum coating.

3.19 PIPE/EQUIPMENT SUPPORTS (uses existing pipe supports and bases)

- A. Gas lines three inches (3") and over must be supported on wood block with pipe roll stands.

3.20 OVERNIGHT SEAL

- A. Shall be performed according to accepted Roofing practice as outlined in the NRCA Roofing Manual, SPRI and membrane manufacturer's recommended procedure.

END OF SECTION 07535

**SECTION 07600
SHEET METAL AND MISCELLANEOUS ACCESSORIES
FOR FULLY ADHERED MULTI-PLY ROOF SYSTEM**

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Provide flashing and sheet metal components for moisture protection.
 - 2. Related accessories.
- B. Related Section: Section 07535 – Fully Adhered Multi-ply Roof System

1.02 SUBMITTALS

- A. Product Data:
 - 1. Submit shop drawings, product data and mockups of all sheet metal.
 - 2. Reference Section 07535 – Fully Adhered Multi-ply Roof System

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers in satisfactory use in similar service for five (5) years. Use experienced installers. Deliver, handle and store materials in accordance with manufacturer's instructions.
- B. Reference Standards: Applicable portions of SMACNA, ASTM and NAAMM publications.

1.04 WARRANTIES

- A. Manufacturer's Product Warranty: Submit manufacturer's standard limited product warranty signed by the manufacturer's authorized official, guaranteeing to correct failures in product which may occur during the warranty period, without reducing or otherwise limiting any other rights to correction which the Owner/Project Consultant may have under the contract documents. Failure is defined to include product failure which leads to interruption of a watertight installation. Correction may include repair or replacement of failed product.
- B. Contractor's Warranty Period: For Roofing flashing and sheet metal, provide a written warranty which shall warrant work to be free of leaks and defects in materials and workmanship for five (5) years, starting from date of substantial completion.
- C. Defects of the sheet metal occurring during the warranty period shall be promptly corrected by the contractor, and defects of the Roofing shall be promptly corrected by the manufacturer at no additional cost to the Owner. Upon notification from the Owner or the Owner's representative that evidence of a defect exists, the responsible party shall immediately inform the Owner's representative of the date on which corrective work will be scheduled, and shall notify the Owner's representative when the corrective work has been completed.

PART 2 - PRODUCTS

2.01 SHEET METAL MATERIAL

- A. Elvaloy® Cladded Metal: Shall be G-90 galvanized steel with 24 mil Elvaloy® membrane lamination; width shall be four feet, length shall be eight or ten feet. For pitch pans.
- B. Stainless Steel: Marine grade only, for coping, counterflashings, caps and bonnets. QQ-S-766, Class 301, 302, 304, or 316; or ASTM A 167, Type 301, 302, 304, or 316; form and condition most suitable for the purpose.

2.02 FASTENERS

- A. Fasteners shall be same metal as flashing/sheet metal, or other non-corrosive metal as recommended by sheet manufacturer for the specific application. Match finish of exposed heads with material being fastened.
- B. Fasteners and fastening plates or bars shall be listed in the FM Global Approval Guide.
- C. Fastener for Brick: Shall be one-fourth inch by two inches (1/4" x 2"), zinc with plated steel or stainless steel nail, one piece unit, flat head.
- D. Screws: Self-taping sheet metal type with neoprene washer, as appropriate.
- E. Pop Rivets: Full stainless steel Series 42 or 44, as appropriate.
- F. Continuous Clip: Concealed hold-down clip type; of same materials as coping, gravel guard, sized to suit application. Use a continuous clip, minimum 22-gauge stainless steel

2.03 RELATED MATERIAL

- A. Bituminous Paint: Acid and alkali resistant, black color.
- B. Plastic Cement: FS SS-C-153, cutback asphalt type.
- C. Solder: QQ-S-571 composition best suited for purpose; use high tin content, minimum 60/40, for stainless steel and monel alloy.
- D. Sealant (for Sheet Metal): One-component polyurethane, conforming to requirements of FS TT-S-230C, non-staining and non-bleeding.
- E. Metal Accessories: Provide sheet metal clips, straps, anchoring devices, and similar accessory units as required for installation of work, matching or compatible with material being installed, non-corrosive, size, and gauge required for performance.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set, cant strips and reglets in place, substrates are smooth and clean and nailing strips located.
- B. Verify membrane termination and base flashings are in place, sealed and secure.
- C. Beginning of installation means acceptance of conditions.

A.02 REPARATION

- A. Field measure site conditions prior to fabricating work. Provide all shop drawings and mock-ups one month prior to installation to the Owner/Project Consultant for approval.
- B. Install starter and edge strips and cleats before starting installation.

3.03 FABRICATION - GENERAL

- A. Shop-fabricate work to greatest extent possible. Comply with details shown, and with applicable requirements of SMACNA "Architectural Sheet Metal Manual" and other recognized industry practices. Fabricate for waterproof and weather-resistant performance; with expansion provisions for running work, sufficient to permanently prevent leakage, damage or deterioration of the work. Form work to fit substrates. Comply with material manufacturer's instructions and recommendations. Form exposed sheet metal work without excessive oil-canning, buckling, and tool marks, true to line and levels as indicated, with exposed edges folded back to form hems.
- B. Fabricate fascia, counter flashings, pitch pans, and copings with new stainless sheet metal as specified. Fabricate fascia to size and dimensions as indicated by SMACNA on the drawings. Fabricate metal coping as indicated.
- C. Form sheet metal on bending brake.
- D. Shape, trim and hand seam metal on bench insofar as practicable.
- E. Form materials with straight lines, sharp angles and smooth curves.
- F. Fold back edges on concealed side of exposed edge to form hem (1/2" minimum).
- G. Weld or solder joints on parts that are to be permanently and rigidly assembled.
- H. Submit sheet metal models for approval by the Owner/Project Consultant.
- I. Limit single-piece lengths to ten feet (10').
- J. Fabricate corner pieces with eighteen inch (18") extensions, metered and sealed by forming as one piece.
- K. Backpaint flashing in contact with masonry or dissimilar materials with bituminous paint.

- L. All existing or missing metal rooftop projections shall be replaced. New rooftop projection details shall be as recommended in NRCA or SMACNA handbooks. All rooftop projections shall be cleaned, all joints sealed, and painted with a rust inhibitive paint. Standard color to be selected by the Owner/Project Consultant.
- M. All sheet metal shall be sealed and watertight.
- N. Metal work should be secured so as to prevent damage from buckling or wind. Where clips are shown, these are to be continuous.
- O. All metal to receive bitumen or adhesive shall be first primed with asphalt primer.
- P. All prefinished metal shall be sanded and/or abraded prior to receiving primer.
- Q. Seams: Fabricate non-moving seams in sheet metal with flat-lock seams. For metal other than aluminum, tin edges are to be seamed, form seams, and solder.
- R. Expansion Provisions: Form expansion joints of intermeshing hooked flanges, not less than one inch (1") deep, filled with mastic sealant (concealed within joints).
- S. Sealant Joints: Where movable, non-expansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant, in compliance with industry standards.
- T. Separations: Provide for separation of metal from non-compatible metal or corrosive substrates by coating concealed surfaces at locations of contact, with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.

3.04 INSTALLATION

- A. General: All sheet metal termination to vertical wall shall have a through-wall with receiver installed on masonry walls or prefabricated "Z" bar flashing pre-installed to fluid applied wall finished prior to installation of sheet metal termination. This applies to edge metal, base flashing closures and all vertical surface intersections. Refer to NRCA, SMACNA, and metal manufacturer's guidelines.
- B. Elvaloy® cladded metal shall be fabricated as needed; follow these specifications and standard sheet metal practice for attachment to roof details.
- C. Coping:
 1. Remove existing and replace with new metal coping as required for a permanent watertight installation.
 2. All coping shall be manufactured with low profile standing seam metal.
 3. Vertical fascia shall extend minimum two and one-half inches (2-1/2") or be minimum one and one-half inches (1-1/2") below bottom of nailer, whichever is greater.
 4. Secure metal flashings per specifications.
 5. Lock seams and end joints.
 6. Form sections identical to profiles as shown or 1 approved similar, to match existing building.
 7. Fabricate corner pieces with minimum eighteen inch (18"), maximum forty-eight inch (48") extensions, formed and sealed with rivets and sealant, as one piece.

8. Hem exposed edges three-fourths inch (3/4") minimum.
 9. Backpaint flashing in contact with masonry or dissimilar materials with bituminous paint. Surface sand before applying primers.
 10. Integrate flashing in a manner consistent with detailing.
 11. Provide and install continuous clip, minimum 22-gauge.
 12. Shall be fabricated in accordance with all SMACNA provisions.
 13. Refer to Section 07535 – Fully Adhered Multi-ply Roof System for more detailed information.
- D. Counterflashing:
1. Remove existing and replace with new metal counter flashing as required for a permanent watertight installation.
 2. Saw cut brick mortar joint to receive friction fit reglet and removable counter flashing as detailed and SMACNA Figure 4-3E.
 3. Refer to Section 07535 – Fully Adhered Multi-ply Roof System for more detailed information.
- E. Pitch Pans:
1. Install pitch pans of 24-gauge cladded galvanized steel according to NRCA standards, minimum of six inches by six inches (6" x 6").
 2. Pitch pans shall be fabricated to minimum of four inches (4") above the finished roof membrane.
 3. All projections enclosed in pitch pans shall be cleaned in any manner suitable and coated with a rust inhibitive coating as approved by the Owner/Project Consultant. Coating shall be allowed to dry prior to pitch pan fill.
 4. Base of pitch pans shall be filled with grout or cementitious binder to proper height and allowed to cure.
 5. Top finish fill shall be self-leveling, one-part urethane, with maximum fill to within three eighths inch (3/8") of top of pitch pan sides.
 6. Strip metal flange of pitch pan with one ply of re-enforced membrane extending from the outer edge of the pan to outward past the flange a minimum of three inches (3")
- F. Bonnets/Hoods:
1. Fabricate and install above all pitch pans, where necessary, or reinstall as applicable, metal bonnets over all pitch pans, NO EXCEPTIONS.
 2. Bonnets/Hoods shall be manufactured with metal compatible with metal to which bonnet is to be attached.
 3. On beams and other steel, weld in place bonnets fabricated from one-fourth inch (1/4") steel plate.
 4. Draw band bonnets fabricated from 22-gauge stainless steel may be used on circular projections.

3.05 FINISH

- A. Backpaint concealed metal surfaces with bituminous paint where expected to be in contact with cementitious materials or dissimilar metals. Exposed surfaces to be provided with a factory applied fluorocarbon Kynar finish meeting ASTM A 446 and AAMA specification 605.2 for high performance coating.

END OF SECTION 07600

**SECTION 07900
WATERPROOFING**

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Work Included:
 - 1. Throughout the Work, seal and caulk joints as described herein to provide and maintain watertight and airtight continuous seals.
 - 2. This section includes, but is not limited to, providing joint sealants to be in the following areas:
 - a) Control and expansion joints in masonry and concrete walls
 - b) Parapet cap copings and counterflashings at roof conditions

1.02 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who have successfully completed a minimum of three (3) projects in the last five (5) years of similar type and scope as the project herein. The workmen shall be thoroughly trained and experienced in joint sealant applications and completely familiar with the specified requirements and methods needed for the proper performance of the work of this section.
- B. Joint sealer products shall be obtained from a single manufacturer for each product required.
- C. Job Site Testing:
 - 1. All joint sealants shall be field tested for proper adhesion to the joint substrates prior to installation. Do not proceed with the work until job site tests have been approved by the Project Consultant.
 - 2. Locate and provide test joints for each type of joint sealant, and substrate as directed by the Project Consultant.
 - 3. Acceptable test joints will be used as the standard for all joint sealant work on the project.
 - 4. Sealants which fail to adhere to the substrates shall be removed and replaced at no extra cost to the Owner.

1.03 SUBMITTALS

- A. Comply with pertinent provisions of General Requirements.
- B. Product Data: Within five (5) calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Manufacturer's recommended installation procedures which, when approved by the Project Consultant, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- C. Samples: Accompanying the submittals described above, submit samples of each sealant, each backing material, each primer and each bond breaker proposed to be used. Include color samples of full standard project color range.

1.04 PRODUCT HANDLING

- A. Do not retain at the job site material which has exceeded the shelf life recommended by its manufacturer.
- B. Store products on site in compliance with the manufacturer's recommendations and as necessary to prevent damage or deterioration to the materials.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Manufacturers listed include those known to produce the indicated category of prime material, and shall be as listed.
- B. Provide colors to match, as selected by Owner from manufacturer's standard colors. Select materials for compatibility with surfaces and other indicated exposures, and except as otherwise indicated select modulus of elasticity, hardness, or grade recommended by manufacturer for each application indicated.

2.02 SEALANT BACKER ROD

- A. Provide compressible rod stock of polyurethane foam that is flexible, non-absorptive for backup of and compatibility with sealant.

2.03 ELASTOMERIC SEALANT

- A. Two-part polyurethane sealant, complying with Federal Specifications TT-S-00227E, Type II, Class A ASTM C 920 - 87 Type M Grade NS Clan 25. For use with sealing joints of metal to masonry and masonry to masonry.

Technical Data:

<u>Property</u>	<u>Test Method</u>	<u>Value</u>
Movement Capability	ASTM C 719	±50%
Tensile Strength	ASTM D 412	200 psi
Ultimate Elongation at Break	ASTM D 412	500%
Rheological (Sag in Vertical Displacement) at 120° F	ASTM C 639	No sag
Extrudability	ASTM C 603	4 seconds
Hardness at Standard Conditions, Minimum Shore A: 15, max. Shore A: 50	ASTM C 661	
Weight Loss, After Heat Aging	ASTM C 792	2%
Cracking and Chalking after Heat Aging	ASTM C 792	None
Service Temperature Range -40° F to +150° F		
Bond Durability on Glass, Aluminum, and Concrete ±50% Movement	ASTM C 719	No failure
Adhesion* in Peel, min. 5 lbs., with Primer #733 on Glass, Aluminum, and Concrete	ASTM C 794	28 lbs.
Adhesion* in Peel after UV Radiation through Glass (Primer #733), min. 5 lbs.	ASTM C 794	25 lbs.

*Primed for Water Immersion as indicated in TT-S-00227E.

2.2.04 ELASTOMERIC COATING

- A. Waterproof elastomeric coating for above grade exterior stucco finish, and in conjunction with specified primer and capable of meeting the following physical properties:

Technical Data:

Typical Properties

Weight per Gallon	11.1±2 lb.
Solids by Weight	61.2±9%
Solids by Volume	47.0±3%
Viscosity	123-127 KU

Test Data

<u>Property</u>	<u>Test Method</u>	<u>Results</u>
Ultimate Elongation at Break (Average)	ASTM D 412	601%
Tensile Strength	ASTM D 412	141 psi
Cold Temperature Flexibility	ASTM C 711	Passes
Fungus and Mildew Resistance	ASTM D 3273/3274	Total Absence of Growth
Water Vapor Transmission	ASTM E 96	2.15 perms (Grains per hr. per ft.2)
Accelerated Weathering 6000 hrs.	ASTM G 26	No Chalking, Checking, Discoloration, or Cracking
Shore A Hardness	ASTM D 2240	87
Wind-driven Rain (98 mph) TT C 555B		Passes
Salt Spray (Fog) Testing	ASTM B 117	500+ hrs.; No Fade, Checking, or Chalking
Flame Spread	ASTM E 84	5
Smoke Density	ASTM E 84	5
NFPA Class A		
UPC Class I		

2.05 BRUSHES

- A. Brushes for scrubbing with detergent shall be hard nylon or natural bristle; no wire brushing will be allowed.

PART 3 - EXECUTION

3.01 REFERENCE

- A. The manufacturer's Technical Specifications shall be considered a part of this specification, and should be referred to for more specific application procedures and recommendations.
- B. It is the intent of the specification that the new work will provide a watertight facility. The following specifications describe the minimum acceptable standards of construction and finish.

3.02 PREPARATION/PROTECTION

- A. Protect all window glass, aluminum, other metal, and painted surfaces from exposure to cleaner using polyethylene or other proven protective material. Coordinate site preparation for diversion and/or protection of pedestrians, and auto traffic, and protection of adjacent shrubs and plants. Beware of wind drift, and suspend work if damage is likely to occur on surrounding surfaces, auto and pedestrian traffic and plantings.

3.03 PRECAUTIONS

- A. Applicators shall wear goggles, rubber gloves, plastic or rubber suits, etc., so as to avoid splash to skin and eyes. Handle and store in rubber or plastic containers. Staging shall be well maintained and equipped with steel cable. Nylon, cotton, or hemp roping is not acceptable.
- B. Materials that contain blended solvents should be handled accordingly. Do not use near fire or extreme heat, and provide good ventilation to avoid build-up of solvent fumes. When applying to confined surfaces, applicators shall wear approved cartridge-type respirators and provide good cross-ventilation. When applying to exteriors of occupied buildings, all exterior air-conditioning vents shall be covered during application, after coordinating with Plant Engineer.

3.04 SURFACE PREPARATION

- A. Contractor shall clean all surfaces of vertical wall and masonry coping of the facility, and all areas of the facility, including windows, doors, etc. upon completion.
- B. Water blasting, sandblasting or hand method required to clean parapet wall coping substrate can be used. It shall be the responsibility of the contractor to determine the method of cleaning based upon adjoining materials, site conditions, and manufacturer's requirements.
- C. Should water blasting be used, allow time to dry, and test for dryness before further application is done.
- D. Pressure clean (minimum 1200 psi) to remove all dust, dirt, grease, oil, loose particles, laitance, foreign materials, peeling and defective coatings, chalk, etc. Allow surface to dry before proceeding.
- E. Mildew and fungus must be removed from the surface before application of coating system to prevent subsequent growth. Follow manufacturer's directions for proper surface preparation.
- F. Remove loose particles and foreign matter. Remove grease, oil, or tar with a solvent, effective alkaline cleaner, or detergent as instructed by coating manufacturer. Contractor shall clean all contaminants and residue from brick wall surface entirely.
- G. Surfaces which are not clean, i.e., surfaces where the pores and capillaries may be clogged with oils, dirt, dust, curing compound and/or other coatings, etc., must be cleaned sufficiently.

- H. Metal surfaces may be cleaned by Commercial Blast Cleaning (SSPC-SP6), or by hand or power tool cleaning (SP2-SP3), as required to accept primer. It shall be the responsibility of the contractor to determine the method of cleaning based upon adjoining materials, site conditions, and manufacturer's requirements.
- I. Contractor shall verify that surfaces to receive fluid applied waterproof coatings are structurally sound, clean, dry, fully cured and free from dust, curing agents or form release agents, efflorescence, scale, stains, mildew, grime, dirt, tar, oil, grease, or other foreign matter and/or discoloration detrimental to application. Methods and materials used for cleaning of substrate shall be as recommended by the manufacturer of the fluid applied waterproofing.

3.05 CLEANING AND PREPARATION FOR CAULKING/SEALANT

- A. All joints to be caulked shall be thoroughly cleaned before caulking. Remove all existing sealant and backer materials, and remove all foreign matter such as dust, surface dirt, oil, grease, wax, form-release agents, curing compounds, bitumens, laitance, protective coatings, and water. The presence of moisture will cause gassing before the sealant achieves ultimate cure. Existing sealant materials shall be removed by stripping, sawing, cutting, raking, scraping, grinding, abrading, chipping, blast-cleaning, dissolving, or whatever combination of such methods may be necessary or required, to the extent that adhesion of new sealants can be guaranteed. New sealants must be applied to dry, clean, original base surfaces. Old caulking shall be cut out, with binding sides being scraped clean and wiped with Toluene. All non-rusted steel and iron shall be wire brushed and wiped with Toluene. All rusted steel and iron shall be cleaned as per SP2, SP3, or SP6, wiped with Toluene and primed.

3.06 INSPECTION

- A. During the progress of the work, the contractor shall furnish and make available to the Owner's representative a safe scaffold and operator for use in making visual inspections of the work. At least twenty-four (24) hours before completion of each drop, the contractor shall notify the Owner's representative of the date and time of scheduled completion of the drop, and arrange for inspection by the Owner's representative. If after such notification, the Owner's representative waives inspection of a drop, such waiver of inspection shall not relieve the contractor of this responsibility for full compliance with the requirements of the drawings and specifications. Any work rejected upon inspection of a drop shall be immediately corrected by the contractor, before proceeding to the next drop. Inspections shall be scheduled so as not to unnecessarily delay progress of contractor.
- B. Contractor shall submit a certificate indicating the number of gallons of Waterproof coating needed to cover the entire area of work. Indicate the square foot coverage expected per gallon, and the total square footage involved. Do not destroy used containers. As containers are used, store in a place designated by the Owner for audit purposes.

3.07 ELASTOMERIC SEALANTS/CAULKS

- A. Contractor shall remove existing sealants, clean and prime as required all joints and install new two-part polyurethane sealant in accordance with manufacturer's instructions, to all vertical wall joints, all control joints, coping joints, roof interior,

coping bed joints, lintels, brick shelves, brick reveal, and masonry-to-masonry as required by existing, and all vertical wall penetrations and dissimilar materials.

