

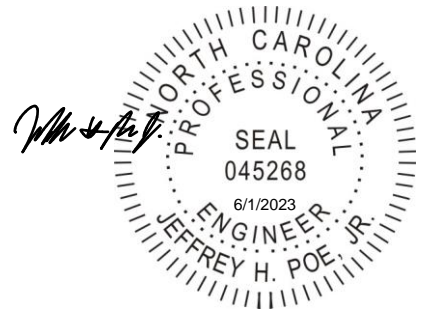


2701 Westport Road  
Charlotte, NC 28208

**P** (704) 509-1777  
**F** (704) 509-1888

**Terracon.com**

SPECIFICATIONS FOR  
HFR BUILDING  
65 WEST UNIVERSITY WAY  
CULLOWHEE, NORTH CAROLINA 28723  
ROOF REPLACEMENT PROJECT  
SCO ID NO. 22-24898-01A



Project No. FH226123

**PERMITTING/BIDDING  
NOT FOR CONSTRUCTION**

Explore with us



---

## NOTICE TO BIDDERS

Sealed proposals will be received by Western Carolina University, in the office of Western Carolina University Facilities Management, 3476 Old Cullowhee Road, Cullowhee, North Carolina 28723, Attn: Daniel Fiskeaux, up to 2:00 p.m. on June 28, 2023 and immediately thereafter publicly opened and read for the furnishing of labor, material and equipment entering into the construction of

HFR Building  
Roof Replacement Project  
Western Carolina University  
Cullowhee, North Carolina  
SCO ID #22-24898-01

Project consists of the low slope roof replacement of areas A, and A1 which generally consists of the complete removal of all existing roofing membrane, insulation, asbestos containing felt membrane and flashings, asphaltic/thermoset fill, flashings, metal wall panels, metal flashing, coping caps and the installation of a new PVC/KEE membrane, cover board, tapered (where indicated on plans) and base insulation, temporary roof membrane, gypsum underlayment, flashings, metal flashings, metal panels, coping caps, new drains, expanded existing overflow scuppers as indicated, and all associated miscellaneous work as specified herein.

Bids will be received for a Single Prime Contract. All proposals shall be lump sum.

### Non-Mandatory Pre-Bid Meeting

A Non-Mandatory Pre-Bid Meeting will be held for all interested bidders on June 13, 2023 at 2:00 p.m. at Facilities Management, 3476 Old Cullowhee Road, Cullowhee, NC 28723. The meeting will address project specific questions, issues, bidding procedures and bid forms.

Complete plans, specifications and contract documents will be open for inspection in the offices of Terracon Consultants, Inc., Western Carolina University and in the plan rooms of the Associated General Contractors, Carolinas Branch ([projectinquiries@isqft.com](mailto:projectinquiries@isqft.com)), in the local North Carolina offices of McGraw-Hill Dodge Corporation ([www.constructconnect.com](http://www.constructconnect.com)), and in Minority Plan Rooms in

NCIMED Plan & Resource Center, 114 West Parrish Street, 6<sup>th</sup> Floor, Durham, NC 27701,  
919-956-8889 or 919-287-3036 ([info@TheInstituteNC.org](mailto:info@TheInstituteNC.org))

or may be obtained by those qualified as prime bidders, upon deposit of Fifty Dollars (\$50.00) in cash or certified check. The full plan deposit will be returned to those bidders provided all documents are returned in good, usable condition within ten (10) days after the bid date. Electronic version can be emailed at no expense. Contact: [Vicky.neal@terracon.com](mailto:Vicky.neal@terracon.com)

If a contractor is bidding under the dual system both as a single prime contractor and as a separate prime contractor, he must submit the bids on separate forms and in separate envelopes. Bidders should clearly indicate on the outside of the bid envelope which contract(s) they are bidding.

NOTE: The bidder shall include with the bid proposal the form *Identification of Minority Business Participation* identifying the minority business participation it will use on the project and shall include either *Affidavit A* or *Affidavit B* as applicable. Forms and instructions are included within the Proposal Form in the bid documents. Failure to complete these forms is grounds for rejection of the bid. (GS143-128.2c Effective 1/1/2002.)

All contractors are hereby notified that they must have proper license as required under the state laws governing their respective trades.

General contractors are notified that Chapter 87, Article 1, General Statutes of North Carolina, will be observed in receiving and awarding general contracts. General contractors submitting bids on this project must have license classification for Building Contractor.

NOTE--SINGLE PRIME CONTRACTS: Under GS 87-1, a contractor that superintends or manages construction of any building, highway, public utility, grading, structure or improvement shall be deemed a "general contractor" and shall be so licensed. Therefore, a single prime project that involves other trades will require the single prime contractor to hold a proper General Contractors license. **EXCEPT:** On public buildings being bid single prime, where the total value of the general construction does not exceed 25% of the total construction value, contractors under GS87- Arts 2 and 4 (Plumbing, Mechanical & Electrical) may bid and contract directly with the Owner as the SINGLE PRIME CONTRACTOR and may subcontract to other properly licensed trades. [GS87-1.1- Rules .0210](#)

Plumbing, Mechanical and Electrical prime contractors are notified that General Statutes Chapter 87, Articles 2 & 4, will be observed in receiving and awarding plumbing, mechanical and electrical contracts.

Each proposal shall be accompanied by a cash deposit or a certified check drawn on some bank or trust company, insured by the Federal Deposit Insurance Corporation, of an amount equal to not less than five percent (5%) of the proposal, or in lieu thereof a bidder may offer a bid bond of five percent (5%) of the bid executed by a surety company licensed under the laws of North Carolina to execute the contract in accordance with the bid bond. Said deposit shall be retained by the owner as liquidated damages in event of failure of the successful bidder to execute the contract within ten days after the award or to give satisfactory surety as required by law.

A performance bond and a payment bond will be required for one hundred percent (100%) of the contract price.

Payment will be made based on ninety-five percent (95%) of monthly estimates and final payment made upon completion and acceptance of work.

No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of 30 days.

The owner reserves the right to reject any or all bids and to waive informalities.

Designer:

Terracon Consultants, Inc.  
2701 Westport Road  
Charlotte, NC 28208  
704 -509-1777

Owner:

Western Carolina University  
Attention:  
3476 Old Cullowhee Road  
Cullowhee, NC 28723

TABLE OF CONTENTS

<u>Section</u>	<u>Pages</u>
ADVERTISEMENT	1
NOTICE TO BIDDERS	3
TABLE OF CONTENTS	1
GENERAL CONDITIONS / INSTRUCTIONS TO BIDDERS	45
GUIDELINES FOR RECRUITMENT OF MINORITY BUSINESSES	8
SUPPLEMENTARY CONDITIONS OF THE CONTRACT	6
SECTION 011000 – GENERAL SUMMARY	4
SECTION 012100 – ALLOWANCES	2
SECTION 012300 – ALTERNATES	1
SECTION 012700 – UNIT PRICES	2
SECTION 012900 – PAYMENT PROCEDURES	3
SECTION 013300 – SUBMITTAL PROCEDURES	5
SECTION 014000 – QUALITY REQUIREMENTS	4
SECTION 015000 – TEMPORARY FACILITIES, CONTROLS AND PROTECTION	4
SECTION 017320 – SELECTIVE DEMOLITION	1
SECTION 017330 – ASBESTOS PRODUCTS	2
ASBESTOS REPORT	8
SECTION 017700 – CLOSEOUT PROCEDURES	5
SECTION 061000 – ROUGH CARPENTRY	2
SECTION 070000 – ROOFING PREPARATION	4
SECTION 074213 – FORMED METAL WALL PANELS	6
SECTION 074500 – THERMOPLASTIC MEMBRANE ROOFING	11
SECTION 076200 – SHEET METAL FLASHING AND TRIM	5
FORMS	
FORM OF PROPOSAL	
IDENTIFICATION OF HUB CERTIFIED/MINORITY BUSINESS PARTICIPATION	1
AFFIDAVIT A	1
AFFIDAVIT B	1
AFFIDAVIT C	1
AFFIDAVIT D	2
FORM OF BID BOND	1
FORM OF CONSTRUCTION CONTRACT	
FORM OF PERFORMANCE BOND	2
FORM OF PAYMENT BOND	2
SHEET FOR ATTACHING POWER OF ATTORNEY	1
SHEET FOR ATTACHING INSURANCE CERTIFICATES	1
APPROVAL OF THE ATTORNEY GENERAL	1
CERTIFICATION BY THE OFFICE OF STATE BUDGET AND MANAGEMENT	1
DRAWINGS:	
G-101: Cover Sheet	
G-102: Code Sheet	
G-103: Site Plan	
G-104: Wind Uplift and Drain Diameter Plan	
A-101: Roof Plan	
A-501 – A-505: Details	

**INSTRUCTIONS TO BIDDERS  
AND  
GENERAL CONDITIONS OF THE CONTRACT**

**STANDARD FORM FOR CONSTRUCTION PROJECTS**

**STATE CONSTRUCTION OFFICE  
NORTH CAROLINA  
DEPARTMENT OF ADMINISTRATION**

**Form OC-15**

**This document is intended for use on State capital construction projects and shall not be used on any project that is not reviewed and approved by the State Construction Office. Extensive modification to the General Conditions by means of “Supplementary General Conditions” is strongly discouraged. State agencies and institutions may include special requirements in “Division 1 – General Requirements” of the specifications, where they do not conflict with the General Conditions.**

**Twenty Fourth Edition January 2013**

## **INSTRUCTIONS TO BIDDERS**

**For a proposal to be considered it must be in accordance with the following instructions:**

### **1. PROPOSALS**

Proposals must be made in strict accordance with the Form of Proposal provided therefor, and all blank spaces for bids, alternates, and unit prices applicable to bidder's work shall be properly filled in. When requested alternates are not bid, the proposer shall so indicate by the words "No Bid". Any blanks shall also be interpreted as "No Bid". The bidder agrees that bid on Form of Proposal detached from specifications will be considered and will have the same force and effect as if attached thereto. Photocopied or faxed proposals will not be considered. Numbers shall be stated both in writing and in figures for the base bids and alternates. If figures and writing differ, the written number will supersede the figures.

Any modifications to the Form of Proposal (including alternates and/or unit prices) will disqualify the bid and may cause the bid to be rejected.

The bidder shall fill in the Form of Proposal as follows:

- a. If the documents are executed by a sole owner, that fact shall be evidenced by the word "Owner" appearing after the name of the person executing them.
- b. If the documents are executed by a partnership, that fact shall be evidenced by the word "Co-Partner" appearing after the name of the partner executing them.
- c. If the documents are executed on the part of a corporation, they shall be executed by either the president or the vice president and attested by the secretary or assistant secretary in either case, and the title of the office of such persons shall appear after their signatures. The seal of the corporation shall be impressed on each signature page of the documents.
- d. If the proposal is made by a joint venture, it shall be executed by each member of the joint venture in the above form for sole owner, partnership or corporation, whichever form is applicable.
- e. All signatures shall be properly witnessed.
- f. If the contractor's license of a bidder is held by a person other than an owner, partner or officer of a firm, then the licensee shall also sign and be a party to the proposal. The title "Licensee" shall appear under his/her signature.

Proposals should be addressed as indicated in the Advertisement for Bids and be delivered, enclosed in an opaque sealed envelope, marked "Proposal" and bearing the title of the work, name of the bidder, and the contractor's license number of the bidder. Bidders should clearly mark on the outside of the bid envelope which contract(s) they are bidding.

Bidder shall identify on the bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts or an affidavit indicating work under contract will be self-performed, as required by G.S. 143-128.2(c) and G.S. 143-128.2(f). Failure to comply with these requirements is grounds for rejection of the bid.

For projects bid in the single-prime alternative, the names and license numbers of major subcontractors shall be listed on the proposal form.

It shall be the specific responsibility of the bidder to deliver his bid to the proper official at the selected place and prior to the announced time for the opening of bids. Later delivery of a bid for any reason, including delivery by any delivery service, shall disqualify the bid.

Unit prices quoted in the proposal shall include overhead and profit and shall be the full compensation for the contractor's cost involved in the work. See General Conditions, Article 19c-1.

## **2. EXAMINATION OF CONDITIONS**

It is understood and mutually agreed that by submitting a bid the bidder acknowledges that he has carefully examined all documents pertaining to the work, the location, accessibility and general character of the site of the work and all existing buildings and structures within and adjacent to the site, and has satisfied himself as to the nature of the work, the condition of existing buildings and structures, the conformation of the ground, the character, quality and quantity of the material to be encountered, the character of the equipment, machinery, plant and any other facilities needed preliminary to and during prosecution of the work, the general and local conditions, the construction hazards, and all other matters, including, but not limited to, the labor situation which can in any way affect the work under the contract, and including all safety measures required by the Occupational Safety and Health Act of 1970 and all rules and regulations issued pursuant thereto. It is further mutually agreed that by submitting a proposal the bidder acknowledges that he has satisfied himself as to the feasibility and meaning of the plans, drawings, specifications and other contract documents for the construction of the work and that he accepts all the terms, conditions and stipulations contained therein; and that he is prepared to work in cooperation with other contractors performing work on the site.

Reference is made to contract documents for the identification of those surveys and investigation reports of subsurface or latent physical conditions at the site or otherwise affecting performance of the work which have been relied upon by the designer in preparing the documents. The owner will make copies of all such surveys and reports available to the bidder upon request.

Each bidder may, at his own expense, make such additional surveys and investigations as he may deem necessary to determine his bid price for the performance of the work. Any on-site investigation shall be done at the convenience of the owner. Any reasonable request for access to the site will be honored by the owner.

## **3. BULLETINS AND ADDENDA**

Any addenda to specifications issued during the time of bidding are to be considered covered in the proposal and in closing a contract they will become a part thereof. It shall be the bidder's responsibility to ascertain prior to bid time the addenda issued and to see that his bid includes any changes thereby required.

Should the bidder find discrepancies in, or omission from, the drawings or documents or should he be in doubt as to their meaning, he shall at once notify the designer who will send written instructions in the form of addenda to all bidders. Notification should be no later than seven (7) days prior to the date set for receipt of bids. Neither the owner nor the designer will be responsible for any oral instructions.



All addenda should be acknowledged by the bidder(s) on the Form of Proposal. However, even if not acknowledged, by submitting a bid, the bidder has certified that he has reviewed all issued addenda and has included all costs associated within his bid.

#### **4. BID SECURITY**

Each proposal shall be accompanied by a cash deposit or a certified check drawn on some bank or trust company insured by the Federal Deposit Insurance Corporation, or a bid bond in an amount equal to not less than five percent (5%) of the proposal, said deposit to be retained by the owner as liquidated damages in event of failure of the successful bidder to execute the contract within ten (10) days after the award or to give satisfactory surety as required by law (G.S. 143-129).

Bid bond shall be conditioned that the surety will, upon demand, forthwith make payment to the obligee upon said bond if the bidder fails to execute the contract. The owner may retain bid securities of any bidder(s) who may have a reasonable chance of award of contract for the full duration of time stated in the Notice to Bidders. Other bid securities may be released sooner, at the discretion of the owner. All bid securities (cash or certified checks) shall be returned to the bidders promptly after award of contracts, and no later than seven (7) days after expiration of the holding period stated in the Notice to Bidders. Standard Form of Bid Bond is included in these specifications and shall be used.

#### **5. RECEIPT OF BIDS**

Bids shall be received in strict accordance with requirements of the General Statutes of North Carolina. Bid security shall be required as prescribed by statute. Prior to the closing of the bid, the bidder will be permitted to change or withdraw his bid. Guidelines for opening of public construction bids are available from the State Construction Office.

#### **6. OPENING OF BIDS**

Upon opening, all bids shall be read aloud. Once bidding is closed, there shall not be any withdrawal of bids by any bidder and no bids may be returned by the designer to any bidder. After the opening of bids, no bid may be withdrawn, except under the provisions of General Statute 143-129.1, for a period of thirty days unless otherwise specified. Should the successful bidder default and fail to execute a contract, the contract may be awarded to the next lowest and responsible bidder. The owner reserves the unqualified right to reject any and all bids. Reasons for rejection may include, but shall not be limited to, the following:

- a. If the Form of Proposal furnished to the bidder is not used or is altered.
- b. If the bidder fails to insert a price for all bid items, alternate and unit prices requested.
- c. If the bidder adds any provisions reserving the right to accept or reject any award.
- d. If there are unauthorized additions or conditional bids, or irregularities of any kind which tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
- e. If the bidder fails to complete the proposal form where information is requested so the bid may be properly evaluated by the owner.
- f. If the unit prices contained in the bid schedule are unacceptable to the owner and the State Construction Office.
- g. If the bidder fails to comply with other instructions stated herein.

## **7. BID EVALUATION**

The award of the contract will be made to the lowest responsible bidder as soon as practical. The owner may award on the basis of the base bid and any alternates the owner chooses.

Before awarding a contract, the owner may require the apparent low bidder to qualify himself to be a responsible bidder by furnishing any or all of the following data:

- a. The latest financial statement showing assets and liabilities of the company or other information satisfactory to the owner.
- b. A listing of completed projects of similar size.
- c. Permanent name and address of place of business.
- d. The number of regular employees of the organization and length of time the organization has been in business under present name.
- e. The name and home office address of the surety proposed and the name and address of the responsible local claim agent.
- f. The names of members of the firms who hold appropriate trade licenses, together with license numbers.
- g. If prequalified, contractor info will be reviewed and evaluated comparatively to submitted prequalification package.

Failure or refusal to furnish any of the above information, if requested, shall constitute a basis for disqualification of any bidder.

In determining the lowest responsible, responsive bidder, the owner shall take into consideration the bidder's compliance with the requirements of G.S. 143-128.2(c), the past performance of the bidder on construction contracts for the State with particular concern given to completion times, quality of work, cooperation with other contractors, and cooperation with the designer and owner. Failure of the low bidder to furnish affidavit and/or documentation as required by G.S. 143-128.2(c) shall constitute a basis for disqualification of the bid.

Should the owner adjudge that the apparent low bidder is not the lowest responsible, responsive bidder by virtue of the above information, said apparent low bidder will be so notified and his bid security shall be returned to him.

## **8. PERFORMANCE BOND**

The successful bidder, upon award of contract, shall furnish a performance bond in an amount equal to 100 percent of the contract price. See Article 35, General Conditions.

## **9. PAYMENT BOND**

The successful bidder, upon award of contract, shall furnish a payment bond in an amount equal to 100 percent of the contract price. See Article 35, General Conditions.

## 10. PAYMENTS

Payments to the successful bidders (contractors) will be made on the basis of monthly estimates. See Article 31, General Conditions.

## 11. PRE-BID CONFERENCE

Prior to the date set for receiving bids, the Designer may arrange and conduct a Pre-Bid Conference for all prospective bidders. The purpose of this conference is to review project requirements and to respond to questions from prospective bidders and their subcontractors or material suppliers related to the intent of bid documents. Attendance by prospective bidders shall be as required by the "Notice to Bidders".

## 12. SUBSTITUTIONS

In accordance with the provisions of G.S. 133-3, material, product, or equipment substitutions proposed by the bidders to those specified herein can only be considered during the bidding phase until ten (10) days prior to the receipt of bids when submitted to the Designer with sufficient data to confirm material, product, or equipment equality. Proposed substitutions submitted after this time will be considered only as potential change order.

Submittals for proposed substitutions shall include the following information:

- a. Name, address, and telephone number of manufacturer and supplier as appropriate.
- b. Trade name, model or catalog designation.
- c. Product data including performance and test data, reference standards, and technical descriptions of material, product, or equipment. Include color samples and samples of available finishes as appropriate.
- d. Detailed comparison with specified products including performance capabilities, warranties, and test results.
- e. Other pertinent data including data requested by the Designer to confirm product equality.

If a proposed material, product, or equipment substitution is deemed equal by the Designer to those specified, all bidders of record will be notified by Addendum.

## GENERAL CONDITIONS OF THE CONTRACT

The use or reproduction of this document or any part thereof is authorized for and limited to use on projects of the State of North Carolina, and is distributed by, through and at the discretion of the State Construction Office, Raleigh, North Carolina, for that distinct and sole purpose.

### TABLE OF CONTENTS

ARTICLE	TITLE	PAGE
1	Definitions .....	9
2	Intent and Execution of Documents .....	11
3	Clarifications and Detail Drawings .....	12
4	Copies of Drawings and Specifications .....	12
5	Shop Drawings, Submittals, Samples, Data .....	13
6	Working Drawings and Specifications at the Job Site .....	13
7	Ownership of Drawings and Specifications .....	14
8	Materials, Equipment, Employees .....	14
9	Royalties, Licenses and Patent .....	15
10	Permits, Inspections, Fees, Regulations .....	15
11	Protection of Work, Property and the Public .....	16
12	Sedimentation Pollution Control Act of 1973 .....	17
13	Inspection of the Work .....	17
14	Construction Supervision and Schedule .....	18
15	Separate Contracts and Contractor Relationships .....	22
16	Subcontracts and Subcontractors .....	23
17	Contractor and Subcontractor Relationships .....	23
18	Designer's Status .....	24
19	Changes in the Work .....	25
20	Claims for Extra Cost .....	27
21	Minor Changes in the Work .....	29
22	Uncorrected Faulty Work .....	29
23	Time of Completion, Delays, Extension of Time .....	29
24	Partial Utilization: Beneficial Occupancy .....	30
25	Final Inspection, Acceptance, and Project Closeout .....	31
26	Correction of Work Before Final Payment .....	31
27	Correction of Work After Final Payment .....	32
28	Owner's Right to Do Work .....	32
29	Annulment of Contract .....	32
30	Contractor's Right to Stop Work or Terminate the Contract .....	33
31	Requests for Payments .....	33
32	Certificates of Payment and Final Payment .....	34
33	Payments Withheld .....	36
34	Minimum Insurance Requirements .....	36
35	Performance Bond and Payment Bond .....	37
36	Contractor's Affidavit .....	38
37	Assignments .....	38
38	Use of Premises .....	38
39	Cutting, Patching and Digging .....	38
40	Utilities, Structures, Signs .....	38
41	Cleaning Up .....	40
42	Guarantee .....	41

43	Codes and Standards .....	41
44	Indemnification .....	41
45	Taxes .....	41
46	Equal Opportunity Clause .....	42
47	Employment of the Handicapped .....	42
48	Asbestos-Containing Materials (ACM) .....	43
49	Minority Business Participation .....	43
50	Contractor Evaluation .....	43
51	Gifts.....	43
52	Auditing Access to Persons and Records .....	44
53	North Carolina False Claims Act.....	44
54	Termination for Convenience.....	45

## ARTICLE 1 - DEFINITIONS

- a. The **contract documents** consist of the Notice to Bidders; Instructions to Bidders; General Conditions of the Contract; special conditions if applicable; Supplementary General Conditions; the drawing and specifications, including all bulletins, addenda or other modifications of the drawings and specifications incorporated into the documents prior to their execution; the proposal; the contract; the performance bond; the payment bond; insurance certificates; the approval of the attorney general; and the certificate of the Office of State Budget and Management. All of these items together form the contract.
- b. The **owner** is the State of North Carolina through the agency named in the contract.
- c. The **designer(s)** are those referred to within this contract, or their authorized representatives. The Designer(s), as referred to herein, shall mean architect and/or engineer. They will be referred to hereinafter as if each were of the singular number, masculine gender.
- d. The **contractor**, as referred to hereinafter, shall be deemed to be either of the several contracting parties called the "Party of the First Part" in either of the several contracts in connection with the total project. Where, in special instances hereinafter, a particular contractor is intended, an adjective precedes the word "contractor," as "general," "heating," etc. For the purposes of a single prime contract, the term Contractor shall be deemed to be the single contracting entity identified as the "Party of the First Part" in the single Construction Contract. Any references or adjectives that name or infer multiple prime contractors shall be interpreted to mean the single prime Contractor.
- e. A **subcontractor**, as the term is used herein, shall be understood to be one who has entered into a direct contract with a contractor, and includes one who furnishes materials worked to a special design in accordance with plans and specifications covered by the contract, but does not include one who only sells or furnishes materials not requiring work so described or detailed.
- f. **Written notice** shall be defined as notice in writing delivered in person to the contractor, or to a partner of the firm in the case of a partnership, or to a member of the contracting organization, or to an officer of the organization in the case of a corporation, or sent to the last known business address of the contracting organization by registered mail.
- g. **Work**, as used herein as a noun, is intended to include materials, labor, and workmanship of the appropriate contractor.
- h. The **project** is the total construction work to be performed under the contract documents by the several contractors.
- i. **Project Expediter**, as used herein, is an entity stated in the contract documents, designated to effectively facilitate scheduling and coordination of work activities. See Article 14(f) for responsibilities of a Project Expediter. **For the purposes of a single prime contract, the single prime contractor shall be designated as the Project Expediter.**
- j. **Change order**, as used herein, shall mean a written order to the contractor subsequent to the signing of the contract authorizing a change in the contract. The change order shall be signed by the contractor, designer and the owner, and approved by the State Construction Office, in that order (Article 19).

- k. **Field Order**, as used herein, shall mean a written approval for the contractor to proceed with the work requested by owner prior to issuance of a formal Change Order. The field order shall be signed by the contractor, designer, owner, and State Construction Office.
- l. **Time of completion**, as stated in the contract documents, is to be interpreted as consecutive calendar days measured from the date established in the written Notice to Proceed, or such other date as may be established herein (Article 23).
- m. **Liquidated damages**, as stated in the contract documents [, is an amount reasonably estimated in advance to cover the consequential damages associated with the Owner's economic loss in not being able to use the Project for its intended purposes at the end of the contract's completion date as amended by change order, if any, by reason of failure of the contractor(s) to complete the work within the time specified. Liquidated damages does not include the Owner's extended contract administration costs (including but not limited to additional fees for architectural and engineering services, testing services, inspection services, commissioning services, etc.), such other damages directly resulting from delays caused solely by the contractor, or consequential damages that the Owner identified in the bid documents that may be impacted by any delay caused solely by the Contractor (e.g., if a multi-phased project-subsequent phases, delays in start other projects that are dependent on the completion of this Project, extension of leases and/or maintenance agreements for other facilities).
- n. **Surety**, as used herein, shall mean the bonding company or corporate body which is bound with and for the contractor, and which engages to be responsible for the contractor and his acceptable performance of the work.
- o. **Routine written communications between the Designer and the Contractor** are any communication other than a "request for information" provided in letter, memo, or transmittal format, sent by mail, courier, electronic mail, or facsimile. Such communications can not be identified as "request for information".
- p. **Clarification or Request for information (RFI)** is a request from the Contractor seeking an interpretation or clarification by the Designer relative to the contract documents. The RFI, which shall be labeled (RFI), shall clearly and concisely set forth the issue or item requiring clarification or interpretation and why the response is needed. The RFI must set forth the Contractor's interpretation or understanding of the contract documents requirements in question, along with reasons for such an understanding.
- q. **Approval** means written or imprinted acknowledgement that materials, equipment or methods of construction are acceptable for use in the work.
- r. **Inspection** shall mean examination or observation of work completed or in progress to determine its compliance with contract documents.
- s. **"Equal to" or "approved equal"** shall mean materials, products, equipment, assemblies, or installation methods considered equal by the bidder in all characteristics (physical, functional, and aesthetic) to those specified in the contract documents. Acceptance of equal is subject to approval of Designer and owner.
- t. **"Substitution" or "substitute"** shall mean materials, products, equipment, assemblies, or installation methods deviating in at least one characteristic (physical, functional, or aesthetic) from those specified, but which in the opinion of the bidder would improve competition and/or enhance the finished installation. Acceptance of substitution is subject to the approval of the Designer and owner.

- u. **Provide** shall mean furnish and install complete in place, new, clean, operational, and ready for use.
- v. **Indicated and shown** shall mean provide as detailed, or called for, and reasonably implied in the contract documents.
- w. **Special inspector** is one who inspects materials, installation, fabrication, erection or placement of components and connections requiring special expertise to ensure compliance with the approved construction documents and referenced standards.
- x. **Commissioning** is a quality assurance process that verifies and documents that building components and systems operate in accordance to the owner's project requirements and the project design documents.
- y. **Designer Final Inspection** is the inspection performed by the design team to determine the completeness of the project in accordance with approved plans and specifications. This inspection occurs prior to SCO final inspection.
- z. **SCO Final Inspection** is the inspection performed by the State Construction Office to determine the completeness of the project in accordance with NC Building Codes and approved plans and specifications.
- aa. **Beneficial Occupancy** is requested by the owner and is occupancy or partial occupancy of the building after all life safety items have been completed as determined by the State Construction Office. Life safety items include but not limited to fire alarm, sprinkler, egress and exit lighting, fire rated walls, egress paths and security.
- bb. Final Acceptance is the date in which the State Construction Office accepts the construction as totally complete. This includes the SCO Final Inspection and certification by the designer that all punch lists are completed.

## ARTICLE 2 - INTENT AND EXECUTION OF DOCUMENTS

- a. The drawings and specifications are complementary, one to the other, and that which is shown on the drawings or called for in the specifications shall be as binding as if it were both called for and shown. The intent of the drawings and specifications is to establish the scope of all labor, materials, transportation, equipment, and any and all other things necessary to provide a bid for a complete job. In case of discrepancy or disagreement in the contract documents, the order of precedence shall be: Form of Contract, specifications, large-scale detail drawings, small-scale drawings.
- b. The wording of the specifications shall be interpreted in accordance with common usage of the language except that words having a commonly used technical or trade meaning shall be so interpreted in preference to other meanings.
- c. The contractor shall execute each copy of the proposal, contract, performance bond and payment bond as follows:
  1. If the documents are executed by a sole owner, that fact shall be evidenced by the word "Owner" appearing after the name of the person executing them.
  2. If the documents are executed by a partnership, that fact shall be evidenced by the word "Co-Partner" appearing after the name of the partner executing them.



3. If the documents are executed on the part of a corporation, they shall be executed by either the president or the vice president and attested by the secretary or assistant secretary in either case, and the title of the office of such persons shall appear after their signatures. The seal of the corporation shall be impressed on each signature page of the documents.
4. If the documents are made by a joint venture, they shall be executed by each member of the joint venture in the above form for sole owner, partnership or corporation, whichever form is applicable to each particular member.
5. All signatures shall be properly witnessed.
6. If the contractor's license is held by a person other than an owner, partner or officer of a firm, then the licensee shall also sign and be a party to the contract. The title "Licensee" shall appear under his/her signature.
7. The bonds shall be executed by an attorney-in-fact. There shall be attached to each copy of the bond a certified copy of power of attorney properly executed and dated.
8. Each copy of the bonds shall be countersigned by an authorized individual agent of the bonding company licensed to do business in North Carolina. The title "Licensed Resident Agent" shall appear after the signature.
9. The seal of the bonding company shall be impressed on each signature page of the bonds.
10. The contractor's signature on the performance bond and the payment bond shall correspond with that on the contract. The date of performance and payment bond shall not be prior to the date of the contract.

### **ARTICLE 3 - CLARIFICATIONS AND DETAIL DRAWINGS**

- a. In such cases where the nature of the work requires clarification by the designer, such clarification shall be furnished by the designer with reasonable promptness by means of written instructions or detail drawings, or both. Clarifications and drawings shall be consistent with the intent of contract documents, and shall become a part thereof.
- b. The contractor(s) and the designer shall prepare, if deemed necessary, a schedule fixing dates upon which foreseeable clarifications will be required. The schedule will be subject to addition or change in accordance with progress of the work. The designer shall furnish drawings or clarifications in accordance with that schedule. The contractor shall not proceed with the work without such detail drawings and/or written clarifications.

### **ARTICLE 4 - COPIES OF DRAWINGS AND SPECIFICATIONS**

The designer or Owner shall furnish free of charge to the contractors electronic copies of plans and specifications. If requested by the contractor, paper copies of plans and specifications shall be furnished free of charge as follows:

- a. General contractor - Up to twelve (12) sets of general contractor drawings and specifications, up to six (6) sets of which shall include drawings and specifications of all other contracts, plus a clean set of black line prints on white paper of all appropriate drawings, upon which the contractor shall clearly and legibly record all work-in-place that is at variance with the contract documents.

