

IFB# 1088145

PROJECT MANUAL

**PARTIAL ROOF REPLACEMENT
MID-COUNTY DHHS
1301 PICCARD DRIVE
ROCKVILLE, MD 20850**



**Construction Documents
4/23/2018**

**MONTGOMERY COUNTY GOVERNMENT
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Division of Facilities Management
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MONTGOMERY COUNTY, MARYLAND

INSTRUCTIONS TO BIDDERS

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ARTICLE 1

DEFINITIONS

- 1.1 Bid Documents include the Advertisement, Invitation for Bids, Instructions to Bidders, the Bid Form, other sample Bidding and contract forms and the proposed Contract Documents including any Addenda issued prior to receipt of Bids.
- 1.2 All definitions set forth in the General Conditions of Construction Contract or in other Contract Documents are applicable to the Bid Documents.
- 1.3 Addenda are written on graphic instruments issued by the Owner prior to the opening of Bids, which interpret the Bid Documents by additions, deletions, clarifications or corrections.
- 1.4 A Bid is a complete and properly signed Bid to do the Work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.
- 1.5 Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bid Documents, to which Work may be added or deducted for sums stated in Alternate Bids.
- 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to (add Alternate) or deducted from (deduct Alternate) the amount of the Base Bid if the Owner decides to accept a corresponding change in either the project scope, the amount of construction to be completed, the products, materials, equipment, systems or installation methods described in the Bid Documents and Contract Documents.
- 1.7 Unit Prices refer to the amounts stated in the Bid and selected by the Owner for incorporation into the Contract Documents that includes all direct labor and materials costs, payroll burden, relocation of stockpiled materials as necessary, indirect job costs such as insurance, bonds, coordination, engineering, permits, cleanup, tools, profit, and overhead (which includes office overhead and site-specific overhead and general conditions), subcontractor profit and overhead, and all other costs necessary to complete the Work. Unit Prices include all costs for the work as defined in the General Conditions of Construction Contract. Unit Prices as stated shall remain in effect through the end of the Contract warranty period.
- 1.8 A Bidder is one who submits a Bid for a prime contract with the Owner for the Work described in the proposed Contract Documents.
- 1.9 A Sub-Bidder is one who submits a Bid to a Bidder for materials or labor for a portion of the work.

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1.10 The "Owner" is Montgomery County, Maryland.

ARTICLE 2

BIDDER'S REPRESENTATIONS

2.1 Each Bidder in submitting a Bid represents to the Owner as follows that:

- a. The Bidder has read and understands the Bid Documents and the Bid is made in accordance therewith.
- b. The Bidder has visited the site and is familiar with the local conditions under which the Work is to be performed.
- c. The Bid is based upon the materials, systems and equipment described in the Bid Documents without exceptions.
- d. The Bidder declares: (i) that the only person, firm or corporation, or persons, firms or corporations, that has or have any interest in this Bid or in the contract or contracts proposed to be taken, is or are the undersigned; and (ii) that this Bid is made without any connection or collusion with any person, firm or corporation making a Bid for the same Work.

ARTICLE 3

BID DOCUMENTS

3.1 COPIES

3.1.1 Bidders may obtain from the Owner complete sets of the Bid Documents in the number and for the sum, if any, stated in the Advertisement or Notice to Vendors.

3.1.2 Complete sets of Bid Documents shall be used in preparing Bids. Neither the Owner nor the Architect assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

3.1.3 The Owner or Architect in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or permission for any other use.

3.2 INTERPRETATION OR CORRECTION OF BID DOCUMENTS

3.2.1 Bidders must promptly notify the Owner in writing of any ambiguity, inconsistency or error that they may discover upon examination of the Bid Documents or of the site and local conditions. The Bidder must send a

copy of the written notification to the Architect.

3.2.2 Bidders requiring clarification or interpretation of the Bid Documents must make a written request to the Owner that must reach the Owner at least ten days prior to the date for receipt of Bids. The Bidder must send a copy of the written request to the Architect.

3.2.3 Any interpretation, correction or change of the Bid Documents will be made by Addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding, and Bidders must not rely upon such interpretations, corrections, or changes.