- B. Contractor shall cut all existing wall cracks and seal in compliance with specifications for all stucco substrates as required in all wall substrates.
- C. All joints three-eighths inch (3/8") in width shall be cut to a depth of five-eighths inch (5/8"). Joints three-eighths inches to one-half inch (3/8"-1/2") in width shall be cut to a depth of three-fourths inch (3/4"). Joints of three-fourths inch (3/4") in width shall be cut to a depth of one and one-eighth inch (1-1/8"). Remove all loose material beyond cut depth.
- D. Use joint filler to achieve required joint depths, to allow sealants to perform properly. Backer rod shall be at least twenty-five percent (25%) greater in size than width of joint.
- E. Backer Rods: Install per manufacturer's directions. Where evidence indicates that there might be panel movement (for example, where large splits presently exist in caulked joints, or at corner joints), provide double backer rod installation. **DO NOT TWIST-BRAID TWO SMALLER RODS TO MAKE UP ONE LARGE ROD.** Contractor shall mark a print of the drawing elevations to show which joints appear to need this treatment, as he removes existing caulking. Backer rod shall be at least twenty-five percent (25%) greater in diameter than width of joint.
- F. Primer: Apply primer as required by the manufacturer by brush in a thin, continuous film. Allow primer to dry until "tack" free before installing sealant.
- G. Prime All Steel or Iron: Prime all joints as required by sealant manufacturer.
- H. Joint Design: The width or depth of the joint should not be less than one-fourth inch (1/4"). In joints up to one-half inch (1/2") wide, the depth of the sealant should be equal to the width. In joints wider than one-half inch (1/2"), but not exceeding one inch (1"), the depth may be maintained at one-half (1/2"). For joints wider than one inch (1"), comply with manufacturer's recommendations.
- I. Apply sealant within recommended temperature ranges. Consult manufacturer when sealant cannot be applied within recommended temperature ranges.
- J. Joints: Shall be tooled, free of air pockets, foreign embedded matter, ridges, and sags.
- K. Verify that joint-shaping materials and release tapes are compatible with sealant. Use bond breaker where required.

3.08 ELASTOMERIC WATERPROOF COATING

- A. All masonry shall be cleaned and repaired as required and shall include all continuancies. Replacement, patch repair, control and expansion joints are included.
- B. At prepared/cleaned vertical substrate, install in accordance with manufacturer's recommended procedures Elastomeric Coating System on all masonry, surfaces of the finish specified color as selected by Owner.

- C. Repair and/or cut-out and replace all damaged masonry, as required for sound substrate.
- D. All cleaning, surface preparation/repair shall be finished prior to application of Elastomeric Coating System.
- E. Crack Repair: If required by manufacturer, chip or grind out cracks larger than one sixteenth inch (1/16"). Remove dust, and repair in accordance with manufacturer's instructions. Telegraphing of the crack repair through finish coat will not be accepted.
- F. Cracks similar than one-sixteenth inch (1 1/16") are to be repaired in accordance with the manufacturer's instructions. Anywhere masonry has been replaced, treat the area where the new masonry meets the old. Telegraphing of the crack repair through finish coat will not be accepted.
- G. As required by system manufacturer, dynamic or moving cracks should be routed to one fourth inch (1/4"), and then filled with an elastomeric sealant to allow movement. Telegraphing of the crack repair through finish coat will not be accepted.

3.09 CLEANUP

- A. Clean up any overspray from adjacent surfaces with cleaner which will not damage surfaces, as recommended by the manufacturer.

3.10 FIELD QUALITY CONTROL

- A. Drums containing fluid applied waterproofing shall not be removed from the job site until final completion or until so authorized in writing by the architect.

1.01 ROOF PLAN

- A. Any drawings supplied are for reference purposes only. Dimensions, penetrations, curbs, etc. must be field verified. Those shown are typical but may not be all inclusive, and contractor shall be responsible for the correctness of same. Any existing insulation thickness, deck type or other details shown on the drawings shall be subject to contractor confirmation.

1.02 DETAIL DRAWINGS

- A. The enclosed details for this project are intended primarily to present the proper installation of the membranes used for waterproofing at flashings, perimeter closures, roof projections, etc. Specific underlying construction configurations, such as walls, nailers, wood backing, structural steel, etc., which may currently be in place may or may not be accurately depicted on the attached details. Unless specifically called out in the accompanying written specifications, or where a detail is noted "AS DRAWN", and/or proper Roofing and construction practices are not being followed, underlying construction configurations are to remain unchanged from those in place on the building prior to this reroofing.

END OF SECTION 07900

ATTACHMENT NO. 13

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for Houston Community College
Building Construction Contracts**

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Uniform General and Supplementary General Conditions for Houston Community College Building Construction Contracts

Article 1. Definitions

Unless the context clearly requires another meaning, the following terms have the meaning assigned herein.

1.1 *Architect/Engineer (A/E)* means a person registered as an architect pursuant to Tex. Occ. Code Ann., Chapter 1051, as a landscape architect pursuant to Tex. Occ. Code Ann., Chapter 1052, a person licensed as a professional engineer pursuant Tex. Occ. Code Ann., Chapter 1001 and/or a firm employed by Owner or Design-Build Contractor to provide professional architectural or engineering services and to exercise overall responsibility for the design of a Project or a significant portion thereof, and to perform the contract administration responsibilities set forth in the Contract.

1.2 *Change Order* means a written modification of the Contract between the Owner and Contractor, signed by the Owner, the Contractor and the Architect/Engineer.

1.3 *Change Order Proposal* means a Contractor -generated document in response to a Change Order Request (COR).

1.4 *Change Order Request (COR)* means a document which informs the Contractor of a proposed change in the Work, and appropriately describes or otherwise documents such change.

1.5 *Close-out documents* means the product brochures, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, as-built record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.

1.6 *Contract* means the entire agreement between the Owner and the Contractor, including all of the Contract Documents.

1.7 *Contract Date* is the date when the agreement between the owner and the Contractor becomes effective.

1.8 *Contract Documents* means those documents identified as a component of the agreement (contract) between the owner and the Contractor. These may include, but are not limited to, Drawings, Specifications, General, Supplementary and Special Conditions, and all pre-bid and/or pre-proposal addenda.

1.9 *Contractor* means the individual, corporation, company, partnership, firm or other entity contracted to perform the Work, regardless of the type of construction contract used, so that the term as used herein includes a Contractor or a Design-Build firm as well as a General or Prime Contractor. The contract documents refer to Contractor as if singular in number.

1.10 *Contract Sum* means the total compensation payable to the Contractor for completion of the Work in accordance with the terms of the contract.

1.11 *Contract Time* means the period between the Start Date identified in the Notice to Proceed with Construction and the Substantial Completion date identified in the Notice to Proceed or as subsequently amended by Change Order.

1.12 *Date of Commencement* means the date designated in the Notice to Proceed for the Contractor to commence the Work.

- 1.13 *Day* means a calendar day, unless otherwise specifically stipulated.
- 1.14 *Drawings* mean that product of the Architect/Engineer which graphically depicts the Work.
- 1.15 *Final Completion* means the date determined and certified by the Architect/Engineer and Owner on which the Work is fully and satisfactorily complete in accordance with the Contract.
- 1.16 *Owner* means Houston Community College, the State of Texas and any Agency of the State of Texas, acting through the responsible entity of Houston Community College identified in the Contract as the Owner.
- 1.17 *Owner's Designated Representative (ODR)* means the individual assigned by the Owner to act on its behalf, and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time of the contract.
- 1.18 *Project* means all activities necessary for realization of the Work. This includes design, contract award(s), execution of the Work itself, and fulfillment of all contract and warranty obligations.
- 1.19 *Samples* means representative physical examples of materials, equipment or workmanship, used to confirm compliance with requirements and/or to establish standards for use in execution of the Work.
- 1.20 *Schedule of Values* means the detailed breakdown of the cost of the materials, labor and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by Owner and Architect/Engineer.
- 1.21 *Shop Drawings* means the drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by the Contractor or its agents, which detail a portion of the Work.
- 1.22 *Site* means the geographical area of the location of the Work.
- 1.23 *Special Conditions* means the documents containing terms and conditions, which may be unique to the project. Special Conditions are a part of the Contract Documents and have precedence over the Uniform General Conditions.
- 1.24 *Specifications* means the written product of the Architect/Engineer that establishes the quality and/or performance of products utilized in the Work and processes to be used, including testing and verification for producing the Work.
- 1.25 *Subcontractor means* a business entity that enters into an agreement with the Contractor to perform part of the Work or to provide services, materials or equipment for use in the Work.
- 1.26 *Substantial Completion* means the date determined and certified by the Contractor, Architect/Engineer and Owner when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.
- 1.27 *Supplementary General Conditions* means procedures and requirements that modify the Uniform General Conditions. Supplementary General Conditions, when used, have precedence over the Uniform General Conditions.

1.28 *Unit Price Work* means Work or a portion of the Work paid for based on incremental units of measurement.

1.29 *Unilateral Change Order (ULCO)* means a Change Order issued by the Owner without the agreement of the Contractor.

1.30 *Work* means the administration, procurement, materials, equipment, construction and all services necessary for the Contractor, and/or its agents, to fulfill the Contractors obligations under the Contract.

Article 2. Laws Governing Construction

2.1. Environmental Regulations. The Contractor conducts activities in compliance with applicable laws and regulations and other requirements of the Contract relating to the environment, and its protection at all times. Unless otherwise specifically determined, the Owner is responsible for obtaining and maintaining permits related to storm water run-off. The Contractor shall conduct operations consistent with storm water run-off permit conditions. Contractor is responsible for all items it brings to site, including hazardous materials, and all such items brought to the site by its subcontractor and suppliers, or by other entities subject to direction of the Contractor. The Contractor shall not incorporate hazardous materials into the Work without prior approval of Owner, and shall provide an affidavit attesting to such in association with request for Substantial Completion inspection.

2.2. Wage Rates. The Contractor shall not pay less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule" provided by the Owner. The specified wage rates are minimum rates only. The Owner is not bound to pay any claims for additional compensation made by any Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. The "Prevailing Wage Schedule" is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.

2.2.1 Notification to Workers. The Contractor shall notify each worker, in writing, of the following as they commence work on the contract: the worker's job classification, the established minimum wage rate requirement for that classification, as well as the worker's actual wage. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by the Owner, the Contractor shall furnish evidence of compliance with the Texas Prevailing Wage Law.

2.2.1.1 Submit a copy of each worker wage-rate notification to the ODR with the application for progress payment for the period during which the worker was engaged in activities on behalf of the project.

2.2.1.2 The "Prevailing Wage Schedule" is determined by the Owner in compliance with Tex. Gov't Code, Chapter 2258. Should the Contractor at any time become aware that a particular skill or trade not reflected on the Owner's Prevailing Wage Schedule will be or is being employed in the Work, whether by the Contractor or by a Subcontractor, the Contractor shall promptly inform the ODR of the proposed wage to be paid for the skill along with a justification for same. The Contractor is responsible for determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the Prevailing Wage Schedule. In no case shall a worker be paid less than the wage indicated for Laborers.

2.2.1.3 Penalty for Violation. The Contractor and any Subcontractor will pay to the Owner a penalty of sixty dollars (\$60) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the Prevailing Wage Schedule.

2.2.1.4 Complaints of Violations

2.2.1.4.1 Owner's Determination of Good Cause. Upon receipt of information concerning a violation of Tex. Gov't Code, Chapter 2258, the Owner will, within 31 days, make an initial determination as to whether good cause exists that a violation occurred. The Owner will send documentation of the initial determination to the Contractor against whom the violation was alleged, and to the worker involved. Upon making a good-cause finding, the Owner will retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the Prevailing Wage Schedule and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

2.2.1.4.2 If the Contractor and claimant worker reach an agreement concerning the claim, the Contractor shall promptly notify the Owner in a written document countersigned by the worker.

2.2.1.4.3 Arbitration Required. If the violation is not resolved within 14 days following initial determination by the Owner, the Contractor and the claimant worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Tex. Civ. Prac. & Rev. Code, Chapter 171. For a period not to exceed 10 days, after which, if no agreement reached, a district court may be petitioned by any of the parties to the arbitration to appoint an arbitrator whose decision will be binding on all parties.

2.2.1.4.4 Arbitration Award. If an arbitrator assesses an award against the Contractor, the Contractor shall promptly furnish a copy of said award to the Owner. The Owner may use any amounts retained under Article 2.2.1.4.1 to pay the worker the amount as designated in the arbitration award. If the retained funds are insufficient to pay the worker in accordance with the arbitration award, the worker has a right of action against the Contractor, and/or the surety to receive the amount owed, plus attorneys' fees and court costs. The Owner has no duty to release any funds to either the claimant or the Contractor until it has received the notices of agreement or the arbitration award.

2.2.1.4.5 No Extension of Time. If the Owner's determination proves valid that good cause existed to believe a violation had occurred, the Contractor is not entitled to an extension of time for any delay arising directly or indirectly from of the arbitration procedures set forth herein.

2.3. Venue for Suits. The venue for any suit arising from this contract will be in a court of competent jurisdiction in Houston, Harris County, Texas, or as may otherwise designated in the Supplementary General Conditions.

2.4. Licensing of Trades. The Contractor shall comply with all applicable provisions of state law related to license requirements for skilled tradesmen, Contractors, suppliers

1.4. Licensing of Trades. The Contractor shall comply with all applicable provisions of state law related to license requirements for skilled tradesmen, Contractors, suppliers or laborers, as necessary to accomplish the Work. In the event the Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, the Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to the Owner.

2.5. Royalties, Patents & Copyrights. The Contractor shall pay all royalties and license fees, defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof.

2.6. State Sales and Use Taxes. The Owner qualifies for exemption from certain State and Local Sales and Use Taxes pursuant to the provisions of Tex. Tax Code, Chapter 151. The Contractor may claim exemption from payment of applicable State taxes by complying with such procedures as prescribed by the State Comptroller of Public Accounts. Owner is not required to reimburse Contractor for taxes paid on items that qualify for tax exemption.

Article 3. General Responsibilities of Owner & Contractor

3.1. Owner's General Responsibilities. The Owner is the entity identified as such in the Contract and referred to throughout the Contract Documents as if singular in number.

3.1.1 Preconstruction Conference. Prior to, or concurrent with, the issuance of Notice to Proceed with Construction, a conference will be convened for attendance by the Owner, Contractor, Architect/Engineer (AE) and appropriate Subcontractors. The purpose of the conference is to establish a working understanding among the parties as to the Work, the operational conditions at the project site, and general administration of the Project. Topics include communications, schedules, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, maintaining required records and all other matters of importance to the administration of the Project and effective communications between the project team members.

3.1.2 Owner's Designated Representative. Prior to the start of construction, Owner will identify the Owner's Designated Representative (ODR), who has the express authority to act and bind the Owner to the extent and for the purposes described in the various Articles of the Contract, including responsibilities for general administration of the Contract.

3.1.2.1 Unless otherwise specifically defined elsewhere in the contract documents, the ODR is the single point of contact between the Owner and Contractor. Notice to the ODR, unless otherwise noted, constitutes notice to the Owner under the Contract.

3.1.2.2 All directives on behalf of the Owner will be conveyed to the Contractor by the ODR in writing.

3.1.3 Owner Supplied Materials and Information.

3.1.3.1 The Owner will furnish to the Contractor those surveys describing the physical characteristics, legal description, limitations of the site, site utility locations, and other information used in the preparation of the Contract Documents.

3.1.3.2 The Owner will provide information, equipment, or services under the Owner's control to the Contractor with reasonable promptness.

3.1.4 Availability of Lands. The Owner will furnish, as indicated in the Contract, all required rights to use the lands upon which the Work occurs. This includes rights-of-way and easements for access and such other lands that are designated for use by the Contractor. The Contractor shall comply with all Owner identified encumbrances or restrictions specifically related to use of lands so furnished. The Owner will obtain and pay for easements for permanent structures or permanent changes in existing facilities, unless otherwise required in the Contract Documents.

3.1.5 Limitation on Owner's Duties

3.1.5.1 The Owner will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, technologies, sequences or procedures of construction or the safety precautions and programs incident thereto. The Owner is not responsible for any failure of Contractor to comply with laws and regulations applicable to the Work. The Owner is not responsible for the failure of Contractor to perform or furnish the Work in accordance with the Contract Documents. Owner is not responsible for the acts or omissions of Contractor, or any of its Subcontractor, suppliers or of any other person or organization performing or furnishing any of the Work on behalf of the Contractor.

3.1.5.2 The Owner will not take any action in contravention of a design decision made by the AE in preparation of the Contract Documents, when such actions are in conflict with statutes under which the AE is licensed for the protection of the public health and safety.

3.2 Role of Architect/Engineer. Unless specified otherwise in the Contract between the Owner and the Contractor, the AE shall provide general administration services for the Owner during the construction phase of the project. Written correspondence, requests for information, and shop drawings/submittals shall be directed to the AE for action. The AE has the authority to act on behalf of the Owner to the extent provided in the Contract Documents, unless otherwise modified by written instrument, which will be furnished to the Contractor by the ODR upon request.

3.2.1 Site Visits

3.2.1.1 The AE will make visits to the site at intervals as provided in the AE's contract agreement with the Owner, to observe the progress and the quality of the various aspects of Contractor's executed Work and report findings to the Owner.

3.2.1.2 The AE has the authority to interpret Contract Documents and inspect the Work for compliance and conformance with the Contract. Except as referenced in Article 3.1.5.2, the Owner retains the sole authority to accept or reject Work and issue direction for correction, removal, or replacement of Work.

3.2.2 Clarifications and Interpretations. It may be determined that clarifications or interpretations of the Contract Documents are necessary. Upon direction by the ODR such clarifications or interpretations will be provided by the AE consistent with the intent of the Contract Documents. The AE will issue these clarifications with reasonable promptness to the Contractor as Architect's Supplemental Instruction (ASI) or similar instrument. If the Contractor believes that such clarification or interpretation justifies an adjustment in the Contract Sum or the Contract Time, the Contractor shall so notify the Owner in accordance with the provisions of Article 11.

3.2.3 Limitations on Architect/Engineer Authority. The AE is not responsible for:

3.2.3.1 The Contractor's means, methods, techniques, sequences, procedures, safety, or programs incident to the Project nor will the AE supervise, direct, control or have authority over the same.

3.2.3.2 The Failure of Contractor to comply with laws and regulations applicable to the furnishing or performing the Work.

3.2.3.3 The Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

3.2.3.4 Acts or omissions of the Contractor, or of any other person or organization performing or furnishing any of the Work.

3.3 Contractor's General Responsibilities. The Contractor is solely responsible for implementing the Work in full compliance with all applicable laws and the contract documents and shall supervise and direct the Work using the best skill and attention to assure that each element of the Work conforms to the Contract requirements. The Contractor is solely responsible for all construction means, methods, techniques, safety, sequences, coordination and procedures. ***The Contractor is responsible for visiting the site and being familiar with local conditions such as the location, accessibility, and general character of the site and/or building.***

3.3.1 Project Administration. The Contractor shall provide project administration for all Subcontractors, vendors, suppliers, and others involved in implementing the Work and shall coordinate administration efforts with those of the AE and ODR in accordance with these General Conditions and provisions of Division 1 Specifications, and as outlined in the Pre-construction Conference.

3.3.1.1 The Contractor shall furnish to the ODR one copy of the current edition of Means Facility Cost Data at no additional cost. This document shall be in either hard copy format or electronic CD, at option of the ODR.

3.3.1.2 The Contractor shall furnish to the ODR one copy of the current edition of the "Rental Rate Blue Book for Construction Mobilization Costs" at no additional cost. This document shall be in either hard copy format or electronic CD, at option of the ODR.

3.3.2 Contractor's Superintendent. Employ a competent resident superintendent who will be present at the Project Site during the progress of the Work. The superintendent is subject to the approval of the ODR. Do not change approved superintendents during the course of the project without the written approval of the ODR unless the superintendent leaves the employ of the Contractor.

3.3.3 Labor. Provide competent, suitably qualified personnel to survey, lay-out, and construct the Work as required by the Contract Documents. Maintain good discipline and order at the Site at all times.

3.3.4 Services, Materials, and Equipment. Unless otherwise specified, provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities, incidentals, and services necessary for the construction, performance, testing, start-up, inspection and completion of the Work.

3.3.5 Non-Compliant Work. Should the AE and/or the ODR identify Work as non-compliant with the Contract Documents, the ODR will communicate the finding to the Contractor and the Contractor will correct such Work at its expense. The approval of Work by either the AE or ODR does not relieve the Contractor from the obligation to comply with all requirements of the Contract Documents.

3.3.6 Subcontractors. Do not employ any Subcontractor, supplier or other person or organization, whether initially or as a substitute, against whom the Owner may have reasonable objection. The Owner will communicate such objections in writing. The Contractor is not required to employ any Subcontractor, supplier or other person or organization to furnish any of the work to whom the Contractor has reasonable objection. The Contractor will not substitute Subcontractors without the acceptance of the Owner.