- b. Each other contractor - Up to six (6) sets of the appropriate drawings and specifications, up to three (3) sets of which shall include drawings and specifications of all other contracts, plus a clean set of black line prints on white paper of all appropriate drawings, upon which the contractor shall clearly and legibly record all work-in-place that is at variance with the contract documents.
- c. Additional sets shall be furnished at cost, including mailing, to the contractor upon request by the contractor. This cost shall be stated in the bidding documents.
- d. For the purposes of a single-prime contract, the contractor shall receive up to 30 sets of drawings and specifications, plus a clean set of black line prints on white paper of all appropriate drawings, upon which the contractor shall clearly and legibly record all work-in-place that is at variance with the contract documents.

#### **ARTICLE 5 - SHOP DRAWINGS, SUBMITTALS, SAMPLES, DATA**

- a. Within 15 consecutive calendar days after the notice to proceed, each prime contractor shall submit a schedule for submission of all shop drawings, product data, samples, and similar submittals through the Project Expediter to the Designer. This schedule shall indicate the items, relevant specification sections, other related submittal, data, and the date when these items will be furnished to the designer.
- b. The Contractor(s) shall review, approve and submit to the Designer all Shop Drawings, Coordination Drawings, Product Data, Samples, Color Charts, and similar submittal data required or reasonably implied by the Contract Documents. Required Submittals shall bear the Contractor's stamp of approval, any exceptions to the Contract Documents shall be noted on the submittals, and copies of all submittals shall be of sufficient quantity for the Designer to retain up to three (3) copies of each submittal for his own use plus additional copies as may be required by the Contractor. Submittals shall be presented to the Designer in accordance with the schedule submitted in paragraph (a). so as to cause no delay in the activities of the Owner or of separate Contractors.
- c. The Designer shall review required submittals promptly, noting desired corrections if any, and retaining three (3) copies (1 for the Designer, 1 for the owner and 1 for SCO) for his use. The remaining copies of each submittal shall be returned to the Contractor not later than twenty (20) days from the date of receipt by the Designer, for the Contractor's use or for corrections and resubmittal as noted by the Designer. When resubmittals are required, the submittal procedure shall be the same as for the original submittals.
- d. Approval of shop drawings/submittals by the Designer shall not be construed as relieving the Contractor from responsibility for compliance with the design or terms of the contract documents nor from responsibility of errors of any sort in the shop drawings, unless such lack of compliance or errors first have been called in writing to the attention of the Designer by the Contractor.

#### **ARTICLE 6 - WORKING DRAWINGS AND SPECIFICATIONS AT THE JOB SITE**

- a. The contractor shall maintain, in readable condition at his job office, one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the designer, his authorized representative, owner or State Construction Office.

- b. The contractor shall maintain at the job office, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on project drawings by the contractor and submitted to the designer upon project completion and no later than 30 days after final acceptance of the project.
- c. The contractor shall maintain at the job office a record of all required tests that have been performed, clearly indicating the scope of work inspected and the date of approval or rejection.

## **ARTICLE 7 - OWNERSHIP OF DRAWINGS AND SPECIFICATIONS**

All drawings and specifications are instruments of service and remain the property of the owner. The use of these instruments on work other than this contract without permission of the owner is prohibited. All copies of drawings and specifications other than contract copies shall be returned to the owner upon request after completion of the work.

## **ARTICLE 8 - MATERIALS, EQUIPMENT, EMPLOYEES**

- a. The contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of his work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents.
- b. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by the specifications.
- c. Upon notice, the contractor shall furnish evidence as to quality of materials.
- d. Products are generally specified by ASTM or other reference standard and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed. However, the contractor shall be aware that the cited examples are used only to denote the quality standard of product desired and that they do not restrict bidders to a specific brand, make, manufacturer or specific name; that they are used only to set forth and convey to bidders the general style, type, character and quality of product desired; and that equivalent products will be acceptable. Request for substitution of materials, items, or equipment shall be submitted to the designer for approval or disapproval; such approval or disapproval shall be made by the designer prior to the opening of bids. Alternate materials may be requested after the award if it can clearly be demonstrated that it is an added benefit to the owner and the designer and owner approves.
- e. The designer is the judge of equality for proposed substitution of products, materials or equipment.

- g. If at any time during the construction and completion of the work covered by these contract documents, the language, conduct, or attire of any workman of the various crafts be adjudged a nuisance to the owner or designer, or if any workman be considered detrimental to the work, the contractor shall order such parties removed immediately from grounds.

#### **ARTICLE 9 - ROYALTIES, LICENSES AND PATENTS**

It is the intention of the contract documents that the work covered herein will not constitute in any way infringement of any patent whatsoever unless the fact of such patent is clearly evidenced herein. The contractor shall protect and save harmless the owner against suit on account of alleged or actual infringement. The contractor shall pay all royalties and/or license fees required on account of patented articles or processes, whether the patent rights are evidenced hereinafter.

#### **ARTICLE 10 - PERMITS, INSPECTIONS, FEES, REGULATIONS**

- a. The contractor shall give all notices and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work under this contract. If the contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the designer in writing. See Instructions to Bidders, Paragraph 3, Bulletins and Addenda. Any necessary changes required after contract award shall be made by change order in accordance with Article 19. If the contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules and regulations, and without such notice to the designer, he shall bear all cost arising therefrom. Additional requirements implemented after bidding will be subject to equitable negotiations.
- b. All work under this contract shall conform to the North Carolina State Building Code and other State, local and national codes as are applicable. The cost of all required inspections and permits shall be the responsibility of the contractor and included within the bid proposal. All water taps, meter barrels, vaults and impact fees shall be paid by the contractor unless otherwise noted.
- d. Projects constructed by the State of North Carolina or by any agency or institution of the State are not subject to inspection by any county or municipal authorities and are not subject to county or municipal building codes. The contractor shall, however, cooperate with the county or municipal authorities by obtaining building permits. Permits shall be obtained at no cost.
- e. Projects involving local funding (community colleges) are subject also to county and municipal building codes and inspection by local authorities. The contractor shall pay the cost of these permits and inspections.

## ARTICLE 11 - PROTECTION OF WORK, PROPERTY AND THE PUBLIC

- a. The contractors shall be jointly responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. They shall be responsible for any damage to the owner's property, or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. They shall be responsible for and pay for any damages caused to the owner. All contractors shall have access to the project at all times.
- b. The contractor shall provide cover and protect all portions of the structure when the work is not in progress, provide and set all temporary roofs, covers for doorways, sash and windows, and all other materials necessary to protect all the work on the building, whether set by him, or any of the subcontractors. Any work damaged through the lack of proper protection or from any other cause, shall be repaired or replaced without extra cost to the owner.
- c. No fires of any kind will be allowed inside or around the operations during the course of construction without special permission from the designer and owner.
- d. The contractor shall protect all trees and shrubs designated to remain in the vicinity of the operations by building substantial boxes around same. He shall barricade all walks, roads, etc., as directed by the designer to keep the public away from the construction. All trenches, excavations or other hazards in the vicinity of the work shall be well barricaded and properly lighted at night.
- e. The contractor shall provide all necessary safety measures for the protection of all persons on the job, including the requirements of the A.G.C. *Accident Prevention Manual in Construction*, as amended, and shall fully comply with all state laws or regulations and North Carolina State Building Code requirements to prevent accident or injury to persons on or about the location of the work. He shall clearly mark or post signs warning of hazards existing, and shall barricade excavations, elevator shafts, stairwells and similar hazards. He shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.
- f. The contractor shall adhere to the rules, regulations and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry (Title 29, Code of Federal Regulations, Part 1926, published in Volume 39, Number 122, Part II, June 24, 1974, *Federal Register*), and revisions thereto as adopted by General Statutes of North Carolina 95-126 through 155.
- g. The contractor shall designate a responsible person of his organization as safety officer/inspector to inspect the project site for unsafe health and safety hazards, to report these hazards to the contractor for correction, and whose duties also include accident prevention on the project, and to provide other safety and health measures on the project site as required by the terms and conditions of the contract. The name of the safety inspector shall be made known to the designer and owner at the time of the preconstruction conference and in all cases prior to any work starting on the project.
- h. In the event of emergency affecting the safety of life, the protection of work, or the safety of adjoining properties, the contractor is hereby authorized to act at his own discretion, without further authorization from anyone, to prevent such threatened injury or damage.

Any compensation claimed by the contractor on account of such action shall be determined as provided for under Article 19(b).

- i. Any and all costs associated with correcting damage caused to adjacent properties of the construction site or staging area shall be borne by the contractor. These costs shall include but not be limited to flooding, mud, sand, stone, debris, and discharging of waste products.

## **ARTICLE 12 - SEDIMENTATION POLLUTION CONTROL ACT OF 1973**

- a. Any land-disturbing activity performed by the contractor(s) in connection with the project shall comply with all erosion control measures set forth in the contract documents and any additional measures which may be required in order to ensure that the project is in full compliance with the Sedimentation Pollution Control Act of 1973, as implemented by Title 15, North Carolina Administrative Code, Chapter 4, Sedimentation Control, Subchapters 4A, 4B and 4C, as amended (15 N.C.A.C. 4A, 4B and 4C).
- b. Upon receipt of notice that a land-disturbing activity is in violation of said act, the contractor(s) shall be responsible for ensuring that all steps or actions necessary to bring the project in compliance with said act are promptly taken.
- c. The contractor(s) shall be responsible for defending any legal actions instituted pursuant to N.C.G.S. 113A-64 against any party or persons described in this article.
- d. To the fullest extent permitted by law, the contractor(s) shall indemnify and hold harmless the owner, the designer and the agents, consultants and employees of the owner and designer, from and against all claims, damages, civil penalties, losses and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from the performance of work or failure of performance of work, provided that any such claim, damage, civil penalty, loss or expense is attributable to a violation of the Sedimentation Pollution Control Act. Such obligation shall not be construed to negate, abridge or otherwise reduced any other right or obligation of indemnity which would otherwise exist as to any party or persons described in this article.

## **ARTICLE 13 - INSPECTION OF THE WORK**

- a. It is a condition of this contract that the work shall be subject to inspection during normal working hours and during any time work is in preparation and progress by the designer, designated official representatives of the owner, State Construction Office and those persons required by state law to test special work for official approval. The contractor shall therefore provide safe access to the work at all times for such inspections.
- b. All instructions to the contractor will be made only by or through the designer or his designated project representative. Observations made by official representatives of the owner shall be conveyed to the designer for review and coordination prior to issuance to the contractor.
- c. All work shall be inspected by designer, special inspector and/or State Construction Office prior to being covered by the contractor. Contractor shall give a minimum two weeks notice unless otherwise agreed to by all parties. If inspection fails, after the first reinspection all costs associated with additional reinspections shall be borne by the contractor.

- d. Where special inspection or testing is required by virtue of any state laws, instructions of the designer, specifications or codes, the contractor shall give adequate notice to the designer of the time set for such inspection or test, if the inspection or test will be conducted by a party other than the designer. Such special tests or inspections will be made in the presence of the designer, or his authorized representative, and it shall be the contractor's responsibility to serve ample notice of such tests.
- e. All laboratory tests shall be paid by the owner unless provided otherwise in the contract documents except the general contractor shall pay for laboratory tests to establish design mix for concrete, and for additional tests to prove compliance with contract documents where materials have tested deficient except when the testing laboratory did not follow the appropriate ASTM testing procedures.
- f. Should any work be covered up or concealed prior to inspection and approval by the designer, special inspector, and/or State Construction Office such work shall be uncovered or exposed for inspection, if so requested by the designer in writing. Inspection of the work will be made upon notice from the contractor. All cost involved in uncovering, repairing, replacing, recovering and restoring to design condition, the work that has been covered or concealed will be paid by the contractor involved.

#### **ARTICLE 14 - CONSTRUCTION SUPERVISION AND SCHEDULE**

- a. Throughout the progress of the work, each contractor shall keep at the job site, a competent superintendent and supervisory staff satisfactory to the designer and the owner. The superintendent and supervisory staff shall not be changed without the consent of the designer and owner unless said superintendent ceases to be employed by the contractor or ceases to be competent as determined by the contractor, designer or owner. The superintendent and other staff designated by the contractor in writing shall have authority to act on behalf of the contractor, and instructions, directions or notices given to him shall be as binding as if given to the contractor. However, directions, instructions, and notices shall be confirmed in writing.
- b. The contractor shall examine and study the drawings and specifications and fully understand the project design, and shall provide constant and efficient supervision to the work. Should he discover any discrepancies of any sort in the drawings or specifications, he shall report them to the designer without delay. He will not be held responsible for discrepancies in the drawings and/or specifications, but shall be held responsible to report them should they become known to him.
- c. All contractors shall be required to cooperate and consult with each other during the construction of this project. Prior to installation of work, all contractors shall jointly prepare coordination drawings, showing locations of various ductworks, piping, motors, pumps, and other mechanical or electrical equipment, in relation to the structure, walls and ceilings. These drawings shall be submitted to the designer through the Project Expediter for information only. Each contractor shall lay out and execute his work to cause the least delay to other contractors. Each contractor shall be financially responsible for any damage to other contractor's work and for undue delay caused to other contractors on the project.
- d. The contractor is required to attend job site progress conferences as called by the designer. The contractor shall be represented at these job progress conferences by both home office and project personnel. These representatives shall have authority to act on behalf of the contractor. These meetings shall be open to subcontractors, material

suppliers and any others who can contribute toward maintaining required job progress. It shall be the principal purpose of these meetings, or conferences, to effect coordination, cooperation and assistance in every practical way toward the end of maintaining progress of the project on schedule and to complete the project within the specified contract time. Each contractor shall be prepared to assess progress of the work as required in his particular contract and to recommend remedial measures for correction of progress as may be appropriate. The designer or his authorized representative shall be the coordinator of the conferences and shall preside as chairman. The contractor shall turn over a copy of his daily reports to the Designer and Owner at the job site progress conference. Owner will determine daily report format.

- e. The contractor(s) shall, employ an engineer or a land surveyor licensed in the State of North Carolina to lay out the work and to establish a bench mark in a location where same will not be disturbed and where direct instruments sights may be taken.
- f. The designer shall designate a Project Expediter on projects involving two or more prime contracts. The Project Expediter shall be designated in the Supplementary General Conditions. The Project Expediter shall have at a minimum the following responsibilities.
  - 1. Prepare the project construction schedule and shall allow all prime contractors (multi-prime contract) and subcontractors (single-prime contract) performing general, plumbing, HVAC, and electrical work equal input into the preparation of the initial construction schedule.
  - 2. Maintain a project progress schedule for all contractors.
  - 3. Give adequate notice to all contractors to ensure efficient continuity of all phases of the work.
  - 4. Notify the designer of any changes in the project schedule.
  - 5. Recommend to the owner whether payment to a contractor shall be approved.
- g. It shall be the responsibility of the Project Expediter to cooperate with and obtain from several prime contractors and subcontractors on the job, their respective work activities and integrate these activities into a project construction schedule in form of a detailed bar chart or Critical Path Method (CPM), schedule. Each prime contractor shall provide work activities within fourteen (14) days of request by the Project Expediter. A “work activity”, for scheduling purposes, shall be any component or contractual requirement of the project requiring at least one (1) day, but not more than fourteen (14) days, to complete or fulfill. The project construction schedule shall graphically show all salient features of the work required to construct the project from start to finish and within the allotted time established in the contract. The time (in days) between the contractor’s early completion and contractual completion dates is part of the project total float time; and shall be used as such, unless amended by a change order. On a multi-prime project, each prime contractor shall review the proposed construction schedule and approve same in writing. The Project Expediter shall submit the proposed construction schedule to the designer for comments. The complete Project construction schedule shall be of the type set forth in the Supplementary General Condition or subparagraph (1) or (2) below, as appropriate:



1. For a project with total contracts of \$500,000 or less, a bar chart schedule will satisfy the above requirement. The schedule shall indicate the estimated starting and completion dates for each major element of the work.
2. For a project with total contracts over \$500,000, a Critical Path Method (CPM) schedule shall be utilized to control the planning and scheduling of the Work. The CPM schedule shall be the responsibility of the Project Expediter and shall be paid for by the Project Expediter.

**Bar Chart Schedule:** Where a bar chart schedule is required, it shall be time-scaled in weekly increments, shall indicate the estimated starting and completion dates for each major element of the work by trade and by area, level, or zone, and shall schedule dates for all salient features, including but not limited to the placing of orders for materials, submission of shop drawings and other Submittals for approval, approval of shop drawings by designers, the manufacture and delivery of material, the testing and the installation of materials, supplies and equipment, and all Work activities to be performed by the Contractor. The Contractor shall allow sufficient time in his schedule for all commissioning, required inspections and completion of final punchlist(s). Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

**CPM Schedule:** Where a CPM schedule is required, it shall be in time-scaled precedence format using the Project Expediter's logic and time estimates. The CPM schedule shall be drawn or plotted with activities grouped or zoned by Work area or subcontract as opposed to a random (or scattered) format. The CPM schedule shall be time-scaled on a weekly basis and shall be drawn or plotted at a level of detail and logic which will schedule all salient features of the work to be performed by the Contractor. The Contractor shall allow sufficient time in his schedule for all commissioning, required inspections and completion of final punchlist(s).. Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

The CPM schedule will identify and describe each activity, state the duration of each activity, the calendar dates for the early and late start and the early and late finish of each activity, and clearly highlight all activities on the critical path. "Total float" and "free float" shall be indicated for all activities. Float time shall not be considered for the exclusive use or benefit of either the Owner or the Contractor, but must be allocated in the best interest of completing the Work within the Contract time. Extensions to the Contract time, when granted by Change Order, will be granted only when equitable time adjustment exceeds the Total Float in the activity or path of activities affected by the change. On contracts with a price over \$2,500,000, the CPM schedule shall also show what part of the Contract Price is attributable to each activity on the schedule, the sum of which for all activities shall equal the total Contract Price.

**Early Completion of Project:** The Contractor may attempt to complete the project prior to the Contract Completion Date. However, such planned early completion shall be for the Contractor's convenience only and shall not create any additional rights of the Contractor or obligations of the Owner under this Contract, nor shall it change the Time

for Completion or the Contract Completion Date. The Contractor shall not be required to pay liquidated damages to the Owner because of its failure to complete by its planned earlier date. Likewise, the Owner shall not pay the Contractor any additional compensation for early completion nor will the Owner owe the Contractor any compensation should the Owner, its officers, employees, or agents cause the Contractor not to complete earlier than the date required by the Contract Documents.

- h. The proposed project construction schedule shall be presented to the designer no later than fifteen (15) days after written notice to proceed. No application for payment will be processed until this schedule is accepted by the designer and owner.
- i. The approved project construction schedule shall be distributed to all contractors and displayed at the job site by the Project Expediter.
- j. The several contractors shall be responsible for their work activities and shall notify the Project Expediter of any necessary changes or adjustments to their work. The Project Expediter shall maintain the project construction schedule, making biweekly adjustments, updates, corrections, etc., that are necessary to finish the project within the Contract time, keeping all contractors and the designer fully informed. Copy of a bar chart schedule annotated to show the current progress shall be submitted by the Contractor(s) to the designer, along with monthly request for payment. For project requiring CPM schedule, the Contractor shall submit a biweekly report of the status of all activities. The bar chart schedule or status report shall show the actual Work completed to date in comparison with the original Work scheduled for all activities. If any activities of the work of several contractors are behind schedule, the contractor must indicate in writing, what measures will be taken to bring each such activity back on schedule and to ensure that the Contract Completion Date is not exceeded. A plan of action and recovery schedule shall be developed and submitted to the designer by the Project Expediter, when (1) the contractor's report indicates delays, that are in the opinion of the designer or the owner, of sufficient magnitude that the contractor's ability to complete the work by the scheduled completion is brought into question; (2) the updated construction schedule is thirty (30) days behind the planned or baseline schedule and no legitimate time extensions, as determined by the Designer, are in process; and (3) the contractor desires to make changes in the logic (sequencing of work) or the planned duration of future activities of the CPM schedule which, in the opinion of the designer or the owner, are of a major nature. The plan of action, when required shall be submitted to the Owner for review within two (2) business days of the Contractor receiving the Owner's written demand. The recovery schedule, when required, shall be submitted to the Owner within five (5) calendar days of the Contractor's receiving the Owner's written demand. Failure to provide an updated construction schedule or a recovery schedule may be grounds for rejection of payment applications or withholding of funds as set forth in Article 33.
- k. The Project Expediter shall notify each contractor of such events or time frames that are critical to the progress of the job. Such notice shall be timely and reasonable. Should the progress be delayed due to the work of any of the several contractors, it shall be the duty of the Project Expediter to immediately notify the contractor(s) responsible for such delay, the designer, the State Construction Office and other prime contractors. The designer shall determine the contractor(s) who caused the delays and notify the bonding company of the responsible contractor(s) of the delays; and shall make a recommendation to the owner regarding further action.
- l. Designation as Project Expediter entails an additional project control responsibility and does not alter in any way the responsibility of the contractor so designated, nor the

responsibility of the other contractors involved in the project. The project expeditor's Superintendent(s) shall be in attendance at the Project site at all times when work is in progress unless conditions are beyond the control of the Contractor or until termination of the Contract in accordance with the Contract Documents. It is understood that such Superintendent shall be acceptable to the Owner and Designer and shall be the one who will be continued in that capacity for the duration of the project unless he ceases to be on the Contractor's payroll or the Owner otherwise agrees. The Superintendent shall not be employed on any other project for or by the Contractor or by any other entity during the course of the Work. If the Superintendent is employed by the Contractor on another project without the Owner's approval, then the Owner may deduct from the Contractor's monthly general condition costs and amount representing the Superintendent's cost and shall deduct that amount for each month thereafter until the Contractor has the Superintendent back on the Owner's Project full-time.

#### **ARTICLE 15 - SEPARATE CONTRACTS AND CONTRACTOR RELATIONSHIPS**

- a. Effective from January 1, 2002, Chapter 143, Article 8, was amended, to allow public contracts to be delivered by the following delivery methods: single-prime, dual (single-prime and separate-prime), construction manager at risk, and alternative contracting method as approved by the State Building Commission. The owner reserves the right to prepare separate specifications, receive separate bids, and award separate contracts for such other major items of work as may be in the best interest of the State. For the purposes of a single prime contract, refer to Article 1 – Definitions.
- b. All contractors shall cooperate with each other in the execution of their work, and shall plan their work in such manner as to avoid conflicting schedules or delay of the work. See Article 14, Construction Supervision.
- c. If any part of contractor's work depends upon the work of another contractor, defects which may affect that work shall be reported to the designer in order that prompt inspection may be made and the defects corrected. Commencement of work by a contractor where such condition exists will constitute acceptance of the other contractor's work as being satisfactory in all respects to receive the work commenced, except as to defects which may later develop. The designer shall be the judge as to the quality of work and shall settle all disputes on the matter between contractors.
- d. Any mechanical or electrical work such as sleeves, inserts, chases, openings, penetrations, etc., which is located in the work of the general contractor shall be built in by the general contractor. The respective mechanical and electrical contractors shall set all sleeves, inserts and other devices that are to be incorporated into the structure in cooperation and under the supervision of the general contractor. The responsibility for the exact location of such items shall be that of the mechanical and/or electrical contractor.
- e. The designer and the owner shall have access to the work whenever it is in preparation and progress and during normal working hours. The contractor shall provide facilities for such access so the designer may perform his functions under the contract documents.
- f. Should a contractor cause damage to the work or property of another contractor, he shall be directly responsible, and upon notice, shall promptly settle the claim or otherwise resolve the dispute.

#### **ARTICLE 16 - SUBCONTRACTS AND SUBCONTRACTORS**

- a. Within thirty (30) days after award of the contract, the contractor shall submit to the designer, owner and to the State Construction Office a list giving the names and addresses of subcontractors and equipment and material suppliers he proposes to use, together with the scope of their respective parts of the work. Should any subcontractor be disapproved by the designer or owner, the designer or owner shall submit his reasons for disapproval in writing to the State Construction Office for its consideration with a copy to the contractor. If the State Construction Office concurs with the designer's or owner's recommendation, the contractor shall submit a substitute for approval. The designer and owner shall act promptly in the approval of subcontractors, and when approval of the list is given, no changes of subcontractors will be permitted except for cause or reason considered justifiable by the designer or owner.
- b. The designer will furnish to any subcontractor, upon request, evidence regarding amounts of money paid to the contractor on account of the subcontractor's work.
- c. The contractor is and remains fully responsible for his own acts or omissions as well as those of any subcontractor or of any employee of either. The contractor agrees that no contractual relationship exists between the subcontractor and the owner in regard to the contract, and that the subcontractor acts on this work as an agent or employee of the contractor.
- d. The owner reserves the right to limit the amount of portions of work to be subcontracted as hereinafter specified.

## **ARTICLE 17 - CONTRACTOR AND SUBCONTRACTOR RELATIONSHIPS**

The contractor agrees that the terms of these contract documents shall apply equally to each subcontractor as to the contractor, and the contractor agrees to take such action as may be necessary to bind each subcontractor to these terms. The contractor further agrees to conform to the Code of Ethical Conduct as adopted by the Associated General Contractors of America, Inc., with respect to contractor-subcontractor relationships, and that payments to subcontractors shall be made in accordance with the provisions of G.S. 143-134.1 titled Interest on final payments due to prime contractors: payments to subcontractors.

- a. On all public construction contracts which are let by a board or governing body of the state government or any political subdivision thereof, except contracts let by the Department of Transportation pursuant to G.S. 136-28.1, the balance due prime contractors shall be paid in full within 45 days after respective prime contracts of the project have been accepted by the owner, certified by the architect, engineer or designer to be completed in accordance with terms of the plans and specifications, or occupied by the owner and used for the purpose for which the project was constructed, whichever occurs first. Provided, however, that whenever the architect or consulting engineer in charge of the project determines that delay in completion of the project in accordance with terms of the plans and specifications is the fault of the contractor, the project may be occupied and used for the purposes for which it was constructed without payment of any interest on amounts withheld past the 45 day limit. No payment shall be delayed because of the failure of another prime contractor on such project to complete his contract. Should final payment to any prime contractor beyond the date such contracts have been certified to be completed by the designer or architect, accepted by the owner, or occupied by the owner and used for the purposes for which the project was constructed, be delayed by more than 45 days, said prime contractor shall be paid interest, beginning on the 46th day, at the rate of one percent (1%) per month or fraction thereof unless a lower rate is

agreed upon on such unpaid balance as may be due. In addition to the above final payment provisions, periodic payments due a prime contractor during construction shall be paid in accordance with the payment provisions of the contract documents or said prime contractor shall be paid interest on any such unpaid amount at the rate stipulated above for delayed final payments. Such interest shall begin on the date the payment is due and continue until the date on which payment is made. Such due date may be established by the terms of the contract. Funds for payment of such interest on state-owned projects shall be obtained from the current budget of the owning department, institution or agency. Where a conditional acceptance of a contract exists, and where the owner is retaining a reasonable sum pending correction of such conditions, interest on such reasonable sum shall not apply.

- b. Within seven days of receipt by the prime contractor of each periodic or final payment, the prime contractor shall pay the subcontractor based on work completed or service provided under the subcontract. Should any periodic or final payment to the subcontractor be delayed by more than seven days after receipt of periodic or final payment by the prime contractor, the prime contractor shall pay the subcontractor interest, beginning on the eighth day, at the rate of one percent (1%) per month or fraction thereof on such unpaid balance as may be due.
- c. The percentage of retainage on payments made by the prime contractor to the subcontractor shall not exceed the percentage of retainage on payments made by the owner to the prime contractor. Any percentage of retainage on payments made by the prime contractor to the subcontractor that exceeds the percentage of retainage on payments made by the owner to the prime contractor shall be subject to interest to be paid by the prime contractor to the subcontractor at the rate of one percent (1%) per month or fraction thereof.
- d. Nothing in this section shall prevent the prime contractor at the time of application and certification to the owner from withholding application and certification to the owner for payment to the subcontractor for unsatisfactory job progress; defective construction not remedied; disputed work; third-party claims filed or reasonable evidence that claim will be filed; failure of subcontractor to make timely payments for labor, equipment and materials; damage to prime contractor or another subcontractor; reasonable evidence that subcontract cannot be completed for the unpaid balance of the subcontract sum; or a reasonable amount for retainage not to exceed the initial percentage retained by owner.

## **ARTICLE 18 - DESIGNER'S STATUS**

- a. The designer shall provide general administration of the performance of construction contracts, including liaison and necessary inspection of the work to ensure compliance with plans and specifications. He is the agent of the owner only for the purpose of constructing this work and to the extent stipulated in the contract documents. He has authority to direct work to be performed, to stop work, to order work removed, or to order corrections of faulty work, where any such action by the designer may be necessary to assure successful completion of the work.
- b. The designer is the impartial interpreter of the contract documents, and, as such, he shall exercise his powers under the contract to enforce faithful performance by both the owner and the contractor, taking sides with neither.
- c. Should the designer cease to be employed on the work for any reason whatsoever, then the owner shall employ a competent replacement who shall assume the status of the former designer.

- d. The designer and his consultants will make inspections of the project. He will inspect the progress, the quality and the quantity of the work.
- e. The designer and the owner shall have access to the work whenever it is in preparation and progress during normal working hours. The contractor shall provide facilities for such access so the designer and owner may perform their functions under the contract documents.
- f. Based on the designer's inspections and evaluations of the project, the designer shall issue interpretations, directives and decisions as may be necessary to administer the project. His decisions relating to artistic effect and technical matters shall be final, provided such decisions are within the limitations of the contract.

## **ARTICLE 19 - CHANGES IN THE WORK**

- a. The owner may have changes made in the work covered by the contract. These changes will not invalidate and will not relieve or release the contractor from any guarantee given by him pertinent to the contract provisions. These changes will not affect the validity of the guarantee bond and will not relieve the surety or sureties of said bond. All extra work shall be executed under conditions of the original contract.
- b. Except in an emergency endangering life or property, no change shall be made by the contractor except upon receipt of approved change order or written field order from the designer, countersigned by the owner and the state construction office authorizing such change. No claim for adjustments of the contract price shall be valid unless this procedure is followed.

A field order, transmitted by fax, electronically, or hand delivered, may be used where the change involved impacts the critical path of the work. A formal change order shall be issued as expeditiously as possible.

In the event of emergency endangering life or property, the contractor may be directed to proceed on a time and material basis whereupon the contractor shall proceed and keep accurately on such form as specified by the designer or owner, a correct account of costs together with all proper invoices, payrolls and supporting data. Upon completion of the work the change order will be prepared as outlined under either Method "c(1)" or Method "c(2)" or both.

- c. In determining the values of changes, either additive or deductive, contractors are restricted to the use of the following methods:
  - 1. Where the extra work involved is covered by unit prices quoted in the proposal, or subsequently agreed to by the Contractor, Designer, Owner and State Construction Office the value of the change shall be computed by application of unit prices based on quantities, estimated or actual as agreed of the items involved, except in such cases where a quantity exceeds the estimated quantity allowance in the contract by one hundred percent (100%) or more. In such cases, either party may elect to proceed under subparagraph c2 herein. If neither party elects to proceed under c2, then unit prices shall apply.
  - 2. The contracting parties shall negotiate and agree upon the equitable value of the change prior to issuance of the change order, and the change order shall stipulate the corresponding lump sum adjustment to the contract price.