3.3 BACKGROUND/INTENT

3.3.1 This project consists of the Partial Roof Replacement/Repair at Mid-County Department of Health and Human Services (DHHS) Building.

3.3.2 A typical schedule of the hours of work for the Mid-County DHHS 1301 Piccard Drive Building Partial Roof Replacement/Repair project is: Weekdays 7:00 a.m. to 5:00 p.m. Work outside these hours, including weekends and holidays, must be approved in advance by the Owner.

3.4 SUBSTITUTIONS

3.4.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed Substitution.

3.4.2 No Substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the Owner at least ten days prior to the date for receipt of Bids. A copy of said written request shall be sent to the Architect. Each such request must include the name of the material or equipment for which it is to be substituted and a complete description of the proposed Substitution including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the Substitution would require shall be included. The burden of proof of the merit of the proposed Substitution is upon the Bidder. The Owner's decision of approval or disapproval of a proposed Substitution shall be final.

3.4.3 If the Owner approves any proposed Substitution, the approval will be set forth in an Addendum. Bidders must not rely upon approvals made in any other manner.

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3.5 ADDENDA

3.5.1 Addenda will be posted on the Montgomery County Procurement website and mailed, faxed and/or sent electronically (e-mail) to all who are known by the Owner to have received a complete set of Bid Documents.

3.5.2 NOT APPLICABLE

3.5.3 In the event that an Addendum is issued, all unchanged terms and conditions will remain in effect unless they are specifically changed by the Addendum. Bidders must acknowledge receipt of Addenda, to the place designated, and prior to the hour and date specified in the Solicitation (as amended) for receipt of Bids. BIDDERS WHO DO NOT TIMELY ACKNOWLEDGE RECEIPT OF ADDENDA BY ONE OF THE FOLLOWING METHODS MAY BE REJECTED:

- a. By returning one signed copy of the Addendum.
- b. By acknowledging receipt of the Addendum on at least one signed copy of the Bid submitted by the Bidder.
- c. By stating that the Addendum is acknowledged in a signed letter that refers to the Solicitation and Addenda numbers.

3.5.4 A waiver of the requirement to timely acknowledge receipt of the Addenda, as set forth in Article 3.5.3, may be granted by the Director, Office of Procurement, if it is deemed to be in the County's best interest. No waiver may be granted, however, until the Bidder certifies in writing that the Bidder will be bound by any substantive changes made by the Addenda to the terms of the Solicitation.

3.5.5 The Bidder must comply with the requirements of Article 4.4 if an Addendum had been issued and the Bidder wants to change a Bid that has already been submitted prior to the official opening of the Bids.

3.5.6 ALL SIGNATURES ON BIDS, ADDENDA, OR RELATED CORRESPONDENCE MUST BE BY PERSONS WHO ARE AUTHORIZED TO BIND THE BIDDERS CONTRACTUALLY.