3.3.6.1 All Subcontracts and supply contracts shall be consistent with and bound to the terms and conditions of the Contract Documents including provisions of the Agreement between the Contractor and the Owner.

3.3.6.2 The Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with the Contractor. Require all Subcontractors, suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner only through the Contractor. Furnish to the Owner a copy of each first-tier subcontract promptly after its execution. The Contractor agrees that the Owner has no obligation to review or approve the content of such contracts and that providing the Owner such copies in no way relieves the Contractor of any of the terms and conditions of the Contract, including, without limitation, any provisions of the Contract which require the Subcontractor to be bound to the Contractor in the same manner in which the Contractor is bound to the Owner.

3.3.7 Continuing the Work. Carry on the Work and adhere to the progress schedule during all disputes, disagreements or alternative resolution processes with the Owner. Do not delay or postpone any Work because of the pending resolution of any disputes, disagreements or processes, except as the Owner and the Contractor may agree in writing.

3.3.8 Cleaning. At all times, keep the Site and the Work clean and free from accumulation of waste materials or rubbish caused by the construction activities under the Contract. The Contractor shall ensure that the entire Project is thoroughly cleaned prior to requesting Substantial Completion Inspection and, again, upon completion of the Project prior to the final inspection.

3.3.9 Acts and Omissions of Contractor, its Subcontractors and Employees. The Contractor is responsible for acts and omissions of his employees and all its Subcontractors, their agents and employees. The Owner may, in writing, require the Contractor to remove from the Project any of Contractor's or its Subcontractors employees that the ODR finds to be careless, incompetent, or otherwise objectionable.

3.3.10 Indemnification of Owner. The Contractor covenants and agrees to FULLY INDEMNIFY and HOLD HARMLESS, the Owner and the elected officials, employees, officers, directors, volunteers, and representatives of the Owner, individually or

collectively, from and against any and all costs, claims, liens, damages, losses, expenses, fees, fines, penalties, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including but not limited to, personal or bodily injury, death and property damage, made upon the Owner directly or indirectly arising out of, resulting from or related to Contractor's activities under this Contract, including any acts or omissions of Contractor, any agent, officer, director, representative, employee, consultant or the Subcontractor of Contractor, and their respective officers, agents, employees, directors and representatives while in the exercise of performance of the rights or duties under this Contract. The indemnity provided for in this paragraph does not apply to any liability resulting from the negligence of the Owner, officers or employees, separate Contractor s or assigned Contractors, in instances where such negligence causes personal injury, death or property damage. IN THE EVENT CONTRACTOR AND OWNER ARE FOUND JOINTLY LIABLE BY A COURT OF COMPETENT JURISDICTION, LIABILITY WILL BE APPORTIONED COMPARATIVELY IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE STATE UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW.

3.3.10.1 The provisions of this Indemnification are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity.

3.3.10.2 Promptly advise the Owner in writing of any claim or demand against the Owner or the Contractor known to the Contractor related to or arising out of the Contractor's activities under this Contract.

3.3.11 Ancillary Areas. Operate and maintain operations and associated storage areas at the site of the Work in accordance with the following:

3.3.11.1 Confine all Contractor operations, including storage of materials and employee parking upon the Site of Work, to areas designated by the Owner.

3.3.11.2 The Contractor may erect, at its own expense, temporary buildings that will remain its property. Remove such buildings and associated utility service lines upon completion of the Work, unless the Contractor requests and the Owner provides written consent that it may abandon such buildings and utilities in place.

3.3.11.3 Use only established roadways or construct and use such temporary roadways as may be authorized by the Owner. Do not allow load limits of vehicles to exceed the limits prescribed by appropriate regulations or law. Provide protection to road surfaces, curbs, sidewalks, trees, shrubbery, sprinkler s, drainage structures and other like existing improvements to prevent damage and repair any damage thereto at the expense of the Contractor.

3.3.11.4 The Owner may restrict the Contractor's entry to the site to specifically assigned entrances and routes.

3.3.12 Separate Contracts. Additional Contractor responsibilities when the Owner awards separate Contracts

3.3.12.1 The Owner reserves the right to award other contracts in connection with other portions of the Project under these or similar contract conditions.

3.3.12.2 The Owner reserves the right to perform operations related to the Project with the Owner's own forces.

3.3.12.3 Under a separate contract, the conditions described herein continue to apply except as may be amended by change order.

3.3.12.4 ***The Contractor shall cooperate with other Contractors employed on the project by the Owner, including providing access to site and project information as requested.***

Article 4. Small Business (SB) Subcontracting Plan

4.1. General Description. The purpose of the Small Business (SB) Program is to promote equal business opportunities for economically disadvantaged businesses to contract with the HCC in accordance with the goals specified in HCC Small Business Requirements.

4.1.1 State agencies are required by statute to make a good faith effort to assist SBs in participating in contract awards issued by the State. 1 TAC §111.11-111.28, outline the state's policy to encourage outreach to and potential utilization of SBs in state contracting opportunities through race, ethnic and gender neutral means.

4.1.2 A Contractor who contracts with the HCC in an amount of \$100,000 is required to make a good faith effort to award subcontracts to SBs in accordance with HCC Board policy by submitting a SB Subcontracting Plan at the time of bidding and complying with the SB Subcontracting Plan after it is accepted by the Owner and during the term of the contract.

4.2. Compliance with Approved SB Subcontracting Plan. Contractor, having been awarded this Contract in part by complying with the SB Program policies, hereby covenants to continue to comply with the SB Program as follows:

4.2.1 Prior to substituting a SB Subcontracting Plan the Contractor will promptly notify the Owner in the event a change is required for any reason; the Owner must approve and accept the substituted SB Subcontracting Plan.

4.2.2 Conduct the good faith effort activities required and provide the Owner with necessary documentation to justify approval of a change to the approved SB Subcontracting Plan.

4.2.3 Cooperate in the execution of a Change Order or such other approval of the change in the SB Subcontracting Plans as the Contractor and Owner may agree to.

4.2.4 Maintain and make available to Owner upon request business records documenting compliance with the accepted SB Subcontracting Plan.

4.2.5 Upon receipt of payment for performance of Work, submit to Owner a compliance report, in the format required by the Owner that demonstrates Contractor's performance of the SB Subcontracting Plan.

4.2.6 Promptly and accurately explain and provide supplemental information to Owner to assist in the Owner's investigation of the Contractor's good faith effort to fulfill the SB Subcontracting Plan and the requirements under 1 TAC §111.14.

4.3. Failure to Demonstrate Good Faith Effort. Upon a determination by Owner that Contractor has failed to demonstrate a good faith effort to fulfill the SB Subcontracting Plan or any contract covenant detailed above, the Owner may, in addition to all other remedies available to it, may bar the Contractor from future contracting opportunities with the Owner.

Article 5. Bonds & Insurance

5.1. Construction Bonds. The Contractor is required to tender to Owner, prior to commencing the Work, performance and payment bonds, as required by Tex. Gov't Code, Chapter 2253.

5.1.1. A Performance Bond is required if the Contract Price is in excess of \$100,000. The Performance Bond is solely for the protection of the Owner. The Performance Bond is to be for the Contract Sum to guarantee the faithful performance of the Work in accordance with the Contract Documents. The form of the bond shall be approved by the bond approved by Attorney General of Texas. The Performance Bond shall be effective through the Contractor's warranty period.

5.1.2. A Payment Bond is required if the Contract Price is in excess of \$25,000. The payment bond is to be for the Contract Sum and is payable to the Owner solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the Contractor or a Subcontractor. The form of the bond shall be the bond approved by the Attorney General of Texas.

5.1.3. Bond Requirements. Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to the Owner, on the Owner's form, and in compliance with the relevant provisions of the Texas Insurance Code. If any bond is for more than 10 percent of the surety's capital and surplus, the Owner may require certification that the company has reinsured the excess portion with one or more reinsurers authorized to do business in the State. A reinsurer may not reinsure for more than 10 percent of its capital and surplus. If a surety upon a bond loses its authority to do business in the State, the Contractor shall, within thirty (30) days after such loss, furnish a replacement bond at no added cost to the Owner.

5.1.4. Power of Attorney. Each bond shall be accompanied by a valid Power-of-Attorney (issued by the surety company and attached, signed and sealed with the corporate embossed seal, to the bond) authorizing the attorney in fact who signs the bond to commit the company to the terms of the bond, and stating any limit in the amount for which the attorney can issue a single bond.

5.1.5. Bond Indemnification. The process of requiring and accepting bonds and making claims thereunder shall be conducted in compliance with Tex. Gov't Code, Chapter 2253. IF FOR ANY REASON A STATUTORY PAYMENT OR PERFORMANCE BOND IS NOT HONORED BY THE SURETY, THE CONTRACTOR SHALL FULLY INDEMNIFY AND HOLD THE OWNER HARMLESS OF AND FROM ANY COSTS, LOSSES, OBLIGATIONS OR LIABILITIES IT INCURS AS A RESULT.

5.1.6. Furnishing Bond Information. Owner shall furnish certified copies of the payment bond and the related Contract to any qualified person seeking copies who complies with Tex. Gov't Code, §2253.026.

5.1.7. Claims on Payment Bonds. Claims on payment bonds must be sent directly to the Contractor and his surety in accordance with Tex. Gov't Code § 2253.041. All Payment Bond claimants are cautioned that no lien exists on the funds unpaid to the Contractor on such Contract, and that reliance on notices sent to the Owner may result in loss of their rights against the Contractor and/or his surety. The Owner is not responsible in any manner to a claimant for collection of unpaid bills, and accepts no such responsibility because of any representation by any agent or employee.

5.1.8. Payment Claims when Payment Bond not Required. The rights of Subcontractors regarding payment are governed by Tex. Prop. Code, §§ 53.231 – 53.239 when the value of the Contract between the Owner and the Contractor is less than \$25,000.00. These provisions set out the requirements for filing a valid lien on funds unpaid to the Contractor as of the time of filing the claim, actions necessary to release the lien and satisfaction of such claim.

5.1.9 Sureties shall be listed on the US Department of the Treasury's Listing Approved Sureties stating companies holding Certificates of Authority as A-acceptable sureties on Federal Bonds and acceptable reinsuring companies (Department Circular 570).

5.2. Insurance Requirements.

The Contractor shall carry insurance in the types and amounts indicated in this Article for the duration of the Contract. The required insurance shall include coverage for Owner's property in the care, custody and control of Contractor prior to construction, during construction and during the warranty period. The insurance shall be evidenced by delivery to the Owner of certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Upon request, the Owner, and/or its agents, shall be entitled to receive without expense, copies of the policies and all endorsements. The Contractor shall update all expired policies prior to submission for monthly payment. Failure to update policies shall be reason for withholding of payment until renewal is provided to the Owner.

5.2.1. The Contractor shall provide and maintain the insurance coverage with the minimum amounts described below until the end of the warranty period unless otherwise stated in Supplementary General Conditions. Failure to maintain insurance coverage, as required, is grounds for Suspension of Work for Cause pursuant to Article 14. The Contractor will be notified of the date on which the Builder's Risk insurance policy may be terminated through Substantial Completion Notices, Acceptance Notices and/or other means as deemed appropriate by the Owner.

5.2.2. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company or otherwise acceptable to Owner.

5.2.2.1. Insurance coverage required includes:

5.2.2.1.1. Workers' Compensation. Insurance with limits as required by the Texas Workers' Compensation Act, with the policy endorsed to provide a waiver of subrogation as to the Owner, Employer's Liability insurance of not less than:

\$1,000,000 each accident

\$1,000,000 disease each employee

\$1,000,000 disease policy limit

5.2.2.1.2. Commercial General Liability Insurance. Including Independent Contractor's liability, Products and Completed Operations and Contractual Liability, covering, but not limited to, the liability assumed under the indemnification provisions of this contract, fully insuring Contractor's (or Subcontractors) liability for bodily injury and property damage with a combined bodily injury (including death) and property damage minimum limit of :

\$1,000,000 per occurrence

\$1,000,000 general aggregate

\$2,000,000 products and completed operations aggregate

Coverage shall be on an "occurrence" basis.

The policy shall include coverage extended to apply to completed operations and explosion, collapse, underground hazards. The policy shall include endorsement CG2503 Amendment-Aggregate Limits of Insurance (Per Project) or its equivalent.

5.2.2.1.3. Asbestos Abatement Liability Insurance, including coverage for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos containing materials. *This requirement applies if the Work or the Project includes asbestos containing materials.

The Combined single limit for bodily injury and property damage will be a minimum of \$1,000,000 per occurrence.

*Specific Requirement for Claims-Made Form: Required period of coverage will be determined by the following formula: Continuous coverage for life of the contract, plus one (1) year (to provide coverage for the warranty period), and an extended discovery period for a minimum of five (5) years which shall begin at the end of the warranty period.

If this contract is for asbestos abatement only, the All-Risk Builder's Risk or All-Risk Installation Floater (e) is not required.

5.2.2.1.4. Comprehensive Automobile Liability Insurance, covering owned, hired, and non-owned vehicles, with a combined bodily injury (including death) and property damage minimum limit of \$1,000,000 per occurrence. No aggregate shall be permitted for this type of coverage.

Such insurance is to include coverage for loading and unloading hazards.

5.2.2.1.5. All Risk Builder's Risk Insurance (or All Risk Installation Floater for instances in which the project involves solely the installation of equipment). Coverage shall be All-Risk, including, but not limited to, Fire, Extended Coverage, Vandalism and Malicious Mischief, Flood, Earthquake, Theft and damage resulting from faulty workmanship, design or materials. If Builder's Risk, limit shall be equal to 100 percent of the contract. If Installation Floater, limit shall be equal to 100 percent of the contract cost. The policy shall be written jointly in the names of the Owner, the Contractor, Subcontractors and, Subsubcontractors shall be named as additional insured. The policy shall have endorsements as follows:

5.2.2.1.5.1. This insurance shall be specific as to coverage and not contributing insurance with any permanent insurance maintained on the property.

5.2.2.1.5.2. This insurance shall not contain an occupancy clause suspending or reducing coverage should the Owner occupy, or begin beneficial occupancy before the Owner has accepted final completion.

5.2.2.1.5.3. Loss, if any, shall be adjusted with and made payable to the Owner as Trustee for the insureds as their interests may appear; the right of subrogation under the Builder's Risk policy shall be waived as to the Owner. The Owner shall be named as Loss Payee. For renovation projects or projects that involve portions of work contained within an existing structure, refer to Special Conditions for possible additional Builder's Risk insurance requirements.

5.2.2.1.6. "Umbrella" Liability Insurance. The Contractor shall obtain, pay for and maintain umbrella liability insurance during the contract term, insuring the Contractor (or Subcontractor) for an amount of not less than amount specified in the Supplementary General Conditions or Special Conditions that provides coverage at least as broad as and applies in excess and follows form of the primary liability coverages required hereinabove. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted.

If this contract is for asbestos abatement only, the "Umbrella" Excess Liability is not required

5.2.3. Policies must include the following clauses, as applicable:

5.2.3.1. This insurance shall not be canceled, materially changed, or non-renewed until after thirty (30) days prior written notice has been given to the Owner.

5.2.3.2. It is agreed that the Contractor's insurance shall be deemed primary with respect to any insurance or self-insurance carried by the Owner for liability arising out of operations under the Contract with the Owner.

5.2.3.3. The Owner, its officials, directors, employees, representatives, and volunteers are added as additional insureds as respects operations and activities of, or on behalf of the named insured performed under contract with the Owner. The additional insured status must cover completed operations as well. This is not applicable to the workers' compensation policy.

5.2.3.4. The workers' compensation and employers' liability policy will provide a waiver of subrogation in favor of the Owner.

5.2.4. Without limiting any of the other obligations or liabilities of the Contractor, the Contractor shall require each Subcontractor performing work under the Contract, at the Subcontractor's own expense, to maintain during the term of the Contract, the same stipulated minimum insurance including the required provisions and additional policy conditions as shown above. As an alternative, the Contractor may include its Subcontractors as additional insured on its own coverage as prescribed under these requirements. The Contractor's certificate of insurance shall note in such event that the Subcontractors are included as additional insured's and that Contractor agrees to provide Workers' Compensation for the Subcontractors and their employees. The Contractor shall obtain and monitor the certificates of insurance from each Subcontractor in order to

assure compliance with the insurance requirements. The Contractor must retain the certificates of insurance for the duration of the Contract plus 5 years and shall have the responsibility of enforcing these insurance requirements among its Subcontractors. The Owner shall be entitled, upon request and without expense, to receive copies of these certificates.

5.2.5. Workers' Compensation Insurance Coverage must meet the statutory requirements of the Tex. Lab. Code, §401.011(44) and specific to construction projects for public entities as required by Tex. Lab. Code, §406.096.

A. Definitions:

Certificate of coverage ("certificate")- A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project - includes the time from the beginning of the work on the project until the Contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("Subcontractor" in §406.096) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, Subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.

C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

E. The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

(2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

F. The Contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

G. The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

H. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

I. The Contractor shall contractually require each person with whom it contracts to provide services on a project, to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

(2) provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) obtain from each other person with whom it contracts, and provide to the Contractor:

(a) a certificate of coverage, prior to the other person beginning work on the project; and

(b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(7) contractually require each person with whom it contracts, to perform as required by paragraphs (1) - (7), with the certificates of coverage to be provided to the person for whom they are providing services.

J. By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the Contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

K. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

Article 6. Contract Documents

6.1. Drawings and Specifications

6.1.1 Copies Furnished. The Contractor will be furnished, free of charge, the number of complete sets of the Drawings and Specifications as provided in the Supplementary General Conditions or Special Conditions. Additional complete sets of Drawings and Specifications, if requested, will be furnished at reproduction cost to the one requesting such additional sets.

6.1.2 Ownership of Drawings and Specifications. All Drawings, Specifications and copies thereof furnished by the AE are to remain A/E's property. These documents are not to be used on any other project, and with the exception of one Contract set for each party to the Contract, are to be returned to the Architect/Engineer, upon request, following completion of the Work.

6.1.3 Interrelation of Documents. The Contract Documents as referenced in the Agreement between the Owner and the Contractor are complimentary, and what is required by one shall be as binding as if required by all.

6.1.4 Resolution of Conflicts in Documents. Where conflicts may exist between and/or within the Contract Documents, the higher quality, greater quantity, more restrictive, and/or more expensive requirement shall be **required**. The Contractor shall notify the AE and the ODR **of any conflict before** executing the work in question.

6.1.5 Contractor's Duty to Review Contract Documents. In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to pricing or commencing the Work, the Contractor shall examine and compare the Contract Documents, information furnished by the Owner, relevant field measurements made by the Contractor and any visible or reasonably anticipated conditions at the site affecting the Work. This duty extends throughout the construction phase prior to commencing each particular work activity and/or installation.

6.1.6 Discrepancies and Omissions in Drawings and Specifications

6.1.6.1 ***The Owner does not warrant or make any representations as to the accuracy or completeness of the information furnished to the Contractor by the Owner.*** The Contractor shall promptly report to the ODR and to the AE the discovery of any apparent error, omission or inconsistency in the Contract Documents prior to execution of the Work.

6.1.6.2 It is recognized that the Contractor is not acting in the capacity of a licensed design professional, unless it is performing as a Design-Build firm.

6.1.6.3 It is further recognized that the Contractor's examination of contract documents is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations, unless it is performing as a Design-Build firm or a Contractor.

6.1.6.4 When performing as a Design-Build firm, the Contractor has sole responsibility for discrepancies, errors, and omissions in the drawings and specifications.

6.1.6.5 When performing as a Contractor, the Contractor has a shared responsibility for discovery and resolution of discrepancies, errors, and omissions in the Contract Documents. In such case, the Contractor's responsibility pertains to review, coordination, and recommendation of resolution strategies within budget constraints, but does not establish a liability for design.

6.1.6.6 The Contractor has no liability for errors, omissions, or inconsistencies unless the Contractor knowingly failed to report a recognized problem to the Owner or the Work is executed under a Design-Build or Contractor contract as outlined above. Should the Contractor fail to perform the examination and reporting obligations of these provisions, the Contractor is responsible for avoidable costs, direct, and/or consequential damages.

6.2 Requirements for Record Documents

Maintain at the Site one copy of all Drawings, Specifications, addenda, approved Submittals, Contract modifications, and all Project correspondence. Keep current and maintain Drawings and Specifications in good order with postings and markings to record actual conditions of Work and show and reference all changes made during construction. Provide Owner and AE access to these documents.

6.2.1 Maintain this record set of Drawings and Specifications which reflect the "As Constructed" conditions and representations of the Work performed, whether it be directed by addendum, Change Order or otherwise. Make available all records prescribed herein for reference and examination by the Owner and its representatives and agents.

6.2.2 Update the "As-Constructed" Drawings and Specifications monthly prior to submission of periodic partial pay estimates. Failure to maintain such records constitutes cause for denial of a progress payment otherwise due.

6.2.3 Prior to requesting Substantial Completion Inspection by the ODR and AE, furnish a complete set of the marked up "As-Constructed" set maintained at the site and one photocopy of same. Concurrently with furnishing these record drawings, furnish a preliminary copy of each operating and maintenance manual (O&M) required by the Contract Documents, for review by the AE and the ODR.