- d. Under Paragraph "b" and Methods "c(2)" above, the allowances for overhead and profit combined shall be as follows: all contractors (the single contracting entity (prime), his subcontractors(1<sup>st</sup> tier subs), or their sub-subcontractors (2<sup>nd</sup> tier subs, 3<sup>rd</sup> tier subs, etc)) shall be allowed a maximum of 10% on work they each self-perform; the prime contractor shall be allowed a maximum of 5% on contracted work of his 1<sup>st</sup> tier sub; 1<sup>st</sup> tier, 2<sup>nd</sup> tier, 3<sup>rd</sup> tier, etc contractors shall be allowed a maximum of 2.5% on the contracted work of their subs. ; Under Method "c(1)", no additional allowances shall be made for overhead and profit. In the case of deductible change orders, under Method "c(2)" and Paragraph (b) above, the contractor shall include no less than five percent (5%) profit, but no allowances for overhead.
- e. The term "net cost" as used herein shall mean the difference between all proper cost additions and deductions. The "cost" as used herein shall be limited to the following:
1. The actual costs of materials and supplies incorporated or consumed as part of the work;
  2. The actual costs of labor expended on the project site; labor expended in coordination, change order negotiation, record document maintenance, shop drawing revision or other tasks necessary to the administration of the project are considered overhead whether they take place in an office or on the project site.
  3. The actual costs of labor burden, limited to the costs of social security (FICA) and Medicare/Medicaid taxes; unemployment insurance costs; health/dental/vision insurance premiums; paid employee leave for holidays, vacation, sick leave, and/or petty leave, not to exceed a total of 30 days per year; retirement contributions; worker's compensation insurance premiums; and the costs of general liability insurance when premiums are computed based on payroll amounts; the total of which shall not exceed thirty percent (30%) of the actual costs of labor;
  4. The actual costs of rental for tools, excluding hand tools; equipment; machinery; and temporary facilities required for the work;
  5. The actual costs of premiums for bonds, insurance, permit fees, and sales or use taxes related to the work.

Overtime and extra pay for holidays and weekends may be a cost item only to the extent approved by the owner.

- f. Should concealed conditions be encountered in the performance of the work below grade, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the contract documents, the contract sum and time for completion may be equitably adjusted by change order upon claim by either party made within thirty (30) days after the condition has been identified. The cost of such change shall be arrived at by one of the foregoing methods. All change orders shall be supported by a unit cost breakdown showing method of arriving at net cost as defined above.
- g. In all change orders, the procedure will be for the designer to request proposals for the change order work in writing. The contractor will provide such proposal and supporting data in suitable format. The designer shall verify correctness. Delay in the processing of the change order due to lack of proper submittal by the contractor of all required supporting data shall not constitute grounds for a time extension or basis of a claim. Within fourteen (14) days after receipt of the contractor's accepted proposal including all supporting documentation required by the designer, the designer shall prepare the change order and forward to the contractor for his signature or otherwise respond, in writing, to

the contractor's proposal. Within seven (7) days after receipt of the change order executed by the contractor, the designer shall, certify the change order by his signature, and forward the change order and all supporting data to the owner for the owner's signature. The owner shall execute the change order and forward to the State Construction Office for final approval, within seven (7) days of receipt. The State Construction Office shall act on the change order within seven (7) days. In case of emergency or extenuating circumstances, approval of changes may be obtained verbally by telephone or field orders approved by all parties, then shall be substantiated in writing as outlined under normal procedure.

- h. At the time of signing a change order, the contractor shall be required to certify as follows:

"I certify that my bonding company will be notified forthwith that my contract has been changed by the amount of this change order, and that a copy of the approved change order will be mailed upon receipt by me to my surety."

- i. A change order, when issued, shall be full compensation, or credit, for the work included, omitted or substituted. It shall show on its face the adjustment in time for completion of the project as a result of the change in the work.
- j. If, during the progress of the work, the owner requests a change order and the contractor's terms are unacceptable, the owner, with the approval of the State Construction Office, may require the contractor to perform such work on a time and material basis whereupon the contractor shall proceed and keep accurately on such form as specified by the Designer or owner, a correct account of cost together with all proper invoices, payrolls and supporting data. Upon completion of the work a change order will be prepared with allowances for overhead and profit per paragraph d. above and "net cost" and "cost" per paragraph e. above. Without prejudice, nothing in this paragraph shall preclude the owner from performing or to have performed that portion of the work requested in the change order.

## **ARTICLE 20 - CLAIMS FOR EXTRA COST**

- a. Should the contractor consider that as a result of instructions given by the designer, he is entitled to extra cost above that stated in the contract, he shall give written notice thereof to the designer within seven (7) days without delay. The written notice shall clearly state that a claim for extra cost is being made and shall provide a detailed justification for the extra cost. The contractor shall not proceed with the work affected until further advised, except in emergency involving the safety of life or property, which condition is covered in Article 19(b) and Article 11(h). No claims for extra compensation shall be considered unless the claim is so made. The designer shall render a written decision within seven (7) days of receipt of claim.
- b. The contractor shall not act on instructions received by him from persons other than the designer, and any claims for extra compensation or extension of time on account of such instruction will not be honored. The designer shall not be responsible for misunderstandings claimed by the contractor of verbal instructions which have not been confirmed in writing, and in no case shall instructions be interpreted as permitting a departure from the contract documents unless such instruction is confirmed in writing and supported by a properly authorized change order.
- c. Should a claim for extra compensation that complies with the requirements of (a) above by the contractor and is denied by the designer or owner, and cannot be resolved by a



representative of the State Construction Office, the contractor may request a mediation in connection with GS 143-128(f1) in the dispute resolution rules adopted by the State Building Commission (1 N.C.A.C. 30H .0101 through .1001). If the contractor is unable to resolve its claim as a result of mediation, the contractor may pursue the claim in accordance with the provisions of G.S. 143-135.3, or G.S. 143-135.6 where Community Colleges are the owner, and the following:

1. A contractor who has not completed a contract with a board for construction or repair work and who has not received the amount he claims is due under the contract may submit a verified written claim to the director of the State Construction Office of the Department of Administration for the amount the contractor claims is due. The director may deny, allow or compromise the claim, in whole or in part. A claim under this subsection is not a contested case under Chapter 150B of the General Statutes.
2. (a) A contractor who has completed a contract with a board for construction or repair work and who has not received the amount he claims is due under the contract may submit a verified written claim to the director of the State Construction Office of the Department of Administration for the amount the contractor claims is due. The claim shall be submitted within sixty (60) days after the contractor receives a final statement of the board's disposition of his claim and shall state the factual basis for the claim.
  - (b) The director shall investigate a submitted claim within ninety (90) days of receiving the claim, or within any longer time period upon which the director and the contractor agree. The contractor may appear before the director, either in person or through counsel, to present facts and arguments in support of his claim. The director may allow, deny or compromise the claim, in whole or in part. The director shall give the contractor a written statement of the director's decision on the contractor's claim.
  - (c) A contractor who is dissatisfied with the director's decision on a claim submitted under this subsection may commence a contested case on the claim under Chapter 150B of the General Statutes. The contested case shall be commenced within sixty (60) days of receiving the director's written statement of the decision.
  - (d) As to any portion of a claim that is denied by the director, the contractor may, in lieu of the procedures set forth in the preceding subsection of this section, within six (6) months of receipt of the director's final decision, institute a civil action for the sum he claims to be entitled to under the contract by filing a verified complaint and the issuance of a summons in the Superior Court of Wake County or in the superior court of any county where the work under the contract was performed. The procedure shall be the same as in all civil actions except that all issues shall be tried by the judge, without a jury.

## **ARTICLE 21 - MINOR CHANGES IN THE WORK**

The designer will have the authority to order minor changes in the work not involving an adjustment in the contract sum or time for completion, and not inconsistent with the intent of the contract documents. Such changes shall be effected by written order, copied to the State Construction Office, and shall be binding on the owner and the contractor.

## **ARTICLE 22 - UNCORRECTED FAULTY WORK**

Should the correction of faulty or damaged work be considered inadvisable or inexpedient by the owner and the designer, the owner shall be reimbursed by the contractor. A change order will be issued to reflect a reduction in the contract sum.

#### **ARTICLE 23 - TIME OF COMPLETION, DELAYS, EXTENSION OF TIME**

- a. The time of completion is stated in the Supplementary General Conditions and in the Form of Construction Contract. The Project Expediter, upon notice of award of contract, shall prepare a construction schedule to complete the project within the time of completion as required by Article 14.
- b. The contractors shall commence work to be performed under this agreement on a date to be specified in a written Notice to Proceed from the designer and shall fully complete all work hereunder within the time of completion stated. Time is of the essence and the contractor acknowledges the Owner will likely suffer financial damage for failure to complete the work within the time of completion. For each day in excess of the above number of days, the contractor(s) shall pay the owner the sum stated as liquidated damages reasonably estimated in advance to cover the losses to be incurred by the owner by reason of failure of said contractor(s) to complete the work within the time specified, such time being in the essence of this contract and a material consideration thereof.
- c. In the event of multiple prime contractors, the designer shall be the judge as to the division of responsibility between the contractor(s), based on the construction schedule, weekly reports and job records, and shall apportion the amount of liquidated damages to be paid by each of them, according to delay caused by any or all of them.
- d. If the contractor is delayed at any time in the progress of his work solely by any act or negligence of the owner, the designer, or by any employee of either; by any separate contractor employed by the owner; by changes ordered in the work; by labor disputes at the project site; by abnormal weather conditions not reasonably anticipated for the locality where the work is performed; by unavoidable casualties; by any causes beyond the contractor's control; or by any other causes which the designer and owner determine may justify the delay, then the contract time may be extended by change order only for the time which the designer and owner may determine is reasonable.

Time extensions will not be granted for rain, wind, snow or other natural phenomena of normal intensity for the locality where work is performed. For purpose of determining extent of delay attributable to unusual weather phenomena, a determination shall be made by comparing the weather for the contract period involved with the average of the preceding five (5) year climatic range during the same time interval based on the National Oceanic and Atmospheric Administration National Weather Service statistics for the locality where work is performed and on daily weather logs kept on the job site by the contractor reflecting the effect of the weather on progress of the work and initialed by the designer's representative. No weather delays shall be considered after the building is dried in unless work claimed to be delayed is on the critical path of the baseline schedule or approved updated schedule. Time extensions for weather delays, acts of God, labor disputes, fire, delays in transportation, unavoidable casualties or other delays which are beyond the control of the Owner do not entitle the Contractor to compensable damages for delays. Any contractor claim for compensable damages for delays is limited to delays caused solely by the owner or its agents. Contractor caused delays shall be accounted for before owner or designer caused delays in the case of concurrent delays.

- e. Request for extension of time shall be made in writing to the designer, copies to the owner and SCO, within twenty (20) days following cause of delay. In case of continuing cause for delay, the Contractor shall notify the Designer to the designer, copies to the owner and SCO, of the delay within 20 days of the beginning of the delay and only one claim is necessary.
- f. The contractor shall notify his surety in writing of extension of time granted.
- g. No claim for time extension shall be allowed on account of failure of the designer to furnish drawings or instructions until twenty (20) days after demand for such drawings and/or instructions. See Article 5c. Demand must be in written form clearly stating the potential for delay unless the drawings or instructions are provided. Any delay granted will begin after the twenty (20) day demand period is concluded.

#### **ARTICLE 24 - PARTIAL UTILIZATION/BENEFICIAL OCCUPANCY**

- a. The owner may desire to occupy or utilize all or a portion of the project prior to the completion of the project.
- b. Should the owner request a utilization of a building or portion thereof, the designer shall perform a designer final inspection of area after being notified by the contractor that the area is ready for such. After the contractor has completed designer final inspection punch list and the designer has verified, then the designer shall schedule a beneficial occupancy inspection at a time and date acceptable to the owner, contractor(s) and State Construction Office. If beneficial occupancy is granted by the State Construction Office, in such areas the following will be established:
  - 1. The beginning of guarantees and warranties period for the equipment necessary to support. in the area.
  - 2. The owner assumes all responsibilities for utility costs for entire building.
  - 2. Contractor will obtain consent of surety.
  - 3. Contractor will obtain endorsement from insurance company permitting beneficial occupancy.
- c. The owner shall have the right to exclude the contractor from any part of the project which the designer has so certified to be substantially complete, but the owner will allow the contractor reasonable access to complete or correct work to bring it into compliance with the contract.
- d. Occupancy by the owner under this article will in no way relieve the contractor from his contractual requirement to complete the project within the specified time. The contractor will not be relieved of liquidated damages because of beneficial occupancy. The designer may prorate liquidated damages based on the percentage of project occupied.

#### **ARTICLE 25 - FINAL INSPECTION, ACCEPTANCE, AND PROJECT CLOSEOUT**

- a. Upon notification from the contractor(s) that the project is complete and ready for inspection, the designer shall make a Designer final inspection to verify that the project is complete and ready for SCO final inspection. Prior to SCO final inspection, the contractor(s) shall complete all items requiring corrective measures noted at the Designer

final inspection. The designer shall schedule a SCO final inspection at a time and date acceptable to the owner, contractor(s) and State Construction Office.

- b. At the SCO final inspection, the designer and his consultants shall, if job conditions warrant, record a list of items that are found to be incomplete or not in accordance with the contract documents. At the conclusion of the SCO final inspection, the designer and State Construction Office representative shall make one of the following determinations:
  - 1. That the project is completed and accepted.
  - 2. That the project will be accepted subject to the correction of the list of discrepancies (punch list). All punch list items must be completed within thirty (30) days of SCO final inspection or the owner may invoke Article 28, Owner's Right to Do Work.
  - 4. That the project is not complete and another date for a SCO final inspection will be established.
- c. Within fourteen (14) days of final acceptance per Paragraph b1 or within fourteen (14) days after completion of punch list per Paragraph b2 above, the designer shall certify the work and issue applicable certificate(s) of compliance.
- d. Any discrepancies listed or discovered after the date of SCO final inspection and acceptance under Paragraphs b1 or b2 above shall be handled in accordance with Article 42, Guarantee.
- f. The final acceptance date will establish the following:
  - 1. The beginning of guarantees and warranties period.
  - 2. The date on which the contractor's insurance coverage for public liability, property damage and builder's risk may be terminated.
  - 3. That no liquidated damages (if applicable) shall be assessed after this date.
  - 4. The termination date of utility cost to the contractor.
- g. Prior to issuance of final acceptance date, the contractor shall have his authorized representatives visit the project and give full instructions to the designated personnel regarding operating, maintenance, care, and adjustment of all equipment and special construction elements. In addition, the contractor shall provide to the owner a complete instructional video (media format acceptable to the owner) on the operation, maintenance, care and adjustment of all equipment and special construction elements.**

#### **ARTICLE 26 - CORRECTION OF WORK BEFORE FINAL PAYMENT**

- a. Any work, materials, fabricated items or other parts of the work which have been condemned or declared not in accordance with the contract by the designer shall be promptly removed from the work site by the contractor, and shall be immediately replaced by new work in accordance with the contract at no additional cost to the owner. Work or property of other contractors or the owner, damaged or destroyed by virtue of such faulty work, shall be made good at the expense of the contractor whose work is faulty.

- b. Correction of condemned work described above shall commence within twenty-four (24) hours after receipt of notice from the designer, and shall make satisfactory progress, as determined by the designer, until completed.
- c. Should the contractor fail to proceed with the required corrections, then the owner may complete the work in accordance with the provisions of Article 28.

#### **ARTICLE 27 - CORRECTION OF WORK AFTER FINAL PAYMENT**

See Article 35, Performance Bond and Payment Bond, and Article 42, Guarantee. Neither the final certificate, final payment, occupancy of the premises by the owner, nor any provision of the contract, nor any other act or instrument of the owner, nor the designer, shall relieve the contractor from responsibility for negligence, or faulty material or workmanship, or failure to comply with the drawings and specifications. Contractor shall correct or make good any defects due thereto and repair any damage resulting there from, which may appear during the guarantee period following final acceptance of the work except as stated otherwise under Article 42, Guarantee. The owner will report any defects as they may appear to the contractor and establish a time limit for completion of corrections by the contractor. The owner will be the judge as to the responsibility for correction of defects.

#### **ARTICLE 28 - OWNER'S RIGHT TO DO WORK**

If, during the progress of the work or during the period of guarantee, the contractor fails to prosecute the work properly or to perform any provision of the contract, the owner, after seven (7) days' written notice sent by certified mail, return receipt requested, to the contractor from the designer, may perform or have performed that portion of the work. The cost of the work may be deducted from any amounts due or to become due to the contractor, such action and cost of same having been first approved by the designer. Should the cost of such action of the owner exceed the amount due or to become due the contractor, then the contractor or his surety, or both, shall be liable for and shall pay to the owner the amount of said excess.

#### **ARTICLE 29 - ANNULMENT OF CONTRACT**

If the contractor fails to begin the work under the contract within the time specified, or the progress of the work is not maintained on schedule, or the work is not completed within the time above specified, or fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure the prompt completion of said work, or shall perform the work unsuitably or shall discontinue the prosecution of the work, or if the contractor shall become insolvent or be declared bankrupt or commit any act of bankruptcy or insolvency, or allow any final judgment to stand against him unsatisfied for a period of forty-eight (48) hours, or shall make an assignment for the benefit of creditors, or for any other cause whatsoever shall not carry on the work in an acceptable manner, the owner may give notice in writing, sent by certified mail, return receipt requested, to the contractor and his surety of such delay, neglect or default, specifying the same, and if the contractor within a period of seven (7) days after such notice shall not proceed in accordance therewith, then the owner shall, declare this contract in default, and, thereupon, the surety shall promptly take over the work and complete the performance of this contract in the manner and within the time frame specified. In the event the surety shall fail to take over the work to be done under this contract within seven (7) days after being so notified and notify the owner in writing, sent by certified mail, return receipt requested, that he is taking the same over and stating that he will diligently pursue and complete the same, the owner shall have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of said contractor, to appropriate or use any or all contract materials and equipment on the grounds as may be suitable and acceptable and may enter into an agreement, either by public letting or negotiation, for the completion of said contract according to the terms and provisions thereof

or use such other methods as in his opinion shall be required for the completion of said contract in an acceptable manner. All costs and charges incurred by the owner, together with the costs of completing the work under contract, shall be deducted from any monies due or which may become due said contractor and surety. In case the expense so incurred by the owner shall be less than the sum which would have been payable under the contract, if it had been completed by said contractor, then the said contractor and surety shall be entitled to receive the difference, but in case such expense shall exceed the sum which would have been payable under the contract, then the contractor and the surety shall be liable and shall pay to the owner the amount of said excess.

### **ARTICLE 30 - CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT**

- a. Should the work be stopped by order of a court having jurisdiction, or by order of any other public authority for a period of three months, due to cause beyond the fault or control of the contractor, or if the owner should fail or refuse to make payment on account of a certificate issued by the designer within forty-five (45) days after receipt of same, then the contractor, after fifteen (15) days' written notice sent by certified mail, return receipt requested, to the owner and the designer, may suspend operations on the work or terminate the contract.
- b. The owner shall be liable to the contractor for the cost of all materials delivered and work performed on this contract plus 10 percent overhead and profit and shall make such payment. The designer shall be the judge as to the correctness of such payment.

### **ARTICLE 31 - REQUEST FOR PAYMENT**

- a. Not later than the fifth day of the month, the contractor shall submit to the designer a request for payment for work done during the previous month. The request shall be in the form agreed upon between the contractor and the designer, but shall show substantially the value of work done and materials delivered to the site during the period since the last payment, and shall sum up the financial status of the contract with the following information:
  1. Total of contract including change orders.
  2. Value of work completed to date.
  3. Less five percent (5%) retainage, provided however, that after fifty percent (50%) of the contractor's work has been satisfactorily completed on schedule, with approval of the owner and the State Construction Office and written consent of the surety, further requirements for retainage will be waived only so long as work continues to be completed satisfactorily and on schedule.
  4. Less previous payments.
  5. Current amount due.
- b. The contractor, upon request of the designer, shall substantiate the request with invoices of vouchers or payrolls or other evidence.
- c. Prior to submitting the first request, the contractor shall prepare for the designer a schedule showing a breakdown of the contract price into values of the various parts of the work, so arranged as to facilitate payments to subcontractors in accordance with Article 17, Contractor and Subcontractor Relationships. The contractor(s) shall list the

value of each subcontractor and supplier, identifying each minority business subcontractor and supplier as listed in Affidavit C, if applicable.

- d. When payment is made on account of stored materials and equipment, such materials must be stored on the owner's property, and the requests for payments shall be accompanied by invoices or bills of sale or other evidence to establish the owner's title to such materials and equipment. Such payments will be made only for materials that have been customized or fabricated specifically for this project. Raw materials or commodity products including but not limited to piping, conduit, CMU, metal studs and gypsum board may not be submitted. Responsibility for such stored materials and equipment shall remain with the contractor regardless of ownership title. Such stored materials and equipment shall not be removed from the owner's property. Should the space for storage on-site be limited, the contractor, at his option, shall be permitted to store such materials and/or equipment in a suitable space off-site. Should the contractor desire to include any such materials or equipment in his application for payment, they must be stored in the name of the owner in an independent, licensed, bonded warehouse approved by the designer, owner and the State Construction Office and located as close to the site as possible. The warehouse selected must be approved by the contractor's bonding and insurance companies; the material to be paid for shall be assigned to the owner and shall be inspected by the designer. Upon approval by the designer, owner and SCO of the storage facilities and materials and equipment, payment therefore will be certified. Responsibility for such stored materials and equipment shall remain with the contractor. Such stored materials and equipment shall not be moved except for transportation to the project site. Under certain conditions, the designer may approve storage of materials at the point of manufacture, which conditions shall be approved by the designer, the owner and the State Construction Office prior to approval for the storage and shall include an agreement by the storing party which unconditionally gives the State absolute right to possession of the materials at anytime. Bond, security and insurance protection shall continue to be the responsibility of the contractor(s).
- e. In the event of beneficial occupancy, retainage of funds due the contractor(s) may be reduced with the approval of the State Construction Office to an equitable amount to cover the list of items to be completed or corrected. Retainage may not be reduced to less than two and one-half (2 1/2) times the estimated value of the work to be completed or corrected. Reduction of retainage must be with the consent and approval of the contractor's bonding company.

## **ARTICLE 32 - CERTIFICATES OF PAYMENT AND FINAL PAYMENT**

- a. Within five (5) days from receipt of request for payment from the contractor, the designer shall issue and forward to the owner a certificate for payment. This certificate shall indicate the amount requested or as approved by the designer. If the certificate is not approved by the designer, he shall state in writing to the contractor and the owner his reasons for withholding payment.
- b. No certificate issued or payment made shall constitute an acceptance of the work or any part thereof. The making and acceptance of final payment shall constitute a waiver of all claims by the owner except:
  - 1. Claims arising from unsettled liens or claims against the contractor.
  - 2. Faulty work or materials appearing after final payment.
  - 3. Failure of the contractor to perform the work in accordance with drawings and specifications, such failure appearing after payment.

4. As conditioned in the performance bond and payment bond.
- c. The making and acceptance of final payment shall constitute a waiver of all claims by the contractor except those claims previously made and remaining unsettled (Article 20(c)).
- d. Prior to submitting request for final payment to the designer for approval, the contractor shall fully comply with all requirements specified in the “project closeout” section of the specifications. These requirements include but not limited to the following:
  1. Submittal of Product and Operating Manuals, Warranties and Bonds, Guarantees, Maintenance Agreements, As-Built Drawings, Certificates of Inspection or Approval from agencies having jurisdiction. (The designer must approve the Manuals prior to delivery to the owner).
  2. Transfer of Required attic stock material and all keys in an organized manner.
  3. Record of Owner’s training.
  4. Resolution of any final inspection discrepancies.
  5. Granting access to Contractor’s records, if Owner’s internal auditors have made a request for such access pursuant to Article 52.
- e. The contractor shall forward to the designer, the final application for payment along with the following documents:
  1. List of minority business subcontractors and material suppliers showing breakdown of contract amounts and total actual payments to subs and material suppliers.
  2. Affidavit of Release of Liens.
  3. Affidavit of contractors of payment to material suppliers and subcontractors. (See Article 36).
  4. Consent of Surety to Final Payment.
  5. Certificates of state agencies required by state law.
- f. The designer will not authorize final payment until the work under contract has been certified by designer, certificates of compliance issued, and the contractor has complied with the closeout requirements. The designer shall forward the contractor’s final application for payment to the owner along with respective certificate(s) of compliance required by law.

### **ARTICLE 33 - PAYMENTS WITHHELD**

- a. The designer with the approval of the State Construction Office may withhold payment for the following reasons:
  1. Faulty work not corrected.



2. The unpaid balance on the contract is insufficient to complete the work in the judgment of the designer.
  3. To provide for sufficient contract balance to cover liquidated damages that will be assessed.
- b. The secretary of the Department of Administration may authorize the withholding of payment for the following reasons:
1. Claims filed against the contractor or evidence that a claim will be filed.
  2. Evidence that subcontractors have not been paid.
- c. The Owner may withhold all or a portion of Contractor's general conditions costs set forth in the approved schedule of values, if Contractor has failed to comply with: (1) a request to access its records by Owner's internal auditors pursuant to Article 52; (2) a request for a plan of action and/or recovery schedule under Article 14.j or provide The Owner; (3) a request to provide an electronic copies of Contractor's baseline schedule, updates with all logic used to create the schedules in the original format of the scheduling software; and (4) Contractor's failure to have its Superintendent on the Project full-time; (
- d. When grounds for withholding payments have been removed, payment will be released. Delay of payment due the contractor without cause will make owner liable for payment of interest to the contractor in accordance with G.S. 143-134.1. As provided in G.S.143-134.1(e) the owner shall not be liable for interest on payments withheld by the owner for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

#### **ARTICLE 34 - MINIMUM INSURANCE REQUIREMENTS**

The work under this contract shall not commence until the contractor has obtained all required insurance and verifying certificates of insurance have been approved in writing by the owner. These certificates shall document that coverages afforded under the policies will not be cancelled, reduced in amount or coverages eliminated until at least thirty (30) days after mailing written notice, by certified mail, return receipt requested, to the insured and the owner of such alteration or cancellation. If endorsements are needed to comply with the notification or other requirements of this article copies of the endorsements shall be submitted with the certificates.

a. **Worker's Compensation and Employer's Liability**

The contractor shall provide and maintain, until final acceptance, workmen's compensation insurance, as required by law, as well as employer's liability coverage with minimum limits of \$100,000.

b. **Public Liability and Property Damage**

The contractor shall provide and maintain, until final acceptance, comprehensive general liability insurance, including coverage for premises operations, independent contractors, completed operations, products and contractual exposures, as shall protect such contractors from claims arising out of any bodily injury, including accidental death, as well as from claims for property damages which may arise from operations under this contract, whether such operations be by the contractor or by any subcontractor, or by

anyone directly or indirectly employed by either of them and the minimum limits of such insurance shall be as follows:

Bodily Injury: \$500,000 per occurrence  
Property Damage: \$100,000 per occurrence / \$300,000 aggregate

In lieu of limits listed above, a \$500,000 combined single limit shall satisfy both conditions.

Such coverage for completed operations must be maintained for at least two (2) years following final acceptance of the work performed under the contract.

**c. Property Insurance (Builder's Risk/Installation Floater)**

The contractor shall purchase and maintain property insurance until final acceptance, upon the entire work at the site to the full insurable value thereof. This insurance shall include the interests of the owner, the contractor, the subcontractors and sub-subcontractors in the work and shall insure against the perils of fire, wind, rain, flood, extended coverage, and vandalism and malicious mischief. If the owner is damaged by failure of the contractor to purchase or maintain such insurance, then the contractor shall bear all reasonable costs properly attributable thereto; the contractor shall effect and maintain similar property insurance on portions of the work stored off the site when request for payment per articles so includes such portions.

**d. Deductible**

Any deductible, if applicable to loss covered by insurance provided, is to be borne by the contractor.

**e. Other Insurance**

The contractor shall obtain such additional insurance as may be required by the owner or by the General Statutes of North Carolina including motor vehicle insurance, in amounts not less than the statutory limits.

**f. Proof of Carriage**

The contractor shall furnish the owner with satisfactory proof of carriage of the insurance required before written approval is granted by the owner.

**ARTICLE 35 - PERFORMANCE BOND AND PAYMENT BOND**

- a. Each contractor shall furnish a performance bond and payment bond executed by a surety company authorized to do business in North Carolina. The bonds shall be in the full contract amount. Bonds shall be executed in the form bound with these specifications.
- b. All bonds shall be countersigned by an authorized agent of the bonding company who is licensed to do business in North Carolina.

**ARTICLE 36 - CONTRACTOR'S AFFIDAVIT**

The final payment of retained amount due the contractor on account of the contract shall not become due until the contractor has furnished to the owner through the designer an affidavit signed, sworn and notarized to the effect that all payments for materials, services or subcontracted work in connection with his contract have been satisfied, and that no claims or

liens exist against the contractor in connection with this contract. In the event that the contractor cannot obtain similar affidavits from subcontractors to protect the contractor and the owner from possible liens or claims against the subcontractor, the contractor shall state in his affidavit that no claims or liens exist against any subcontractor to the best of his (the contractor's) knowledge, and if any appear afterward, the contractor shall save the owner harmless.

#### **ARTICLE 37 - ASSIGNMENTS**

The contractor shall not assign any portion of this contract nor subcontract in its entirety. Except as may be required under terms of the performance bond or payment bond, no funds or sums of money due or become due the contractor under the contract may be assigned.

#### **ARTICLE 38 - USE OF PREMISES**

- a. The contractor(s) shall confine his apparatus, the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the designer and owner and shall not exceed those established limits in his operations.
- b. The contractor(s) shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.
- c. The contractor(s) shall enforce the designer's and owner's instructions regarding signs, advertisements, fires and smoking.
- d. No firearms, any type of alcoholic beverages, or drugs (other than those prescribed by a physician) will be permitted at the job site.

#### **ARTICLE 39 - CUTTING, PATCHING AND DIGGING**

- a. The contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon or reasonably implied by the drawings and specifications for the completed structure, as the designer may direct.
- b. Any cost brought about by defective or ill-timed work shall be borne by the party responsible therefor.
- c. No contractor shall endanger any work of another contractor by cutting, digging or other means. No contractor shall cut or alter the work of any other contractor without the consent of the designer and the affected contractor(s).

#### **ARTICLE 40 - UTILITIES, STRUCTURES, SIGNS**

- a. The contractor shall provide necessary and adequate facilities for water, electricity, gas, oil, sewer and other utility services which maybe necessary and required for completion of the project including all utilities required for testing, cleaning, balancing, and sterilization of designated plumbing, mechanical and electrical systems. Any permanent meters installed shall be listed in the contractor's name until work has a final acceptance. The contractor will be solely responsible for all utility costs prior to final acceptance. Contractor shall contact all affected utility companies prior to bid to determine their requirements to provide temporary and permanent service and include all costs associated with providing those services in their bid. Coordination of the work of the utility companies during construction is the sole responsibility of the contractor.