ARTICLE 4

BIDDING PROCEDURES

4.1 FORM AND STYLE OF BIDS

4.1.1 Bids must be submitted in duplicate on the forms provided in the Bid Documents.

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- 4.1.2 All blanks on the Bid document must be filled in.
- 4.1.3 The Base Bid must be expressed both numerically and written out in words. In case of a discrepancy between the numeric and word figures, the amount written out in words will govern.
- 4.1.4 Any interlineations, alterations, erasures, or other changes to Bids must be initialed by the signer of the Bid before the Bid is submitted.
- 4.1.5 All requested Alternates must be included in the Bid.
- 4.1.6 Where there are two or more major items of work for which separate quotations have been requested, Bidder may state in the Bid the refusal to accept less than whatever combination of the items are stipulated in the Bid.
- 4.1.7 Bidder must make no additional stipulations on the Bid form nor qualify the Bid in any other manner.
- 4.1.8 Each copy of the Bid must include the correct and full legal name of the Bidder and a statement of whether the Bidder is a sole proprietor, a general or limited partnership, a corporation, a limited liability corporation, a limited liability partnership, or any other legal entity. Signatures of offerors and contractors must be in their correct legal form and must not be abbreviated to common usage or trade name form. All signatures must be made by an authorized officer, partner, manager, member, or employee. The signing of an offer or a contract is a representation by the person signing that the person signing is authorized to do so on behalf of the Bidder or contractor. A Bid submitted by an agent must attach a current Power of Attorney that certifies the agent's authority to bind the Bidder. Bids and contracts that are not signed in compliance with these requirements are voidable at the option of the County.
- 4.2 BID GUARANTEE
 - 4.2.1 If so stipulated in the Invitation for Bids, each Bid must be accompanied by a Bid Bond or Bid Security in the required form and amount pledging that the Bidder will enter into a Contract with the Owner within ten (10) days of the receipt of the Contract, on the terms stated in the Bid and will furnish the bonds described in Article 7 covering the faithful performance of the Contract and the payment of all obligations arising thereunder. **Should the Bidder refuse to enter into the Contract or fail to furnish the bonds, the amount of the Bid Bonds or Bid Security may be forfeited to the Owner as liquidated damages, not as penalty.**
 - 4.2.2 The Bid Bond must be written in the form of AIA Document A310 Bid Bond, or equivalent, and the Attorney In Fact who executes the Bond on behalf of the surety must affix to the Bond a certified and current copy of the current

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Power of Attorney, see page **32** for a sample Bid Bond. The Bid Security may be in the form of a Cashier's Check, Certified Check, Bank Letter of Credit and be duly executed by the Bidder as a principle, and made payable to Montgomery County, Maryland.

4.2.3 The Owner has the right to retain the Bid Guarantee until one of the following occurs: (a) the Contract has been executed and the Performance and Payment Bonds have been furnished; or (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected.

4.3 SUBMISSION OF BIDS

4.3.1 A Bidder must submit copies of the Bid, the Bid Bond or Bid Security, and all other Bid Documents in a sealed opaque envelope addressed to: Director, Office of Procurement, 255 Rockville Pike, Suite 180, Rockville, Maryland 20850, and must be identified with the Project name, the Bid Number, and the Bidder's name and address. If the Bid is sent by mail, the sealed envelope must be enclosed in a separate mailing envelope with the notation "BID ENCLOSED" on the face of the envelope.

4.3.2 Bids must be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Invitation for Bids as amended. Bids received after the time and date for receipt of Bids will be returned to the Bidder unopened.

4.3.3 The Owner will not consider any Bids that are not timely delivered by the Bidder.

4.3.4 Bids submitted by telephone, telefacsimile, or e-mail are not valid and will not be considered by the Owner.

4.4 MODIFICATION OR WITHDRAWAL OF BID

4.4.1 A Bid must not be modified, withdrawn or canceled by the Bidder for 120 days following the time and date designated for the receipt of Bids, and Bidder so agrees when submitting a Bid.

4.4.2 Bids submitted prior to the date specified in the Bid Documents may be modified or withdrawn only by the Bidder's written notice to the Owner at the place designated for receipt of Bids and prior to the date on which Bids are due.

4.4.3 The Bidder's written notice of withdrawal must be signed by the Bidder.

4.4.4 Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with the Bid Documents.

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- 4.4.5 Bid security must be in the form of a cashiers check, certified check, bank letter of credit or bid bond in the amount of not less than five percent (5%) of the Total Base Bid. Should the Bidder refuse to enter into the Contract or fail to furnish the bonds, the amount of the Bid Bonds or Bid Security may be forfeited to the Owner as liquidated damages, not as penalty.

ARTICLE 5

CONSIDERATION OF BIDS

5.1 OPENING OF BIDS

- 5.1.1 Unless stated otherwise in the Advertisement or Invitation for Bids, the properly identified Bids received on time will be opened publicly and will be read aloud.

5.2 REJECTION OF BIDS

- 5.2.1 The Owner has the right to reject any or all Bids and in particular to reject a Bid not accompanied by any required Bid Bond or Bid Security, any other information required by the Bid Documents, or a Bid that is in any way incomplete or irregular in the sole and absolute discretion of the Owner.

5.3 ACCEPTANCE OF BID (AWARD)

- 5.3.1 The Owner has the right to waive any irregularity in any Bid received in accordance with the Montgomery County Procurement Regulations.