6.2.4 Once determined acceptable, provide mylar prints of professionally drafted "As-Constructed" drawings, along with electronic copy on CD, "As-Constructed" specifications in bound volume(s) along with electronic copy on CD, two sets of photocopies or prints of the mylar "As-Constructed" drawings, two sets of operating and maintenance manuals, two sets of approved submittals, and other record documents as required elsewhere in the Contract Documents. ***All electronic copies shall be provided in a format acceptable to the ODR.***

Article 7. Construction Safety

7.1. General. It is the duty and responsibility of the Contractor and all of its Subcontractors to be familiar with, enforce and comply with all requirements of Public Law 91-596, 29 U.S.C. §§651 et. seq., the Occupational Safety and Health Act of 1970, (OSHA) and all amendments thereto. The Contractor shall prepare a Safety Plan specific to the Project and submit it to the ODR and AE prior to commencing Work. In addition, the Contractor and all of its Subcontractors shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property to protect them from damage, injury or loss and erect and maintain all necessary safeguards for such safety and protection.

7.2. Notices. The Contractor shall provide notices as follows:

7.2.1 Notify owners of adjacent property including those that own or operate utility services and/or underground facilities, and utility owners, when prosecution of the Work may affect them or their facilities, and cooperate with them in the protection, removal, relocation and replacement, and access to their facilities and/or utilities.

7.2.2 Coordinate the exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in connection with laws and regulations. Maintain a complete file of MSDS for all materials in use on site throughout the construction phase and make such file available to the Owner and its agents as requested.

7.3. Emergencies. In any emergency affecting the safety of persons or property, the Contractor shall act to minimize, mitigate, and prevent threatened damage, injury or loss.

7.3.1 Have authorized agents of Contractor respond immediately upon call at any time of day or night when circumstances warrant the presence of Contractor to protect the Work or adjacent property from damage or to take such action pertaining to the Work as may be necessary to provide for the safety of the public.

7.3.2 Give the ODR and AE prompt notice of all such events.

7.3.3 If Contractor believes that any changes in the Work or variations from Contract Documents have been caused by its emergency response, promptly notify the Owner within 72 hours of the emergency response event.

7.3.4 Should Contractor fail to respond, Owner is authorized to direct other forces to take action as necessary and Owner may deduct any cost of remedial action from funds otherwise due the Contractor.

7.4. Injuries. In the event of an incident or accident involving outside medical care for an individual on or near the Work, Contractor shall notify the ODR and other parties as may be directed within twenty-four (24) hours of the event.

7.4.1 Record the location of the event and the circumstances surrounding it, by using photography or other means, and gather witness statements and other documentation which describes the event.

7.4.2 Supply the ODR and AE with an incident report no later than 36 hours after the occurrence of the event. In the event of a catastrophic incident (one fatality or three workers hospitalized), barricade and leave intact the scene of the incident until all investigations are complete. A full set of incident investigation documents, including

facts, finding of cause, and remedial plans shall be provided within one week after occurrence, unless otherwise directed by legal counsel. Contractor shall provide the ODR with written notification within one week of such catastrophic event if legal counsel delays submission of full report.

7.5. Environmental Safety. Upon encountering any previously unknown potentially hazardous material, or other materials potentially contaminated by hazardous material, Contractor shall immediately stop work activities impacted by the discovery, secure the affected area, and notify the ODR immediately.

7.5.1 Bind all Subcontractors to the same duty.

7.5.2 Upon receiving such notice, the ODR will promptly engage qualified experts to make such investigations and conduct such tests as may be reasonably necessary to determine the existence or extent of any environmental hazard. Upon completion of this investigation, the ODR will issue a written report to the Contractor identifying the material(s) found and indicate any necessary steps to be taken to treat, handle, transport or dispose of the material.

7.5.3 The Owner may hire third-party Contractors to perform any or all such steps.

7.5.4 Should compliance with the ODR's instructions result in an increase in the Contractor's cost of performance, or delay the Work, the Owner will make an equitable adjustment to the Contract price and/or the time of completion, and modify the Contract in writing accordingly.

7.6. Trenching Plan. When the project requires excavation which either exceeds a depth of four feet, or results in any worker's upper body being positioned below grade level, the Contractor is required to submit a trenching plan to the ODR prior to commencing trenching operations. The plan is required to be prepared and sealed by a professional engineer registered in the State of Texas, and employed by the Contractor. Said engineer cannot be anyone who is otherwise either directly or indirectly engaged on this project.

Article 8. Quality Control

8.1. Materials & Workmanship. The Contractor shall execute Work in a good and workmanlike manner in accordance with the Contract Documents. The Contractor shall develop and provide a Quality Control Plan specific to this project and acceptable to the Owner. Where Contract Documents do not specify quality standards, complete and construct all Work in compliance with generally accepted construction industry standards. Unless otherwise specified, incorporate all new materials and equipment into the Work under the Contract.

8.2. Testing

8.2.1 Contractor Testing. The Contractor is responsible for coordinating and paying for all routine and special tests required to confirm compliance with quality and performance requirements of the Contract Documents. This "quality control" testing shall include any particular testing required by the Specifications and the following general tests.

8.2.1.1. Any test of basic material or fabricated equipment included as part of a submittal for a required item in order to establish compliance with the Contract Documents.

8.2.1.2 Any test of basic material or fabricated equipment offered as a substitute for a specified item on which a test may be required in order to establish compliance with the Contract Documents.

8.2.1.3 Routine, preliminary, start-up, pre-functional and operational testing of building equipment and s as necessary to confirm operational compliance with requirements of the Contract Documents.

8.2.1.4 All subsequent tests on original or replaced materials conducted as a result of prior testing failure.

8.2.2 Owner Testing. The Owner reserves the right to subject materials and s incorporated into the Project to routine tests as may be specified or as deemed necessary by the ODR or the AE to ensure compliance with the quality and/or performance requirements of the Contract Documents and/or with laws, ordinances, rules, regulations and/or orders of any public authority having jurisdiction. The results of such "quality assurance" testing will be provided to the Contractor and, to the extent provided, the Contractor may rely on findings.

8.2.3 All testing shall be performed in accordance with standard test procedures by an accredited laboratory, or special consultant as appropriate, acceptable to the Owner. Results of all tests shall be provided promptly to the ODR, Architect/Engineer and the Contractor.

8.2.4 Non-Compliance (Test Results). Should any of the tests indicate that a material and/or does not comply with the contract requirements, the burden of proof remains with the Contractor, subject to:

8.2.4.1 Contractor selection and submission of the laboratory for Owner acceptance.

8.2.4.2 Acceptance by the Owner of the quality and nature of tests.

8.2.4.3 All tests taken in the presence of the Architect/Engineer and/or ODR, or their representatives.

8.2.4.4 If tests confirm that the material/s comply with Contract Documents, the Owner will pay the cost of the test.

8.2.4.5 If tests reveal noncompliance, the Contractor will pay those laboratory fees and costs of that particular test and all future tests, of that failing Work, necessary to eventually confirm compliance with Contract Documents.

8.2.4.6 Proof of noncompliance with the Contract Documents will make the Contractor liable for any corrective action which the ODR determines appropriate, including complete removal and replacement of noncompliant work or material.

8.2.5 Notice of Testing. The Contractor shall give the ODR and the AE timely notice of its readiness and the date arranged so the ODR and AE may observe such inspection, testing or approval.

8.2.6 Test Samples. The Contractor is responsible for providing samples of sufficient size for test purposes and for coordinating such tests with their Work Progress Schedule to avoid delay.

8.2.7 Covering Up Work - If the Contractor covers up any Work without providing the Owner an opportunity to inspect, the Contractor shall, if requested by ODR, uncover and recover the work at Contractor's expense.

8.3 Submittals

8.3.1 Contractor's Submittals. Submit with reasonable promptness consistent with the Project Schedule and in orderly sequence all Shop Drawings, Samples, or other information required by the Contract Documents, or subsequently required by Change Order. Prior to submitting, the Contractor shall review each submittal for compliance with Contract Documents and certify by approval stamp affixed to each copy. Submittal data presented without the Contractor's certification will be returned without review or comment, and any delay resulting from such certification is the Contractor's responsibility.

8.3.1.1 Within twenty-one (21) calendar days of the effective date of the Notice To Proceed with construction, submit to the ODR, and the AE, a submittal schedule/register, organized by specification section, listing all items to be furnished for review and approval by the Architect/Engineer and Owner. The list shall include shop drawings, manufacturer's literature, certificates of compliance, materials samples, materials colors, guarantees, and all other items identified throughout the specifications.

8.3.1.2 Indicate the type of item, contract requirements reference, and Contractor's scheduled dates for submitting the item along with the requested dates for approval answers from the Architect/Engineer and Owner. The submittal register shall indicate the projected dates for procurement of all included items and shall be updated at least monthly with actual approval and procurement dates. Show and allow a minimum of thirty (30) calendar days duration after receipt by the Architect/Engineer and ODR for review and approval. If re-submittal is required, allow a minimum of an additional fifteen (15) calendar days for review. Submit the updated submittal register with each request for progress payment. The Owner may establish routine review procedures and schedules for submittals at the preconstruction conference and/or elsewhere in the Contract Documents. **Failure to update and provide the submittal schedule/register as required shall constitute cause for Owner to withhold payment otherwise due.**

8.3.1.3 Coordinate the submittal register with the Work Progress Schedule. Do not schedule Work requiring a submittal to begin prior to scheduling review and approval of the related submittal. Revise and/or update both schedules monthly to ensure consistency and current project data. Provide to the ODR the updated submittal register and schedule with each application for progress payment. Refer to requirements for the Work Progress Schedule for inclusion of procurement activities therein. Regardless, the submittal register shall identify dates submitted and returned and shall be used to confirm status and disposition of particular items submitted, including approval or other action taken and other information not conveniently tracked through the Work Progress Schedule.

8.3.1.4 By submitting Shop Drawings, Samples or other required information, the Contractor represents and certifies that they have determined and verified all applicable field measurements, field construction criteria, materials, catalog numbers and similar data; and has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and the Contract Documents.

8.3.2 Review of Submittals. AE and ODR review is only for conformance with the design concept and the information provided in the Contract Documents. Responses to submittals will be in writing. The approval of a separate item does not indicate approval

of an assembly in which the item functions. The approval of a submittal does not relieve the Contractor of responsibility for any deviation from the requirements of the Contract unless the Contractor informs the AE and ODR of such deviation in a clear, conspicuous, and written manner on the submittal transmittal and at the time of submission, and obtains the Owner's written specific approval of the particular deviation.

8.3.3 Correction and Resubmission. Make any corrections required to a submittal and resubmit the required number of corrected copies promptly so as to avoid delay, until submittal approval. Direct attention in writing to the AE and the ODR, when applicable, to any new revisions other than the corrections requested on previous submissions.

8.3.4 Limits on Shop Drawing Approvals. The Contractor shall not commence any Work requiring a submittal until approval of the submittal. Construct all such work in accordance with approved submittals. Approval of Shop Drawings and Samples is not authorization to Contractor to perform extra work or changed work unless authorized through a Change Order. The AE's and ODR's approval, if any, does not relieve Contractor from responsibility for defects in the Work resulting from errors or omissions of any kind on the submittal, regardless of any approval action.

8.3.5 No Substitutions Without Approval. The ODR and the AE may receive and consider the Contractor's request for substitution when the Contractor agrees to reimburse the Owner for review costs and satisfies 8.3.5.1, 8.3.5.2, and 8.3.5.3 in combination with one or more of the items in 8.3.5.4 through 8.3.5.11 of the following conditions, as determined by the Owner. If the Contractor does not satisfy these conditions, the ODR and AE will return the request without action except to record noncompliance with these requirements. The Owner will not consider the request if the Contractor cannot provide the product or method because of failure to pursue the Work promptly or coordinate activities properly.

8.3.5.1 The Contract Documents do not require extensive revisions.

8.3.5.2 Proposed changes are in keeping with the general intent of the Contract Documents and the design intent of the AE and do not result in an increase in cost to the Owner.

8.3.5.3 The request is timely, fully documented, and properly submitted.

8.3.5.4 The Contractor cannot provide the specified product, assembly or method of construction within the Contract Time.

8.3.5.5 The request directly relates to an "or-equal" clause or similar language in the Contract Documents.

8.3.5.6 The request directly relates to a "product design standard" or "performance standard" clause in the Contract Documents.

8.3.5.7 The requested substitution offers the Owner a substantial advantage in cost, time, energy conservation or other considerations, after deducting additional responsibilities the Owner must assume.

8.3.5.8 The specified product or method of construction cannot receive necessary approval by an authority having jurisdiction, and the ODR can approve the requested substitution.

8.3.5.9 The Contractor cannot provide the specified product, assembly or method of construction in a manner that is compatible with other materials and where the Contractor certifies that the substitution will overcome the incompatibility.

8.3.6 Unauthorized Substitutions at Contractor's Risk. The Contractor is financially responsible for any additional costs or delays resulting from using materials, equipment or fixtures other than those specified. The Contractor shall reimburse the Owner for any increased design or contract administration costs resulting from such unauthorized substitutions.

8.4 Field Mock-up

8.4.1 Mockups shall be constructed prior to commencement of a specified scope of work to confirm acceptable workmanship.

8.4.1.1 As a minimum, field mock-ups shall be constructed for roofing s, exterior veneer / finishes, glazing, and any other Work requiring a mock-up as identified throughout the Contract Documents. Mockups for s not part of the project scope shall not be required.

8.4.1.2 Mock-ups may be incorporated into the Work if allowed by the Contract Documents and if acceptable to the ODR. If mock-ups are freestanding, they shall remain in place until otherwise directed by the Owner.

8.4.1.3 The Contractor shall include field mock-ups in their Work Progress Schedule and shall notify the ODR and Architect/Engineer of readiness for review sufficiently in advance to coordinate review without delay.

8.5 Inspection During Construction

8.5.1 The Contractor shall provide sufficient, safe, and proper facilities, including equipment as necessary for safe access, at all reasonable times for observation and/or inspection of the Work by the Owner and its agents.

8.5.2 The Contractor shall not cover up any work with finishing materials or other building components prior to providing the Owner and its agents an opportunity to perform an inspection of the Work.

8.5.2.1 Should corrections of the Work be required for approval, do not cover up corrected Work until the Owner indicates approval.

8.5.2.2 Provide notification of at least five (5) working days or otherwise as mutually agreed, to the ODR of the anticipated need for a cover up inspection. Should the ODR fail to make the necessary inspection within the agreed period, the Contractor may proceed with cover up Work, but is not relieved of responsibility for Work to comply with requirements of the Contract Documents.

Article 9. Project Scheduling Requirements

9.1. Contract Time. TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT. The Contract Time is the time between the dates indicated in the Notice to Proceed for commencement of the Work and for achieving Substantial Completion and Final Completion. The Contract Time can be modified only by Change Order. Failure to achieve Substantial Completion within the Contract Time, Final Completion within thirty (30) days Following Substantial Completion or otherwise agreed to in writing will cause damage to the Owner and may subject the Contractor to Liquidated Damages as provided in the Contract Documents.

9.2. Notice to Proceed. The Owner will issue a Notice to Proceed which shall state the dates for beginning Work and for achieving Substantial Completion and Final Completion of the Work.

9.3. Work Progress Schedule. Refer to Special Conditions and Division 1 General Administration Specifications for additional schedule requirements. ***This Article pertains to construction phase schedules. Additional requirements for design phase scheduling for Contractor and Design Build contracts are outlined in Division 1 Project Planning and Scheduling Specification.*** Unless indicated otherwise in those documents, Contractor shall submit their initial Work Progress Schedule for the Work in relation to the entire Project not later than twenty-one (21) days after the effective date of the Notice to Proceed to the ODR and the AE. Unless otherwise indicated in the Contract Documents, the Work Progress Schedule shall be computerized Critical Path Method (CPM) with full reporting capability. This initial schedule shall indicate the dates for starting and completing the various aspects required to complete the Work, including mobilization, procurement, installation, testing, inspection, and acceptance of all the Work of the Contract. When acceptable to the Owner, the initially accepted schedule shall be the Baseline Schedule for comparison to actual conditions throughout the contract duration.

9.3.1 Schedule Requirements. Submit electronic and paper copy of the initial Work Progress Schedule reflecting accurate and reliable representations of the planned progress of the Work, the Work to date if any, and of the Contractor's actual plans for its completion. Organize and provide adequate detail so the Schedule is capable of measuring and forecasting the effect of delaying events on completed and uncompleted activities.

9.3.1.2 Submittal of a schedule, schedule revision or schedule update constitutes the Contractor's representation to the Owner of the accurate depiction of all progress to date and that the Contractor will follow the schedule as submitted in performing the Work.

9.3.2 Schedule Updates. Update the Work Progress Schedule and the Submittal Schedule monthly, as a minimum, to reflect progress to date and current plans for completing the Work, and submit paper and electronic copy of the update to the AE and ODR as directed. The Owner has no duty to make progress payments unless accompanied by the updated Work Progress Schedule. Show the anticipated date of completion reflecting all extensions of time granted through Change Order as of the date of the update. The Contractor may revise the Progress Schedule logic only with the Owner's concurrence when in the Contractor's judgment it becomes necessary for the management of the Work. Identify all proposed changes to schedule logic to Owner and to the AE via an Executive Summary accompanying the updated schedule for review prior to implementation of revisions.

9.3.3 The Work Progress Schedule is for the Contractor's use in managing the Work and submittal of the Schedule, and successive updates or revisions, is for the information of the Owner and to demonstrate that the Contractor has complied with requirements for planning the Work. The Owner's acceptance of a schedule, schedule update or revision constitutes the Owner's agreement to coordinate its own activities with the Contractor's activities as shown on the schedule.

9.3.3.1 Acceptance of the Work Progress Schedule, or update and/or revision thereto does not indicate any approval of the Contractor's proposed sequences and duration.

9.3.3.2 Acceptance of a Work Progress Schedule update or revision indicating early or late completion does not constitute the Owner's consent, alter the terms of the Contract, or waive either the Contractor's responsibility for timely completion or the Owner's right to damages for the Contractor's failure to do so.

9.3.3.3 The Contractor's scheduled dates for completion of any activity or the entire Work do not constitute a change in terms of the contract. Change Orders are the only method of modifying the completion Date(s) and Contract time.

9.4. Ownership of Float. Unless indicated otherwise in the Contract Documents, the Contractor shall develop the schedule and their execution plan to provide a minimum of 10 percent total float at the project level at acceptance of the Baseline Schedule. Float time contained in the Work Progress Schedule is not for the exclusive benefit of the Contractor or the Owner, but belongs to the Project and may be consumed by either party as needed on a first-used basis.

9.5. Completion of Work. The Contractor is accountable for completing the Work in the time stated in the Contract, or as otherwise amended by Change Order.

9.5.1 If, in the judgment of the Owner, the work is behind schedule and the rate of placement of work is inadequate to regain scheduled progress to insure timely completion of the entire work or a separable portion thereof, the Contractor, when so informed by the Owner, shall immediately take action to increase the rate of work placement by:

9.5.1.1 An increase in working forces.

9.5.1.2 An increase in equipment or tools.

9.5.1.3 An increase in hours of work or number of shifts.

9.5.1.4 Expedite delivery of materials.

9.5.1.5 Other action proposed if acceptable to Owner.

9.5.2 Within ten (10) calendar days after such notice from the ODR, the Contractor shall notify the ODR in writing of the specific measures taken and/or planned to increase the rate of progress. Include an estimate as to the date of scheduled progress recovery and an updated Work Progress Schedule illustrating the Contractor's plan for achieving timely completion of the project. Should the ODR deem the plan of action inadequate, take additional steps or make adjustments as necessary to its plan of action until it meets with the ODR's approval.

9.6 Modification of the Contract Time

9.6.1 Delays and extension of time as hereinafter described are valid only if executed in accordance with provisions set forth in Article 11.

9.6.2 When a delay defined herein as excusable prevents the Contractor from completing the Work within the Contract Time, the Contractor is entitled to an extension of time. The Owner will make an equitable adjustment and extend the number of calendar days lost because of excusable delay, as measured by the Contractor's progress schedule. All extensions of time will be granted in calendar days. In no event, however,

will an extension of time be granted for delays that merely extend the duration of non-critical activities, or which only consume float without delaying the project completion date.

9.6.2.1 "A Weather Day" is a day on which the Contractor's current schedule indicates Work is to be done, and on which inclement weather and related site conditions prevent the Contractor from performing seven continuous hours of Work between the hours of 7:00 a.m. and 6:00 p.m. Weather days are excusable delays. When weather conditions at the site prevent work from proceeding, immediately notify the ODR for confirmation of the conditions. At the end of each calendar month, submit to the ODR and AE a list of Weather Days occurring in that month along with documentation of the impact on critical activities. Based on confirmation by the ODR, any time extension granted will be issued by Change Order. If the Contractor and Owner cannot agree on the time extension, the Owner may issue a ULCO for fair and reasonable time extension.