- b. Meters shall be relisted in the owner's name on the day following final acceptance of the Project Expediter's work, and the owner shall pay for services used after that date.
- c. The owner shall be reimbursed for all metered utility charges after the meter is relisted in the owner's name and prior to completion and acceptance of the work of **all** contractors. Reimbursement shall be made by the contractor whose work has not been completed and accepted. If the work of two or more contractors has not been completed and accepted, reimbursement to the owner shall be paid by the contractors involved on the basis of assessments by the designer.
- d. Prior to the operation of permanent systems, the Project Expediter will provide temporary power, lighting, water, and heat to maintain space temperature above freezing, as required for construction operations.
- e. All contractors shall have the permanent building systems in sufficient readiness for furnishing temporary climatic control at the time a building is enclosed and secured. The HVAC systems shall maintain climatic control throughout the enclosed portion of the building sufficient to allow completion of the interior finishes of the building. A building shall be considered enclosed and secured when windows, doorways (exterior, mechanical, and electrical equipment rooms), and hardware are installed; and other openings have protection which will provide reasonable climatic control. The appropriate time to start the mechanical systems and climatic condition shall be jointly determined by the contractor(s), the designer and owner. Use of the equipment in this manner shall be subject to the approval of the Designer and owner and shall in no way affect the warranty requirements of the contractor(s).
- f. The electrical contractor shall have the building's permanent power wiring distribution system in sufficient readiness to provide power as required by the HVAC contractor for temporary climatic control.
- g. The electrical contractor shall have the building's permanent lighting system ready at the time the general contractor begins interior painting and shall provide adequate lighting in those areas where interior painting and finishing is being performed.
- h. Each prime contractor shall be responsible for his permanently fixed service facilities and systems in use during progress of the work. The following procedures shall be strictly adhered to:
  - 1. Prior to final acceptance of work by the State Construction Office, each contractor shall remove and replace any parts of the permanent building systems damaged through use during construction.
  - 2. Temporary filters as recommended by the equipment manufacturer in order to keep the equipment and ductwork clean and free of dust and debris shall be installed in each of the heating and air conditioning units and at each return grille during construction. New filters shall be installed in each unit prior to the owner's acceptance of the work.
  - 3. Extra effort shall be maintained to keep the building and the site adjacent to the building clean and under no circumstances shall air systems be operated if finishing and site work operations are creating dust in excess of what would be considered normal if the building were occupied.
  - 4. It shall be understood that any warranty on equipment presented to the owner shall extend from the day of final acceptance by the owner. The cost of warranting the

equipment during operation in the finishing stages of construction shall be borne by the contractor whose system is utilized.

5. The electrical contractor shall have all lamps in proper working condition at the time of final project acceptance.
  - i. The Project Expediter shall provide, if required and where directed, a shed for toilet facilities and shall furnish and install in this shed all water closets required for a complete and adequate sanitary arrangement. These facilities will be available to other contractors on the job and shall be kept in a neat and sanitary condition at all times. Chemical toilets are acceptable.
  - j. The Project Expediter shall, if required by the Supplementary General Conditions and where directed, erect a temporary field office, complete with lights, telephone, heat and air conditioning. A portion of this office shall be partitioned off, of sufficient size, for the use of a resident inspector, should the designer so direct.
  - k. On multi-story construction projects, the Project Expediter shall provide temporary elevators, lifts, or other special equipment for the general use of all contractors. The cost for such elevators, lifts or other special equipment and the operation thereof shall be included in the Project Expediter's bid.
  - l. The Project Expediter will erect one sign on the project if required. The sign shall be of sound construction, and shall be neatly lettered with black letters on white background. The sign shall bear the name of the project, and the names of prime contractors on the project, and the name of the designer and consultants. Directional signs may be erected on the owner's property subject to approval of the owner with respect to size, style and location of such directional signs. Such signs may bear the name of the contractor and a directional symbol. No other signs will be permitted except by permission of the owner.

#### **ARTICLE 41 - CLEANING UP**

- a. The contractors shall keep the building and surrounding area reasonably free from rubbish at all times, and shall remove debris from the site on a timely basis or when directed to do so by the designer or Project Expediter. The Project Expediter shall provide an on site refuse container(s) for the use of all contractors. Each contractor shall remove their rubbish and debris from the building on a daily basis. The Project Expediter shall broom clean the building as required to minimize dust and dirt accumulation.
- b. The Project Expediter shall provide and maintain suitable all-weather access to the building.
- c. Before final inspection and acceptance of the building, each contractor shall clean his portion of the work, including glass, hardware, fixtures, masonry, tile and marble (using no acid), clean and wax all floors as specified, and completely prepare the building for use by the owner, with no cleaning required by the owner.

#### **ARTICLE 42 - GUARANTEE**

- a. The contractor shall unconditionally guarantee materials and workmanship against patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the date of final acceptance of the work or beneficial occupancy and shall replace such defective materials or workmanship without cost to the owner.

- b. Where items of equipment or material carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material. The contractor shall replace such defective equipment or materials, without cost to the owner, within the manufacturer's warranty period.
- c. Additionally, the owner may bring an action for latent defects caused by the negligence of the contractor which is hidden or not readily apparent to the owner at the time of beneficial occupancy or final acceptance, whichever occurred first, in accordance with applicable law.
- d. Guarantees for roof, equipment, materials, and supplies shall be stipulated in the specifications sections governing such roof, equipment, materials, or supplies.

#### **ARTICLE 43 - CODES AND STANDARDS**

Wherever reference is given to codes, standard specifications or other data published by regulating agencies including, but not limited to, national electrical codes, North Carolina state building codes, federal specifications, ASTM specifications, various institute specifications, etc., it shall be understood that such reference is to the latest edition including addenda published prior to the date of the contract documents.

#### **ARTICLE 44 - INDEMNIFICATION**

To the fullest extent permitted by law, the contractor shall indemnify and hold harmless the owner, the designer and the agents, consultants and employees of the owner and designer, from and against all claims, damages, losses and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from the performance or failure of performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting there from, and (2) is caused in whole or in part by any negligent act or omission of the contractor, the contractor's subcontractor, or the agents of either the contractor or the contractor's subcontractor. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this article.

#### **ARTICLE 45 - TAXES**

- a. Federal excise taxes do not apply to materials entering into state work (Internal Revenue Code, Section 3442(3)).
- b. Federal transportation taxes do not apply to materials entering into state work (Internal Revenue Code, Section 3475(b) as amended).
- c. North Carolina sales tax and use tax, as required by law, do apply to materials entering into state work and such costs shall be included in the bid proposal and contract sum.
- d. Local option sales and use taxes, as required by law, do apply to materials entering into state work as applicable and such costs shall be included in the bid proposal and contract sum.
- e. **Accounting Procedures for Refund of County Sales & Use Tax**

Amount of county sales and use tax paid per contractor's statements:

Contractors performing contracts for state agencies shall give the state agency for whose project the property was purchased a signed statement containing the information listed in G.S. 105-164.14(e).

The Department of Revenue has agreed that in lieu of obtaining copies of sales receipts from contractors, an agency may obtain a certified statement as of April 1, 1991 from the contractor setting forth the date, the type of property and the cost of the property purchased from each vendor, the county in which the vendor made the sale and the amount of local sales and use taxes paid thereon. If the property was purchased out-of-state, the county in which the property was delivered should be listed. The contractor should also be notified that the certified statement may be subject to audit.

In the event the contractors make several purchases from the same vendor, such certified statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices, the counties, and the county sales and use taxes paid thereon.

Name of taxing county: The position of a sale is the retailer's place of business located within a taxing county where the vendor becomes contractually obligated to make the sale. Therefore, it is important that the county tax be reported for the county of sale rather than the county of use.

When property is purchased from out-of-state vendors and the county tax is charged, the county should be identified where delivery is made when reporting the county tax.

Such statement must also include the cost of any tangible personal property withdrawn from the contractor's warehouse stock and the amount of county sales or use tax paid thereon by the contractor.

Similar certified statements by his subcontractors must be obtained by the general contractor and furnished to the claimant.

Contractors are not to include any tax paid on supplies, tools and equipment which they use to perform their contracts and should include only those building materials, supplies, fixtures and equipment which actually become a part of or annexed to the building or structure.

#### **ARTICLE 46 - EQUAL OPPORTUNITY CLAUSE**

The non-discrimination clause contained in Section 202 (Federal) Executive Order 11246, as amended by Executive Order 11375, relative to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin, and the implementing rules and regulations prescribed by the secretary of Labor, are incorporated herein.

#### **ARTICLE 47 - EMPLOYMENT OF INDIVIDUALS WITH DISABILITIES**

The contractor(s) agree not to discriminate against any employee or applicant for employment because of physical or mental disabilities in regard to any position for which the employee or applicant is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with such disabilities without discrimination based upon their physical or mental disability in all employment practices.

#### **ARTICLE 48 - ASBESTOS-CONTAINING MATERIALS (ACM)**

The State of North Carolina has attempted to address all asbestos-containing materials that are to be disturbed in the project. However, there may be other asbestos-containing materials in the work areas that are not to be disturbed and do not create an exposure hazard.

Contractors are reminded of the requirements of instructions under Instructions to Bidders and General Conditions of the Contract, titled Examination of Conditions. Statute 130A, Article 19, amended August 3, 1989, established the Asbestos Hazard Management Program that controls asbestos abatement in North Carolina. The latest edition of *Guideline Criteria for Asbestos Abatement* from the State Construction Office is to be incorporated in all asbestos abatement projects for the Capital Improvement Program.

#### **ARTICLE 49 - MINORITY BUSINESS PARTICIPATION**

GS 143-128.2 establishes a ten percent (10%) goal for participation by minority businesses in total value of work for each State building project. The document, *Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts* including Affidavits and Appendix E are hereby incorporated into and made a part of this contract.

#### **ARTICLE 50 – CONTRACTOR EVALUATION**

The contractor's overall work performance on the project shall be fairly evaluated in accordance with the State Building Commission policy and procedures, for determining qualifications to bid on future State capital improvement projects. In addition to final evaluation, interim evaluation may be prepared during the progress of project. The document, *Contractor Evaluation Procedures*, is hereby incorporated and made a part of this contract. The owner may request the contractor's comments to evaluate the designer.

#### **ARTICLE 51 – GIFTS**

Pursuant to N.C. Gen. Stat. § 133-32, it is unlawful for any vendor or contractor ( i.e. architect, bidder, contractor, construction manager, design professional, engineer, subcontractor, supplier, vendor, etc.), to make gifts or to give favors to any State employee. This prohibition covers those vendors and contractors who: (1) have a contract with a governmental agency; or (2) have performed under such a contract within the past year; or (3) anticipate bidding on such a contract in the future. For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review G.S. Sec. 133-32.

During the construction of the Project, the Contractor is prohibited from making gifts to any of the Owner's employees, Owner's project representatives (architect, engineers, construction manager and their employees), employees of the State Construction Office and/or any other State employee that may have any involvement, influence, responsibilities, oversight, management and/or duties that pertain to and/or relate to the contract administration, financial administration and/or disposition of claims arising from and/or relating to the Contract and/or Project.

#### **ARTICLE 52 – AUDITING-ACCESS TO PERSONS AND RECORDS**

In accordance with N.C. General Statute 147-64.7, the State Auditor shall have access to Contractor's officers, employees, agents and/or other persons in control of and/or responsible for the Contractor's records that relate to this Contracts for purposes of conducting audits under the referenced statute. The Owner's internal auditors shall also have the right to access and copy the Contractor's records relating to the Contract and Project during the term of the Contract and within two years following the completion of the Project/close-out of the Contract to verify accounts, accuracy, information, calculations and/or data affecting and/or



relating to Contractor's requests for payment, requests for change orders, change orders, claims for extra work, requests for time extensions and related claims for delay/extended general conditions costs, claims for lost productivity, claims for loss efficiency, claims for idle equipment or labor, claims for price/cost escalation, pass-through claims of subcontractors and/or suppliers, and/or any other type of claim for payment or damages from Owner and/or its project representatives.

## **ARTICLE 53 – NORTH CAROLINA FALSE CLAIMS ACT**

The North Carolina False Claims Act ("NCFCA"), N.C. Gen. Stat. § 1-605 through 1-618, applies to this Contract. The Contractor should familiarize itself with the entire NCFCA and should seek the assistance of an attorney if it has any questions regarding the NCFCA and its applicability to any requests, demands and/or claims for payment its submits to the State through the contracting state agency, institution, university or community college.

The purpose of the NCFCA "is to deter persons from knowingly causing or assisting in causing the State to pay claims that are false or fraudulent and to provide remedies in the form of treble damages and civil penalties when money is obtained from the State by reason of a false or fraudulent claim." (Section 1-605(b).) A contractor's liability under the NCFCA may arise from, but is not limited to: requests for payment, invoices, billing, claims for extra work, requests for change orders, requests for time extensions, claims for delay damages/extended general conditions costs, claims for lost productivity, claims for loss efficiency, claims for idle equipment or labor, claims for price/cost escalation, pass-through claims of subcontractors and/or suppliers, documentation used to support any of the foregoing requests or claims, and/or any other request for payment from the State through the contracting state agency, institution, university or community college. The parts of the NCFCA that are most likely to be enforced with respect to this type of contract are as follows:

- A "claim" is "[a]ny request or demand, whether under a contract or otherwise, for money or property and whether or not the State has title to the money or property that (i) is presented to an officer, employee, or agent of the State or (ii) is made to a contractor ... if the money or property is to be spent or used on the State's behalf or to advance a State program or interest and if the State government: (a) provides or has provided any portion of the money or property that is requested or demanded; or (b) will reimburse such contractor ... for any portion of the money or property which is requested or demanded." (Section 1-606(2).)
- "Knowing" and "knowingly." – Whenever a person, with respect to information, does any of the following: (a) Has actual knowledge of the information; (b) Acts in deliberate ignorance of the truth or falsity of the information; and/or (c) Acts in reckless disregard of the truth or falsity of the information. (Section 1-606(4).) Proof of specific intent to defraud is not required. (Section 1-606(4).)
- "Material" means having a natural tendency to influence, or be capable of influencing, the payment or receipt of money or property. (Section 1-606(4).)
- Liability. – "Any person who commits any of the following acts shall be liable to the State for three times the amount of damages that the State sustains because of the act of that person[:]. ... (1) Knowingly presents or causes to be presented a false or fraudulent claim for payment or approval. (2) Knowingly makes, uses, or causes to be made or used, a false record or statement material to a false or fraudulent claim. (3) Conspires to commit a violation of subdivision (1), (2) ..." (Section 1-607(a)(1), (2).)

- The NCFCA shall be interpreted and construed so as to be consistent with the federal False Claims Act, 31 U.S.C. § 3729, et seq., and any subsequent amendments to that act. (Section 1-616(c).)

Finally, the contracting state agency, institution, university or community college may refer any suspected violation of the NCFCA by the Contractor to the Attorney General's Office for investigation. Under Section 1-608(a), the Attorney General is responsible for investigating any violation of NCFCA, and may bring a civil action against the Contractor under the NCFCA. The Attorney General's investigation and any civil action relating thereto are independent and not subject to any dispute resolution provision set forth in this Contract. (See Section 1-608(a).)

#### **ARTICLE 54 – TERMINATION FOR CONVENIENCE**

Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.

Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, (2) such other costs actually incurred by Contractor as are permitted by the prime contract and approved by Owner; (3) plus ten percent (10%) of the cost of the work referred to in subparagraph (1) above for overhead and profit. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. Contractor shall not be entitled to any claim or claim of lien against Owner for any additional compensation or damages in the event of such termination and payment.

## **GUIDELINES FOR RECRUITMENT AND SELECTION OF MINORITY BUSINESSES FOR PARTICIPATION IN STATE CONSTRUCTION CONTRACTS**

In accordance with G.S. 143-128.2 (effective January 1, 2002) these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on State construction projects in the amount of \$300,000 or more. The legislation provides that the State shall have a verifiable ten percent (10%) goal for participation by minority businesses in the total value of work for each project for which a contract or contracts are awarded. These requirements are published to accomplish that end.

### **SECTION A: INTENT**

It is the intent of these guidelines that the State of North Carolina, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper and reasonable to achieve the statutory goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority-business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

### **SECTION B: DEFINITIONS**

1. Minority - a person who is a citizen or lawful permanent resident of the United States and who is:
  - a. Black, that is, a person having origins in any of the black racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
  - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, the Pacific Islands;
  - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
  - e. Female
2. Minority Business - means a business:
  - a. In which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
  - b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.
3. Socially and economically disadvantaged individual - means the same as defined in 15 U.S.C. 637. "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged".
4. Public Entity - means State and all public subdivisions and local governmental units.
5. Owner - The State of North Carolina, through the Agency/Institution named in the contract.
6. Designer - Any person, firm, partnership, or corporation, which has contracted with the State of North Carolina to perform architectural or engineering, work.
7. Bidder - Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.

8. Contract - A mutually binding legal relationship or any modification thereof obligating the seller to furnish equipment, materials or services, including construction, and obligating the buyer to pay for them.
9. Contractor - Any person, firm, partnership, corporation, association, or joint venture which has contracted with the State of North Carolina to perform construction work or repair.
10. Subcontractor - A firm under contract with the prime contractor or construction manager at risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract.

## **SECTION C: RESPONSIBILITIES**

1. Office for Historically Underutilized Businesses, Department of Administration (hereinafter referred to as HUB Office).

The HUB Office has established a program, which allows interested persons or businesses qualifying as a minority business under G.S. 143-128.2, to obtain certification in the State of North Carolina procurement system. The information provided by the minority businesses will be used by the HUB Office to:

- a. Identify those areas of work for which there are minority businesses, as requested.
- b. Make available to interested parties a list of prospective minority business contractors and subcontractors.
- c. Assist in the determination of technical assistance needed by minority business contractors.

In addition to being responsible for the certification/verification of minority businesses that want to participate in the State construction program, the HUB Office will:

- (1) Maintain a current list of minority businesses. The list shall include the areas of work in which each minority business is interested.
- (2) Inform minority businesses on how to identify and obtain contracting and subcontracting opportunities through the State Construction Office and other public entities.
- (3) Inform minority businesses of the contracting and subcontracting process for public construction building projects.
- (4) Work with the North Carolina trade and professional organizations to improve the ability of minority businesses to compete in the State construction projects.
- (5) The HUB Office also oversees the minority business program by:
  - a. Monitoring compliance with the program requirements.
  - b. Assisting in the implementation of training and technical assistance programs.
  - c. Identifying and implementing outreach efforts to increase the utilization of minority businesses.
  - d. Reporting the results of minority business utilization to the Secretary of the Department of Administration, the Governor, and the General Assembly.

2. State Construction Office

The State Construction Office will be responsible for the following:

- a. Furnish to the HUB Office a minimum of twenty-one days prior to the bid opening the following:
  - (1) Project description and location;
  - (2) Locations where bidding documents may be reviewed;
  - (3) Name of a representative of the owner who can be contacted during the advertising period to advise who the prospective bidders are;
  - (4) Date, time and location of the bid opening.
  - (5) Date, time and location of prebid conference, if scheduled.
- b. Attending scheduled prebid conference, if necessary, to clarify requirements of the general statutes regarding minority-business participation, including the bidders' responsibilities.

- c. Reviewing the apparent low bidders' statutory compliance with the requirements listed in the proposal, that must be complied with, if the bid is to be considered as responsive, prior to award of contracts. The State reserves the right to reject any or all bids and to waive informalities.
- d. Reviewing of minority business requirements at Preconstruction conference.
- e. Monitoring of contractors' compliance with minority business requirements in the contract documents during construction.
- f. Provide statistical data and required reports to the HUB Office.
- g. Resolve any protest and disputes arising after implementation of the plan, in conjunction with the HUB Office.

### 3. Owner

Before awarding a contract, owner shall do the following:

- a. Develop and implement a minority business participation outreach plan to identify minority businesses that can perform public building projects and to implement outreach efforts to encourage minority business participation in these projects to include education, recruitment, and interaction between minority businesses and non-minority businesses.
- b. Attend the scheduled prebid conference.
- c. At least 10 days prior to the scheduled day of bid opening, notify minority businesses that have requested notices from the public entity for public construction or repair work and minority businesses that otherwise indicated to the Office for Historically Underutilized Businesses an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
  - 1. A description of the work for which the bid is being solicited.
  - 2. The date, time, and location where bids are to be submitted.
  - 3. The name of the individual within the owner's organization who will be available to answer questions about the project.
  - 4. Where bid documents may be reviewed.
  - 5. Any special requirements that may exist.
- d. Utilize other media, as appropriate, likely to inform potential minority businesses of the bid being sought.
- e. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- f. Review, jointly with the designer, all requirements of G.S. 143-128.2(c) and G.S. 143-128.2(f) – (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award to the State Construction Office.
- g. Evaluate documentation to determine good faith effort has been achieved for minority business utilization prior to recommendation of award to State Construction Office.
- h. Review prime contractors' pay applications for compliance with minority business utilization commitments prior to payment.
- i. Make documentation showing evidence of implementation of Owner's responsibilities available for review by State Construction Office and HUB Office, upon request

### 4. Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designer will:

- a. Attend the scheduled prebid conference to explain minority business requirements to the prospective bidders.
- b. Assist the owner to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.
- c. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- d. Review jointly with the owner, all requirements of G.S. 143-128.2(c) and G.S.143-128.2(f) – (i.e. bidders' proposals for identification of the minority businesses that will be utilized with

corresponding total dollar value of the bid and affidavit listing Good Faith Efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award.

- e. During construction phase of the project, review “MBE Documentation for Contract Payment” – (Appendix E) for compliance with minority business utilization commitments. Submit Appendix E form with monthly pay applications to the owner and forward copies to the State Construction Office.
- f. Make documentation showing evidence of implementation of Designer’s responsibilities available for review by State Construction Office and HUB Office, upon request.

5. Prime Contractor(s), CM at Risk, and Its First-Tier Subcontractors

Under the single-prime bidding, the separate-prime bidding, construction manager at risk and alternative contracting methods, contractor(s) will:

- a. Attend the scheduled prebid conference.
- b. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
- c. At least ten (10) days prior to the scheduled day of bid opening, notify minority businesses of potential subcontracting opportunities listed in the proposal. The notification will include the following:
  - (1) A description of the work for which the subbid is being solicited.
  - (2) The date, time and location where subbids are to be submitted.
  - (3) The name of the individual within the company who will be available to answer questions about the project.
  - (4) Where bid documents may be reviewed.
  - (5) Any special requirements that may exist, such as insurance, licenses, bonds and financial arrangements.

If there are more than three (3) minority businesses in the general locality of the project who offer similar contracting or subcontracting services in the specific trade, the contractor(s) shall notify three (3), but may contact more, if the contractor(s) so desires.

- d. During the bidding process, comply with the contractor(s) requirements listed in the proposal for minority participation.
- e. Identify on the bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).
- f. Make documentation showing evidence of implementation of PM, CM-at-Risk and First-Tier Subcontractor responsibilities available for review by State Construction Office and HUB Office, upon request.
- g. Upon being named the apparent low bidder, the Bidder shall provide one of the following: (1) an affidavit (Affidavit C) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal; (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. Failure to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.
- h. The contractor(s) shall identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values. The schedule of values shall be provided as required in Article 31 of the General Conditions of the Contract to facilitate payments to the subcontractors.
- i. The contractor(s) shall submit with each monthly pay request(s) and final payment(s), “MBE Documentation for Contract Payment” – (Appendix E), for designer’s review.
- j. During the construction of a project, at any time, if it becomes necessary to replace a minority business subcontractor, immediately advise the owner, State Construction Office, and the Director of the HUB Office in writing, of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor.

- k. If during the construction of a project additional subcontracting opportunities become available, make a good faith effort to solicit subbids from minority businesses.
- l. It is the intent of these requirements apply to all contractors performing as prime contractor and first tier subcontractor under construction manager at risk on state projects.

6. Minority Business Responsibilities

While minority businesses are not required to become certified in order to participate in the State construction projects, it is recommended that they become certified and should take advantage of the appropriate technical assistance that is made available. In addition, minority businesses who are contacted by owners or bidders must respond promptly whether or not they wish to submit a bid.

**SECTION 4: DISPUTE PROCEDURES**

It is the policy of this state that disputes that involves a person's rights, duties or privileges, should be settled through informal procedures. To that end, minority business disputes arising under these guidelines should be resolved as governed under G.S. 143-128(g).

**SECTION 5:** These guidelines shall apply upon promulgation on state construction projects. Copies of these guidelines may be obtained from the Department of Administration, State Construction Office, (physical address) 301 North Wilmington Street, Suite 450, NC Education Building, Raleigh, North Carolina, 27601-2827, (mail address) 1307 Mail Service Center, Raleigh, North Carolina, 27699-1307, phone (919) 807-4100, Website: [www.nc-sco.com](http://www.nc-sco.com)

**SECTION 6:** In addition to these guidelines, there will be issued with each construction bid package provisions for contractual compliance providing minority business participation in the state construction program.

## MINORITY BUSINESS CONTRACT PROVISIONS (CONSTRUCTION)

### APPLICATION:

The **Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts** are hereby made a part of these contract documents. These guidelines shall apply to all contractors regardless of ownership. Copies of these guidelines may be obtained from the Department of Administration, State Construction Office, (physical address) 301 North Wilmington Street, Suite 450, NC Education Building, Raleigh, North Carolina, 27601-2827, (mail address) 1307 Mail Service Center, Raleigh, North Carolina, 27699-1307, phone (919) 807-4100, Website: <http://www.nc-sco.com>

### MINORITY BUSINESS SUBCONTRACT GOALS:

The goals for participation by minority firms as subcontractors on this project have been set at 10%.

The bidder must identify on its bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit (Affidavit A) listing good faith efforts **or** affidavit (Affidavit B) of self-performance of work, if the bidder will perform work under contract by its own workforce, as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).

The lowest responsible, responsive bidder must provide Affidavit C, that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal.

**OR**

Provide Affidavit D, that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, **with documentation of Good Faith Effort, if the percentage is not equal to the applicable goal.**

**OR**

Provide Affidavit B, which includes sufficient information for the State to determine that the bidder does not customarily subcontract work on this type project.

**The above information must be provided as required. Failure to submit these documents is grounds for rejection of the bid.**



## **MINIMUM COMPLIANCE REQUIREMENTS:**

All written statements, affidavits or intentions made by the Bidder shall become a part of the agreement between the Contractor and the State for performance of this contract. Failure to comply with any of these statements, affidavits or intentions, or with the minority business Guidelines shall constitute a breach of the contract. A finding by the State that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false or incomplete, shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the State whether to terminate the contract for breach.

In determining whether a contractor has made Good Faith Efforts, the State will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, intensity, and results of these efforts. Good Faith Efforts include:

- (1) Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed.
- (2) Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due.
- (3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation.
- (4) Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- (5) Attending any prebid meetings scheduled by the public owner.
- (6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
- (7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- (8) Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- (9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- (10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

**APPENDIX E**

**MBE DOCUMENTATION FOR CONTRACT PAYMENTS**

Prime Contractor/Architect: \_\_\_\_\_

Address & Phone: \_\_\_\_\_

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

Pay Application #: \_\_\_\_\_ Period: \_\_\_\_\_

The following is a list of payments made to Minority Business Enterprises on this project for the above-mentioned period.

MBE FIRM NAME	* INDICATE TYPE OF MBE	AMOUNT PAID THIS MONTH	TOTAL PAYMENTS TO DATE	TOTAL AMOUNT COMMITTED

\*Minority categories: Black, African American (B), Hispanic (H), Asian American (A), American Indian (I), Female (F), Social and Economically Disadvantage (D)

Date: \_\_\_\_\_ Approved/Certified By: \_\_\_\_\_

Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

**SUBMIT WITH EACH PAY REQUEST & FINAL PAYMENT**

**SUPPLEMENTARY GENERAL CONDITIONS  
OF THE CONTRACT**

**STANDARD FORM FOR CONSTRUCTION CONTRACTS**

**WESTERN CAROLINA UNIVERSITY**

## SUPPLEMENTARY GENERAL CONDITIONS (SGC's) OF THE CONTRACT

This document supplements but does not alter in any way the requirements of the General Conditions of the Contract.

### 1. DEFINITIONS

As defined in Article 1 of the General Conditions, the Supplementary General Conditions as well as the WCU General Requirements are considered part of the contract documents.

The Owner is the State of North Carolina through Western Carolina University.

Provide shall mean purchase, deliver, install, new, clean, completely operational, fully tested and ready for use.

### 2. SCOPE OF WORK

See attached Technical Specifications and Drawings for scope of work including WCU General Requirements.

### 3. ALTERNATES

See Section 012300, "Alternates" for listing.

### 4. SHOP DRAWINGS, SUBMITTALS, SAMPLES, DATA

The submittal requirements are described in Article 5 of the General Conditions. Items for which submittals are required are listed below:

Pre-Submittals:

- The contractor shall provide the Owner a complete list of contact information for the Contractor, his key personnel, and all Subcontractors. This list shall be provided to the Owner prior to beginning the Work and shall be updated regularly with the updated provided to the Owner.
- All items referenced in Technical Specifications

Post-Submittals:

- All previously submitted documents revised to show as-built condition.
- O&M Manuals for any equipment requiring a submittal.

Data on the following items shall be sent to the Designer for review and approval. The submittal process is described in Article 5 of the General Terms and Conditions. Refer to "Technical Specifications" for required submittals. All Pre-Submittals shall be delivered to the Designer and Owner no later than the Preconstruction Meeting. All Post Submittals shall be delivered to the Designer and Owner within thirty (30) days of work completion. The final pay request shall be included with Post-Submittals.

**5. WORKING DRAWINGS AND SPECIFICATIONS AT THE JOB SITE**

The Contractor shall maintain at the job site a readable set of the complete set of working drawings and specifications for his work, including all shop drawings. The Contractor shall maintain at the job site an up-to-date, readable set of the As-Built drawings.

**6. MATERIALS, EQUIPMENT, EMPLOYEES**

Should an accident or disruption occur on the project work site, the Contractor shall notify the WCU Project Manager and WCU Safety and Risk Management Office as soon as possible and no less than 24 hours of occurrence.

**7. PERMITS, INSPECTIONS, FEES, REGULATIONS**

The Contractor shall request and obtain permission from the WCU Project Manager for an interruption of utility or services a minimum of seven (7) days in advance. Failure of the Contractor to obtain Owner permission shall not be grounds for an extension of time.

Prior to performing any "hot work" or any work above ceiling in existing buildings, the Contractor shall obtain a permit for such from the WCU Safety and Risk Management Office.

The Contractor shall comply with Owner's Interim Life Safety Plan requirements to maintain egress from all occupied buildings.

**8. CONSTRUCTION SUPERVISION and SCHEDULE**

The Contractor shall start work within seven (7) days upon receipt of Notice to Proceed. The Contractor shall submit a project work schedule before beginning work. The starting date and work schedule shall be adhered to, and the work shall be performed during the Owner's normal working hours, 8:00 AM to 5:00 PM. Requests by the Contractor to work outside normal working hours shall be made a minimum of one (1) week in advance to the WCU Project Manager on site. The Contractor's bid shall include all costs associated with workers working outside of normal business hours and/or costs associated with workers working overtime as required to meet the specified project schedule. The Owner reserves the right to request work to be performed outside normal working hours and to limit Contractor activities when they conflict with Owner operations. Any increased costs due to Owner requirements for work outside normal hours not specified in the Contract Documents will be negotiated.

The Contractor shall maintain a daily field report including, but not limited to, listing of all personnel on site (including all Subcontractors), weather conditions, major scopes of work under construction, material deliveries, safety incidents, progress photographs, and inspections.

**9. SUBCONTRACTS and SUBCONTRACTORS**

All Subcontractors shall be identified in writing and approved by the Owner prior to the start of work.

**10. TIME OF COMPLETION, DELAYS, EXTENSION OF TIME, LIQUIDATED DAMAGES**

The Contractor shall commence work to be performed under this Contract on the date to be specified in the Notice to Proceed from the Contract Administrator and shall fully complete all work hereunder within 70 consecutive calendar days from the date specified in the Notice to Proceed. The following are the critical dates for the project: Anticipated Notice to Proceed: July 17, 2023; Site available for Work: October 2, 2023; Construction Completion: December 22, 2023.

For each day in excess of the above number of days, the Contractor(s) shall pay the Owner liquidated damages in the amount of \$500.00 per consecutive calendar day.

If the Contractor is delayed at any time in the progress of the Contractor's work by any act or negligence of the Owner, the Owner's employees or the Owner's separate Contractor; by changes ordered in the work; by abnormal weather conditions; by any causes beyond the Contractor's control; or by other causes deemed justifiable by Owner, then the contract time may be reasonably extended in a written order from the Owner upon written request from the Contractor within ten (10) days following the cause for delay.

Non-compensable weather delays affecting the critical path shall be tracked during the period leading up to the building being dried-in, and calculated and awarded via Change Order if warranted, at the end of the construction period.