9.6.2.2 Excusable Delay. The Contractor is entitled to an equitable adjustment of time, issued via change order, for delays caused by the following:

9.6.2.2.1 Errors, omissions and imperfections in design which the AE corrects by means of changes in the drawings and specifications.

9.6.2.2.2 Unanticipated physical conditions at the Site which the AE corrects by means of changes to the drawings and specifications or for which the ODR directs changes in the Work identified in the Contract Documents.

9.6.2.2.3 Changes in the Work that effect activities identified in the Contractor's schedule as "critical" to completion of the entire Work, if such changes are ordered by the ODR or the AE.

9.6.2.2.4 Suspension of Work for unexpected natural events (sometimes called "acts of God"), civil unrest, strikes or other events which are not within the reasonable control of the Contractor.

9.6.2.2.5 Suspension of Work for convenience of the ODR, which prevents Contractor from completing the Work within the Contract Time.

9.6.3 The Contractor's relief in the event of such delays is the time impact to the critical path as determined by analysis of the Contractor's schedule. In the event that the Contractor incurs additional direct costs because of the delay, they are to be determined pursuant to the provisions of Article 11.

9.7 **No Damages for Delay. The Contractor has no claim for monetary damages for delay or hindrances to the work from any cause except when the delay is solely caused by the Owner.**

9.8 Concurrent Delay. When the completion of the Work is simultaneously delayed by an excusable delay and a delay arising from a cause not designated as excusable, the Contractor may not be entitled to a time extension for the period of concurrent delay

9.9 Other Time Extension Requests. Time extensions requested in association with changes to the Work directed or requested by the Owner shall be included with the Contractor's proposed costs for such change. Time extensions requested for inclement weather are covered by paragraph 9.6.2.1 above. If the Contractor believes that the completion of the Work is delayed by a circumstance other than for changes directed to the Work or weather, they shall give the ODR written notice, stating the nature of the delay and the activities potentially affected, within five (5) calendar days after the onset of the event or circumstance giving rise to the excusable delay. Provide sufficient written evidence to

document the delay. In the case of a continuing cause of delay, only one **notice of delay** is necessary. State claims for extensions of time in numbers of whole or half calendar days.

9.9.1 Within ten (10) calendar days after the cessation of the delay, the Contractor shall formalize its request for extension of time in writing to include a full analysis of the schedule impact of the delay and substantiation of the excusable nature of the delay. All Changes to the Contract Time or made as a result of such claims is by Change Order, as set forth in Article 11.

9.9.2 No extension of time releases the Contractor or the Surety furnishing a performance or payment bond from any obligations under the contract or such a bond. Those obligations remain in full force until the discharge of the Contract.

9.9.3 Contents of Time Extension Requests. Provide with each Time Extension Request a quantitative demonstration of the impact of the delay on project completion time, based on the Work Progress Schedule. Include with Time Extension Requests a reasonably detailed narrative setting forth:

9.9.3.1 The nature of the delay and its cause; the basis of the Contractor's claim of entitlement to a time extension.

9.9.3.2 Documentation of the actual impacts of the claimed delay on the critical path indicated in the Contractor's Work Progress Schedule, and any concurrent delays.

9.9.3.3 Description and documentation of steps taken by the Contractor to mitigate the effect of the claimed delay, including, when appropriate, the modification of the Work Progress Schedule.

9.9.4 Owner's Response. The Owner will respond to the Time Extension Request by providing to the Contractor written notice of the number of days granted, if any, and giving its reason if this number differs from the number of days requested by the Contractor.

9.9.4.1 The Owner will not grant time extensions for delays that do not affect the Contract Completion Date.

9.9.4.2 The Owner will respond to each properly submitted Time Extension Request within fifteen (15) calendar days following receipt. If the Owner cannot reasonably make a determination about the Contractor's entitlement to a time extension within that time, the Owner will notify the Contractor in writing. Unless otherwise agreed by the Contractor, the Owner has no more than fifteen (15) additional calendar days to prepare a final response. If the Owner fails to respond within forty-five (45) calendar days from the date the Time Extension Request is received, the Contractor is entitled to a time extension in the amount requested.

9.10 Failure to Complete Work Within the Contract Time. **TIME IS OF THE ESSENCE OF THIS CONTRACT.** The Contractor's failure to substantially complete the Work within the Contract Time or to achieve final completion as required will cause damage to the Owner. These damages may be liquidated by agreement of the Contractor and the Owner, as set forth in the Contract Documents.

9.11 Liquidated Damages. The Owner may collect Liquidated Damages due from the Contractor directly or indirectly by reducing the contract sum in the amount of Liquidated Damages stated in the Contract Documents.

Article 10. Payments

10.1. Schedule of Values. The Contractor shall submit to the ODR and the AE for acceptance a Schedule of Values, or Work Breakdown, accurately itemizing material and labor for the various classifications of the Work based on the organization of the specification sections and using the same activity names and terms as the Work Progress Schedule. The accepted Schedule of Values will be the basis for the progress payments under the Contract.

10.1.1 No progress payments will be made prior to receipt and acceptance of the Schedule of Values, provided in such detail as required by the ODR, and submitted not less than twenty-one calendar (21) days prior to the first request for payment. The Schedule of Values shall follow the order of trade divisions of the specifications and include costs for general conditions, fees, contingencies, and Owner cash allowances, if applicable, so that the sum of the items will equal the contract price. As appropriate, assign each item labor and/or material values, the subtotal thereof equaling the value of the work in place when complete.

10.1.2 The Contractor shall retain a copy of all worksheets used in preparation of its bid or proposal, supported by a notarized statement that the worksheets are true and complete copies of the documents used to prepare the bid or proposal. Make the worksheets available to the ODR at the time of Contract execution. Thereafter grant the Owner during normal business hours access to said notarized copy of worksheets at any time during the period commencing upon execution of the Contract and ending one year after final payment.

10.2. Progress Payments. The Contractor will receive periodic progress payments for Work performed, materials in place, suitably stored on site, or as otherwise agreed to by the Owner and the Contractor. Payment is not due until receipt by the ODR or his designee of a correct and complete Pay Application in electronic and/or hard copy format as set forth in Supplementary General Conditions, Special Conditions or Division 1 Specifications, and certified by the AE. Progress payments are made provisionally and do not constitute acceptance of work not in accordance with the Contract Documents. The Owner will not process progress payment applications for Change Order work until all parties execute the Change Order.

10.2.1 Preliminary Pay Worksheet once each month that a progress payment is to be requested, the Contractor shall submit to the Architect/Engineer and the ODR a complete, clean copy of a preliminary pay worksheet or Preliminary Pay Application, to include the following:

10.2.1.1 The Contractor estimate of the amount of Work performed, labor furnished and materials incorporated into the Work, using the established Schedule of Values.

10.2.1.2 An updated Work Progress Schedule including the Executive Summary and all required schedule reports.

10.2.1.3 SB Subcontracting Plan reports.

10.2.1.4 Such additional documentation as Owner may require as set forth in the Supplementary General Conditions or elsewhere in the Contract Documents.

10.2.2 Contractor's Application for Progress Payment. As soon as practicable, but in no event later than seven days after receipt of the Preliminary Pay Worksheet, the AE and ODR will meet with the Contractor to review the Preliminary Pay Worksheet and to observe the condition of the Work. Based on this review, the ODR and the AE may require modifications to the Preliminary Pay Worksheet prior to the submittal of an application for progress payment, and will promptly notify the Contractor of revisions necessary for approval. As soon as practicable, the Contractor shall submit its Invoice on

the appropriate and completed form, reflecting the required modifications to the Schedule of Values required by the AE and/or ODR. Attach all additional documentation required by the ODR and/or AE, as well as an affidavit affirming that all payrolls, bills for labor, materials, equipment, subcontracted work and other indebtedness connected with the Contractor's invoice are paid or will be paid within the time specified in Tex. Gov't Code, Chapter 2251. No invoice is complete unless it fully reflects all required modifications, and attaches all required documentation including the Contractor's affidavit.

10.2.3 Certification by Architect/Engineer. Within five days or earlier following the AE's receipt of the Contractor's formal invoice, the AE will review the application for progress payment for completeness, and forward to the ODR. The AE will certify that the application is complete and payable, or that it is incomplete, stating in particular what is missing. If the Invoice is incomplete, the Contractor shall make the required corrections and resubmit the Invoice for processing.

10.3 Owner's Duty to Pay. The Owner has no duty to pay the Contractor except on receipt by the ODR of; 1) a complete Invoice certified by the AE and 2) the Contractor's updated Work Progress Schedule, and 3) confirmation that the Contractor's as-built documentation at the site is kept current.

10.3.1 Payment for stored materials and/or equipment confirmed by the Owner and AE to be on-site or otherwise properly stored may be limited to 85 percent of the invoice price or 85 percent of the scheduled value for the materials or equipment, whichever is less.

10.3.2 Retainage. The Owner will withhold from each progress payment, as retainage, 5 percent of the total earned amount, the amount authorized by law, or as otherwise set forth in the Supplementary General Conditions. Retainage is managed in conformance with Tex. Gov't Code, Chapter 2252, Government Code, subchapter B.

10.3.2.1 The Contractor shall provide written consent of its Surety for any request for reduction or release of retainage.

10.3.2.2 At least sixty-five (65) percent of the total Contract must be completed before the Owner can consider a retainage reduction or release.

10.3.3 Price Reduction to Cover Loss. The Owner may reduce any Periodic Invoice, or application for Progress Payment, prior to payment to the extent necessary to protect the Owner from loss on account of actions of the Contractor including, but not limited to:

10.3.3.1 Defective or incomplete Work not remedied.

10.3.3.2 Damage to Work of a separate Contractor.

10.3.3.3 Failure to maintain scheduled progress or reasonable evidence that the Work will not be completed within the Contract Time.

10.3.3.4 Persistent failure to carry out the Work in accordance with the Contract Documents.

10.3.3.5 Reasonable evidence that the Work cannot be completed for the unpaid portion of the contract sum.

10.3.3.6 Assessment of fines for violations of Prevailing Wage Rate law; or

10.3.3.7 Failure to include the appropriate amount of retainage for that periodic progress payment.

10.3.4 Title to all material and Work covered by progress payments transfers to the Owner upon payment.

10.3.4.1 Transfer of title to Owner does not relieve the Contractor of the sole responsibility for the care and protection of materials and Work upon which payments have been made until final acceptance of the entire Work, or the restoration of any damaged Work, or waive the right of the Owner to require the fulfillment of all the terms of the Contract.

10.4 Progress payments to the Contractor do not release the Contractor or its surety from any obligations under this Contract.

10.4.1 Upon the Owner's request, the Contractor shall furnish proof of the status of Subcontractor's accounts in a form acceptable to the Owner.

10.4.2 Pay estimate certificates must be signed by a corporate officer or a representative duly authorized by the Contractor.

10.4.3 Provide copies of bills of lading, invoices, delivery receipts or other evidence of the location and value of such materials in requesting payment for materials.

10.4.4 For purposes of Tex. Gov't Code § 2251.021 (a) (2), the date the performance of service is complete is the date when the Owner's representative approves the application for payment.

10.5 Off-Site Storage. With prior approval by the Owner and in the event Contractor elects to store materials at an off-site location, abide by the following conditions, unless otherwise agreed to in writing by the Owner.

10.5.1 Store materials in a Bonded Commercial Warehouse.

10.5.2 Provide separate Insurance Coverage adequate not only to cover materials while in storage, but also in transit from the off-site storage areas to the project site. Copies of duly authenticated Certificates of Insurance, made out to insure the State Agency which is signatory to the contract, must be filed with the Owner's representative.

10.5.3 Inspection by Owner's representative is allowed at any time. The Owner's Inspectors must be satisfied with the security, control, maintenance, and preservation measures.

10.5.4 Materials for this project are physically separated and marked for the project in a sectioned-off area. Only materials which have been approved through the submittal process are to be considered for payment.

10.5.5 Owner reserves the right to reject materials at any time prior to final acceptance of the complete Contract if they do not meet Contract requirements regardless of any previous progress payment made.

10.5.6 With each monthly payment estimate, submit a report to the ODR, AE, and Inspector listing the quantities of materials already paid for and still stored in the off-site location.

10.5.7 Make warehouse records, receipts and invoices available to Owner's representatives, upon request, to verify the quantities and their disposition.

10.5.8 In the event of Contract termination or default by Contractor, the items in storage off-site, upon which payment has been made, will be promptly turned over to Owner or Owner's agents at a location near the jobsite as directed by the ODR. The full provisions of Performance and Payment Bonds on this project cover the materials off-site in every respect as though they were stored on the Project Site.

Article 11. Changes

11.1. Change Orders. A Change Order issued after execution of the Contract is a written order to the Contractor, signed by the ODR, the Contractor, and the Architect/Engineer, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time can only be changed by Change Order. A Change Order signed by the Contractor indicates his agreement with it, including the adjustment in the Contract Sum and/or the Contract Time. The ODR may issue written authorization for the Contractor to proceed with work of a change order in advance of final execution by all parties. ***In the absence of an agreement with the Contractor on a Change Order, the Owner may issue a Unilateral Change Order that will have the full force and effect of a contract modification. The issuance of a Unilateral Change Order does not prejudice the Contractor's rights to make claims or to appeal disputed matters under terms of the Contract.***

11.1.1 The Owner, without invalidating the Contract, ***and without approval of the Contractor's Surety***, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, and the Contract Sum and the Contract Time will be adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. If such changes cause an increase or decrease in the Contractor's cost of, or time required for, performance of the Contract, an equitable adjustment shall be made and confirmed in writing in a Change Order.

11.1.2 The parties acknowledge that the specifications and drawings may not be complete or free from errors, omissions or imperfections and that they may require changes or additions in order for the work to be completed to the satisfaction of Owner. Therefore, and notwithstanding any other provisions in this Contract, the parties agree that any errors, omissions or imperfections in the specifications and drawings, or any changes in or additions to them or to the work ordered by Owner and any resulting delays in the work or increases in Contractor's costs and expenses, shall not constitute or give rise to any claim, demand or cause of action of any nature whatsoever in favor of Contractor, whether for breach of contract, *quantum meruit*, or otherwise; provided, however, that Owner shall be liable to Contractor for the sum stated to be due Contractor in any Change Order approved and signed by both parties. The parties agree that the Change Order sum, together with any extension of time contained in the Change Order, shall constitute full compensation to Contractor for all costs, expenses and damages to Contractor, whether direct, consequential or otherwise that are incident to, arise out of, or result directly or indirectly from or indirectly from the work performed by Contractor under such Change Order.

11.1.3 Procedures for administration of Change Orders shall be established by the Owner and stated in Supplementary General Conditions, Special Conditions, or elsewhere in the Contract Documents.

11.1.4 Except as provided above, no order, oral statement, or direction of the Owner or his duly appointed representative shall be treated as a change under this article or entitle the Contractor to an adjustment.

11.1.5 The Contractor agrees that the Owner or any of its duly authorized representatives shall have access and the right to examine any directly pertinent books, documents, papers, and records of the Contractor. Further, the Contractor agrees to include in all its subcontracts a provision giving the Owner or any of its duly authorized representative's access to and the right to examine any directly pertinent books,

documents, papers and records of any Subcontractor relating to any claim arising from this Contract, whether or not the Subcontractor is a party to the claim. The right of access and examination described herein shall continue for the duration of any claims brought under the Disputes article of the Contract, litigation, or the settlement of claims arising out of the performance of this Contract until final disposition of such claims, appeals or litigation.

11.2. Unit Prices: The Contract Documents may require the Contractor to provide certain work or materials on the basis of unit prices. If the quantity originally contemplated in determining any unit price is **materially** changed such that application of the agreed unit price to the actual quantity of work required will cause substantial inequity to the Owner or the Contractor, the applicable unit price shall be equitably adjusted as provided in the Special Conditions or as agreed to by the parties and incorporated into Change Order.

11.3. Claims for Additional Costs

11.3.1 The Contractor shall provide written notice to the Owner and the Architect/Engineer within twenty-one (21) days of the occurrence of any event or the discovery of any condition that the Contractor claims will cause an increase in the Contract Sum or Contract Time that is not related to a requested change. The Contractor shall not proceed with any work for which it will assert a claim for additional cost or time before providing the written notices, except for emergency situations governed by Article 7.3. Failure to provide the required notices is sufficient grounds for rejecting any claim for an increase in the Contract Sum or the Contract Time arising from the event or the condition. Any adjustment in the Contract Sum or Contract Time for any additional Work shall be authorized by Change Order.

11.3.2 The notice provisions of Article 11.3.1 apply to, but are not limited to, any claims for additional cost or time brought by the Contractor as a result of: 1) any written interpretation of the Contract Documents, 2) any order by the Owner to stop the Work pursuant to Article 14 where the Contractor was not at fault, or 3) any written order for a minor change in the Work issued pursuant to Article 11.4.

11.3.3 Should the Contractor or his Subcontractors fail to call attention of the AE to obvious discrepancies or omissions in the Bid/Proposal Documents during the pre-bid/pre-proposal period, but claim additional costs for corrective work after contract award, the Owner may assume intent to circumvent competitive bidding for necessary corrective work. In such case, the Owner may choose to let a separate contract for the corrective work, or issue a Unilateral Change Order to require performance by the Contractor. Claims for time extensions or for extra cost resulting from delayed notice of contract document discrepancies or omissions will not be considered by the Owner.

11.4. Minor Changes. The AE, with concurrence of the ODR, will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time. Such changes shall be effected by written order which the Contractor shall carry out promptly and record on as-built record documents.

11.5. Concealed Site Conditions. If, in the performance of the Contract, subsurface, latent or concealed conditions at the site are found to be materially different from the information included in the bid/proposal documents, or if unknown conditions of an unusual nature are disclosed differing materially from the conditions usually inherent in work of the character shown and specified, the ODR and the Architect/Engineer shall be notified in writing of such conditions before they are disturbed. Upon such notice, or upon its own observation of such conditions, the Architect/Engineer, with the approval of the ODR, will promptly make such changes in the Drawings and Specifications as they deem necessary to

conform to the different conditions, and any increase or decrease in the cost of the Work, or in the time within which the Work is to be completed, resulting from such changes will be adjusted by Change Order, subject to the prior approval of the ODR.

11.6. Extension of Time. All Changes to the Contract Time shall be made as a consequence of requests as required under Article 9.6, and as documented by Change Order as provided under Article 11.1.

11.7. Administration of Change Order Requests

All changes in the Contract shall be administered in accordance with procedures approved by the Owner, and when required make use of such electronic information management (s) as the owner may employ.

11.7.1 Routine changes in the Construction Contract shall be formally initiated by the Architect/Engineer by means of a Change Request form detailing requirements of the proposed change for pricing by the Contractor. This action may be preceded by communications between the Contractor, AE and ODR concerning the need and nature of the change, but such communications shall not constitute a basis for beginning the proposed Work by the Contractor. Except for emergency conditions described below, approval of the Contractor's cost proposal by the Architect/Engineer and ODR will be required for authorization to proceed with the Work being changed. The Owner will not be responsible for the cost of work changed without prior approval and the Contractor may be required to remove work so installed.

11.7.2 Any unexpected circumstance which necessitates an immediate change in order to avoid a delay in progress of the Work may be expedited by verbal communication and authorization between the Contractor and Owner, with written confirmation following within twenty-four (24) hours. A limited scope not-to-exceed estimate of cost and time will be requested prior to authorizing Work to proceed. Should the estimate be impractical for any reason, the ODR may authorize the use of detailed cost records of such work to establish and confirm the actual costs and time for documentation in a formal Change Order.

11.7.3 Emergency changes to save life or property may be initiated by the Contractor alone (see Article 7.3) with the claimed cost and/or time of such work to be fully documented as to necessity and detail of the reported costs and/or time.

11.7.4 The method of incorporating approved changes into the parameters of the accepted Schedule of Values must be coordinated and administered in a manner acceptable to the ODR.

11.8. Pricing Change Order Work

11.8.1 All proposed costs for change order work must be supported by itemized accounting of material, equipment and associated itemized installation costs in sufficient detail, following the outline and organization of the established Schedule of Values, to permit analysis by the AE and ODR using current estimating guides and/or practices.

11.8.1.1 Photocopies of Subcontractor and vendor proposals shall be furnished unless specifically waived by the ODR.

11.8.1.2 Contractor shall provide written response to change request within twenty-one (21) calendar days of receipt.

11.8.1.3 *If the parties cannot agree on an equitable adjustment for labor hours attributable to a change, they shall use the Means Facility Cost Data as a guide for labor hours as a basis of negotiation.*

11.8.1.4 *If the parties cannot agree on an equitable adjustment for equipment rental charges attributable to a change, they shall use the Rental Rate Blue Book for Construction Mobilization as a basis of negotiation.*

11.8.2 The amounts that the Contractor and/or its Subcontractors add to a Change Order for profit and overhead will also be considered by the Owner before approval is given. The amounts established hereinafter are the maximums that are acceptable to the Owner.