**11. USE OF PREMISES**

Work under this contract shall be performed in such a manner as to avoid interruption or interference with the operation of any existing activity on the premises or at the location of the work. The Owner may enforce extra restrictions during certain periods of the year. During examination periods, the Contractor shall restrict noise-making activities. If the project involves work in or near a building in which an exam is being conducted, the Contractor shall be required to restrict operations which are disturbing to students during the hours of the exam(s). Work will not be permitted on Graduation Day, or the day preceding it.

While on campus, Contractor's and Sub-Contractor's personnel shall be identifiable at all times, for example, by wearing company names or logos on garments or hard hats.

Damage done to the University premises that are under the control of the Contractor, or damage caused by the contractor to premises used by the contractor, shall be corrected at the Contractor's expense.

The contractor shall schedule deliveries between 7:00 am and 4:00 pm. The contractor shall have adequate personnel and any necessary equipment onsite to receive deliveries. The contractor shall notify the WCU Project Manager of any deliveries of equipment, material or road work that will impede the flow of vehicular or pedestrian traffic. The contractor shall provide traffic control by certified traffic control personnel (vehicular and pedestrian) during these deliveries. Staging for multiple concrete / steel / other large material deliveries, crane and other large pieces of equipment must be coordinated with the WCU Project Manager. Walks, streets, and drives are most congested with pedestrians at the top of the hour, when making deliveries the carrier should be made aware of this and plan his deliveries accordingly.

A minimum five working days' notice must be given to the WCU Project Manager to block parking spaces, drives, roads, streets and pedestrian walks.

Roads, streets, drives, fire lanes must remain open at all times. Adequate clearance must be maintained for emergency vehicles to negotiate the drive. Maintain a minimum of 20 feet for fire lanes.

---

Construction vehicles are not allowed to block, park, or stage in a fire lanes. Vehicles blocking fire lanes will be ticketed and towed at the Contractor's expense.

Construction fences should be covered with fabric screening unless it blocks the view of oncoming traffic. Construction gates will swing into the construction area. The construction fences shall not obstruct pedestrian or vehicle traffic unless alternate ways were designed in the site drawings and approved by the WCU Project Manager.

The Contractor will provide additional cleanup, warning signs, and barricades if deemed necessary by the Owner.

The Contractor's scheduling and staging requirements must be coordinated with, and approved by, the WCU Project Manager.

Contractors working for the University are required to comply with Western Carolina University's policies, which are provided herein and hereby incorporated and made a part of this contract.

- Smoking and Vaping Policies  
<https://www.wcu.edu/discover/leadership/office-of-the-chancellor/legal-counsel-office/university-policies/numerical-index/university-policy-45.aspx>
- Alcoholic Beverages  
<https://www.wcu.edu/discover/leadership/office-of-the-chancellor/legal-counsel-office/university-policies/numerical-index/university-policy-81.aspx>
- Weapons on Campus  
<https://www.wcu.edu/discover/leadership/office-of-the-chancellor/legal-counsel-office/university-policies/numerical-index/university-policy-91.aspx>
- Campus/Workplace Violence Prevention and Management  
<https://www.wcu.edu/discover/leadership/office-of-the-chancellor/legal-counsel-office/university-policies/numerical-index/university-policy-109.aspx>
- Title IX Sexual Harassment Policy  
<https://www.wcu.edu/discover/leadership/office-of-the-chancellor/legal-counsel-office/university-policies/numerical-index/university-policy-129.aspx>

## 12. UTILITIES, STRUCTURES, SIGNS

The Owner will provide water and electricity to the extent they are available at the project site. The Contractor shall be responsible for making connections to provided utilities.

The Contractor shall provide restroom facilities. The Contractor's personnel shall not use toilet or washroom facilities in the existing building.

The Contractor shall be responsible for procedures to make temporary disruptions to existing utilities serving the building(s) as well as disruptions to roads and pedestrian walks and any disruptions shall be planned well in advance of the work. The work shall be executed in a manner to provide reasonably continuous service throughout the construction period. Any and all disruptions and interruptions of service shall be coordinated with the WCU Project Manager a minimum of seven (7) days in advance. Failure of the Contractor to obtain Owner permission shall not be grounds for an extension of time.

13. **SECURITY**

The Contractor and Subcontractors shall be responsible for security to their equipment and the site-stored materials under their jurisdiction, whether paid for by the Owner or not, until acceptance of the project. The Contractor shall coordinate security requirements with the WCU Project Manager.



SECTION 011000 – GENERAL SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 1 Specifications Sections, apply to this section.

1.2 INSTRUCTIONS TO BIDDERS

- A. "Form of Proposal" is provided herein.
- B. A form of Bid Bond is provided herein.
- C. Bidders must be licensed General Contractors for a minimum of five (5) years of the class required by North Carolina Statutes for executing the work being bid. Bidder's name, address, State license number, and the date of license must appear on the outside of the envelope containing Bidder's proposal.
- D. Prior to an award of contract, and upon request, submit to Engineer or Owner satisfactory evidence of current and appropriate license pursuant to the applicable provisions of that State's General Statutes governing the business of "General Contracting" and such other rules, regulations and/or ordinances as may be applicable to performance of the work specified herein. Failure to provide evidence of an appropriate license by any bidder as described herein shall result in that bid, quotation or proposals not being considered.
- E. All experience must have been acquired by bidding contractor named on the form of proposal. Firms using aliases, or who have changed names during the five (5) year period are subject to disqualification at the discretion of the Owner.
- F. The roofing contractor shall submit certification from the roofing materials manufacturer that he is a contractor who is qualified and certified by the materials manufacturer to install the roofing system specified and issue the warranty required.
- G. Bidder, by submitting a bid for this project, certifies that the bidding contractor is acceptable to the roofing system manufacturer as an installer of the manufacturer's system in all regards and no warranties required by the contract documents will be withheld by the manufacturer solely as a result of the bidder's qualifications to perform the work.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project generally consists of roof replacement of low slope Roof Areas A, and A1 on the H. F. Robinson Administration Building (HFR Building) on the campus of Western Carolina University and the installation of new wall panels, coping caps, counterflashing, drains, overflow scuppers modifications and all other miscellaneous work associated herein.
  - 1. Project location: 65 West University Way, Cullowhee, NC 28723
  - 2. Owner: Western Carolina University
  - 3. Refer to Key Plan KP.
- B. The Owner has elected to designate Terracon Consultants, Inc., Charlotte, North Carolina, as Engineer for this Project.

- C. The terms "Architect" and "Engineer" used in the contract documents are that individual, partnership, or corporation engaged by the Owner for the preparation of certain of the Contract Documents and referred to in the Contract Documents. The "Architect" or "Engineer" may, however, be an Architect, Architect-Engineer, Engineer or other design professional authorized by the Owner to perform such functions and the terms are interchangeable.
- D. The work under the Base Bid is as follows. Refer to Roof Plans.
  - 1. Low Slope Roofing Replacement: Work on HFR building areas A, and A1 which generally consists of the complete removal of all existing roofing membrane, insulation, felt membrane, asphaltic/thermoset fill, flashings, metal wall panels, metal flashing, coping caps and the installation of a new PVC/KEE membrane, cover board, tapered (where indicated on plans) and base insulation, temporary roof membrane, gypsum underlayment, flashings, metal flashings, metal panels, coping caps, new drains, expand existing overflow scuppers as indicated, and all associated miscellaneous work as specified herein.
- E. Work under Alternate No. 1 is on Areas B, C, D, E, and E1 and generally consists of the same scope of work as on Areas A and A1. Refer to Section 012300.
- F. Work under Alternate No. 2 is to perform demolition and installation of mechanically attached gypsum underlayment and temporary roof membrane on Areas A, and A1, outside of business hours. Refer to Section 012300.
- G. Work under Alternate No. 3 is to perform demolition and installation of mechanically attached gypsum underlayment and temporary roof membrane on Areas B, C, D, E, and E1, outside of business hours. Refer to Section 012300.

#### 1.4 DESCRIPTION OF EXISTING SYSTEM

- A. Information in this Section is provided only to establish general description and is not necessarily accurate. The Contractor is responsible for visiting the site and becoming satisfied as to the existing conditions, size of roof areas, etc. before preparation and submission of bid. Receipt of bid will be considered evidence Contractor has inspected roof or otherwise become satisfied on all details relating to the work.
- B. Existing Systems:
  - 1. **Areas A and A1 (Base Bid)**: Approximately 13,225 square feet. Coated single ply membrane adhered to mechanically attached three-inch-thick polyisocyanurate insulation over a felt membrane over asphaltic/thermoset fill of varying thickness over a metal deck.
  - 2. **Area B (Alternate 1)**: Approximately 3,700 square feet. Coated single ply membrane adhered to mechanically attached three-inch-thick polyisocyanurate insulation over a felt membrane over asphaltic/thermoset fill of varying thickness over a metal deck.
  - 3. **Area C (Alternate 1)**: Approximately 1,800 square feet. Coated single ply membrane adhered to mechanically attached three-inch-thick polyisocyanurate insulation over aggregate surfaced built up roof membrane over asphaltic/thermoset fill of varying thickness over a metal deck.
  - 4. **Area D (Alternate 1)**: Approximately 3,500 square feet. Coated single ply membrane adhered to mechanically attached three-inch-thick polyisocyanurate insulation over a felt membrane over asphaltic/thermoset fill of varying thickness over a metal deck.
  - 5. **Areas E and E1 (Alternate 1)**: Approximately 630 square feet. Coated single ply membrane adhered to adhered three-inch-thick polyisocyanurate insulation over aggregate surfaced built up roof membrane over a concrete deck.
- C. Asbestos is present in the felt and BUR membranes and flashings, and in the mastic adhering the insulation to the CMU behind the wall panels.
- D. Drainage on all areas is to interior roof drains.

- 
- E. Roof Areas A, A1, B, C, and D are generally structurally sloped to the drain with a slope of approximately  $\frac{1}{4}$ " per foot. Areas do have portions that require tapered insulation. Refer to drawings for locations.
  - F. Roof Areas E and E1 contain minimal slope to drains.
  - G. Top of roof at area A is approximately 72 feet above grade. Top of area A1 is approximately 12 feet above area A. Areas B, C, and D are approximately 17 feet above grade. Areas E, and E1 are approximately 12 feet above grade.
  - H. Contractor shall be responsible to document all existing damage to facility prior to beginning work and producing documentation acceptable to Engineer prior to starting work. Damage discovered during the project, which was not documented, and which is not clearly the responsibility of others, may be presumed by the Engineer or Owner as the responsibility of the contractor. Documentation may be in the form of written statements and/or drawings but must also be supported with photographs and/or video tape supplied by contractor.

#### 1.5 START AND COMPLETION

- A. Refer to General Conditions, Article 23 – Time of Completion, Delays, Extension of Time.
- B. After Contracts are fully executed, a Notice to Proceed will follow within thirty (30) calendar days.
- C. Work on the project under the Base Bid is to be complete within Seventy (70) calendar days.
- D. Work on the project may begin immediately after Contracts are signed. Actual physical work may begin within seven (7) days of the date given in the Notice to Proceed.
- E. Materials may be delivered to the site prior to the start of physical work upon approval by the Owner. Material staging will be made available in the parking lot identified on the plans.
- F. All time limits stated in the Contract are of the essence with respect to Contractor's obligations hereunder.
- G. Prework Conference: Prior to start of work there shall be a conference attended by the Contractor, the representative of the Owner, roofing manufacturer's representative, and other parties who may be designated by the Owner, to be convened at the work site for the purpose of reviewing the specifications and job conditions and resolving any questions then arising. Contractor shall advise the office of the Owner of date and time at least one week before the date to allow proper notification of parties.
- H. Refer to General Conditions, Article 25 – Final Inspection, Acceptance, and Project Closeout
- I. No work shall take place on the following dates:
  - 1. September 7<sup>th</sup>, 2023
  - 2. September 8<sup>th</sup>, 2023
  - 3. December 14<sup>th</sup>, 2023
  - 4. December 15<sup>th</sup>, 2023

#### 1.6 LIQUIDATED DAMAGES

- A. Liquidated damages will apply starting the first calendar day after the date established for final completion and will be assessed at a rate of \$500.00 per day for each calendar day, until such time as all construction is complete and has been accepted by the Owner.

- B. Contractor, by submitting a bid for this project, attests and agrees that the value of liquidated damages as stated are a fair and equitable representation of damages to the Owner in the event project is not completed within the allotted time.
  
- C. In the event the project extends beyond the contract period (including any extensions to contract, approved by Owner), Owner will back charge the contractor for fees and expenses attributable to additional services by Owner's consultants which are provided solely as a result of the project being extended beyond the contract period. Owner may withhold monies attributable to these fees and expenses from contractor's requests for payment. Where liquidated damages are imposed as a result of the contract between the Owner and Contractor, these fees and expenses will be funded from the liquidated damage payments by the contractor. Owner may withhold monies attributable to these fees and expenses from contractor's request for payment.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 – ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Unit-cost lump sums
- C. Related Sections include the following:
  - 1. Division 1 Section "Unit Prices" for procedures for using unit prices.

1.3 ALLOWANCE PROCEDURES

- A. Prior to the conclusion of the project, credit the amount of unused allowance to Owner by Change Order.
- B. Deductive amounts of unit price work included in the Contract Sum will be calculated at 100% of the quoted unit price.

1.4 CONTINGENCY ALLOWANCE

- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from the Contingency Allowance only by Change Order.
- C. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 UNIT PRICE ALLOWANCES SCHEDULE

- A. Include the following unit price allowances in the Contract Sum.
  - 1. Allowance No. 1 – Wire brush and paint 3,000 square feet of deteriorated metal decking.

- 
2. Allowance No. 2 – Wire brush, paint and plate 500 square feet of deteriorated metal decking.
  3. Allowance No. 3 – Replace 500 square feet of deteriorated metal decking.
  4. Allowance No. 4 – Replace 100 board feet of damaged deteriorated wood blocking.
  5. Allowance No. 5 – Install 500 fasteners at loose metal deck side laps.
  6. Allowance No. 6 – Install 500 fasteners to secure loose metal deck to existing framing members.
  7. Allowance No. 7 – Install 1000 linear feet of sheet metal over changes in direction of metal decking, over loose perimeters to wood blocking and over deficiencies in deck.

### 3.2 CONTIGENCY ALLOWANCE

- A. Contingency Allowance: Include the stipulated sum/price of \$35,000 for use related to the repair of spray applied fire proofing.
  1. In order to claim this allowance, repairs to the spray applied fire proofing must be requested by the Owner. Contractor shall then provide direct quotes for the work to the Owner and Engineer for review and acceptance prior to starting the work.

END OF SECTION 012100

---

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems or installation methods described in the Contract Documents.
- B. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Add Alternate No. 1:
  - 1. Replace Roof Areas B, and D:
    - a. Approximately 7,200 square feet. Remove existing system as noted above and install new roof system as denoted in Table 1 of Section 074500, edge metal, new drain, and new overflow scupper modifications and leaders.
  - 2. Replace Roof areas C, E, and E1:
    - a. Approximately 2,470 square feet. Remove existing system as noted above and install new roof system as denoted in Table 1 of Section 074500, edge metal, new drain, and new overflow scupper modifications and leaders.
  - 3. In the event Alternate No. 1 is accepted, the contract time will be increased by Fifty (50) calendar days.
- B. Add Alternate No. 2:
  - 1. Perform demolition of the existing roofing and installation of mechanically attached gypsum underlayment and temporary roof membrane on Areas A, and A1 outside of business hours. All interior protection and cleaning related to roofing activities shall be performed within work hours. This work can happen during the following times:
    - a. Weekdays: 5:00pm – 6:00am
    - b. Weekends: Anytime

- c. Fall Break (October 16<sup>th</sup> – 19<sup>th</sup>): Anytime
- C. Add Alternate No. 3:
- 1. Perform demolition of the existing roofing and installation of mechanically attached gypsum underlayment and temporary roof membrane on Roof Areas B, C, D, E and E1 outside of business hours. All interior protection and cleaning related to roofing activities shall be performed within work hours. This work can happen during the following times:
    - a. Weekdays: 5:00pm – 6:00am
    - b. Weekends: Anytime
    - c. Fall Break (October 16<sup>th</sup> – 19<sup>th</sup>): Anytime

END OF SECTION 012300



SECTION 012700 – UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.
- B. Related Sections include the following:
  - 1. Division 1 Section "Allowances" for procedures for using unit prices to adjust quantity allowances.
  - 2. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.2 DEFINITIONS

- A. Unit price is an amount proposed by Bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

- A. Include in unit prices all necessary material, plus cost of delivery, installation, insurance, taxes, overhead and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- C. List of Unit Prices: A list of unit prices if included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.
- D. Contractor shall maintain a daily log showing dates, location and exact quantities of unit price work. Contractor is responsible for providing photographic evidence of unit price work installed. Copies of log and appropriate change order forms shall be submitted with each application for payment unless no unit price work is accomplished during the period covered by the application.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. Unit Price No. 1 – Wire brush and paint metal deck.
  - 1. Description: Wire brush and paint rusted metal decking according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per square foot.
- B. Unit Price No. 2 – Wire brush, paint and plate metal deck.
  - 1. Description: Wire brush, paint and plate deteriorated metal deck according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per square foot.
- C. Unit Price No. 3 – Replace steel deck.
  - 1. Description: Replace damaged/deteriorated metal deck according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per square foot.
- D. Unit Price No. 4 – Replace damaged or deteriorated wood blocking.
  - 1. Description: Replace damaged or deteriorated wood blocking according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per board foot.
- E. Unit Price No. 5 – Secure metal deck side laps.
  - 1. Description: Secure existing metal deck side laps according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per fastener.
- F. Unit Price No. 6 – Resecure metal deck.
  - 1. Description: Resecure existing metal deck to existing structural members according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per fastener.
- G. Unit Price No. 7 – Plate steel deck.
  - 1. Description: Install steel plate over changes in direction of steel deck according to Division 7 Section "Roofing Preparation."
  - 2. Unit of Measurement: Per linear foot.

END OF SECTION 012700

SECTION 012900 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
  - 1. Division 1 Section "Allowances" for procedures for using unit prices to adjust quantity allowances.
  - 2. Division 1 Section "Unit Prices" for procedures for using unit prices.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Prior to start of any work, Contractor must submit to Owner a Schedule of Values on a copy of AIA Document G703 listing each phase of the work and its scheduled value. Contractor must be prepared to verify all material costs by producing supplier invoices, bills of lading, etc. upon request by Owner.
  - 2. Schedule of Values, shall include labor and material line items for all material components with a material value of more than \$2,000.00 or 5% of the contract amount (whichever is least). The schedule of values must include, as a minimum, line items for any of the following which are applicable to this project including separate labor and material line items where applicable.
    - a. Mobilization
    - b. Roof Access
    - c. Performance and Payment Bonds
    - d. Demolition
    - e. Wood Blocking
    - f. Underlayment
    - g. Cover Board
    - h. Single-Ply Membrane
    - i. Insulation
    - j. Base Flashing
    - k. Sheet Metal Flashing and Trim
    - l. Metal Wall Panels
    - m. Drains
    - n. Scuppers
    - o. Site Cleanup
    - p. Manufacturer's Inspections
    - q. Unit Price Work
    - r. Guarantee

3. Schedule Updating: Update and resubmit the Schedule of Values before the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.
4. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
5. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

#### 1.4 APPLICATIONS FOR PAYMENT

- A. Monthly pay estimates shall be submitted to Engineer by email on AIA Document G702 and AIA Document G703.
- B. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Owner will return incomplete applications without action.
  1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- C. Applications for payment requesting payment for materials will not be certified or approved unless accompanied with Manufacturer's Certificates of Compliance for those materials. It is suggested that Contractor request material certificates of compliance from material suppliers at the time materials are ordered.
- D. Include a retainage amount of five percent (5%) for the value of materials stored at the site and work executed.
- E. A payment or payments made to Contractor for work performed shall not constitute acceptance or approval of the work and shall in no way relieve Contractor from the requirements of the Contract.
- F. All sums received by Contractor for any part or parts of the work furnished or performed by a Subcontractor shall be paid promptly to the latter by Contractor, and while in the hands of Contractor, shall constitute trust funds held for the use and benefit of Owner.
- G. If payments are to be made on account of materials or equipment not incorporated in the work but delivered and suitably stored at the Site, or at such other location agreed upon in writing, such payments shall be conditioned upon submission by Contractor of bills of sale or other documents satisfactory to Owner establishing Owner's title to such materials or equipment or otherwise protecting Owner's interest therein including the prepayment of applicable insurance and transportation charges to the Site.
- H. Contractor warrants and guarantees the title to all work, materials and equipment covered by an invoice, whether or not incorporated in the work, will pass to Owner upon Contractor's receipt of the payment covering such work, materials and equipment, free and clear of all liens or other similar or dissimilar encumbrances in any way affecting Owner's title thereto.
- I. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
  1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
  2. When an application shows completion of an item, submit final or full waivers.
  3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

- 
- J. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
    - 1. List of subcontractors.
    - 2. Schedule of Values.
    - 3. Contractor's Construction Schedule (preliminary if not final).
    - 4. List of Contractor's staff assignments.
    - 5. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
    - 6. Initial progress report.
    - 7. Report of preconstruction conference.
    - 8. Certificates of insurance and insurance policies.
  
  - K. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
    - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
    - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
  
  - L. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
    - 1. Evidence of completion of Project closeout requirements.
    - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
    - 3. Updated final statement, accounting for final changes to the Contract Sum.
    - 4. Affidavit of Payment of Debts and Claims.
    - 5. Affidavit of Release of Liens.
    - 6. Consent of Surety to Final Payment.
    - 7. Completion Agreement Form.

1.5 FINAL PAYMENT APPLICATION

- A. Refer to Section 014000 – QUALITY REQUIREMENTS, Paragraph 1.5, Inspection of Work for Final Inspection Requirements and related provisions for final payment and closeout documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 012900

SECTION 013300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples and other miscellaneous submittals.
  - 1. Division 1 Section "Payment Procedures" for submitting Applications for Payment and the Schedule of Values.
  - 2. Division 7 Section for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

- A. Shop Drawings: Drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by Contractor or any Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor which illustrate some portion of the work.
- B. Samples: Physical examples furnished by Contractor to illustrate materials, equipment or workmanship and establish standards of work.

1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate the schedule for submittal of shop drawings and samples with progress schedule and the requirements of the Contract. Failure to schedule and submit shop drawings and samples in ample time for checking, correction and rechecking will not justify any delay in the timely performance of the work.
- B. Submittal Schedule: Within two weeks after award of Contract, provide a schedule of the dates for submission of each shop drawing and sample required by the Contract.
- C. Processing Time: Allow sufficient time for an orderly review with reasonable time for checking, correction and rechecking corrections, as well as returning the approved or rejected shop drawings and samples to Contractor and, in turn, any Subcontractor.
- D. Allow a minimum of 10 working days from the date submittal is received until the date the submittal is required to be returned to the Contractor.
- E. If a submittal contains more than 10 shop drawings, indicate which drawings must be returned within the period of 10 working days, and, in such event, allow an additional 10 working days for return of the balance of the submittal.
- F. Identification: Provide each submittal with the following information:
  - 1. Owner's and Engineer's respective project numbers.
  - 2. Date of submittal.
  - 3. Submittal number.

4. Title of project.
  5. Name of Contractor and date of Contractor's approval.
  6. Name of Subcontractor or supplier and date of submittal to Contractor.
  7. Reference to Specification Section and Paragraph and/or Drawing Number.
  8. The specific location of that portion of the work covered by the submission.
  9. Any qualification, departure or deviation from the requirements of the Contract.
  10. Any additional information required by the Specifications for the particular material being furnished.
- G. Provide a space on each shop drawing for the approval stamps of Contractor, Engineer and Engineer's sub-consultants, if any.
- H. Transmittal Form: Use form of transmittal contained at the end of this Section, or a similar form containing the same information.
- I. Numbering: Number each submittal. Retain numbering system throughout all revisions.
- J. Submit all associated shop drawings relating to a complete assembly at the same time, where possible, so that each may be checked in relation to the entire proposed assembly.
- K. Prepare composite shop drawings and installation layouts, when required, to depict proposed solutions for tight field conditions. Coordinate composite shop drawings and field installation layouts in the field with Subcontractors for proper relationship to the work of all other trades involved in the work.
- L. Prior to submission, review, affix a stamp on, and indicate approval of all shop drawings and samples. Determine and verify field measurements and availability of the material, and coordinate each shop drawing and sample with requirements of the Contract.
- M. All submittals are to be submitted electronically to the Engineer.
- N. Engineer will review Shop Drawings and Samples to determine conformance with the design concept of the Project and with the information given in the Contract. Engineer's approval of a separate item shall not be construed to mean approval of the assembly of which such item is a part.
- O. Engineer's approval of Shop Drawings or Samples shall not relieve Contractor of responsibility for any deviation from the requirements of the Contract unless Contractor has informed Engineer in writing of such deviation at the time of submission and Engineer has given written approval to the specific deviation, nor shall Engineer's approval relieve Contractor from responsibility for errors or omissions in the shop drawings or samples.
- P. Make corrections required by Engineer and resubmit corrected copies of shop drawings or new samples until approved. Direct specific attention in writing, or on resubmitted shop drawings, to revisions other than the corrections required by Engineer. The number and distribution of copies shall be the same as in Contractor's first submission.
- Q. In the event that Engineer shall mark shop drawings "approved" or "approved as noted," make such corrections, if any, as may be noted. Correction shall be made on, and prints for final distribution shall be made from, the drawings bearing Engineer's notations and impress stamps. Final distribution of prints shall be made by Contractor.
- R. Do not commence any portion of the work requiring a shop drawing or sample until the submission has been approved by the Engineer. All such portions of the work shall be in accordance with approved shop drawings and samples.
- S. Do not commence any work which will result in structural changes in walls, steel, floors and masonry prior to Engineer's written approval. Fully describe all details of methods, shoring and bracing in submission for such work.

- T. Contractor shall submit a copy of building permit prior to beginning work.

1.5 LIST OF PROJECT SUBMITTALS

- A. Refer to Project Document Checklist at the end of this Section for submittals that will be required from contractor and approved by Engineer prior to start of work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)



SUBMITTAL TRANSMITTAL

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

From: \_\_\_\_\_ To: Terracon Consultants, Inc.  
\_\_\_\_\_  
2701 Westport Road  
\_\_\_\_\_  
Charlotte, NC 28208

Project Name: \_\_\_\_\_ HFR Building Roof Replacement

Owner: \_\_\_\_\_ Western Carolina University, Cullowhee, NC

Owner's Project Number: \_\_\_\_\_ 22-24898-01

Terracon Consultants, Inc. Project Number: \_\_\_\_\_ FH226123

Submittal Number: \_\_\_\_\_ No. of Copies: \_\_\_\_\_

Specification Section and Paragraph Reference(s): \_\_\_\_\_

Drawing/Detail Reference(s): \_\_\_\_\_

Location of Work: \_\_\_\_\_

Product Manufacturer: \_\_\_\_\_

Supplier/Subcontractor: \_\_\_\_\_

Date submitted to Contractor: \_\_\_\_\_

Qualifications/Deviations From Specifications: \_\_\_\_\_

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

CONTRACTOR'S APPROVAL

THIS SUBMITTAL HAS BEEN PREPARED BY THE CONTRACTOR OR THOROUGHLY REVIEWED BY THE CONTRACTOR AND IS A CONTRACTOR APPROVED SUBMITTAL SUBJECT TO ANY QUALIFICATIONS MADE HEREON OR ON THE ATTACHMENTS.

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
NAME: \_\_\_\_\_

\_\_\_\_\_

ENGINEER'S APPROVAL

APPROVED \_\_\_\_\_; APPROVED AS NOTED \_\_\_\_\_; NOT APPROVED - RESUBMIT \_\_\_\_\_;  
REVIEWED \_\_\_\_\_; APPROVED FOR CONSTRUCTION ACCORDING TO NOTATIONS.  
REVISE AND RESUBMIT \_\_\_\_\_; REFER TO APPROVAL STAMP ON ATTACHMENT \_\_\_\_\_

Checking by Engineer is only for conformance with the design concept of the project and compliance with the information given in the contract documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or to techniques of construction, and for coordination of the work of all trades.

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

---

PROJECT DOCUMENT CHECKLIST

SUBMITTALS

- Materials List
- Materials Data Sheets
  - Lumber
  - Prefinished Galvalume
  - Sealant
  - PVC Membrane
  - Gypsum Underlayment Board
  - Temporary membrane
  - Polyisocyanurate Insulation
  - Gypsum Cover Board
  - Base Flashing
  - Coping Cap
  - Wood Fiber Tapered Edge Strips
  - Self-adhering Underlayment
- Manufacturer's Application Procedures
- Copies of Authorizations and Licenses from Authorities having jurisdiction
- AIA Document G703, Schedule of Values
- Material Safety Data Sheets
- Schedule for Removal and Installation
- Written Safety Procedures
- Underwriter's Laboratories, Inc. Class A Roof Covering Certificate from Roofing System Manufacturer
- Shop Drawings
- Metal Samples
- Color Chart
- Documentation of Existing Conditions
- Certification from Manufacturer that Contractor is an Approved Installer
- List of Subcontractors
- List of Contractor Staff Assignments and Qualifications
- Tapered Insulation Shop Drawings
- Metal Shop Drawings
- Asbestos Abatement Permit and License
- Building Permit
- Fall Protection Documents

END OF SECTION 013300

SECTION 014000 – QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 1 Specifications Sections, apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for quality assurance and quality control.

1.3 SUPERINTENDENT

- C. For the purpose of these Specifications the designation "superintendent" is hereby defined as the individual present on the job site at all times work is being performed.
- D. The superintendent shall not be changed except with the consent of the Owner and Engineer, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employment.
- E. The superintendent shall be in attendance at the project site at all times during the progress of the work and his duties as superintendent shall be limited to this project only. The superintendent shall supervise and instruct workmen. Should the superintendent be absent temporarily from the project at any time, he shall designate a competent foreman to assume his duties.
- F. The superintendent shall have had a minimum of five (5) years continuous experience as a job superintendent.
- G. Only the project superintendent (or the designated foreman in the superintendent's absence) will be permitted inside the facility, except when accompanied by the superintendent to perform work or in cases of emergency.
- H. The Contractor shall provide the Owner, in writing, the name of the proposed project manager, job superintendent and foreman for approval no later than seven (7) days prior to the prework conference. Also include chronological listing of superintendent's experience by project name, type system, size and required warranty.
- I. Once approved, neither the project manager nor the superintendent will be changed except with the consent of the Owner unless either proves to be unsatisfactory to the Owner or Contractor, or ceases to be in the Contractor's employment.
- J. Promotion or reorganization within the company will not be an acceptable cause for reassignment of project manager or superintendent.
- K. It shall be the superintendent's responsibility to communicate all matters pertaining to the Work with the Owner and/or Engineer. In case of emergency or safety, superintendent shall communicate directly with the Owner or Owner's representative, and, immediately thereafter, notify the Owner and/or Engineer. No decisions regarding changes in the Work will be made without the Owner's knowledge.

- 
- L. Each day before work begins, superintendent shall indicate on the Roof Plan the area to be reroofed that day. Color markers are appropriate for this purpose. If changes in the work schedule occur, the Owner shall be notified accordingly.
  - M. The job superintendent will have a local contact phone number.