11.8.2.1 For work performed by its forces, the Contractor will be allowed their actual costs for materials, the total amount of wages paid for labor, the total cost of Federal Old Age Benefit (Social Security Tax) and of Worker's Compensation and Comprehensive General Liability Insurance, plus Bond cost if the change results in an increase in the Bond premium paid by the Contractor. To the total of the above costs, the Contractor will be allowed to add a percentage as noted below to cover overhead and profit combined. Overhead shall be considered to include insurance other than mentioned above, field and office supervisors and assistants, including safety and scheduling personnel, use of small tools, incidental job burdens and general Home Office expenses, and no separate allowance will be made therefore. Allowable percentages for overhead and profit on changes will not exceed 15 percent if the total of self-performed work is less than or equal to \$10,000, 10 percent if the total of self-performed work is between \$10,000 and \$20,000 and 7.5 percent if the total of self-performed work is over \$20,000, for any specific change priced.

11.8.2.1.1 *On contracts based on a Guaranteed Maximum Price (GMP), the Contractor or Design Build Firm shall NOT be entitled to a percentage mark-up on any change order work unless the Change Order increases the Guaranteed Maximum Price.*

11.8.2.2 For subcontracted Work each affected Subcontractor shall figure its costs, overhead and profit as described above for Contractor's work, all Subcontractor costs shall be combined, and to that total Subcontractor cost the Contractor will be allowed to add a maximum mark-up of 10 percent if the total of all subcontracted work is less than or equal to \$10,000, 7.5 percent if the total of all subcontracted work is between \$10,000 and \$20,000 and 5 percent if the total of all Subcontractor work is over \$20,000.

11.8.2.3 On changes involving both additions and deletions, percentages for overhead and profit will be allowed only on the net addition. The Owner does not accept and will not pay for additional contract cost identified as indirect, consequential, or as damages caused by delay.

Article 12. Project Completion and Acceptance

12.1. Closing Inspections

12.1.1 Substantial Completion Inspection. When the Contractor considers the entire Work or part thereof Substantially Complete, it shall notify the ODR in writing that the Work will be ready for Substantial Completion Inspection on a specific date. The

Contractor shall include with this notice the Contractors Punchlist to indicate that it has previously inspected all the Work associated with the request for inspection, has corrected items where possible, and includes all items scheduled for completion or correction prior to final inspection. The failure to include any items on this list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. If any of the items on this list prevents the building from the use to which it is intended, the Contractor shall not request a Substantial Completion Inspection. The Owner and its representatives will review the list of items and schedule the requested inspection, or inform the Contractor in writing that such an inspection is premature because the Work is not sufficiently advanced or conditions are not as represented on the Contractor's list.

12.1.1.1 Prior to the Substantial Completion Inspection, the Contractor shall furnish a copy of its marked-up As-Built Drawings and a preliminary copy of each instructional manual, maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties and like publications or parts for all installed equipment, s and like items. Delivery of these items is a prerequisite for requesting the Substantial Completion Inspection.

12.1.1.2 On the date requested by Contractor, or as mutually agreed upon, the AE, ODR, the Contractor and other Owner representatives as determined by the Owner, will jointly attend the Substantial Completion Inspection, which shall be conducted by the ODR or their delegate. If the ODR **concurs with the AE and Contractor in a determination** that the Work is Substantially Complete, the ODR will issue a Certificate of Substantial Completion to be signed by the AE, Owner and Contractor, establishing the date of Substantial Completion **and identifying responsibilities for security, maintenance, and insurance**. AE will provide with this certificate a list of punchlist items (the Pre-Final Punchlist) for completion prior to final inspection. This list may include items in addition to those on the Contractor's punchlist, which the inspection team deems necessary to correct or complete prior to Final Inspection. If the Owner occupies the facility upon determination of Substantial Completion, the Contractor shall complete all corrective Work at the convenience of the Owner, without disruption to Owner's use of the facility for its intended purposes.

12.1.2 Final Inspection. The Contractor shall complete the list of items identified on the Pre-Final Punchlist prior to requesting a Final Inspection. Unless otherwise specified, or otherwise agreed in writing by the parties as documented on the Certificate of Substantial Completion, the Contractor shall complete and/or correct all Work within thirty (30) days of the Substantial Completion date. Upon completion of the Pre-Final Punchlist work, the Contractor shall give written notice to the ODR and AE that the Work will be ready for Final Inspection on a specific date. The Contractor shall accompany this notice with a copy of the updated Pre-Final Punchlist indicating resolution of all items. On the date specified or as soon thereafter as is practicable, the ODR, AE and the Contractor will inspect the Work. The AE will submit to the Contractor a Final Punchlist of open items that the inspection team requires corrected or completed before final acceptance of the Work.

12.1.2.1 Correct or complete all items on the Final Punchlist before requesting Final Payment. Unless otherwise agreed to in writing by the parties, complete this work within seven (7) days of receiving the Final Punchlist. Upon

completion of the Final Punchlist, notify the AE and ODR in writing stating the disposition of each Final Punchlist item. The AE, Owner and Contractor shall promptly inspect the completed items. When the Final Punchlist is complete, and the Contract is fully satisfied according to the Contract Documents the ODR will issue a certificate establishing the date of Final Completion. Completion of all Work is a condition precedent to the Contractor's right to receive Final Payment.

12.1.3 Annotation. Any Certificate issued under this Article may be annotated to indicate that it is not applicable to specified portions of the Work, or that it is subject to any limitation as determined by the Owner.

12.1.4 Purpose of Inspection. Inspection is for determining the completion of the Work, and does not relieve the Contractor of its overall responsibility for completing the Work in a good and competent fashion, in compliance with the Contract. Work accepted with incomplete punchlist items or failure of the Owner or other parties to identify Work that does not comply with the Contract Documents or is defective in operation or workmanship does not constitute a waiver of the Owner's rights under the Contract or relieve the Contractor of its responsibility for performance or warranties.

12.1.5 Additional Inspections

12.1.5.1 If the Owner's inspection team determines that the Work is not Substantially Complete at the Substantial Completion Inspection, the ODR or AE will give the Contractor written notice listing cause(s) of the rejection. The **Contractor** will set a time for completion of incomplete or defective work **as acceptable to the ODR**. Complete or correct all work so designated prior to requesting a second Substantial Completion Inspection.

12.1.5.2 If the Owner's inspection team determines that the Work is not complete at the Final Inspection, the ODR or the AE will give the Contractor written notice listing the cause(s) of the rejection. The **Contractor** will set a time for completion of incomplete or defective work **as acceptable to the ODR**. The Contractor shall complete or correct all Work so designated prior to again requesting a Final Inspection.

12.1.5.3 The Contract Agreement contemplates three (3) comprehensive inspections: the Substantial Completion Inspection, the Final Completion Inspection, and the Inspection of Completed Final Punchlist Items. The cost to the Owner of additional inspections resulting from the Work not being ready for one or more of these inspections is the responsibility of the Contractor. The Owner may issue a Unilateral Change Order deducting these costs from Final Payment. Upon the Contractor's written request, the Owner will furnish documentation of any costs so deducted. Work added to the Contract by Change Order after Substantial Completion Inspection is not corrective work for purposes of determining timely completion, or assessing the cost of additional inspections.

12.1.6 Phased Completion. The contract may provide, or project conditions may warrant, as determined by the ODR, that designated elements or parts of the Work be completed in phases. Where phased completion is required or specifically agreed to by the parties, the provisions of the contract related to Closing Inspections, Occupancy and Acceptance apply independently to each designated element or part of the Work. For all other purposes, unless otherwise agreed by the parties in writing, Substantial

Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Substantially Completion certificate. Final Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Final Completion certificate **or notice**.

12.2 Owner's Right of Occupancy. The Owner may occupy or use all or any portion of the Work following Substantial Completion, or at any earlier stage of completion. Should the Owner wish to use or occupy the Work, or part thereof, prior to Substantial Completion, the ODR will notify the Contractor in writing **and identify responsibilities for security, maintenance, and insurance**. Work performed on the premises by third parties on the Owner's behalf does not constitute occupation or use of the Work by the Owner for purposes of this Article. All Work performed by the Contractor after occupancy, whether in part or in whole, shall be at the convenience of the Owner so as to not disrupt Owner's use of, or access to occupied areas of the project.

12.3 Acceptance & Payment

12.3.1 Request for Final Payment. Following the certified completion of all work, including all punch list items, cleanup, and the delivery of record documents, the Contractor shall submit a certified Application for Final Payment that includes all sums held as retainage and forward to the AE and the ODR for review and approval.

12.3.2 Final Payment Documentation. Prior to or with the Application for Final Payment, Contractor shall submit final copies of all close out documents, maintenance and operating instructions, guarantees and warranties, certificates, record documents and all other items required by the Contract. Submit Consent of Surety to Final Payment and an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness connected with the Work, except as specifically noted, are paid, will be paid, or otherwise satisfied within the period of time required by Tex. Gov't Code, Chapter 2251. Furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims and liens arising out of the Contract. The Contractor may not subsequently submit a claim on behalf of a Subcontractor or vendor unless the Contractor's affidavit notes that claim as an exception.

12.3.3 Architect/Engineer Approval. The AE will review a submitted Application for Final Payment promptly but in no event later than ten (10) days after its receipt. Prior to the expiration of this deadline, the AE will either 1) return the Application for Final Payment to Contractor with corrections for action and resubmission or 2) accept it, note their approval and send to Owner.

12.3.4 Offsets and Deductions. The Owner may deduct from the Final Payment all sums due from the Contractor. If the Certificate of Final Completion notes any Work remaining, incomplete, or defects not remedied, the Owner may deduct the cost of remedying such deficiencies from the Final Payment. On such deductions, the Owner will identify each deduction, the amount, and the explanation of the deduction on or by the 21st day after Owner's receipt of an approved Application for Final Payment. Such offsets and deductions shall be incorporated via a final Change Order, including Unilateral Change Order as may be applicable.

12.3.5 Final Payment Due. Final Payment is due and payable by the Owner, subject to all allowable offsets and deductions, on the 31st day following the Owner's approval of the Application for Payment. If the Contractor disputes any amount deducted by the Owner, the Contractor shall give notice of the dispute on or before the thirtieth (30th) day

following receipt of Final Payment. Failure to do so will bar any subsequent claim for payment of amounts deducted.

12.3.6 Effect of Final Payment. Final Payment constitutes a waiver of all claims by the Owner, relating to the condition of the Work except those arising from:

12.3.6.1 Faulty or defective Work appearing after Substantial Completion (latent defects); and/or

12.3.6.2 Failure of the Work to comply with the requirements of the Contract Documents; and/or

12.3.6.3 Terms of any warranties required by the Contract, or implied by law; and/or

12.3.6.4 Claims arising from personal injury or property damage to third parties.

12.3.7 Waiver of Claims. ***Submission of an Application for Final Payment by the Contractor*** constitutes a waiver of all claims and liens by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for Final Payment.

12.3.8 Effect on Warranty. Regardless of approval and issuance of Final Payment, the Contract is not deemed fully performed by the Contractor and closed until the expiration of all warranty periods.

Article 13. Warranty & Guarantee

13.1. Contractor's General Warranty and Guarantee. Contractor warrants to the Owner that all Work is executed in accordance with the Contract, complete in all parts and in accordance with approved practices and customs, and of the best finish and workmanship. The Contractor further warrants that unless otherwise specified, all materials and equipment incorporated in the Work under the Contract are new. The Owner may, at its option, agree in writing to waive any failure of the Work to conform to the Contract, and to accept a reduction in the Contract Price for the cost of repair or diminution in value of the Work by reason of such defect. Absent such a written agreement, the Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute and is not waived by any inspection or observation by the Owner, Architect/Engineer or others, by making any progress payment or final payment, by the use or occupancy of the Work or any portion thereof by the Owner, at any time, or by any repair or correction of such defect made by the Owner.

13.2. Warranty Period. Except as may be otherwise specified or agreed, the Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Work. ***If less than all of the Work is accepted as substantially complete (Partial Substantial Completion), the warranty period for the Work accepted begins on the date of Partial Substantial Completion, or as otherwise stipulated on the Certificate of Partial Substantial Completion for the Work.***

13.3. Limits on Warranty. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

13.3.1 Modification or improper maintenance or operation by persons other than Contractor, Subcontractors, or any other individual or entity for whom Contractor is not responsible, unless Owner is compelled to undertake maintenance or operation due to the neglect of the Contractor.

13.3.2 Normal wear and tear under normal usage after acceptance of the Work by the Owner.

13.4 Events Not Affecting Warranty. Contractor's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

13.4.1 Observations by Owner and/or AE.

13.4.2 Recommendation to pay any progress or final payment by AE.

13.4.3 The issuance of a certificate of Substantial Completion or any payment by Owner to Contractor under the Contract Documents.

13.4.4 Use or occupancy of the Work or any part thereof by Owner.

13.4.5 Any acceptance by Owner or any failure to do so.

13.4.6 Any review of a Shop Drawing or sample submittal; or

13.4.7 Any inspection, test or approval by others.

13.5 Separate Warranties. If a particular piece of equipment or component of the Work for which the contract requires a separate warranty is placed in continuous service before Substantial Completion, the Warranty Period for that equipment or component will not begin until Substantial Completion, regardless of any warranty agreements in place between suppliers and/or Subcontractors and the Contractor. The ODR will certify the date of service commencement in the Substantial Completion Certificate.

13.5.1 In addition to the Contractor's warranty and duty to repair, the Contractor expressly assumes all warranty obligations required under the Contract for specific building components, s and equipment.

13.5.2 The Contractor may satisfy any such obligation by obtaining and assigning to the Owner a complying warranty from a manufacturer, supplier, or Subcontractor. Where an assigned warranty is tendered and accepted by the Owner which does not fully comply with the requirements of the Contract, the Contractor remains liable to the Owner on all elements of the required warranty not provided by the assigned warranty.

13.6 Correction of Defects. Upon receipt of written notice from the Owner, or any agent of the Owner designated as responsible for management of the Warranty Period, of the discovery of a defect, the Contractor shall promptly remedy the defect(s), and provide written notice to the Owner and designated agent indicating action taken. In case of emergency where delay would cause serious risk of loss or damage to the Owner, or if the Contractor fails to remedy within 30 days, or within another period agreed to in writing, the Owner may correct the defect and be reimbursed the cost of remedying the defect from the Contractor or its Surety.

13.7 Certification of No Asbestos Containing Materials or Work. The Contractor shall ensure compliance with the Asbestos Hazard Emergency Response Act (AHERA- 40 CFR 763-99 (7)) from all Subcontractors and materials suppliers, and shall provide a notarized certification to the Owner that all equipment and materials used in fulfillment of their contract responsibilities are non-asbestos Containing building Materials (ACBM). This certification must be provided no later than the Contractor's application for Final Payment.

Article 14. Suspension and Termination

14.1. Suspension of Work for Cause. The Owner may, at any time without prior notice, suspend all or any part of the Work if the Owner determines it is necessary to do so to prevent or correct any condition of the Work which constitutes an immediate safety hazard or which may reasonably be expected to impair the integrity, usefulness or longevity of the Work when completed.

14.1.1 The Owner will give the Contractor a written notice of suspension for cause, setting forth the reason for the suspension and identifying the Work suspended. Upon receipt of the notice, the Contractor shall immediately cease all activities related to the identified Work. As soon as practicable following the issuance of a suspension notice, the Owner will conduct an investigation into the circumstances giving rise to the suspension, and issue a written determination of the findings.

14.1.2 If the cause of the suspension is due to actions or omissions within the control of the Contractor, the Contractor will not be entitled to an extension of time for delay resulting from the suspension. If the cause of the suspension is something not within the control of the Contractor and the suspension will prevent the Contractor from completing the Work within the Contract Time, the suspension is an Excusable Delay and a Time Extension will be granted through a Change Order.

14.1.3 Suspension of work under this provision will be no longer than is reasonably necessary to remedy the conditions giving rise to the suspension.

14.2. Suspension of Work for Owner's Convenience. Upon seven (7) calendar days written notice to the Contractor, the Owner may at any time without breach of the Contract suspend all or any portion of the Work for its own convenience. Upon resumption of the Work, if the suspension prevents the Contractor from completing the Work within the Contract Time, it is an Excusable Delay. A notice of suspension for convenience may be modified by the Owner at any time on seven (7) calendar days written to the Contractor. If the Owner suspends the work for its inconvenience for more than 60 consecutive calendar days the Contractor may elect to terminate the contract pursuant to the provisions of the contract.

14.3. Termination by Owner for Cause

14.3.1 ***Upon thirty (30) days written notice to the Contractor and its Surety,*** the Owner may, without prejudice to any right or remedy, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, under any of the following circumstances:

14.3.1.1 Persistent or repeated failure or refusal, except during complete or partial suspensions of work authorized under the Contract, to supply enough properly skilled workmen or proper materials; and/or

14.3.1.2 Persistent disregard of laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, including the ODR; and/or

14.3.1.3 Persistent failure to prosecute the work in accordance with the Contract, and to insure its completion within the time, or any approved extension thereof, specified in this Contract; and/or

14.3.1.4 Failure to remedy defective work condemned by the ODR; and/or

- 14.3.1.5 Failure to pay Subcontractors, laborers, and material suppliers pursuant to Tex. Gov't Code Chapter 2251; and/or
- 14.3.1.6 Persistent endangerment to the safety of labor or of the Work; and/or
- 14.3.1.7 Failure to supply or maintain statutory bonds or to maintain required insurance, pursuant to the contract; and/or
- 14.3.1.8 Any material breach of the Contract; and/or
- 14.3.1.9 The Contractor's insolvency, bankruptcy, or demonstrated financial inability to perform the work.

14.3.2 Failure by the Owner to exercise the right to terminate in any instance is not a waiver of the right to do so in any other instance.

14.3.3 Upon receipt of a termination notice, the Contractor or its Surety has thirty days to cure the reasons for the termination or demonstrate to the satisfaction of the Owner that it is prepared to remedy to the condition(s) upon which the notice of termination was based. If the Owner is satisfied that the Contractor or its Surety can remedy the reasons for the termination and complete the Work as required, the notice of termination shall be rescinded in writing by the Owner and the Work shall continue without an extension of time.

14.3.4 If at the conclusion of the thirty day cure period the Contractor or its Surety is unable to demonstrate to the satisfaction of the Owner its ability to remedy the reasons for termination, the Owner may **immediately terminate the employment of the Contractor**, make alternative arrangements for completion of the Work and deduct the cost of completion from the unpaid Contract Sum.

- 14.3.4.1 Recoverable costs include additional Owner expenses for items such as AE services, other consultants, and contract administration.

14.3.5 The Owner will make no further payment to the Contractor or its Surety until all costs of completing the Work are paid. If the unpaid balance of the Contract Sum exceeds the costs of administering and finishing the Work, the Contractor will receive the excess funds. If costs of completing the Work exceed the unpaid balance, the Contractor or its Surety will pay the difference to the Owner.

- 14.3.5.1 This obligation for payment survives the termination of the Contract.

14.3.6 The owner reserves the right in termination for cause to take assignment of all contracts between the Contractor and its Subcontractors, vendors and suppliers. The ODR will promptly notify the Contractor of the contracts the Owner elects to assume. Upon receipt of such notice, the Contractor shall promptly take all steps necessary to effect such assignment.

14.4 Termination for Convenience of Owner. Upon written notice to the Contractor and the AE, the Owner may, without breach, terminate the Contract for any reason.

14.4.1 The notice will specify the reason for and the effective date of contract termination. The notice may also contain instructions necessary for the protection, storage or decommissioning of incomplete work or s, and for safety.

14.4.2 Upon receipt of the notice of termination, the Contractor shall immediately proceed with the following obligations:

- 14.4.2.1 Stop all work.
- 14.4.2.2 Place no further subcontracts or orders for materials or services.

- 14.4.2.3 Terminate all subcontracts.
- 14.4.2.4 Cancel all materials and equipment orders as applicable.
- 14.4.2.5 Take appropriate action to protect and preserve all property related to this Contract which is in the possession of the Contractor.

14.4.3 When the Contract is terminated for the Owner's convenience, the Contractor may recover from the Owner payment for all Work executed ***before the notice of termination along with the actual and reasonable cost of any additional work required to secure the project and property related to the Contract following the notice of termination. The Contractor will not be entitled to recover any other costs or damages arising from the termination for convenience of the Owner including, but not limited to, claims for lost profits or lost business opportunities.***

14.5 Termination By Contractor. If the Work is stopped for a period of ninety (90) days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, then the Contractor may, upon thirty (30) additional days written notice to the ODR, terminate the Contract and recover from the Owner payment for all Work executed ***before the work stoppage and the actual and reasonable cost of securing the project and property related to the Contract during the work stoppage. The Contractor will not be entitled to recover any other costs or damages arising from the work stoppage including, but not limited to, claims for lost profits or lost business opportunities.*** If the cause of the work stoppage is removed prior to the end of the thirty (30) day notice period, the Contractor may not terminate the Contract.

14.6 Settlement on Termination. Within 180 days of the effective date of Contract termination for any reason, the Contractor shall submit a final termination settlement proposal to the Owner based upon recoverable costs as provided under the contract. If the Contractor fails to submit a settlement proposal within the time allowed, the Owner may ***unilaterally*** determine the amount due to the Contractor because of the termination.