#### 1.4 INSPECTION OF WORK

- A. Work found to be in violation of specifications or not in accordance with established workmanship practices and standards will be subject to complete removal and proper replacement with new materials at Contractor's expense.
- B. Owner will provide inspection during the work. Such inspection may be periodic or daily.
- C. The words "supervise" and "inspect" wherever used herein in connection with the duties or activity of the Owner shall in no way, expressed or implied, relieve the contractor from his responsibilities for the safety of the workmen, the preservation of the work or proper performance under this contract. The Owner shall not be responsible for the safety of the workmen, the safeguarding of the work, or the proper performance of the Contractor.
- D. No Inspector shall have the power to waive the obligations resting upon the Contractor to furnish good material and do good work as herein prescribed. Any failure or omission on the part of any Inspector or the Engineer to observe, object to or condemn any defective material or work shall not release the Contractor from the obligation to at once tear out, remove, and properly replace or rebuild the same at any time upon discovery of the defect and upon notice from the Owner or Engineer to do so.
- E. Materials stored on site which are marked by the Inspector, Engineer or Owner as not meeting the requirements of the contract documents are to be removed from the site by the contractor immediately.
- F. Top surfacing will be judged by sight. If Inspector's decision is not acceptable to the Contractor he may, at his own expense, take samples and make tests by methods to which both parties agree.
- G. Failure of Owner or Engineer to discover or reject defective work, or work not in accordance with the Contract, shall not be deemed an acceptance thereof, nor a waiver of Owner's rights to Contractor's compliance with the Contract or performance of the work, or any part thereof. No partial or final payment, or partial or entire occupancy, by Owner shall be deemed to be an acceptance of work or of material which is not strictly in accordance with the Contract, nor shall it be deemed to be a waiver by Owner of any of Owner's rights pursuant to this Contract or otherwise.
- H. Designer Final Completion Inspection shall be conducted as follows:
  - 1. When Engineer has certified completion, Contractor shall complete all work under the contract, including any outstanding punch list items established at the Designer Final Completion; any required submittals, including warranties, release of liens, unit price logs, consents of surety, final pay request, etc.
  - 2. Designer Final Completion is defined for this project as the successful installation of every component required under the contract documents to be installed for this project. A punch list may be issued by the Engineer for work complete at this time.
- I. Final Inspection shall be conducted as follows:
  - 1. Upon final completion, Contractor must notify Engineer and Owner in writing requesting a final inspection.

2. The Engineer and Owner will conduct a final inspection of all work included in the contract as soon as possible after receiving written notification by the Contractor that the work is complete and ready for inspection.
3. The final inspection report shall be prepared by the Engineer and Owner listing observed deficiencies and furnished to the Contractor.
4. Upon satisfactory completion of all deficiencies, Contractor shall initial each item on the report certifying his compliance and return to the Engineer.
5. No portion of the final payment will be made until all items have been satisfactorily corrected and the project closeout documents submitted to the Architect/Engineer.
6. All project completion documents are to be submitted within thirty (30) days following acceptance by the Owner.

#### 1.5 PERMITS

- A. Contractor is responsible for obtaining all necessary licenses and permits required by law in order to accomplish the work. Satisfactory evidence that all licenses and permits have been issued must be submitted to Owner prior to starting work.
- B. Contractor must provide all protective structures, barriers, or other means of protection necessary to assure the public safety and to fulfill all requirements by governmental authorities.
- C. Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority having jurisdiction of Contractor's performance of the work or any part thereof. If Contractor knows, or should know, that any requirement of these Specifications is at variance with any such laws, ordinances, rules, regulations or orders in any respect, Contractor shall promptly notify Engineer in writing and obtain written instructions before proceeding with the portion of the work thereby affected. If Contractor performs any work which is contrary to such laws, ordinances, rules and regulations without receiving Engineer's instructions, Contractor shall assume full responsibility therefor and shall bear all penalties and costs of remedying the work attributable thereto. However, this section shall not be construed to require Contractor to perform detailed engineering calculations normally performed by Engineer except when specifically provided.

#### 1.6 SUBCONTRACTORS

- A. Use of Subcontractors to accomplish such miscellaneous or associated work as structural modifications, plumbing, relocation of conduit, service piping and/or HVAC equipment, etc. is permitted. Do not subcontract any part of the roofing work specified herein without the prior written consent of the Owner.

#### 1.7 PRE-CONSTRUCTION CONFERENCE

- A. Prior to the start of work there shall be a conference attended by the Contractor, the representative of the Owner, and other parties who may be designated by the Owner, to be convened at the work site for the purpose of reviewing the specifications and job conditions and resolving any questions then arising.

#### 1.8 MANUFACTURER'S INSPECTIONS

- A. A technical representative of the roof system manufacturer shall conduct periodic inspections throughout the course of the work. The representative shall prepare a written report for each inspection and shall promptly provide a copy of each report to the Owner, Contractor and Engineer. Each report shall note any deficiencies the representative observes which require correction. A minimum of three (3) inspections is required for this project including a final inspection after contractor has completed installation of all roof system components.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 014000

SECTION 015000 – TEMPORARY FACILITIES, CONTROLS AND PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary facilities, controls, protection and disconnects.

1.3 SUBMITTALS

- A. Submit plans for work for approval prior to starting work so that, if necessary, inside operations can be coordinated with the work.

1.4 TEMPORARY UTILITIES

- A. Water Service: Use water from Owner's existing water system without metering and without payment of use charges.
- B. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities and drinking-water fixtures. Locate at sites approved by the Owner. Facilities in existing buildings are off-limits.
- D. Lunchroom Facilities: On-site facilities are not available to Contractor personnel.

1.5 TOBACCO AND VAPORIZING PRODUCTS

- A. Tobacco and vaporizing products will not be allowed on site at any time. Enforce the tobacco and vaporizing policy of the Owner with regard to Contractor's personnel. Non-compliance by any of Contractor's personnel will be justification for removal of those individuals from this project.

1.6 SCAFFOLDING AND PLATFORMS

- A. Contractor shall provide all necessary platforms and scaffolds of ample strength. Inclusive are all hoisting machinery, all appliances and materials such as ladders, planks, ropes, wedges, centers and other tools and materials including the carriage thereof to and from the buildings as required for proper handling and installation and/or erection of materials and equipment included in the work.
- B. Prior to starting work, Contractor shall obtain approval of the Owner for locations of work operations at ground level such as material storage, hoisting, dumping, etc. Work will be restricted to approved locations.

- 
- C. Access to the roof will be by external means only. Access by ladder or scaffolding will be the responsibility of the Contractor.
    - 1. Ladders must be taken down daily and locked in storage or removed from site.
    - 2. Scaffolding must be barricaded to deter unauthorized usage by the public.

1.7 TEMPORARY PROTECTION

- A. Temporary measures shall be provided and maintained by the Contractor to protect the building and its contents from weather and construction related damages. Damaged or disturbed buildings or grounds to be corrected to the Owner's satisfaction prior to final payment.
- B. Protect the existing building, roof, equipment, and grounds from flying or falling debris during the demolition process. Protect so as not to disrupt building operations or cause damage to the building and its contents during construction.
- C. Protection of Pedestrians shall be provided during construction. Protection measures shall be in accordance with 3306 of the 2018 NC Building Code.

1.8 PROTECTION OF BUILDINGS AND PROPERTY

- A. Note that building will remain occupied during work. Take all precautions necessary to protect building, contents and personnel from damage or injury from operations and from water entry into the building during construction. Keep dust and dirt to a minimum.
- B. At conclusion of each day's work, carefully inspect work including temporary daily tie-offs to ensure system is completely water-tight, all stored materials are suitably protected from the weather and all equipment is stored in such a manner as not to interfere with facility operations.
- C. On normal workdays when no work is accomplished due to inclement weather or other reasons, visit the site no later than normal start time and verify that the system is completely water-tight, all stored materials are suitably protected from the weather and all equipment is stored in such a manner as not to interfere with facility operations. Be prepared to implement emergency repairs as necessary to prevent leakage into the facility.
- D. Prior to starting work, obtain approval from Owner for locations of work operations at ground level, such as material storage, hoisting, dumping, etc. Restrict work to approved locations
- E. Prevent any work which could reasonable be deemed to be hazardous from taking place over or adjacent to occupied areas. Coordinate with the Owner the vacating of such affected areas of all occupants and give the Owner adequate notice to allow time to comply. Post a watchman inside the building in the affected area(s) at all times during the work to ensure no one enters or remains in the affected area(s).
- F. Contractor shall protect adjacent existing and new roof areas from damage. In the event roofing is damaged, Contractor is to restore to the original condition at no cost to the Owner.
- G. Remove debris and other material from the site in a timely manner to minimize accumulation.
- H. Owner reserves the right to judge whether or not debris is being removed in a timely manner. In the event debris is not removed from the site as required to maintain the site in a manner acceptable to the Owner, the Owner reserves the right to engage other contractor(s) or its own forces to clean the areas and deduct costs of such operations from this Contract.
- I. Protect grounds and landscaping from damage. In the event of damage, restore damaged property to a condition equivalent to that at time of start of operations.



- 
- J. Document all existing damage to facility prior to beginning work and produce documentation acceptable to Engineer/Owner prior to starting work. Damage discovered during the project which was not documented and which is not clearly the responsibility of others may be presumed by the Engineer/Owner as the responsibility of the Contractor. Documentation may be in the form of written statements and/or drawings but must also be supported with photographs and/or video tape supplied by the Contractor.
  - K. Isolate equipment from non-Contractor personnel by whatever means necessary, including the construction of a six-foot tall chain link fence (which completely surrounds the equipment, bitumen storage and personnel necessary to maintain the equipment) with integral lockable gate. Owner reserves the right to judge adequacy of Contractor's methods to isolate equipment and may, at any time, demand construction of the fence as compliance with this requirement. Should the Owner demand the construction of the fence, such shall be accomplished at no additional cost to the Owner.
  - L. Implement related safety provisions imposed by local fire marshals, etc. Determine what procedures will be acceptable prior to submitting a bid or proposal.
  - M. Initiate, maintain and supervise all safety precautions and programs in connection with the work. Take all necessary precautions for the safety of, and provide the necessary precaution to prevent damage, injury or loss to:
    - 1. All employees on the work and other persons who may be affected thereby.
    - 2. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site.
    - 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
    - 4. Comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. Remedy all damage, injury or loss to any property caused, directly or indirectly in whole or in part, by the Contractor, and Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

#### 1.9 DISCONNECTS

- A. In the event it is necessary to disconnect any electrical wiring or connections, plumbing lines or other building services, notify the Owner. Do not disconnect or connect services unless authorized in writing by Owner.
- B. Include in Base Bid all costs required for modification of existing service piping, wiring and duct work required in connection with the lifting, removal or relocation of roof-mounted equipment.
- C. All associated work is to be accomplished by appropriately licensed personnel in accordance with all applicable codes and regulations.
- D. Review roof-top equipment usage with Owner and facility user at beginning of project. Disable equipment determined to be essential to the operations of the facility only at those times prescribed by the Owner. This may require work to be done at other than normal operating hours.

#### 1.10 USE OF PREMISES

- A. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

- 
1. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public.
  2. Driveways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize use of driveways and entrances.
    - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- B. Use of Existing Building: Repair damage caused by construction operations. Protect building and its occupants during construction period.

#### 1.11 OWNER'S OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period as this school is on a year round calendar. The construction schedule has been developed around the recess periods for the students. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
  2. Owner Occupancy of Completed Areas of Construction: Owner will occupy the building, before Substantial Completion, as provided in the construction schedule.

#### 1.12 GROUNDS RESTORATION

- A. Upon completion of required work, contractor is to restore grounds to a level equivalent to the condition prior to the start of the project. This includes but is not limited to:
1. Cleaning grounds of trash and debris.
  2. Smoothing ruts and discontinuities in the soil.
  3. Reseeding grass.
  4. Pavement restoration.
  5. Concrete restoration.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 015000

SECTION 017320 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Removals.
- B. Related Sections include the following:
  - 1. Division 1 Section "Unit Prices and Allowances."
  - 2. Division 7 Section "Roofing Preparation."

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 REMOVALS

- A. Remove all single ply membrane, insulation, felt/BUR membranes, asphalt fill, expansion joint covers, flashings and metal flashings, and discard.
- B. Lift or remove all existing equipment so that existing flashings can be totally removed, and new flashings installed.
- C. Carefully relocate all electrical, co-axial, telephone, fiber optic, security camera, lightning protection, intercom and miscellaneous wires, cables, etc. as required to accomplish work specified herein. Accomplish such relocation without interrupting the service provided by these lines except as specifically authorized by the Owner.
- D. Remove or correct any obstruction which might interfere with the proper application of new materials.
- E. Remove all existing roof drain strainers, drain bowls and clamping rings and discard.
- F. Remove, maintain, and reinstall hatches, door, and louver components

END OF SECTION 017320

SECTION 017330 – ASBESTOS PRODUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements relating to asbestos-containing materials.
- B. Related Sections include the following:
  - 1. Division 7 Section 070000 - "Roofing Preparation."

1.3 PROCEDURES

- A. It is the intention of these Specifications that no asbestos-containing materials be incorporated into the work and that, unless specifically designated to remain, no existing asbestos-containing materials incorporated in the existing roof system will remain subsequent to completion of the work. In the event additional hidden or unanticipated asbestos-containing materials are present in the existing roof system, stop all work in the affected area, notify the Engineer and provide temporary protection as required. Costs incurred, if any, due to the presence of hidden and/or unanticipated asbestos-containing materials will be resolved by Change Order to this Contract.
- B. Products containing asbestos fibers are present on roof areas on which work is specified. Attached to this section you can find the asbestos testing results.

1.4 WARRANTY

- A. Upon completion of the work, and before final payment and/or release of retainage, submit, and obtain from each subcontractor, material supplier and equipment manufacturer and submit, a properly executed Asbestos Free Warranty. Provide Warranty in the form included herein. Ensure forms are signed by a responsible officer of the Contractor, subcontractor, material supplier and equipment manufacturer and are notarized.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

ASBESTOS FREE WARRANTY  
(on Contractor's standard letterhead)

Owner: Western Carolina University

Location of Building: Cullowhee, North Carolina

Name of Building: HFR Building

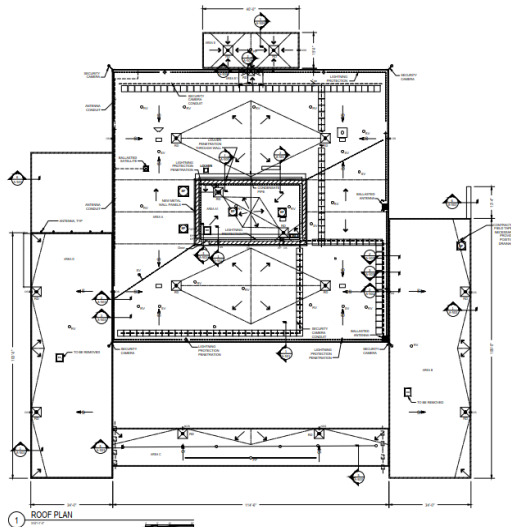
Know all men by these presents that we, \_\_\_\_\_  
(Contractor, Subcontractor, Material Supplier or Equipment

having furnished labor, materials, equipment and/or supplies; removed roofing, roof insulation, vapor retarder, flashings and/or miscellaneous roof system components; accomplished certain repairs to existing roof system; installed new roofing, roof insulation vapor retarder, flashing and/or miscellaneous roof system components;

from, to and/or on \_\_\_\_\_ as shown on the roof plan below under  
(Buildings, Roof Areas, etc.)

contract between \_\_\_\_\_ and \_\_\_\_\_  
(Owner and Contractor) (Contractor and/or Subcontractor, Material Supplier or Equipment Supplier)

warrant to Owner with respect to said work that no materials containing asbestos fibers were incorporated into the work, and that, to our knowledge and belief, no materials containing asbestos remain in or are covered by the work.



Exceptions: \_\_\_\_\_  
If there are no exceptions, state "No Exceptions" here

IN WITNESS WHEREOF, we have caused this instrument to be duly executed, this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

WITNESS:

\_\_\_\_\_  
Company

\_\_\_\_\_  
By

\_\_\_\_\_

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

**ASBESTOS REPORT**



### Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



**Customer:** Terracon  
72 Pointe Circle  
Greenville, SC 29615

**Attn:** Stephen Ellis  
George Flores

**Lab Order ID:** 10006031

**Analysis:** PLM

**Date Received:** 09/13/2022

**Date Reported:** 09/15/2022

**Project:** WCU HFR Building Roofs FH226123

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
AF-1	Asphaltic Fill	None Detected		100% Other	White, Black Non-Fibrous Heterogeneous
10006031_0001					Dissolved, Crushed
AF-2	Asphaltic Fill	None Detected		100% Other	Black, White Non-Fibrous Heterogeneous
10006031_0002					Crushed, Dissolved
AF-3	Asphaltic Fill	None Detected		100% Other	Black, White Non-Fibrous Heterogeneous
10006031_0003					Crushed, Dissolved
AF-4	Asphaltic Fill	None Detected		100% Other	White, Black Non-Fibrous Heterogeneous
10006031_0004					Dissolved, Crushed
BUR-1	2 Ply Built Up Roofing	10% Chrysotile	40% Cellulose	50% Other	Black Fibrous Heterogeneous
10006031_0005					Dissolved, Teased
BUR-2	2 Ply Built Up Roofing	Not Analyzed			
10006031_0006					
BUR-3	2 Ply Built Up Roofing	Not Analyzed			
10006031_0007					
BUR-4	2 Ply Built Up Roofing	Not Analyzed			
10006031_0008					

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

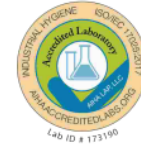
Analyst

Approved Signatory



### Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



<b>Customer:</b> Terracon 72 Pointe Circle Greenville, SC 29615	<b>Attn:</b> Stephen Ellis George Flores	<b>Lab Order ID:</b> 10006031	<b>Analysis:</b> PLM
<b>Project:</b> WCU HFR Building Roofs FH226123		<b>Date Received:</b> 09/13/2022	<b>Date Reported:</b> 09/15/2022

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
BUF-1	Built-Up Flashing	10% Chrysotile	20% Cellulose	70% Other	Black Fibrous Heterogeneous
10006031_0009					Dissolved, Teased
BUF-2	Built-Up Flashing	Not Analyzed			
10006031_0010					
BUF-3	Built-Up Flashing	Not Analyzed			
10006031_0011					
BUF-3	Built-Up Flashing	Not Analyzed			
10006031_0012					
PC-1	Parapet Cap Caulking	None Detected		100% Other	Black Non-Fibrous Homogeneous
10006031_0013					Dissolved
PC-2	Parapet Cap Caulking	None Detected		100% Other	Black Non-Fibrous Homogeneous
10006031_0014					Dissolved
PC-3	Parapet Cap Caulking	None Detected		100% Other	Black Non-Fibrous Homogeneous
10006031_0015					Dissolved
FC-1	Fire Caulking on Penetration	None Detected	20% Fiber Glass	80% Other	Red, Black Non-Fibrous Homogeneous
10006031_0016					Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

Analyst

Approved Signatory





### Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



**Customer:** Terracon  
72 Pointe Circle  
Greenville, SC 29615

**Attn:** Stephen Ellis  
George Flores

**Lab Order ID:** 10006031  
**Analysis:** PLM  
**Date Received:** 09/13/2022  
**Date Reported:** 09/15/2022

**Project:** WCU HFR Building Roofs FH226123

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
FC-2	Fire Caulking on Penetration	None Detected	20% Fiber Glass	80% Other	Red, Black Non-Fibrous Homogeneous
10006031_0017					Dissolved
FC-3	Fire Caulking on Penetration	None Detected	20% Fiber Glass	80% Other	Black, Red Non-Fibrous Homogeneous
10006031_0018					Dissolved
RF-1	Residual Flashing	15% Chrysotile	20% Cellulose	65% Other	Black Fibrous Homogeneous
10006031_0019					Dissolved, Teased
RF-2	Residual Flashing	Not Analyzed			
10006031_0020					
RF-3	Residual Flashing	Not Analyzed			
10006031_0021					
FCR-1 - A	Built-Up Roofing	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0022	silver layer				Dissolved
FCR-1 - B	Built-Up Roofing	15% Chrysotile	30% Cellulose	55% Other	Black Fibrous Heterogeneous
10006031_0037	built up roofing				Teased, Dissolved
FCR-2 - A	Built-Up Roofing	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0023	silver layer				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

Analyst

Approved Signatory

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888



### Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



**Customer:** Terracon  
72 Pointe Circle  
Greenville, SC 29615

**Attn:** Stephen Ellis  
George Flores

**Lab Order ID:** 10006031  
**Analysis:** PLM  
**Date Received:** 09/13/2022  
**Date Reported:** 09/15/2022

**Project:** WCU HFR Building Roofs FH226123

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
FCR-2 - B	Built-Up Roofing	Not Analyzed			
10006031_0038	built up roofing				
FCR-3 - A	Built-Up Roofing	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0024	silver layer				Dissolved
FCR-3 - B	Built-Up Roofing	Not Analyzed			
10006031_0039	built up roofing				
FCF-1 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0025	silver layer				Dissolved
FCF-1 - B	Built-Up Flashing with Silver Coat	20% Chrysotile	30% Cellulose	50% Other	Black Fibrous Heterogeneous
10006031_0040	built up roofing				
FCF-2 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0026	silver layer				Dissolved
FCF-2 - B	Built-Up Flashing with Silver Coat	Not Analyzed			
10006031_0041	built up roofing				
FCF-3 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0027	silver layer				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

Analyst

Approved Signatory

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888



### Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



**Customer:** Terracon  
72 Pointe Circle  
Greenville, SC 29615

**Attn:** Stephen Ellis  
George Flores

**Lab Order ID:** 10006031  
**Analysis:** PLM  
**Date Received:** 09/13/2022  
**Date Reported:** 09/15/2022

**Project:** WCU HFR Building Roofs FH226123

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
FCF-3 - B	Built-Up Flashing with Silver Coat	Not Analyzed			
10006031_0042	built up roofing				
CR-1	Built-Up Roofing with Ballast	15% Chrysotile	30% Cellulose 20% Fiber Glass	35% Other	Silver Fibrous Heterogeneous
10006031_0028					Teased, Dissolved
CR-2	Built-Up Roofing with Ballast	Not Analyzed			
10006031_0029					
CR-3	Built-Up Roofing with Ballast	Not Analyzed			
10006031_0030	Built up roof				
CF-1 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0031	silver coat				Dissolved
CF-1 - B	Built-Up Flashing with Silver Coat	20% Chrysotile	20% Cellulose	60% Other	Black Fibrous Heterogeneous
10006031_0043	built up roofing				Dissolved, Teased
CF-2 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver Non-Fibrous Homogeneous
10006031_0032	silver coat				Dissolved
CF-2 - B	Built-Up Flashing with Silver Coat	Not Analyzed			
10006031_0044	built up roofing				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

Analyst

Approved Signatory

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888



## Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and  
40 CFR, Part 763, Subpart E, App.E



**Customer:** Terracon  
72 Pointe Circle  
Greenville, SC 29615

**Attn:** Stephen Ellis  
George Flores

**Lab Order ID:** 10006031

**Analysis:** PLM

**Date Received:** 09/13/2022

**Date Reported:** 09/15/2022

**Project:** WCU HFR Building Roofs FH226123

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
CF-3 - A	Built-Up Flashing with Silver Coat	None Detected		100% Other	Silver
10006031_0033	silver coat				Non-Fibrous
					Homogeneous
					Dissolved
CF-3 - B	Built-Up Flashing with Silver Coat	Not Analyzed			
10006031_0045	built up roofing				
CPC-1	Parapet Cap Caulking	None Detected		100% Other	Gray
10006031_0034					Non-Fibrous
					Homogeneous
					Ashed
CPC-2	Parapet Cap Caulking	None Detected		100% Other	Gray
10006031_0035					Non-Fibrous
					Homogeneous
					Ashed
CPC-3	Parapet Cap Caulking	None Detected		100% Other	Gray
10006031_0036					Non-Fibrous
					Homogeneous
					Ashed


Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 1%.

Christina Molnar (45)

Analyst

Approved Signatory

10006031

<b>Client:</b>	Terracon Greenville	<b>Instructions:</b> Use Column "B" for your contact info  To See an Example Click the bottom Example Tab.  <b>Enter samples between "&lt;&lt;" and "&gt;&gt;"</b> <b>Begin Samples with a "&lt;&lt;" above the first sample and end with a "&gt;&gt;" below the last sample.</b> <b>Only Enter your data on the first sheet "Sheet1"</b>  <i>Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.</i>	<b>Scientific Analytical Institute</b>  <b>4604 Dundas Drive Greensboro, NC 27407</b> <b>Phone: 336.292.3888</b> <b>Fax: 336.292.3313</b> <b>Email: lab@sailab.com</b>
<b>Contact:</b>	Stephen Ellis		
<b>Address:</b>	72 Pointe Cir, Greenville, SC 29615		
<b>Phone:</b>	423-426-2164		
<b>Fax:</b>			
<b>Email:</b>	stephen.ellis@terracon.com george.flores2@terracon.com		
<b>Project:</b>	WCU HFR Building Roofs FH226123		
<b>Client Notes:</b>	Positive Stop		
<b>P.O. #:</b>			
<b>Date Submitted:</b>	9/10/2022 0:00		
<b>Analysis:</b>	PLM		
<b>TurnAroundTime:</b>	3 Day TAT		

<<			
AF-1	5th Floor Roof	Asphaltic Fill	PLM
AF-2	Penthouse Base Short Side	Asphaltic Fill	PLM
AF-3	Penthouse Upper Roof	Asphaltic Fill	PLM
AF-4	Low Roof High Wall	Asphaltic Fill	PLM
BUR-1	5th Floor Roof	2 Ply Built Up Roofing	PLM
BUR-2	Penthouse Upper Roof	2 Ply Built Up Roofing	PLM
BUR-3	5th Floor Roof Center	2 Ply Built Up Roofing	PLM
BUR-4	Low Roof Drain Area	2 Ply Built Up Roofing	PLM
BUF-1	5th Floor Roof	Built-Up Flashing	PLM
BUF-2	Penthouse Base Long Side	Built-Up Flashing	PLM
BUF-3	Penthouse Upper Roof	Built-Up Flashing	PLM
BUF-3	Low Roof High Wall	Built-Up Flashing	PLM
PC-1	Penthouse Upper Roof	Parapet Cap Caulking	PLM
PC-2	Penthouse Upper Roof	Parapet Cap Caulking	PLM
PC-3	Penthouse Upper Roof	Parapet Cap Caulking	PLM
FC-1	Penthouse Base Short Side	Fire Caulking on Penetration	PLM
FC-2	Penthouse Base Short Side	Fire Caulking on Penetration	PLM
FC-3	Penthouse Base Short Side	Fire Caulking on Penetration	PLM

Accepted   
 Rejected

Relinquished By

Received By  
 y. [Signature] 9/13 10:30am

RF-1	Low Roof High Wall	Residual Flashing	PLM
RF-2	Low Roof High Wall	Residual Flashing	PLM
RF-3	Low Roof High Wall	Residual Flashing	PLM
FCR-1	Front Canopy Roof Field	Built-Up Roofing	PLM
FCR-2	Front Canopy Roof Field	Built-Up Roofing	PLM
FCR-3	Front Canopy Roof Field	Built-Up Roofing	PLM
FCF-1	Front Canopy Roof	Built-Up Flashing with Silver Coat	PLM
FCF-2	Front Canopy Roof	Built-Up Flashing with Silver Coat	PLM
FCF-3	Front Canopy Roof	Built-Up Flashing with Silver Coat	PLM
CR-1	Canopy Roof	Built-Up Roofing with Ballast	PLM
CR-2	Canopy Roof	Built-Up Roofing with Ballast	PLM
CR-3	Canopy Roof	Built-Up Roofing with Ballast	PLM
CF-1	Canopy Roof	Built-Up Flashing with Silver Coat	PLM
CF-2	Canopy Roof	Built-Up Flashing with Silver Coat	PLM
CF-3	Canopy Roof	Built-Up Flashing with Silver Coat	PLM
CPC-1	Canopy Roof Parapet Cap	Parapet Cap Caulking	PLM
CPC-2	Canopy Roof Parapet Cap	Parapet Cap Caulking	PLM
CPC-3	Canopy Roof Parapet Cap	Parapet Cap Caulking	PLM

>>

Relinquished By

Received By

END OF SECTION 017330

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements relating administrative and procedural requirements for contract closeout, including, but not limited to, the following.
  - 1. Inspection procedures.
  - 2. Warranties.
  - 3. Final cleaning.
- B. Related sections include the following:
  - 1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.

1.3 DESIGNERS FINAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Completion, complete the following. List items below that are incomplete in request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Complete final cleaning requirements, including touchup painting.
  - 3. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Completion. On receipt of request, Engineer and Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will notify Contractor of items, either on Contractor's list or additional items identified by Owner, that must be completed or corrected before final completion inspection is scheduled.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Final Inspection shall be conducted as follows:
  - 1. Contractor will have 14 days from Designers Final Completion to reach Final Completion.
  - 2. The Engineer and Owner will conduct a final inspection of all work included in the contract as soon as possible after receiving written notification by the Contractor that the work is complete and ready for inspection.
  - 3. The final inspection report shall be prepared by the Engineer and Owner listing observed deficiencies and furnished to the Contractor.

- 
4. Upon satisfactory completion of all deficiencies, Contractor shall initial each item on the report certifying his compliance and return to the Engineer.
  5. No portion of the final payment will be made until all items have been satisfactorily corrected and the project closeout documents submitted to the Engineer. Final payment shall be made within thirty (30) days of receipt of closeout documents.
  6. All project completion documents are to be submitted within thirty (30) days following acceptance by the Owner.
- B. Refer to Closeout Document Checklist at the end of this Section for all documents to be submitted and approved by Engineer.
- C. Contractor shall submit a Certificate of Compliance prior to close-out of the project.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - b. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - c. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
    - d. Clean transparent materials, including glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish glass, taking care not to scratch surfaces.
    - e. Remove labels that are not permanent.
    - f. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
      - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
    - g. Leave Project clean and ready for occupancy.



- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

CLOSEOUT DOCUMENTS CHECKLIST

- Asbestos Manifests.
- Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
- Updated final statement, accounting for final changes to the Contract Sum
- Certificate of Completion
- Contractor's Affidavit of Payment of Debts and Claims
- Contractor's Affidavit of Release of Liens
- Consent of Surety to Final Payment
- Contractor's Warranty
- Metal Finish Warranty
- Manufacturer's Warranty
- Copy of Manufacturer Inspection Reports
- Record Drawings
- Certificate of Compliance
- Fall Protection Certification documents
- Builder's Risk Insurance Cancellation Certificate

THERMOPLASTIC MEMBRANE ROOFING SYSTEM WARRANTY  
(on Contractor's Standard Letterhead)

Owner: \_\_\_\_\_ Western Carolina University \_\_\_\_\_

Installer: \_\_\_\_\_

Location of Building: \_\_\_\_\_ Cullowhee, North Carolina \_\_\_\_\_

Name of Building: \_\_\_\_\_ HFR Building \_\_\_\_\_

Roof Areas: \_\_\_\_\_

Date of Substantial Completion: \_\_\_\_\_

Know all men by these presents, that we, Installer as defined above, having installed insulation, roofing, flashings and sheet metal work, and having accomplished certain other work on the roof areas identified above under contract between Owner and Contractor, warrant to Owner, with respect to said work that for a period of two (2) years from date of Final Completion of said work, the roofing including insulation, roofing membrane, flashings and sheet metal work, shall be absolutely watertight and free from all leaks, provided however that the following are excluded from this warranty:

Defects or failures resulting from abuse by the Owner.

Defects in design involving failure of (1) structural frame, (2) load-bearing walls, and (3) foundations.

Damage caused by fire, tornado, hail, hurricane, acts of God, wars riots or civil commotion.

We, Installer, agree that should any leaks occur in the roofing we will promptly remedy said leaks in a manner to restore the roof to a watertight condition by methods compatible to the system and acceptable under industry standards and general practice.

We, Installer, further agree that for a period of two (2) years from date of Final Completion referred to above, we will make repairs at no expense to the Owner, to any defects which may develop in the work including but not limited to open laps, blisters, wrinkles, ridges, splits, warped insulation, and loose flashings in a manner compatible to the system and acceptable under industry standards and general practice.