Article 15. Dispute Resolution

15.1 Unresolved Contractor Disputes. The dispute resolution process provided for in Tex. Gov't Code, Chapter 2260, shall be used by the Owner and the Contractor to attempt to resolve any claim for breach of contract made by the Contractor, that is not resolved under procedures described throughout the Uniform General Conditions, Supplemental Conditions, or Special Conditions of the Contract.

15.2 Alternative Dispute Resolution Process. The Owner may establish a dispute resolution process to be utilized in advance of that outlined in Tex. Gov't Code, Chapter 2260.

15.3 Before submitting any matter not resolved in the ordinary course of business to the dispute resolution process provided for in Tex. Gov't Code, Chapter 2260, the Contractor shall make a written request to the Owner's designated official in charge of construction contract administration for a determination of the matter in dispute. The written request shall clearly state the disputed issue and include or incorporate by specific reference all information or documents that the Contractor wants the official to consider in reaching his/her determination. The official shall issue a written notice of decision on the request. Within 30 days of the notice of decision, the Contractor may submit a request for reconsideration to the official that particularly states the factual and legal basis for the Contractor's objections to the

official's decision. The official will review his/her decision and consider the basis for reconsideration asserted in the request. The official will issue a written notice of decision following reconsideration which shall be final and conclusive on all matters except for claims of breach of contract which are then subject to the dispute resolution process provide by Chapter 2260.

15.4 ***Nothing herein shall hinder, prevent or be construed as a waiver of Owner's right to seek redress on any disputed matter in a court of competent jurisdiction.***

15.5 ***Nothing herein shall waive or be construed as a waiver of the state's sovereign immunity.***

Article 16. Miscellaneous

16.1. Supplemental and Special Conditions. When the Work contemplated by the Owner is of such a character that the foregoing Uniform General Conditions of the Contract cannot adequately cover necessary and additional contractual relationships, the Contract may include Supplemental and Special Conditions as described below:

16.1.1 Supplemental Conditions may describe the standard procedures and requirements of contract administration followed by a contracting agency of the State. Supplemental Conditions may expand upon matters covered by the Uniform General Conditions, where necessary, provided the expansion does not weaken the character or intent of the Uniform General Conditions. Supplemental Conditions are of such a character that it is to be anticipated that a contracting agency of the State will normally use the same, or similar, conditions to supplement each of its several projects.

16.1.2 Special Conditions shall relate to a particular project and be peculiar to that project but shall not weaken the character or intent of the Uniform General Conditions.

16.2. Federally Funded Projects. On Federally funded projects, the Owner may waive, suspend or modify any Article in these Uniform General Conditions which conflicts with any Federal statute, rule, regulation or procedure, where such waiver, suspension or modification is essential to receipt by the Owner of such Federal funds for the project. In the case of any project wholly financed by Federal funds, any standards required by the enabling Federal statute, or any Federal rules, regulations or procedures adopted pursuant thereto, shall be controlling.

16.3. Internet-based Project Management s. At its option, the Owner may administer its design and construction management through an Internet-based management. In such cases, the Contractor shall conduct communication through this media and perform all project related functions utilizing this database. This includes correspondence, submittals, requests for information, vouchers or payment requests and processing, amendment, change orders and other administrative activities.

16.3.1 Accessibility And Administration.

16.3.1.1 When used, the Owner will make the software accessible via the Internet to all project team members.

16.3.1.2 The Owner shall administer the software.

16.3.2 Training. When used, the Owner shall provide training to the project team members.

End of Uniform General Conditions

ATTACHMENT NO. 14

Job Safety Analysis Part I Houston Community College 3100 Main / Roof Project

Provide and develop a Job safety Analysis (JSA) with Identification of all the procedural steps, the identification of the hazards, and finally the identification of the contingencies. Must identify team or individual who knows and understands the work being analyzed and someone who knows and understands the JSA technique.

An example of a JSA worksheet is listed below.

Procedure Step	Hazards	Contingencies/ Control Measures

To use this worksheet, complete the following steps:

1. Observe the task or work being done.
2. Break down the task or work into steps. The procedure steps should be clear and understandable with enough detail so that the team can identify the hazards and contingencies/ control measures.
3. For each step, list the hazards in that step. The hazards should include both behaviors and conditions; and both existing and potential hazards.
4. These are examples of hazards and types of accidents that can happen.
 - a. Acceleration (going too slow or too fast);
 - b. Toxic;
 - c. Ergonomic hazards (high frequency, high duration, high force, posture, point of operation, mechanical pressure, vibration, environmental exposure);
 - d. Mechanical;
 - e. Flammability/ fire;
 - f. Biological;
 - g. Workplace violence;
 - h. Explosives;
 - i. Electrical;
 - j. Chemical reactions; struck-by;
 - k. Struck-by
 - l. Struck-against;
 - m. Contact-by;
 - n. Contact-with;
 - o. Caught-in;
 - p. Caught-by;
 - q. Caught-between;
 - r. Fall-to-surface;
 - s. Fall-below;
 - t. Over exertion;
 - u. Bodily reaction;
 - v. Over exposure.

5. List the contingencies and control measures for each identified hazard. The contingencies or recommendations should be developed in sequence, be specific, and should be reviewed by a person knowledgeable about Company and Governmental requirements. Contingencies are alternate ways of doing the task step that avoid the hazard. Control measures are additional things done to compensate for the hazard. Control measure solutions should follow the Hierarchy of Control by implementing, in order:
 - a. Engineering Controls. These include substitution of chemicals or equipment, isolation of the hazard, ventilation, and equipment modification. Engineering Controls focus on eliminating the hazard all together and focus on the source of the hazard.
 - b. Administrative Controls. These include reducing a person's exposure to a hazard by limiting time exposed, changing work procedures, or improving cleanliness practices. Administrative Controls are heavily dependent upon the employee's compliance.
 - c. Personal Protective Equipment. These include requiring protective equipment when Engineering and Administrative Controls cannot sufficiently reduce the exposure to a hazard. Personal Protective Equipment is almost always used in combination with one, or both, of the other types of controls.

Once the worksheet is completed, an operating procedure should be developed using the appropriate steps from the JSA. Please see the next page for a printable JSA worksheet.

ATTACHMENT NO. 14
 Part 2
Houston Community College
 3100 Main / Roof Project
JOB SAFETY ANALYSIS

Company Name: _____

Job Description: _____

Procedure Step	Hazards	Contingencies/ Control Measures

 Roofing Contractor (Owner) Estimator *(Print Name)*

 Roofing Contractor (Owner) Estimator *Signature*

 Date

ATTACHMENT NO. 15

DRAWINGS

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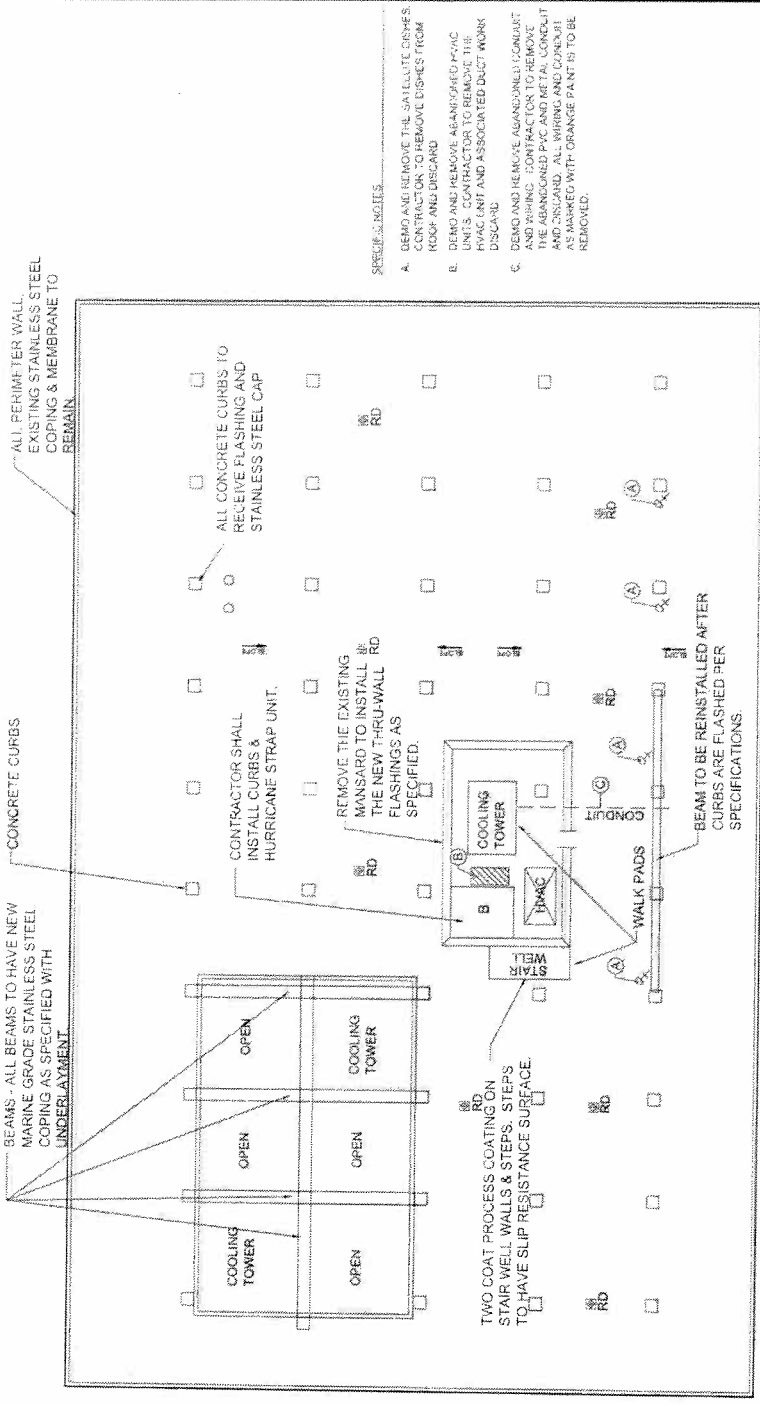


Copyright 2011 by Armko Industries
 but may not be all inclusive
 those shown are typical
 penetrations, curbs, etc
 substrates, dimensions,
 Contractor shall verify all

PROJECT NO. 20120917-41
 DATE: 06/20/2012
 DRAWN BY: R/WJA

PROJECT FOR
 HOUSTON COMMUNITY COLLEGE SYSTEM
 3100 MAIN BUILDING
 HOUSTON, TX

A1.01
 OF
 1



SPECIFIC NOTES:
 A. DEMO AND REMOVE THE GATELITE DISHES. CONTRACTOR TO REMOVE DISHES FROM ROOF AND DISCARD
 B. DEMO AND REMOVE ABOVE MENTIONED HVAC UNITS. CONTRACTOR TO REMOVE THE HVAC UNIT AND ASSOCIATED DUCT WORK DISCARD
 C. DEMO AND REMOVE ABOVE MENTIONED CONDUIT AND WIRING. CONTRACTOR TO REMOVE THE ABOVE MENTIONED PVC AND METAL CONDUIT AND DISCARD. ALL WIRING AND CONDUIT TO BE REMOVED WITH ORANGE PAINT IS TO BE REMOVED.

ROOFING NOTES

1. ALL CONCRETE CURBS TO RECEIVE STAINLESS STEEL COPING CAP & COUNTER FLASHING
2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK
3. ROOF SLOPES SHOWN ON DRAWING ARE GENERAL AND CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO ALL ROOF DRAINS VERIFY IN SHOP DRAWINGS
4. PROVIDE TAPERED INSULATION CRIGGERS (3/8" FT MIN SLOPE) AT ALL ROOF DRAIN PENETRATIONS TO DRIP WATER AROUND & TO ENSURE POSITIVE ROOF DRAINAGE.
5. RECENTLY LIGHTNING PROTECTION.
6. CONTRACTOR TO INSTALL 1" PER FOOT SLOPE TAPER INSULATION AS SPEC



1 ROOF PLAN
 NOT TO SCALE

EXISTING CONCRETE WALL

TERMINATION BAR AS SPEC.

REMOVE THE EXISTING
COUNTERFLASHING AND REPLACE
WITH MARINE GRADE STAINLESS
STEEL

NEW ROOF AS SPECIFIED

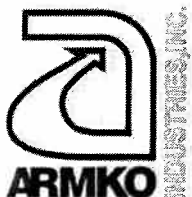
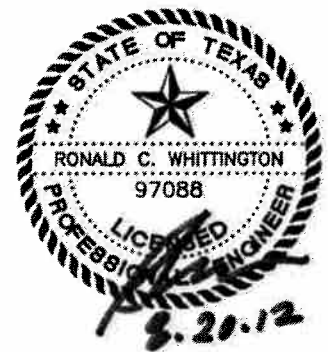
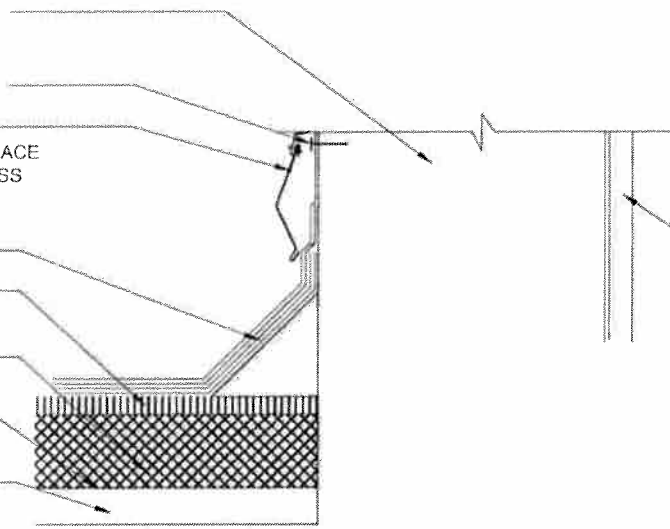
RECOVER BOARD
AS SPECIFIED

INSULATION
AS SPECIFIED

BASE SHEET
AS SPECIFIED

EXISTING CONCRETE DECK
SYSTEM

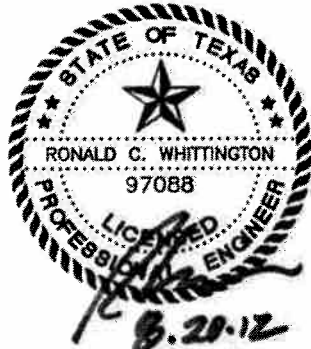
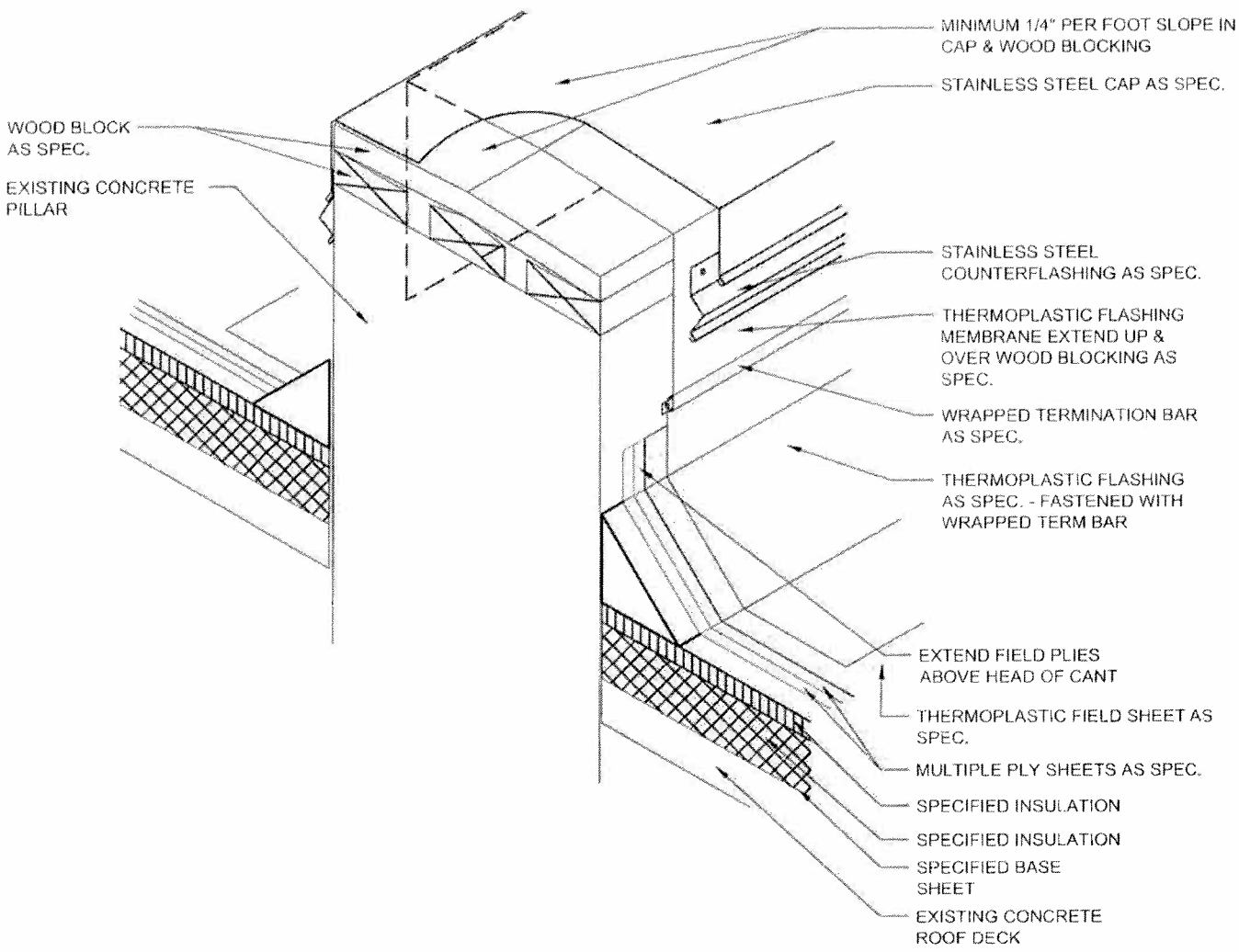
EXISTING GRANITE FACE



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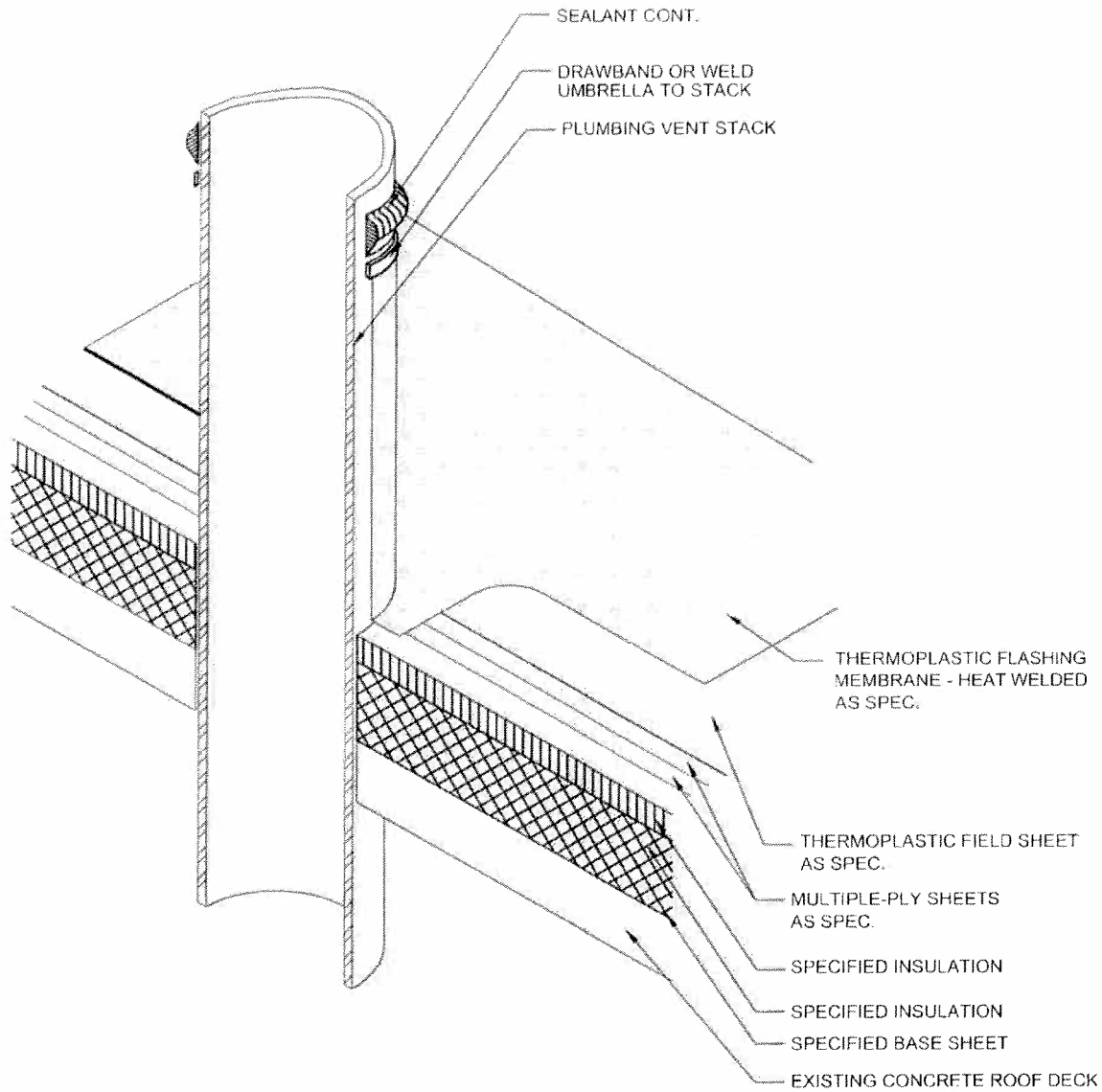
TEXAS REGISTERED ENGINEERING FIRM
F - 6496

PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.01 OF 8
DETAIL NAME: PARAPET FLASHING WALL		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA



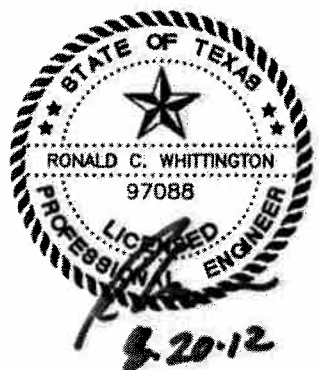
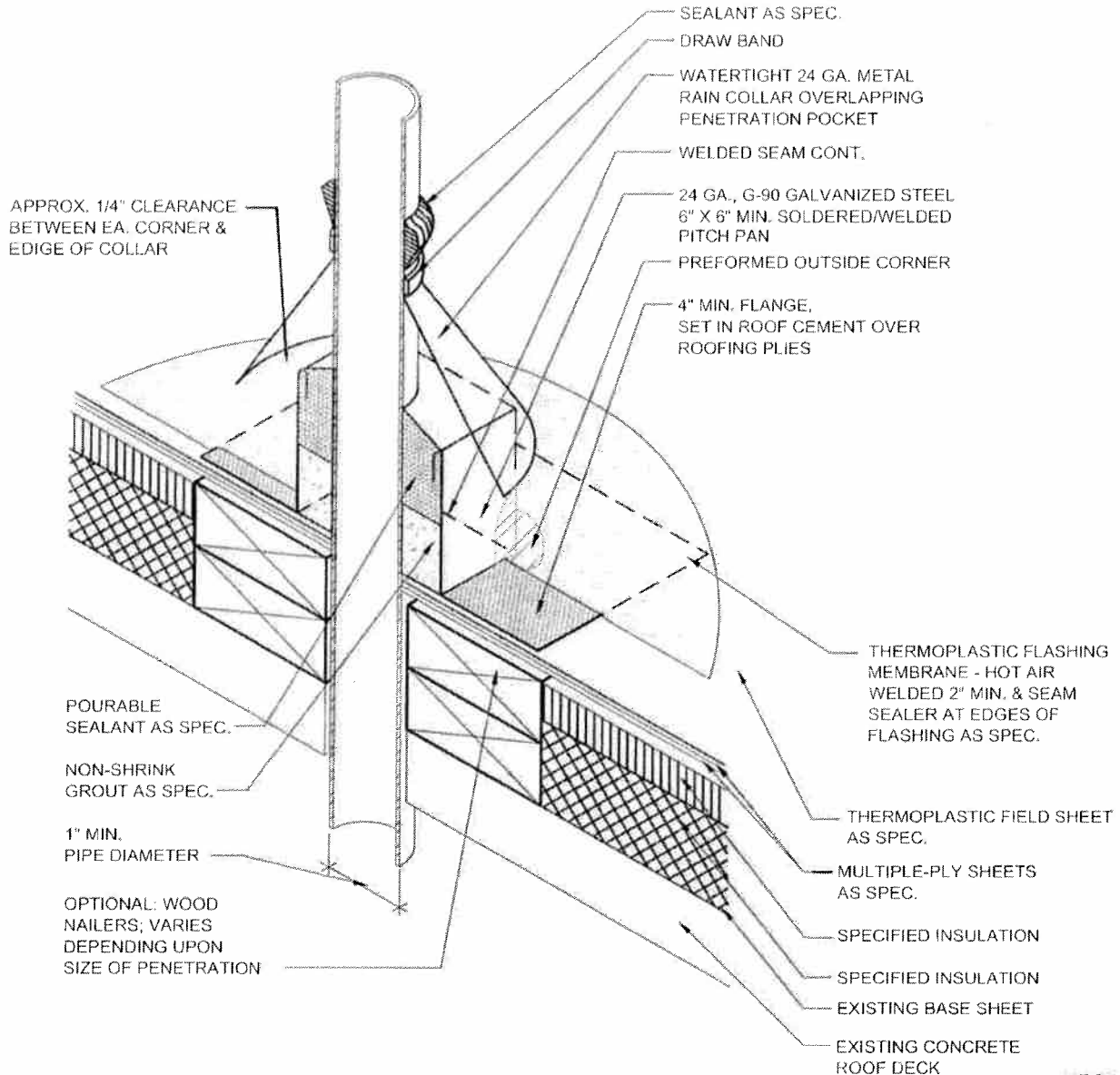
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 E - 6498

PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.02 OF 8
DETAIL NAME: CURB FLASHING DETAIL		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA



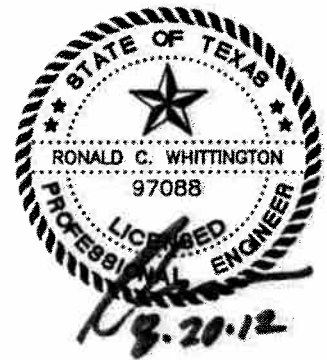
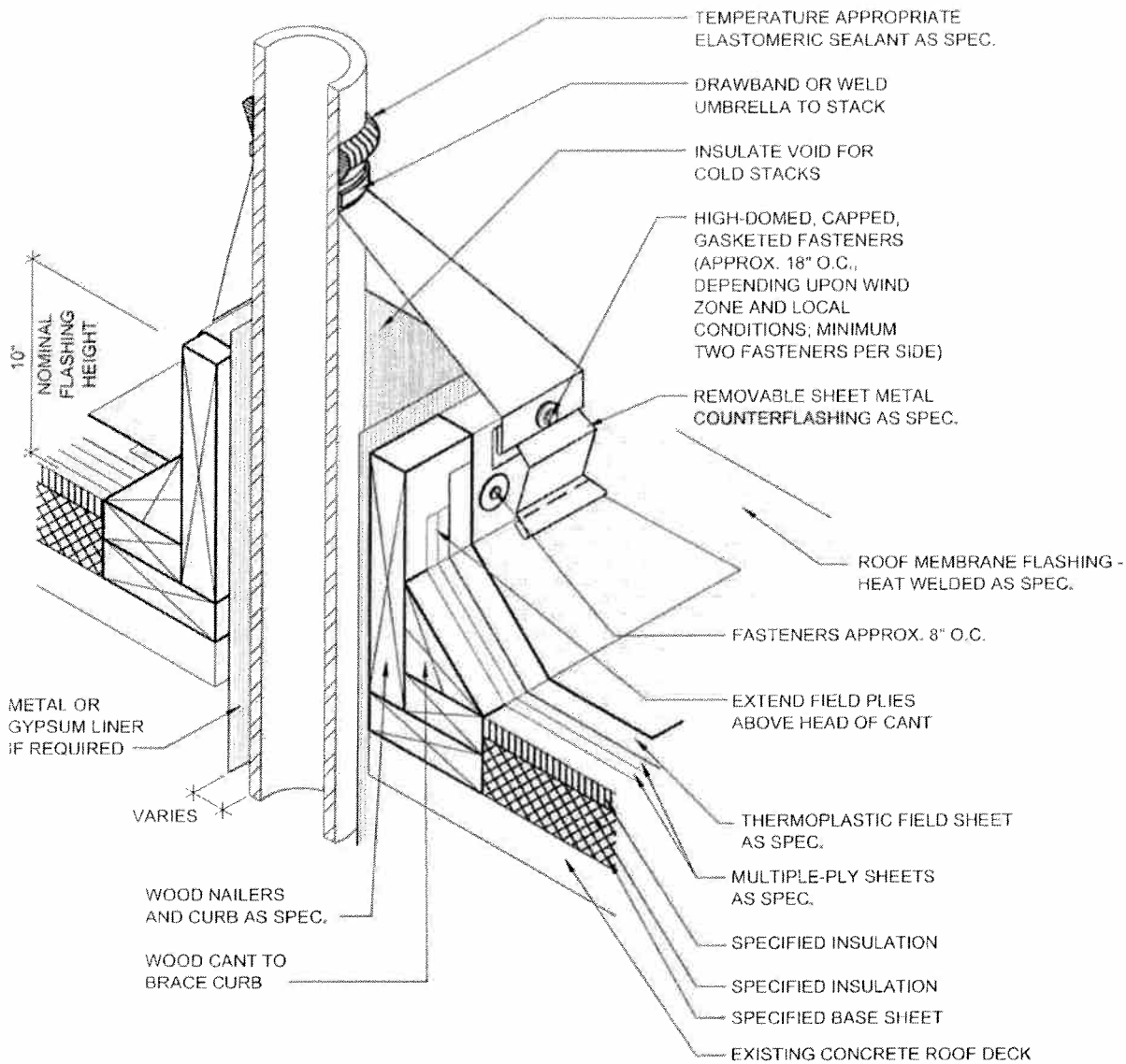
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PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.03 OF 8
DETAIL NAME: VENT STACK FLASHING		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA



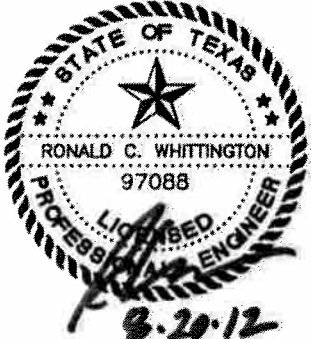
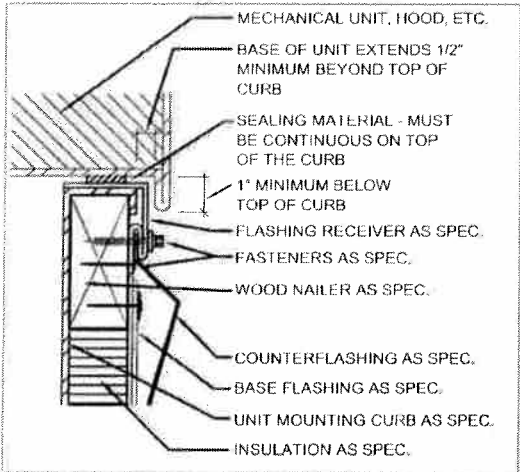
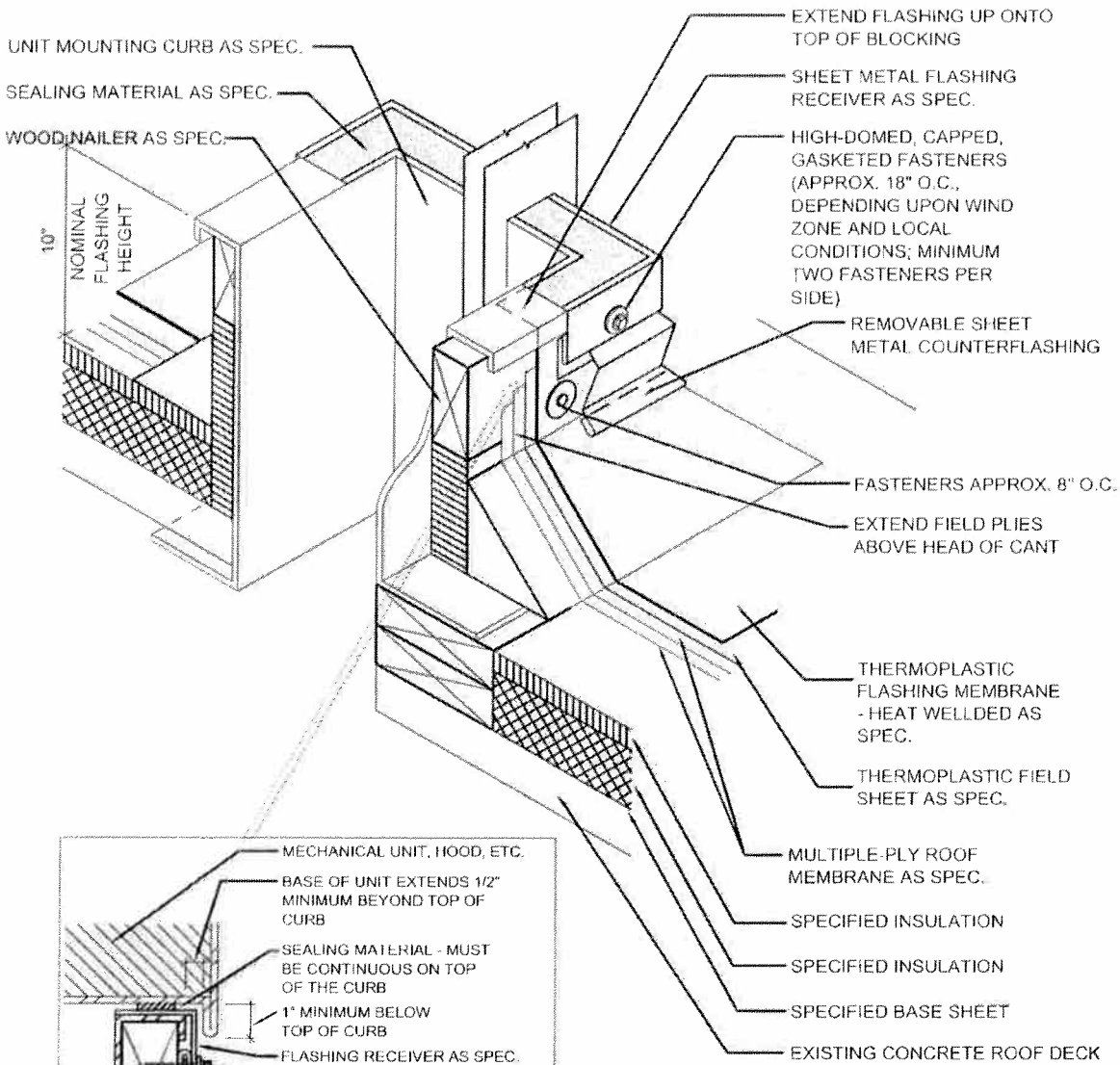
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PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.04 OF 8
DETAIL NAME: PITCH PAN FLASHING		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA



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PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.05 OF 8
DETAIL NAME: HOT STACK FLASHING		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA



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PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.06 OF 8
DETAIL NAME: CURB FLASHING		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA

TUBE STEEL

APPROX. 1/4" CLEARANCE
BETWEEN EA. CORNER &
EDGE OF COLLAR

POURABLE
SEALANT AS SPEC.

NON-SHRINK
GROUT AS SPEC.

NAILERS; VARIES
DEPENDING UPON
SIZE OF PENETRATION

SEALANT AS SPEC.

DRAW BAND

WATERTIGHT SHEET METAL
RAIN COLLAR OVERLAPPING
PENETRATION POCKET

SHEET METAL PITCH PAN,
SOLDERED/WELDED WATERTIGHT
(4" MIN. HEIGHT)

ROOF CEMENT OR SEALANT AT
PENETRATION TO MEMBRANE
JUNCTURE

4" MIN. FLANGE,
SET IN ROOF CEMENT OVER
CTEM FLASHING, PRIME FLANGE
BEFORE STRIPPING.

THERMOPLASTIC FLASHING
AS SPEC.

THERMOPLASTIC FIELD SHEET AS
SPEC.

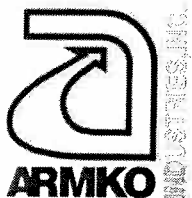
MULTIPLE-PLY SHEETS
AS SPEC.

SPECIFIED INSULATION

SPECIFIED INSULATION

SPECIFIED BASE SHEET

EXISTING CONCRETE
ROOF DECK



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PROJECT FOR:
HOUSTON COMMUNITY COLLEGE SYSTEM
3100 MAIN BLDG.
HOUSTON, TX

A2.07
OF
8

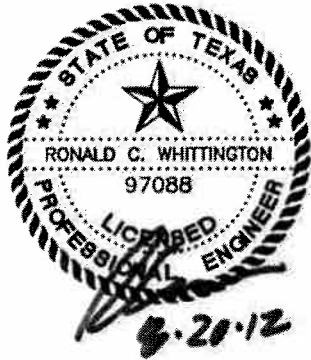
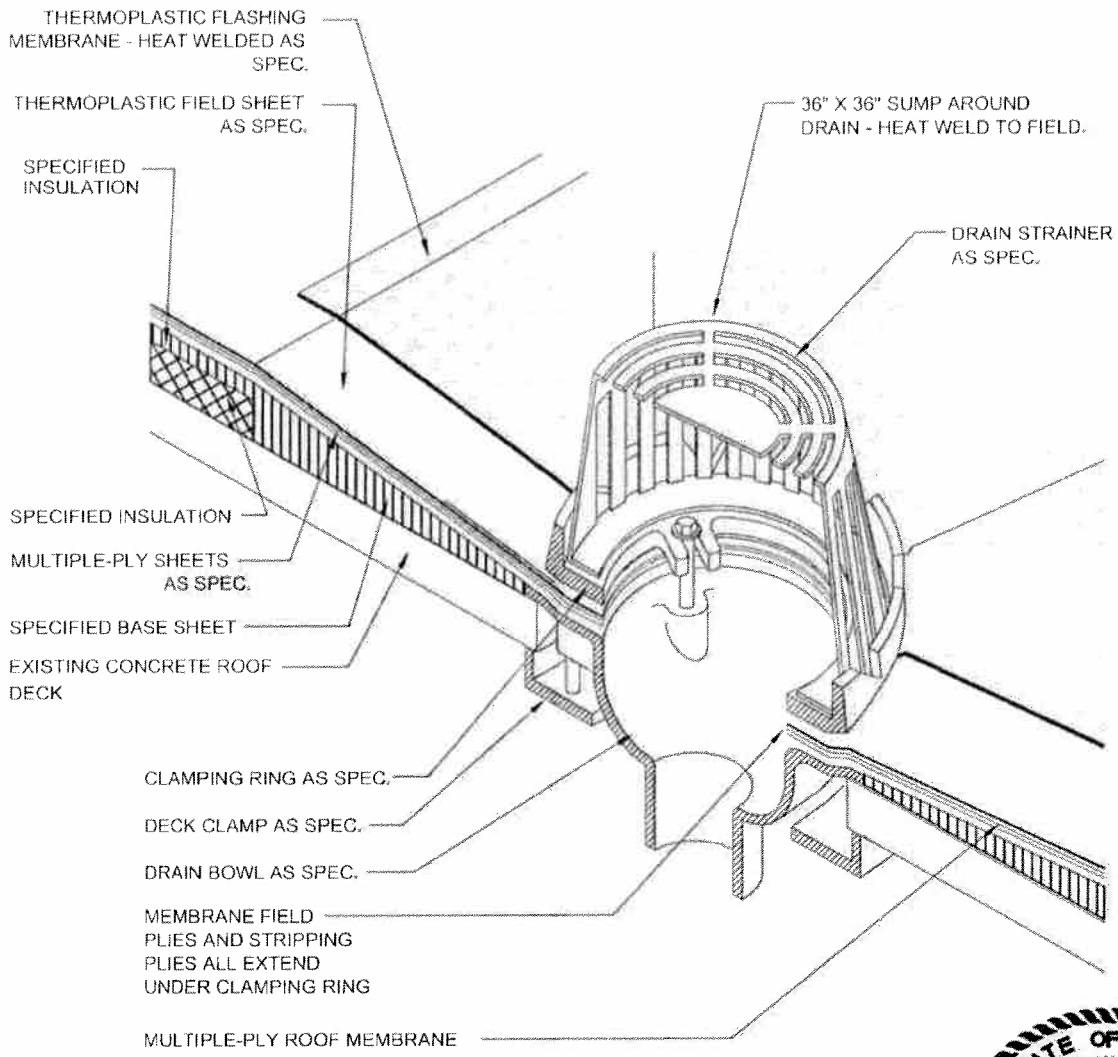
DETAIL NAME: TUBE STEEL PITCH PAN FLASHING

PROJECT NO: 20120817-41

SCALE : NOT TO SCALE

DATE: 08/20/12

DRAWN BY: RW/JA



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PROJECT FOR: HOUSTON COMMUNITY COLLEGE SYSTEM 3100 MAIN BLDG. HOUSTON, TX		A2.08 OF 8
DETAIL NAME: ROOF DRAIN DETAIL		
PROJECT NO: 20120817-41		
SCALE : NOT TO SCALE	DATE: 08/20/12	DRAWN BY: RW/JA