IN WITNESS WHEREOF, we have caused this instrument to be duly executed, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
(Installer)

WITNESS:

by \_\_\_\_\_  
President

\_\_\_\_\_

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

**The undersigned named Owner agrees, from the date of acceptance of the project, to maintain the roof in accordance with the manufacturers written requirements and agrees to avoid damage to the roof surface by any parties under his control working or walking on the roof. The Owner recognizes his responsibility to inspect the roof semi-annually.**

Owner \_\_\_\_\_ Date \_\_\_\_\_

END OF SECTION 017700

SECTION 061000 – ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Rooftop equipment bases and support curbs.
  - 2. Wood nailer.
  - 3. Expansion joint.
- B. Related Sections include the following:
  - 1. Division 1 Section "Allowances."
  - 2. Division 1 Section "Unit Prices."
  - 3. Division 7 Section "Thermoplastic Membrane Roofing."
  - 4. Division 7 Section "Sheet Metal Flashing and Trim."

1.3 DELIVERY, STORAGE AND HANDLING

- A. Supply and keep all materials dry at all times prior to application.
- B. Store all lumber/plywood in dry, covered storage, or on platforms, and with weatherproof, breathable type material such as heavy canvas. Materials which are not stored under specified covers are subject to removal from the site at Engineer's or Owner's discretion.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS

- A. Lumber: No. 2 grade (or better) southern yellow pine or douglas fir unless specifically noted otherwise. Each piece of lumber shall bear the inspection stamp of the Southern Pine Inspection Bureau (SPIB) or the Western Wood Products Association (WWPA) indicating the grade and type of lumber.
  - 1. Wood Preservative: Alkaline Copper Quaternary (ACQ) pressure-treatment conforming to AWPA Standard C-2 (above ground). Retention of preservative shall be 0.025 pcf. All material shall be kiln-dried after treatment to 19 percent or less moisture content.
- B. Plywood: APA Rated Sheathing (CDX) with waterproof glue for exterior applications in thicknesses specified. All plywood shall comply with the requirements of U.S. Product Standard PS1-09 and each sheet shall clearly bear the APA trademark of the American Plywood Association. Minimum span rating for 1/2 inch plywood shall be 32/16 and shall be so marked on each sheet.

2.2 FASTENERS

- A. Provide stainless steel fasteners at all locations where fastener will come into contact with pressure-treated lumber.
- B. For securing lumber or plywood to lumber, provide stainless steel ring shank nails of sufficient length to penetrate a minimum of 1½ inches into the underlying member but not smaller than 8d nails.
- C. For securing wood to concrete or masonry, secure using Tapcon Masonry fasteners at 12 inches on center, staggered.
- D. For securing wood to steel, secure using self-drilling/self-tapping fasteners.
- E. Anchor Bolts: ½ inch diameter, length to embed in concrete a minimum of 8 inches, with appropriately-sized nuts and washers.

PART 3 - EXECUTION

3.1 GENERAL

- A. Furnish and install new nominal 6-inch wide wood blocking at all edges and openings as required for blocking to finish flush with the top of the roof insulation.
- B. Secure wood nailers over existing nailers with ring shank fasteners or screws in two rows staggered and spaced not over 12 inches in each row.
- C. Secure wood blocking and curbs at spacings of 8 inches on center in a staggered pattern.
- D. Stagger fasteners when securing nominal 6 inch wide lumber or wider.

3.2 EXISTING WOOD

- A. Remove all existing loose, wet, damaged or deteriorated wood blocking and discard. Install new wood blocking using the same size and thickness as existing.
- B. Inspect existing wood blocking at perimeters. In the event current fastener spacing exceeds 8 inches on center, secure blocking with additional specified fasteners to achieve fastener rate of 8 inches on center or less.

3.3 WOOD BLOCKING

- A. Furnish and install new wood blocking at all roof mounted equipment and hatches as required to provide a minimum flashing height of 8 inches above finished roof level.
- B. Install new wood blocking at all expansion joints as required to provide a minimum flashing height of 8 inches above finished roof level.

END OF SECTION 061000

SECTION 070000 – ROOFING PREPARATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Preparations.
  - 2. Deck repairs.
  - 3. Connects and disconnects.
  - 4. Overflow scupper resizing.
  - 5. Roof drain replacement.
- B. Related Sections include the following:
  - 1. Division 1 Section "Allowances."
  - 2. Division 1 Section "Unit Prices."
  - 3. Division 6 Section "Rough Carpentry."

PART 2 - PRODUCTS

2.1 STEEL DECK REPAIR MATERIALS

- A. Metal Deck Primer: Sherwin Williams Kem Kromik Universal Metal Primer or approved equal.
- B. Sheet Metal for Steel Decks: 20 gauge galvanized steel.
- C. Steel Deck: ASTM A 653, galvanized, G-90 deck, manufactured in accordance with the requirements of the Steel Deck Institute, Inc. for narrow rib (Type A) and wide rib (Type B). (Contractor to field verify deck type.) Minimum section properties:
  - 1. Yield strength = 33 ksi.
  - 2. Section Modulus: 0.111in<sup>3</sup>.
  - 3. Moment of Inertia: 0.124in<sup>4</sup>.
  - 4. Thickness: 22 gauge.

2.2 FASTENERS

- A. Self-Drilling Fasteners: Stainless steel of sufficient length to secure steel such as #12 diameter TEKS 5.
- B. TEKS 3 for side laps.

2.3 DRAIN MATERIALS

- A. Roof Drains: Coated cast iron body with cast iron low-profile dome, with clamping ring and deck clamp assembly. Diameter as shown on Drawings. No hub connection.
- B. Drain extensions, if required, provided by drain manufacturer.

2.4 MISCELLANEOUS MATERIALS

- A. Steel Plate: For covering openings, 1/8 inch thick, single sheet sized to extend 6 inches beyond opening in all directions.
- B. Single Component Polyurethane Sealant: ASTM C 920, Type S, Grade NS, Class 25, Use NT, M, A and O.
- C. Primer: As recommended by sealant manufacturer.
- D. Primer: Rust-inhibitive primer.
- E. Paint: To be applied over steel. Color to be selected by Owner.

PART 3 - EXECUTION

3.1 PREPARATION, GENERAL

- A. Prior to commencement of any work, inspect and thoroughly water test all existing roof drains for free flow operation with Owner's maintenance personnel present. Report drain restrictions to Engineer and Owner. Owner's maintenance personnel shall perform repairs to remove any restrictions found. Should drains become clogged at any time after the start of work, correct the condition at no additional expense to the Owner.
- B. All vents, hatches and mechanical units must be raised to provide an 8 inch base flashing height above the finished roof system.
- C. Prior to the installation of any new roofing, flashings, and metal flashings, clean surfaces of all dust, dirt and other foreign matter.
- D. Furnish and install new primer and paint at all exhaust vents, power ventilators and stack vents as specified herein:
  - 1. Remove all loose rust by wire brushing. Sweep away all dirt, dust and debris prior to paint and primer application.
  - 2. Apply one coat of Sherwin Williams Kem Kromik Universal Metal Primer rust-inhibitive primer and two coats of fibrated aluminum roof coating to match roof surface.
- E. Over all openings in deck, install new steel plate. Secure to deck using specified fasteners spaced not over 6 inches on center at all edges.
- F. Extend all existing vents through the roof to the height required by the local plumbing code but not less than 8 inches above finished roof level.
- G. Wire brush, prime and paint rusted mechanical vents.

---

3.2 CONNECTS AND DISCONNECTS

- A. In the event it is necessary to disconnect any electrical wiring or connections, plumbing lines or other building services, notify the Owner. Contractor shall not disconnect or connect services unless authorized in writing by Owner.
- B. Modification of existing service piping, wiring and duct work required in connection with the lifting, removal or relocation of roof mounted equipment shall be accomplished by this Contractor and is to be included in the Proposal price.
- C. All costs required in connection with electrical and/or mechanical service connections/disconnections, including satellites and weather stations, are to be included in the Bid price. All associated work is to be accomplished by appropriately licensed personnel in accordance with all applicable codes and regulations.
- D. Contractor shall review roof top equipment usage with Owner and facility user at beginning of project. Equipment determined to be essential to the operations of the facility may only be disabled at those times prescribed by the Owner. This may require the contractor to work at other than normal operating hours.

3.3 STEEL DECK REPAIR

- A. Where steel deck is rusted but remains structurally sound, thoroughly clean deck units of rust and foreign matter with a wire brush. Paint with specified metal primer.
- B. Where steel deck is damaged or rusted through in small areas, smaller than 2' by 2', clean deck units of rust with a wire brush. Paint with specified metal primer. Install over the damaged area a steel plate secured to the existing steel deck with sheet metal screws around the perimeter of the plate at 6 inches on center. Extend the new steel plate a minimum of 6 inches onto the surface of the existing steel deck beyond the damaged area.
- C. Where steel deck units are severely damaged or have deteriorated over large areas, larger than 2' by 2', remove the entire existing deck unit and install new decking of the same type and gauge as the existing. Lap new deck units over the existing the same manner as originally installed but not less than 6 inches. Lap ends only over structural framing. Secure to structural framing with specified fasteners at 6 inches on center at each framing member. Secure deck side laps at not more than 36 inches on center.
- D. Secure all existing loose steel deck to roof framing members using specified fasteners placed 12 inches on center at each available framing member.
- E. Secure metal deck side laps with specified fasteners at spacings not exceeding 36 inches from each other or nearest deck support. For deck supports (framing members) spaced greater than 36 inches on center and less than 72 inches on center, install a single side lap fastener at midspan between framing members.
- F. At all changes in direction, install specified steel plate 6 inches across change in direction on each side and secure using specified fasteners at 6 inches on center around the perimeter.

3.4 OVERFLOW SCUPPER

- A. Locate bottom of overflow scupper as indicated on plans or no more than 4 inches above surface of the roof system adjacent to the nearest roof drain (excluding sump).
- B. Remove existing precast concrete as required. Halt work and notify Engineer if reinforcing is encountered.



- 
- C. Extend opening through entire thickness of parapet. Take precautions to avoid damaging adjacent wall surfaces.
  - D. Provide finished openings as indicated on Drawings.

### 3.5 COUNTERFLASHING PREPARATION

- A. Neatly bend existing counterflashing receiver up at walls as required to completely remove existing base flashings and to install new base flashings. After installation of new base flashings, neatly bend counterflashing receiver back in place using sufficient care to prevent deformation to the finished counterflashing receiver. Rivet new counterflashing to the existing at 6-inches on center.
- B. Cut new raggles in walls above roof level for installation of new metal counterflashings. Provide a minimum height of 8 inches above finished roof level.
  - 1. Saw raggles to a minimum depth of 1-1/2 inches in a straight line to allow proper installation of new counterflashings. Utilize all procedures necessary including, but not limited to, saw guides to ensure straight, clean raggles.

### 3.6 DRAIN AND LEADER INSTALLATION

- A. Remove all existing drains and install new drains as specified and matching the existing drain diameter.
- B. Set drain bowl next to deck and secure bowl to underside of deck with under-deck clamp supplied by drain manufacturer.
- C. If the underside of the deck is not accessible, secure drain by other means acceptable to Engineer. Consult drain manufacturer for alternative means of securement and submit shop drawings to Engineer for approval prior to ordering drain materials.
- D. Install new drain extensions to match new insulation thicknesses, over drain bowl using manufacturer-supplied extensions, gaskets, and fasteners.
- E. Seal drain to roof leaders in accordance with manufacturer's latest printed instructions for type of drain specified using only manufacturer-supplied gaskets, seals, clamps, etc.
- F. Thoroughly water test all joints upon completion.
- G. Upon completion of membrane and flashing installation at drains, install drain clamping rings at all new and existing drains with new manufacturer-supplied bolts of sufficient length to properly engage drain bowl lugs.

END OF SECTION 070000

SECTION 074213 – FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Flush-profile, concealed fastener metal wall panels, with related metal trim and accessories.

1.3 RELATED REQUIREMENTS

- A. Division 05 Section "Cold-Formed Metal Framing" for cold-formed metal framing supporting metal panels.
- B. Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal flashing items in addition to items specified in this Section.

1.4 REFERENCES

- A. American Architectural Manufacturer's Association (AAMA): [www.aamanet.org](http://www.aamanet.org):
  - 1. AAMA 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) & Zinc-Aluminum Coated Steel Substrates.
  - 2. AAMA 809.2 Voluntary Specification Non-Drying Sealants.
- B. American Society of Civil Engineers (ASCE): [www.asce.org/codes-standards](http://www.asce.org/codes-standards):
  - 1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
- C. ASTM International (ASTM): [www.astm.org](http://www.astm.org):
  - 1. ASTM A755 - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
  - 2. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 3. ASTM C920 - Specification for Elastomeric Joint Sealants.
  - 4. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
  - 5. ASTM D4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
  - 6. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.
- D. International Accreditation Service (IAS):
  - 1. IAS AC472 Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems, Part B.

1.5 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide metal panel assemblies and accessories from a single manufacturer accredited under IAS AC472, Part B.
- B. Manufacturer Qualifications: Approved manufacturer listed in this Section with minimum five years experience in manufacture of similar products in successful use in similar applications.
  - 1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
    - a. Product data, including certified independent test data indicating compliance with requirements.
    - b. Samples of each component.
    - c. Sample shop drawings from similar project.
    - d. Project References: Minimum of five installations not less than three years old, with Owner and Architect contact information.
    - e. Sample warranty.
    - f. Certificate of accreditation under IAS AC472 Part B.
  - 2. Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.
  - 3. Approved manufacturers must meet separate requirements of Submittals Article.
- C. Installer Qualifications: Experienced Installer certified by metal panel manufacturer with minimum of five years experience with successfully completed projects of a similar nature and scope.
  - 1. Installer's Field Supervisor: Experienced mechanic certified by metal panel manufacturer supervising work on site whenever work is underway.

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Prior to erection of framing, conduct preinstallation meeting at site attended by Owner, Architect, metal panel installer, metal panel manufacturer's technical representative, inspection agency and related trade contractors.
  - 1. Coordinate building framing in relation to metal panel system.
  - 2. Coordinate openings and penetrations of metal panel system.

1.7 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets for specified products. Include data indicating compliance with performance requirements.
- B. Shop Drawings: Show layouts of metal panels. Include details of each condition of installation, panel profiles, and attachment to building. Provide details at a minimum scale 1-1/2-inch per foot of edge conditions, joints, fastener and sealant placement, flashings, openings, penetrations, and special details. Make distinctions between factory and field assembled work.
  - 1. Indicate points of supporting structure that must coordinate with metal panel system installation.
  - 2. Include structural data indicating compliance with performance requirements and requirements of local authorities having jurisdiction.
- C. Samples for Initial Selection: For each exposed product specified including sealants. Provide representative color charts of manufacturer's full range of colors.
- D. Samples for Verification: Provide 12-inch- (305 mm-) long section of each metal panel profile. Provide color chip verifying color selection.

1.8 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Indicating compliance of products with requirements.
- B. Qualification Information: For Installer firm and Installer's field supervisor.
- C. IAS Accreditation Certificate: Indicating that manufacturer is accredited under provisions of IAS AC472 Part B.
- D. Manufacturer's warranty: Unexecuted sample copy of manufacturer's warranty.

1.9 CLOSEOUT SUBMITTALS

- A. Maintenance data.
- B. Manufacturer's Warranty: Executed copy of manufacturer's warranty.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Protect products of metal panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components or other damage. Protect panels and trim bundles during shipping.
- B. Deliver, unload, store, and erect metal panels and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.
- C. Store in accordance with Manufacturer's written instruction. Provide wood collars for stacking and handling in the field.
- D. Shield foam insulated metal panels from direct sunlight until installation.

1.11 WARRANTY

- A. Special Manufacturer's Warranty: On manufacturer's standard form, in which manufacturer agrees to repair or replace metal panel assemblies that fail in materials and workmanship within one year from date of Completion.
- B. Special Panel Finish Warranty: On Manufacturer's standard form, in which Manufacturer agrees to repair or replace metal panels that evidence deterioration of factory-applied finish within the warranty period, as follows:
  - 1. Fluoropolymer Two-Coat System:
    - a. Basis of Design System: MBCI, Signature 300.
    - b. Color fading in excess of 5 Hunter units per ASTM D 2244.
    - c. Chalking in excess of No. 8 rating per ASTM D 4214.
    - d. Failure of adhesion, peeling, checking, or cracking.
    - e. Warranty Period: Forty (40) years from date of Substantial Completion

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Approved Manufacturers:

1. MBCI
2. McElroy Metal
3. CMP
4. Metal Roofing Systems Inc.
5. Berridge Manufacturing Company

B. Other manufacturers shall be approved by Engineer prior to bid.

## 2.2 PERFORMANCE REQUIREMENTS

- A. General: Provide metal panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.
- B. Structural Performance: Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, as determined by ASTM E1592:
1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
    - a. Wind Negative Pressure: Certify capacity of metal panels by actual testing of proposed assembly.
  2. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of 1/120 of the span with no evidence of failure.
- C. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.

## 2.3 FORMED METAL WALL PANELS

- A. Flush-Profile, Concealed Fastener Metal Wall Panels: Structural metal panels consisting of formed metal sheet with vertical panel edges and flat pan, with flush joints between panels, field assembled with nested lapped edges, and attached to supports using concealed fasteners.
1. Nominal Thickness: 24 gage coated thickness, with smooth surface.
    - a. Exterior Finish: Fluoropolymer two-coat system.
    - b. Color: As selected by Owner from manufacturer's standard colors.
  2. Panel Width: 12 inches (305 mm).
  3. Panel Thickness: 1-3/4 inch (44 mm).
  4. Attachment Spacing: Existing attachment spacing is approximately 4-foot on center. Provide panels capable of spanning this distance.

## 2.4 MISCELLANEOUS MATERIALS

- A. General: Provide complete metal panel assemblies incorporating trim, copings, fasciae, gutters and downspouts, and miscellaneous flashings. Provide required fasteners, closure strips, and sealants as indicated in manufacturer's written instructions.
- B. Flashing and Trim: Match material, thickness, and finish of metal panels.
- C. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by metal panel manufacturer. Where exposed fasteners cannot be avoided, supply corrosion-resistant fasteners with heads matching color of metal panels by means of factory-applied coating, with weathertight resilient washers.

2.5 FABRICATION

- A. General: Provide factory fabricated and finished metal panels, trim, and accessories meeting performance requirements, indicated profiles, and structural requirements.
- B. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings.

2.6 FINISHES

- A. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- B. Fluoropolymer Two-Coat System: 0.2 – 0.3 mil primer with 0.7 - 0.8 mil 70 percent PVDF fluoropolymer color coat, AAMA 621.
  - 1. Basis of Design: MBCI, Signature 300.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine metal panel system substrate with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panels.
  - 1. Inspect framing that will support insulated metal panels to determine if support components are installed as indicated on approved shop drawings and are within tolerances acceptable to metal panel manufacturer and installer. Confirm presence of acceptable framing members at recommended spacing to match installation requirements of metal panels.
- B. Correct out-of-tolerance work and other deficient conditions prior to proceeding with insulated metal panel installation.

3.2 METAL PANEL INSTALLATION

- A. Concealed-Fastener Formed Metal Panels: Install metal panel system in accordance with manufacturer's written instructions, approved shop drawings, project drawings, and referenced publications. Install metal panels in orientation, sizes, and locations indicated. Anchor panels and other components securely in place. Provide for thermal and structural movement.
- B. Fasten metal panels to supports with fasteners at each location indicated on approved shop drawings, at spacing and with fasteners recommended by manufacturer. Fasten panel to support structure through leading panel flange. Snap-fit back flange of subsequent panel into secured flange of previous panel. Where indicated, fasten panels together through flush-fitted panel sides.
  - 1. Cut panels in field where required using manufacturer's recommended methods.
  - 2. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by metal panel manufacturer.
- C. Attach panel flashing trim pieces to supports using recommended fasteners.

3.3 ACCESSORY INSTALLATION

- A. General: Install metal panel accessories with positive anchorage to building and weather tight mounting; provide for thermal expansion. Coordinate installation with flashings and other components.
  - 1. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
  - 2. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
  - 3. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.

3.4 CLEANING AND PROTECTION

- A. Clean finished surfaces as recommended by metal panel manufacturer.
- B. Replace damaged panels and accessories that cannot be repaired to the satisfaction of the Architect.

END OF SECTION 074213

SECTION 074500 – THERMOPLASTIC MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Thermoplastic membrane roofing.
  - 2. Cover board.
  - 3. Roof insulation.
  - 4. Gypsum Underlayment
  - 5. Temporary Roof Membrane
- B. Related Sections include the following:
  - 1. Division 7 Section "Reroofing Preparation."
  - 2. Division 7 Section "Sheet Metal Flashing and Trim."

1.3 PERFORMANCE REQUIREMENTS

- A. Provide a roofing system that complies with the requirements of Underwriters' Laboratories, Inc. for a Class A roof covering.
- B. Provide roofing system meeting the Ultimate (LRFD) Wind Uplift Pressures identified on the drawings.

1.4 SUBMITTALS

- A. Materials List: Give written notification of the brand name and manufacturer of each material proposed for use and include a statement that all proposed materials meet the specification requirements. Obtain approval prior to placing orders.
  - 1. Submittal of catalog cut sheets, etc. in lieu of the materials list required above is not acceptable.
- B. Manufacturers' Installation Instructions.
- C. Tapered Insulation Shop Drawings: Submit proposed tapered insulation and cricket system for approval prior to start of work. Provide drawings for each area and include, at a minimum, concise tapered layouts, material identification, cross sections of typical sections with each board labeled, board stagger pattern, slopes and cricket widths.
- D. Manufacturer Certificates: As follows:
  - 1. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is



- 
- approved, authorized, or licensed by manufacturer to install roofing system.
  - 2. System Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 3. Material Certificates: Original document signed by a responsible officer of the firm, notarized, on manufacturer's standard letterhead, certifying materials furnished for project comply with the referenced standard. Specifically reference the project and applicable compliance standard on certificate.
  - E. Polyisocyanurate Insulation Certificate: Signed by insulation manufacturer stating that polyisocyanurate insulation shipped to this project complies with requirements listed in Part 2.
  - F. Warranties: As specified in this Section.
  - G. Inspection Reports: Copy of roofing system manufacturer's inspection reports.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials to site in original containers bearing manufacturers' name and type of material. All materials used in roof membrane must have appropriate Underwriters' Laboratories, Inc. labels.
- B. Supply and keep all materials dry at all times prior to application.
- C. Store all insulation, cover board, and tapered edge strips in dry, covered storage, or on platforms, and with weatherproof coverings. Coverings shall be waterproof breathable type material such as heavy canvas. Insulation wrappers are not sufficient. Materials which are not stored under specified covers are subject to removal from the site at Engineer's or Owner's discretion.
- D. Store all roll goods on end (does not apply to rolls over 5 foot long) on clean floors or platforms in their manufacturers' wrapper. Do not use flattened rolls or rolls with ends damaged.
- E. Materials which, in the opinion of the Engineer, have been prematurely exposed to the weather are subject to immediate removal by the contractor and replaced with new materials at contractor's expense. Engineer may, at Engineer's option, mark such materials with paint or other indelible materials while they remain on-site.
- F. Store solvent bearing materials in dry, cool storage and keep lids tight on partially used containers to prevent escape of solvents.

#### 1.6 WARRANTIES

- A. Installer's Warranty: Installer's warranty, on form included in these specifications, signed by roofing Installer, properly executed and printed on Installer's letterhead form.
  - 1. Warranty Period: Five (5) years from date of Final Completion.
- B. Roofing System Guarantee: Manufacturer's Standard Form without monetary limitation in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
  - 1. Roofing system guarantee includes roofing membrane, base flashings, cover board, roof insulation, and other components of roofing system.
  - 2. Guarantee Period: Twenty (20) years from date of final completion. Nothing herein is to be interpreted or construed as changing any provisions of the specifications except as stated herein.

---

PART 2 - PRODUCTS

2.1 GENERAL

- A. Listed in this section are specifications for materials required generally for use in accomplishing the work specified. Materials not listed may also be required.
- B. Except as specifically noted herein, all reference standards included herein are to be presumed to be the latest published editions of such standards available as of the issue date of these specifications.
- C. Brand or manufacturer names are used as standards of quality where no other appropriate reference is available. The Engineer (or Owner) will consider substitution of materials of equal quality and properties provided a written request accompanied by substantiating data is received by him at least 10 days prior to bid date.
- D. Where a generic product or a general manufacturer's product is specified and more than one such product is offered by the manufacturer, it is understood that only the manufacturer's premium materials are approved for this project.
- E. All roofing system components used on this project shall be compatible and approved for use by the roofing system manufacturer and shall qualify for the specified roofing system guarantee.

2.2 MANUFACTURERS

- A. For purposes of these documents, the roof system manufacturer is defined as the manufacturer of the primary roof membrane. The roof system is intended to encompass, but is not necessarily limited to, all components above the structure including roof insulation, metal panels, membrane and metal flashings and any proprietary flashing/components of the system manufacturer. Subject to compliance with the material specifications of these documents, all materials are to be supplied by the same manufacturer.
- B. All materials used in systems to be covered by a Manufacturer's Guarantee must be supplied by the same manufacturer, unless the manufacturer issuing the guarantee waives this requirement in writing.
- C. The following material manufacturers are approved for this project. Such approval does not relieve the Contractor from the requirement to supply materials which meet all other requirements of these Specifications.
  - 1. Sarnafil Inc.
  - 2. FiberTite, Seaman Corporation
  - 3. Soprema

2.3 FLEXIBLE SHEET MEMBRANE MATERIALS

- A. Membrane: The following membranes, meeting the requirements of the warranty, are approved for use on this project.
  - 1. PVC Sheet: ASTM D 4434, Type II, Grade 1, fiber reinforced, as follows:
    - a. Exposed Face Color: White.
  - 2. KEE Sheet: ASTM D6754
    - a. Exposed Face Color: White.

- B. Adhesive: Solvent-based contact adhesive.
- C. Base Flashing: As recommended by membrane manufacturer.
- D. Walkpads: As recommended by membrane manufacturer.
- E. Pre-fabricated Flashing Components: Provide other pre-fabricated components as required, such as corner flashing, vent stacks, etc.
- F. Miscellaneous Products: Sealants, preformed sealant pockets, primers and cleaners supplied by the membrane manufacturer.

#### 2.4 ROOF INSULATION MATERIALS

- A. Polyisocyanurate Roof Insulation: Rigid, cellular polyisocyanurate thermal insulation with core formed by using HCFCs as blowing agents complying with ASTM C 1289, Type II, with glass-fiber mat on both major surfaces. Maximum board size shall be 4' x 4' for adhered boards and 4x8 for mechanically attached boards. No organic facers shall be used.
- B. Polyisocyanurate insulation shall be manufactured to meet the following requirements in addition to the requirements above:
  - 1. Min. Compressive Strength: 20 psi
  - 2. Dimensional Stability: 2% maximum linear change when conditioned at 158°F and 97% relative humidity
  - 3. Min. Curing Time: 24 hrs. plus 24 hrs. for each inch of thickness at a minimum of 60°F before shipment from manufacturer
  - 4. Maximum Board thickness: 3 inches
- C. Contractor shall submit a statement from manufacturer of polyisocyanurate insulation stating they will certify compliance of material shipped to this project with these requirements.
- D. Gypsum Cover Board: ASTM C 1177, non-structural board, glass mat embedded, water-resistant gypsum core, factory primed, 1/2 inch thick.
  - 1. Maximum board size: 4' x 4'.
- E. Gypsum Underlayment: ASTM C 1177, non-structural board, glass mat embedded, water-resistant gypsum core, factory primed, 5/8 inch thick.
  - 1. Maximum board size: 4' x 8'.
- F. Tapered Edge Strips: ASTM C 208, wood fiberboard, 1-1/2 inch at thick edge.
- G. Insulation Adhesive: Two component, low rise polyurethane foam, approved by membrane manufacturer for insulation and substrates on this project.

#### 2.5 TEMPORARY MEMBRANE

- A. Base Ply: ASTM D 5147 and D 6162, Type I, Grade S, or D 6163 , Type I, Grade S, minimum thickness of 120 mil, SBS-modified asphalt sheet, suitable for application method specified and as follows:
  - 1. Installation Method: Cold process or torch applied.

2.6 FASTENING DEVICES

- A. Termination Bar: Extruded aluminum bar, 1 inch by 1/8 inch, with pre-punched holes at 6 inches on center.
- B. Insulation Fasteners and Plates: Plated steel fastener and 3 inch diameter round or 3 inch square steel plate as manufactured by or specifically recommended by the roof system manufacturer. Fasteners should be capable of resisting specified uplift pressure.
- C. Masonry Anchors: Stainless steel screw anchor for use in concrete, brick or concrete masonry units manufactured with threads for cutting into walls of pre-drilled opening to provide tight friction fit, 1/4 inch diameter, 1.5 inch minimum length.

2.7 FALL PROTECTION

- A. Provide fall protection based on plan details.
- B. Building anchorages, tie-downs, and any other affected parts of the building shall be designed and certified by a North Carolina registered Professional Engineer (PE) with extensive experience in fall protection to provide the most appropriate fall prevention/protection solution.

2.8 FLUID APPLIED PIPE AND PENETRATION FLASHING:

- A. Provided by roof membrane manufacturer
- B. Included in the roof system warranty.
- C. Fabric reinforcing: As recommended by roof manufacturer.

2.9 NON-PENETRATING ROOFTOP SUPPORTS/ASSEMBLIES

- A. Non-Penetrating Rooftop Support/Assemblies: Manufacturer-engineered and factory-fabricated, with pedestal bases that rest on top of roofing membrane, and not requiring any attachment to roof structure and not penetrating roofing assembly.
  - 1. Design Loadings and Configurations: As required by applicable codes.
  - 2. Height: Provide minimum clearance of 6 inches under supported items to top of roofing.
  - 3. Support Spacing and Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
  - 4. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.
  - 5. Hardware, Bolts, Nuts, and Washers: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A153/A153M.
- B. Pipe Supports: Provide attachment fixtures complying with MSS SP-58 and as indicated.
  - 1. Attachment/Support Fixtures: As recommended by manufacturer; corrosion resistant material.

PART 3 - EXECUTION

3.1 SYSTEM SCHEDULE

- A. Refer to Table 1 for a general schedule of the primary roof components (described from the bottom up) for the roof area. Methods of installation and related materials are in other sections of these specifications.

**Table 1: Roof System Schedule**

Areas A, B and D	Area A1	Area C	Areas E and E1
Metal deck	Metal deck	Metal deck	Concrete Deck
5/8" gypsum underlayment (mechanically attached)	5/8" gypsum underlayment (mechanically attached)	5/8" gypsum underlayment (mechanically attached)	2.6-inch polyisocyanurate insulation (adhered)
Temporary modified bitumen roof membrane (cold or torch applied)	Temporary modified bitumen roof membrane (cold or torch applied)	1/2" gypsum cover board over tapered insulation crickets (adhered)	2-inch polyisocyanurate insulation (adhered)
2.6-inch polyisocyanurate insulation (adhered)	2.6-inch polyisocyanurate insulation (adhered)	Fully adhered single ply membrane	1/4-inch per foot tapered polyisocyanurate insulation (adhered). Starting at 1/2-inch
2.6-inch polyisocyanurate insulation (adhered)	2-inch polyisocyanurate insulation (adhered)		1/2" gypsum cover board (adhered)
1/2" gypsum cover board (adhered)	1/4-inch per foot tapered polyisocyanurate insulation (adhered). Starting at 1/2-inch		Fully adhered single ply membrane
Fully adhered single ply membrane	1/2" gypsum cover board (adhered)		
	Fully adhered single ply membrane		

3.2 EXAMINATION

- A. Inspect all surfaces to receive work specified herein. Application of materials constitutes approval of the substrate as being satisfactory.
- B. Do not proceed with roofing until all vents, drains, curbs, cants, blocking, nailing strips, and projections through the roof deck have been installed.

3.3 INSTALLATION, GENERAL

- A. Do not apply materials on wet or damp surfaces, over dust, dirt, or other foreign matter.
- B. Accomplish application of roofing materials so that each area will be complete at the end of each workday.

- 
- C. Protect edges and incomplete flashings against water entry at all times. Remove cut-offs and temporary protection prior to resumption of work.
  - D. Where work detailing affects adjacent roof areas, contractor is to coordinate with existing roofing manufacturer as to not affect the existing manufacturer's warranty.
  - E. Contractor shall by all means necessary, prevent odors from entering building.
  - F. Install materials in accordance with manufacturers instructions, in manner that maintains roofing system warranty.

### 3.4 GYPSUM UNDERLAYMENT APPLICATION

- A. Clean deck surfaces of all dirt, dust and other foreign matter.
- B. Furnish and install new 5/8 inch thick gypsum underlayment over metal decks.
- C. On metal decks, apply gypsum sheathing with long dimension of units across deck ribs. On open rib steel decks, ends of units must bear on deck surface.
- D. Apply gypsum with end joints staggered approximately one-half the length of units.
- E. Fit all gypsum units snugly to each other and to all vertical surfaces.
- F. Where gypsum underlayment is to be mechanically fastened, fasten with the number of fasteners as required by the manufacturer to meet the specified wind pressures.
  - 1. Provide insulation fasteners of lengths sized to engage top flange of metal deck a minimum of 3/4 inch and a maximum of 1-1/2 inches.
  - 2. Fasteners shall be a minimum of 6 inches away from any edge of board.

### 3.5 TEMPORARY MEMBRANE INSTALLATION

- A. Apply new torch or cold adhesive grade SBS modified bitumen material in strict accordance with manufacturer's latest printed instructions except as amended in this section.
- B. Lap ends at least 6 inches and sides at least 4 inches.
- C. Starting at low point in roof, apply base ply. Apply uniformly and without voids. Press into full contact with substrate.
- D. Contractor shall provide means of draining standing water from the temporary roof surface where standing water occurs. This includes but is not necessarily limited to the use of sump pumps.

### 3.6 INSULATION APPLICATION

- A. Clean surfaces of all dirt, dust and other foreign matter.
- B. Furnish and install new base insulation, and tapered polyisocyanurate insulation, as specified herein.
- C. Refer to Roof System Schedule and plans for all locations to receive base layer, and tapered polyisocyanurate insulation.
- D. Insulation set in adhesive:

1. Set each layer of insulation in cold fluid applied adhesive with ribbons spaced as directed by the manufacturer to meet the specified wind pressures.
  - E. Stagger all joints off those of preceding layer.
  - F. Fit all insulation units snugly to each other and to all vertical surfaces.
  - G. Apply insulation in two or more separate layers.
  - H. Form crickets as specified herein:
    1. Form crickets along the upslope side of all curb mounted equipment with base widths exceeding 24 inches using factory tapered polyisocyanurate insulation and fill units and tapered edge strips.
    2. Form slope between drains using factory tapered polyisocyanurate insulation units, polyisocyanurate insulation fill units, and tapered edge strips.
    3. Start cricket construction by striking chalk lines for outer edges of tapered edge strips. Install edge strips along chalk lines, mitering and fitting at the points where lines break.
    4. Build crickets over the base layer insulation. Take special care to prevent water penetration into crickets during construction.
    5. Unless noted otherwise all crickets are to be fabricated from tapered stock as required to provide an installed slope matching that of the adjacent roof area. For example, where the roof slope is 1/4 inch per foot, crickets are to be fabricated from 1/2 inch per foot stock to provide an installed slope of 1/4 inch per foot.
    6. Adhere insulation units as described previously.
    7. Provide tapered edge strips as required along cricket edges to provide a smooth transition.
    8. Install crickets of sufficient size and slope as required to ensure complete drainage and prevent standing water. Fabricate full crickets between drains with a minimum width-to-length ratio of 0.5 on areas A and A1 and 0.25 on areas B, C, and D. Fabricate partial crickets with dimensions which would result in a minimum width-to-length ratio of 0.25 if they were extended to full size.
    9. Fabricate crickets sufficiently wide as to result in valleys with positive slopes of not less than 1/16 inch per foot.
  - I. Taper insulation down to drains beginning at a point approximately 24 inches from drain. There is to be a 1 inch change from the top of the drain sump to the drain. Furnish and install drain extensions as required to elevate drain level.
  - J. Form tapered insulation system using factory tapered polyisocyanurate insulation units and polyisocyanurate insulation fill units.
    1. Provide a completed slope of 1/4 inch per foot.
    2. Provide a starting thickness of 1/2 inch.
  - K. Form sumps from factory tapered insulation sloped at a minimum 1/2 inch per foot.
    1. Sumps shall extend two feet out from the center of the drain in each direction.
- 3.7 COVER BOARD INSTALLATION
- A. Install cover board in specified adhesive as described herein.
    1. Follow ribbon spacing specified for insulation adhesives.
    2. Set cover board into cold adhesive immediately after application while adhesive is still soft and tacky.
    3. Stagger all joints off those of preceding layer.
    4. Apply high density cover board with end joints staggered approximately one-half the length of units.

- B. Ensure full adhesion of all layers of insulation and take whatever steps necessary to achieve full adhesion including, if necessary, temporary ballasting of insulation until adhesive sets.
- C. Provide an insulation thickness at eaves as required to maintain edge metal-fascia at uniform elevation and with uniform face widths. Install additional tapered edge strips at eaves, etc. as required to meet this requirement.

### 3.8 MEMBRANE INSTALLATION

- A. Install membrane in strict accordance with manufacturer's recommendations.
- B. Unroll membrane and allow to relax before installing.
- C. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer.
- D. Apply bonding adhesive to substrate and underside of roofing membrane at rate(s) required by roofing manufacturer and allow to partially dry before installing roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- E. Mechanically fasten roofing membrane securely at terminations, penetrations and perimeter of roofing.
- F. Apply membrane with side laps shingled with slope of roof where possible.
- G. Seams: Clean seam areas, overlap roofing membrane and hot-air weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roofing membrane.
- H. Repair tears, voids and lapped seams in roofing that do not meet requirements.
- I. Contractor must perform pull tests daily to verify proper bonding at seams and maintain a daily log.

### 3.9 FLASHING APPLICATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate(s) and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Weld side and end laps to ensure a watertight seam installation.
- E. At vertical terminations, terminate and seal top of sheet flashings and mechanically anchor to substrate with specified fasteners through specified termination bar approximately 1 inch below top edge and spaced not over 6 inches on center.
- F. Unless specifically stated otherwise in these specifications or on drawings all base flashings are to extend a minimum of 8 inches above finished roof level. Costs for modifications to parapets, equipment curbs, expansion joint curbs, etc. are to be included in the contractor's bid.



- 
- G. Fasten base flashing using specified fasteners and termination bar.
  - H. Follow roofing system manufacturer's instructions for installation and securement of wall flashings when wall height exceeds maximum for base flashing material.
  - I. Where bituminous materials are present on substrates coming in direct contact with the membrane, Contractor shall remove bituminous materials by any means necessary without compromising the substrate.

### 3.10 DRAIN FLASHING INSTALLATION

- A. Provide a smooth transition from the roof surface to drain clamping ring. Prepare the substrate around each roof drain to avoid membrane bridging at the sump area and possible distortion at the drain clamping ring. Use drain extensions as necessary.
- B. Locate membrane field splices a minimum of 24 inches outside drain sump.
- C. Cut the membrane so it extends approximately ½ inch beyond the attachment points of the drain clamping ring. Ensure hole is no smaller than drain leader.
- D. Provide water cut-off mastic under compression between membrane and drain base.

### 3.11 FALL PROTECTION INSTALLATION

- A. Fall protection installer shall install specified fall protection to locations indicated on plans.
- B. Upon close out, the qualified designer and installer shall provide the following:
  - 1. Ensure that documentation of anchorage certification and annual recertification requirements are provided to the Owner prior to the system being put to use.
  - 2. Training to the Owner on the use of the system and system maintenance requirements.
  - 3. Detailed and printed user instructions for the fall arrest system. At a minimum, the instructions shall include the following:
    - a. Manufacturer's name, address, and telephone number.
    - b. Manufacturer's user instruction for the part and model number
    - c. Statement of manufacturers intended use and purpose.
    - d. Description of proper methods and limitations on use.
    - e. Printed information or illustration of fixed equipment markings
    - f. Description of detailed inspection/recertification procedures for fall arrest system.
    - g. Criteria for failing inspections and determining unusable equipment.
    - h. Procedures for maintenance and repair requirements
    - i. Who is authorized to make adjustments and repair to equipment.
    - j. Appropriate warnings regarding altering, misusing, and limitation of equipment.
  - 4. Submit reduced shop drawings of the fall protection system to be posted at all roof accesses.
  - 5. Submit manufactures warranty information and documentation that the system was installed in accordance with the manufactures instructions.

### 3.12 WALKWAY APPLICATION

- A. Install new walkway at all locations indicated on Drawings as specified herein.
- B. Install new walkway on all sides of all major equipment (motorized equipment, scuttles, or any rooftop unit with any single dimension greater than 4 feet).
- C. Adhere flexible walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

END OF SECTION 074500

SECTION 076200 – SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Sheet metal flashing and trim.
- B. Related Sections include the following:
  - 1. Division 7 Section "Thermoplastic Membrane Roofing."

1.3 SUBMITTALS

- A. Materials List: Give written notification of the brand name and manufacturer of each material proposed for use and include a statement that all proposed materials meet the specification requirements. Obtain approval prior to placing orders.
  - 1. Submittal of catalog cut sheets, etc. in lieu of the materials list required above is not acceptable.
- B. Submit shop drawings of all specified types of metal shapes, showing details of proposed installation where appropriate.
- C. Submit two 6-inch long samples of each metal shape.
- D. Manufacturer Certificates: Original document signed by a responsible officer of the manufacturing firm, notarized, on manufacturer's standard letterhead, certifying materials furnished for project comply with the referenced standard. Certificate shall specifically reference the project and applicable compliance standard.
- E. Color Chart: Manufacturer's standard range of colors for prefinished metals, including available gauges.
- F. Obtain approval of shop drawings, samples and certifications prior to fabrication and installation.
- G. Do not purchase, fabricate or install any sheet metal item until all required shop drawings and related submittals for each item are approved. Items purchased, fabricated and/or installed which are not in compliance with approved shop drawings are subject to immediate removal from the project at contractor's expense.

1.4 STORAGE

- A. Restrict on-site storage to minimum for work in progress. Protect all stored metal from exposure to weather and physical damage.

---

1.5 WARRANTIES

- A. Upon completion of the work, furnish from manufacturer a standard twenty (20) year finish warranty.
- B. Finish: Deterioration includes, but is not limited to, the following:
  - 1. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
  - 2. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
  - 3. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIALS

- A. Prefinished Galvalume Steel: Aluminum-zinc alloy-coated steel sheet meeting ASTM A 792, Class A 750, coating designation, Grade 40 (Class AZM 150 coating designation, Grade 275), structural quality with Kynar 500®. Color to be selected by Owner.
- B. Exposed Finish Kynar ® 500 Based fluoropolymer coating, containing not less than 70% polyvinylidene fluoride resin by weight. Mask metal with protective film.
- C. Color: As selected by Owner from manufacturer's full range.
- D. Membrane Clad Metal: 24 gauge galvanized steel with factory aminated membrane material supplied by manufacturer.

2.2 COPING

- A. Factory fabricated to sizes required; corners mitered; concealed fasteners.
  - 1. Configuration: Concealed continuous hold down cleat at both legs; internal splice piece at joints of same material, thickness, and finish as cap; concealed stainless steel fasteners.
  - 2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 using test method RE-3 to positive and negative design wind pressure as defined by applicable local building code.
  - 3. Material: See Sheet Metal Schedule
  - 4. Finish: 70 percent polyvinylidene fluoride.
  - 5. Color: As selected by Owner from manufacturer's standard range.
  - 6. Joints: Use standing seam joints for coping under 18 inches wide. Use 6 inch cover and 6 inch backup plates with three beads of sealant at coping over 18 inches.

2.3 ROOF EDGE FLASHING

- B. Factory fabricated to sizes required; concealed fasteners.
  - 1. Configuration: Fascia, and edge securement for roof membrane.
  - 2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 using test methods RE-1 and RE-2 to positive and negative design wind pressure as defined by applicable local building code.
  - 3. Exposed Face Height: As indicated on drawings.
  - 4. Material: See Sheet Metal Schedule
  - 5. Finish: 70 percent polyvinylidene fluoride.
  - 6. Color: As selected by Owner from manufacturer's standard range.

2.4 AUXILIARY MATERIALS

- A. Sealant: ASTM C 920, Type S, Grade NS, Class 25, one-part polyurethane sealant.
- B. PVC Stripping: 20 mil PVC

2.5 SHEET METAL SCHEDULE

- A. Counterflashing: 24 gauge prefinished galvalume
- B. Counterflashing Receiver: 24 gauge prefinished galvalume
- C. Overflow Scupper Liner: 24 gauge membrane clad metal
- D. Coping Cap: 24 gauge prefinished galvalume
- E. Edge Metal: 24 gauge prefinished galvalume

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Inspect all surfaces to which metal is to be applied. Do not install metal unless surfaces are even, sound, clean, dry and free from defects that might affect the application.
- B. Follow recommendations of Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Architectural Sheet Metal Manual (Seventh Edition, 2012) for fabricating in-shop and on-site, and for installation, unless otherwise specified herein or on Drawings.
- C. Follow published instructions of the product manufacturer for installation of extruded or proprietary metal products, unless otherwise specified herein or on Drawings.
- D. Use nails, screws, bolts, cleats or other fasteners of the same material or, if approved by Engineer, of material chemically compatible with the contacted metal.
  - 1. Use stainless steel fasteners at all locations in contact with pressure-treated lumber.
- E. Fabricate cleats to be one gauge heavier than metal to be secured by cleat unless otherwise noted.
  - 1. Secure cleats to substrate with fasteners specifically manufactured for the purpose at spacings of 6 inches, on center. Fasteners are to be manufactured of metal chemically compatible with the contacted metal. Fasteners to be used in wood substrates are to be ring shank. Fasteners are to be located as close to hem of cleat as practical but no more than 2 inches from hem unless specifically indicated otherwise herein or on drawings.
- F. Install metal to be water and weathertight with lines, arrises and angles sharp and true and with plane surfaces free of waves or buckles. All raw edges of exposed or finish sheet metal shall be hemmed.
- G. Install shop-formed flashings in 10-foot lengths maximum and with minimum number of pieces in each straight run.
- H. Do not place dissimilar metals in direct contact or in positions where water sheds across both metals.

- 
- I. Miter and seal all inside and outside corners of coping cap. Shop fabricated corner pieces are preferable
  - J. Shop form all metal shapes, which are to be formed of prefinished metal, with protective plastic film in place. Do not remove plastic film until just prior to (or, if possible, after) installation.
  - K. At all corners, shop form corner pieces of coping caps, eave and rake flashings with 18 inch legs (joints no more than 18 inches from corner). Seal joint of corner piece.
  - L. Form faces of fascia with vertical faces of sufficient width to extend to specified length as shown in the details.

### 3.2 COUNTERFLASHING INSTALLATION

- A. Install new counterflashing at various wall and equipment locations as specified herein. Refer to Drawings for additional information.
- B. Refer to sheet metal schedule for gauge and metal type.
- C. Install new counterflashing at all roof mounted equipment. Extend flange down a minimum of 4 inches over base flashing. Secure counterflashing to top of curb, or to integral flange of unit with appropriate fasteners at 4 inches on center.
- D. Insert upper edge of counterflashing receiver in raggle. Secure with driven lead wedges not over 18 inches on center. Fabricate wedges from lead wool.
- E. Insert upper edge of counterflashing in metal receiver. Bend receiver neatly and snugly to face of counterflashing.
- F. Fill raggle with to full depth with permanent, non-shrinking sealant.
- G. Notch and lap joints and inside corners. Notch and seam outside corners. Do not rivet or otherwise secure joints and corners.
- H. Lap ends 4 inches. Crimp hem of overlapping section around hem of underlapping section.

### 3.3 SCUPPER LINER INSTALLATION

- A. Install new scupper liners as indicated on plans.
- B. Refer to sheet metal schedule for gauge and metal type.
- C. Cover all concrete surfaces to be in contact with scupper with a bed of sealant.
- D. Install scupper. Install closure flanges at both sides of wall, lock and weld closure flange seams.

### 3.4 COPING CAP INSTALLATION

- A. Submit design drawing for Install new coping cap at locations indicated on plans. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-1.
- B. Refer to sheet metal schedule for gauge and metal type.

- C. Prior to installation of coping cap, extend the PVC membrane across the top of the wall and extending down the outside face approximately the width of the vertical sections of the coping cap.
- D. Secure both vertical sections with a continuous cleat fastened to precast concrete or wood blocking.
- E. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-1, Detail 1 for cleat and coping hem dimensions.
- F. Join sections with 1-inch vertical single-lock standing seams and caulk with approved sealant. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-3, Seam 22.

END OF SECTION 076200

FORMS



**FORM OF PROPOSAL**

HFR Building

Contract: \_\_\_\_\_

Western Carolina University

Bidder: \_\_\_\_\_

SCO ID No. 22-24898-01

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

The undersigned, as bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The bidder further declares that he has examined the site of the work and the contract documents relative thereto and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed. The bidder further declares that he and his subcontractors have fully complied with NCGS 64, Article 2 in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

The Bidder proposes and agrees if this proposal is accepted to contract with the State of North Carolina through Western Carolina University in the form of contract specified below, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of

**HFR Building Roof Replacement Project**

in full in complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the State of North Carolina, and

**Western Carolina University**

with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the contract documents, for the sum of:

**SINGLE PRIME CONTRACT:**

**BASE BID: Roof Replacement of Areas A and A1.**

\_\_\_\_\_ Dollars

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

**ALTERNATE NO. 1: Roof Replacement of Areas B, C, D, E, and E1.**

\_\_\_\_\_ Dollars

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

---

**ALTERNATE NO. 2: Perform demolition of the existing roofing and installation of mechanically attached gypsum underlayment and temporary roof membrane on Areas A and A1 outside business hours. (Refer to Section 012300 for hours.) All interior protection and cleaning related to roofing activities shall be performed within work hours.**

Dollars

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

**ALTERNATE NO. 3: Perform demolition of the existing roofing and installation of mechanically attached gypsum underlayment and temporary roof membrane on Areas B, C, D, E and E1 outside of business hours. (Refer to Section 012300 for hours.) All interior protection and cleaning related to roofing activities shall be performed within work hours.**

Dollars

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

General Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Plumbing Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Mechanical Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Electrical Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

GS143-128(d) requires all single prime bidders to identify their subcontractors for the above subdivisions of work. A contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except (i) if the listed subcontractor's bid is later determined by the contractor to be non-responsible or non-responsive or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or (ii) with the approval of the awarding authority for good cause shown by the contractor.

**UNIT PRICES**

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.

Description	Unit of Measurement	Quantity	Price
1. Wire brush and paint metal deck.	Sq. Ft.	3,000	
2. Wire brush, paint and plate metal deck.	Sq. Ft.	500	
3. Replace steel deck.	Sq. Ft.	500	
4. Replace damaged or deteriorated wood blocking.	Bd. Ft.	100	
5. Secure metal deck side laps.	Fastener	500	
6. Resecure metal deck.	Fastener	500	
7. Plate steel deck.	Ln. Ft.	1,000	

The bidder further proposes and agrees hereby to commence work under this contract on a date to be specified in a written order of the designer and shall fully complete all work thereunder within the time specified in the Supplementary General Conditions Article 23. Applicable liquidated damages amount is also stated in the Supplementary General Conditions Article 23.

**MINORITY BUSINESS PARTICIPATION REQUIREMENTS**

*Provide with the bid* - Under GS 143-128.2(c) the undersigned bidder shall identify on its bid (Identification of Minority Business Participation Form) the minority businesses that it will use on the project with the total dollar value of the bids that will be performed by the minority businesses. Also list the good faith efforts (Affidavit A) made to solicit minority participation in the bid effort.

**NOTE:** A contractor that performs all of the work with its own workforce may submit an Affidavit (B) to that effect in lieu of Affidavit (A) required above. The MB Participation Form must still be submitted even if there is zero participation.

*After the bid opening* - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit (C) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the 10% goal established. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort and Affidavit D is not necessary;

\* OR \*

If less than the 10% goal, Affidavit (D) of its good faith effort to meet the goal shall be provided. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.

Note: Bidders must always submit with their bid the Identification of Minority Business Participation Form listing all MB contractors, vendors and suppliers that will be used. If there is no MB participation, then enter none or zero on the form. Affidavit A or Affidavit B, as applicable, also must be submitted with the bid. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder is grounds for rejection of the bid.

---

---

## Proposal Signature Page

---

---

The undersigned further agrees that in the case of failure on his part to execute the said contract and the bonds within ten (10) consecutive calendar days after being given written notice of the award of contract, the certified check, cash or bid bond accompanying this bid shall be paid into the funds of the owner's account set aside for the project, as liquidated damages for such failure; otherwise the certified check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Respectfully submitted this day of \_\_\_\_\_

---

(Name of firm or corporation making bid)

WITNESS:

---

(Proprietorship or Partnership)

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

Name: \_\_\_\_\_  
Print or type

Title \_\_\_\_\_  
(Owner/Partner/Pres./V.Pres)

Address \_\_\_\_\_

ATTEST:

---

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

License No. \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

Federal I.D. No. \_\_\_\_\_

Email Address: \_\_\_\_\_

(CORPORATE SEAL)

Addendum received and used in computing bid:

Addendum No. 1 \_\_\_\_ Addendum No. 3 \_\_\_\_ Addendum No. 5 \_\_\_\_ Addendum No. 7 \_\_\_\_

Addendum No. 2 \_\_\_\_ Addendum No. 4 \_\_\_\_ Addendum No. 6 \_\_\_\_ Addendum No. 8 \_\_\_\_



# State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of \_\_\_\_\_

(Name of Bidder)

Affidavit of \_\_\_\_\_

I have made a good faith effort to comply under the following areas checked:

**Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive.** (1 NC Administrative Code 30 I.0101)

- 1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- 3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- 5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- 6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- 8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- 9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- 10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

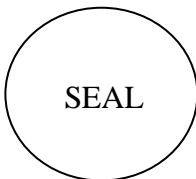
The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

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

Notary Public

**My commission expires**

**State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.**

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_  
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the \_\_\_\_\_  
\_\_\_\_\_ contract.  
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

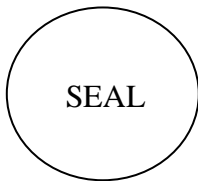
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

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

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

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

**State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses**

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.  
 This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of \_\_\_\_\_ I do hereby certify that on the \_\_\_\_\_  
 (Name of Bidder)

\_\_\_\_\_ (Project Name)

Project ID# \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

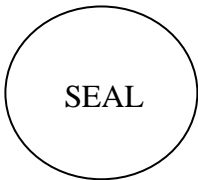
\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

\*\* HUB Certification with the state HUB Office required to be counted toward state participation goals.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_



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

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

State of \_\_\_\_\_, County of \_\_\_\_\_  
 Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
 Notary Public \_\_\_\_\_  
 My commission expires \_\_\_\_\_



Do not submit with bid    Do not submit with bid    Do not submit with bid    Do not submit with bid

# State of North Carolina                      AFFIDAVIT D – Good Faith Efforts

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of \_\_\_\_\_ I do hereby certify that on the \_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_ (Project Name)

Project ID# \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.    (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

\*\* **HUB Certification with the state HUB Office required to be counted toward state participation goals.**

**Examples** of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

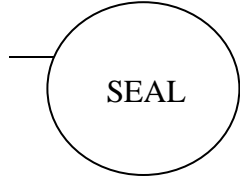
Do not submit with bid Do not submit with bid Do not submit with bid Do not submit with bid

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

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

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

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

**FORM OF BID BOND**

KNOW ALL MEN BY THESE PRESENTS THAT \_\_\_\_\_  
\_\_\_\_\_ as principal,  
and \_\_\_\_\_, as surety, who is duly  
licensed to act as surety in North Carolina, are held and firmly bound unto the State of North Carolina\*  
through Western Carolina University as obligee, in the penal sum of  
\_\_\_\_\_ DOLLARS, lawful money of the United States of America, for the payment  
of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and  
assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

WHEREAS, the said principal is herewith submitting proposal for \_\_\_\_\_  
\_\_\_\_\_ and the principal desires to file this bid bond in lieu of making the cash deposit as required  
by G.S. 143-129.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such, that if the principal shall be  
awarded the contract for which the bid is submitted and shall execute the contract and give bond for the  
faithful performance thereof within ten days after the award of same to the principal, then this obligation  
shall be null and void; but if the principal fails to so execute such contract and give performance bond as  
required by G.S. 143-129, the surety shall, upon demand, forthwith pay to the obligee the amount set forth  
in the first paragraph hereof. Provided further, that the bid may be withdrawn as provided by G.S.  
143-129.1

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

**FORM OF CONSTRUCTION CONTRACT  
(ALL PRIME CONTRACTS)**

THIS AGREEMENT, made the \_\_\_\_\_ day of \_\_\_\_\_ in the year of 2022 by and between\_\_\_\_\_. hereinafter called the Party of the First Part and the State of North Carolina through **Western Carolina University** hereinafter called the Party of the Second Part.

**WITNESSETH:**

That the Party of the First Part and the Party of the Second Part for the consideration herein named agree as follows:

1. Scope of Work: The Party of the First Part shall furnish and deliver all of the materials, and perform all of the work in the manner and form as provided by the following enumerated plans, specifications and documents, which are attached hereto and made a part thereof as if fully contained herein: advertisement; Instructions to Bidders; General Conditions; Supplementary General Conditions; specifications; accepted proposal; contract; performance bond; payment bond; power of attorney; workmen's compensation; public liability; property damage and builder's risk insurance certificates; approval of attorney general; certificate by the Office of State Budget and Management, and drawings, titled:

**HFR Building, SCO Project No. 22-24898-01**

Consisting of the following sheets:

Dated: \_\_\_\_and the following addenda:

Addendum No. 1	_____	Dated:	_____	Addendum No. 5	_____	Dated:	_____
Addendum No. 2	_____	Dated:	_____	Addendum No. 6	_____	Dated:	_____
Addendum No. 3	_____	Dated:	_____	Addendum No. 7	_____	Dated:	_____
Addendum No. 4	_____	Dated:	_____	Addendum No. 8	_____	Dated:	_____

2. That the Party of the First Part shall commence work to be performed under this agreement on a date to be specified in a written order of the Party of the Second Part and shall fully complete all work hereunder within \_\_\_\_\_ consecutive calendar days from said date. For each day in excess thereof, liquidated damages shall be as stated in Supplementary General Conditions. The Party of the First Part, as one of the considerations for the awarding of this contract, shall furnish to the Party of the Second Part a construction schedule setting forth planned progress of the project broken down by the various divisions or part of the work and by calendar days as outlined in Article 14 of the General Conditions of the Contract.

3. The Party of the Second Part hereby agrees to pay to the Party of the First Part for the faithful performance of this agreement, subject to additions and deductions as provided in the specifications or proposal, in lawful money of the United States as follows:

Summary of Contract Award:

Base Bid \_\_\_\_\_  
Alt. No. 1 \_\_\_\_\_

**TOTAL** \_\_\_\_\_

4. In accordance with Article 31 and Article 32 of the General Conditions of the Contract, the Party of the Second Part shall review, and if approved, process the Party of the First Party's pay request within 30 days upon receipt from the Designer. The Party of the Second Part, after reviewing and approving said pay request, shall make payments to the Party of the First Part on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the First Party, less five percent (5%) of the amount of such estimate which is to be retained by the Second Party until all work has been performed strictly in accordance with this agreement and until such work has been accepted by the Second Party. The Second Party may elect to waive retainage requirements after 50 percent of the work has been satisfactorily completed on schedule as referred to in Article 31 of the General Conditions.

5. Upon submission by the First Party of evidence satisfactory to the Second Party that all payrolls, material bills and other costs incurred by the First Party in connection with the construction of the work have been paid in full, final payment on account of this agreement shall be made within thirty (30) days after the completion by the First Party of all work covered by this agreement and the acceptance of such work by the Second Party.

6. It is further mutually agreed between the parties hereto that if at any time after the execution of this agreement and the surety bonds hereto attached for its faithful performance, the Second Party shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bonds cease to be adequate to cover the performance of the work, the First Party shall, at its expense, within five (5) days after the receipt of notice from the Second Party so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the Second Party. In such event no further payment to the First Party shall be deemed to be due under this agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the Second Party.

7. The Party of the First Part attest that it and all of its subcontractors have fully complied with all requirements of NCGS 64 Article 2 in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

IN WITNESS WHEREOF, the Parties hereto have executed this agreement on the day and date first above written in five (5) counterparts, each of which shall without proof or accounting for other counterparts, be deemed an original contract.

Witness:

\_\_\_\_\_  
Contractor: (Trade or Corporate Name)

\_\_\_\_\_  
(Proprietorship or Partnership)

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

Title: \_\_\_\_\_  
(Owner, Partner, or Corp. Pres. or Vice Pres.)

only)

Attest: (Corporation)

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

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

The State of North Carolina through

(CORPORATE SEAL)

\_\_\_\_\_  
Western Carolina University  
(Agency, Department or Institution)

Witness:

\_\_\_\_\_

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

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

FORM OF PERFORMANCE BOND

Date of Contract: \_\_\_\_\_

Date of Execution: \_\_\_\_\_  
Name of Principal  
(Contractor) \_\_\_\_\_

Name of Surety: \_\_\_\_\_

Name of Contracting  
Body: \_\_\_\_\_

Amount of Bond: \_\_\_\_\_

Project: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind, ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body, identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the contracting body, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.

Witness:

\_\_\_\_\_  
Contractor:(Trade or Corporate Name)

\_\_\_\_\_  
(Proprietorship or Partnership)

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

Attest: (Corporation)

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

(Owner, Partner, or Corp. Pres. or Vice Pres. only)

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

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

(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

\_\_\_\_\_  
(Surety Company)

Witness:

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

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

(Attorney in Fact)

Countersigned:

(Surety Corporate Seal)

\_\_\_\_\_  
(N.C. Licensed Resident Agent)

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address



FORM OF PAYMENT BOND

Date of Contract: \_\_\_\_\_

Date of Execution: \_\_\_\_\_

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

Name of Surety: \_\_\_\_\_

Name of Contracting  
Body: \_\_\_\_\_

Amount of Bond: \_\_\_\_\_

Project: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall promptly make payment to all persons supplying labor/material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.

Witness:

\_\_\_\_\_  
Contractor: (Trade or Corporate Name)

\_\_\_\_\_

(Proprietorship or Partnership)

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

Attest: (Corporation)

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

(Owner, Partner, or Corp. Pres. or Vice Pres. only)

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

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

(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

\_\_\_\_\_  
(Surety Company)

Witness:

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

\_\_\_\_\_

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

(Attorney in Fact)

Countersigned:

\_\_\_\_\_

(Surety Corporate Seal)

\_\_\_\_\_  
(N.C. Licensed Resident Agent)

\_\_\_\_\_

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address

**Sheet for Attaching Power of Attorney**

**Sheet for Attaching Insurance Certificates**

Approval of the Attorney General

CERTIFICATION BY THE OFFICE OF STATE  
BUDGET AND MANAGEMENT

Provision for the payment of money to fall due and payable by the

under this agreement has been provided for by allocation made and is available for the purpose of carrying out this agreement.

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

Signed: \_\_\_\_\_  
Budget Office