5.3.2 **The lowest Bid will be determined by the amount of the lowest Base Bid only.**

- 5.3.3 Unless otherwise expressly stated in the Bid Documents, the award of a Contract under this Invitation for Bids will be made to the lowest responsive Bid submitted by a responsible Bidder based solely upon the Base Bid Price as stated on the Quotation Sheet. The price quoted for the Base Bid must include all necessary costs required to perform the Work specified in the technical specifications. Prices for Alternate items will not be considered in a determination of award.

- 5.3.4 The Owner shall have the right to accept Alternates in any order or combination.

- 5.3.5 The Owner will accept or reject any or all Bids on any or all items within 120 days after the date set for opening of the Bids.

5.4 POSTING OF THE PROPOSED CONTRACT AWARDEE

- 5.4.1 The Montgomery County Procurement Regulations are applicable to this

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solicitation and any contracts awarded pursuant to this solicitation. Of particular importance is the fact that the notice of a decision to make an award, under Section 3.2.2 of the Montgomery County Procurement Regulations, will be accomplished by a posting of the proposed contract awardee on a public list in the Office of Procurement, Rockville Center, 255 Rockville Pike, Suite 180, Rockville, Maryland 20850. The time period for filing a protest, as provided in Section 14.1.2 of the Montgomery County Procurement Regulations, commences THE NEXT DAY FOLLOWING the date of the posting.

- 5.4.2 It is the responsibility of the Bidders to keep informed of the current status of any proposed awardees for contracts in which they are interested. See Section 3.2.2 of the Montgomery County Procurement Regulations.

ARTICLE 6

QUALIFICATION OF CONTRACTORS

- 6.1 The Owner may make such investigations as it deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner may visit any prospective Contractor's place of business, or consider other factors necessary to perform the Work. The Owner reserves the right to reject the Bid of a Bidder that has previously failed to perform properly or to complete in a timely manner, or whose proposed subcontractors, suppliers, or surety have similarly failed to perform properly, or timely on contracts of similar nature, or if investigations show the Bidder unable to perform the requirements of the Contract.
- 6.2 Upon request, Bidders that have not previously qualified successfully with the Owner for work comparable to that contemplated in this solicitation or that have not performed comparable work for the Owner within the last two years must furnish the following proof of qualifications to perform the Work specified under oath. Bidders must furnish a written description of comparable work performed by the Bidder within the previous five years indicating the location, construction contract, scope, contract sum, type of construction, name and address of owner and architect, date completed and construction period in number of days. Failure to submit the required information will be sufficient cause for the Owner to reject the Bid. Bidders may be required to furnish additional information as proof of qualification subsequent to opening of the Bids and must do so within five (5) days of the request.
- 6.3 Bidders must be licensed as required by Maryland law, as set forth in Md. Code Ann., Bus. Reg. §17-601, et seq. (2004 Repl. Vol.), as amended. For additional information contact the State License Bureau, 301 West Preston Street, Baltimore, MD 21201.

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- 6.4 Subsequent to opening of Bids, and upon the Owner's request, Bidders must furnish a current condensed net worth statement and references for verification of financial responsibility. Failure to submit the information within five (5) calendar days of the Owner's request may be sufficient cause for the Owner to consider the Bidder as non-responsive.
- 6.5 Montgomery County Prevailing Wage Law **is** applicable to this Solicitation. The Prevailing Wage Law is contained in Chapters 11B-33C, and 20-75 of the Montgomery County Code effective 07/01/2009.

ARTICLE 7

PERFORMANCE BOND AND LABOR AND
MATERIAL PAYMENT BOND

- 7.1 REQUIRED BONDS - Performance and Labor and Material Payment Bonds will not be required for Bids under \$50,000.
- 7.1.1 Prior to the award of the Contract, the successful Bidder must furnish bonds covering the faithful performance of the Contract and the payment of all labor and material arising thereunder in the amount of 95% of the Contract, with a corporate surety or sureties authorized to do business in the State of Maryland. The premiums must be paid by the Bidder.

The Bidder must furnish separate Bid, performance and payment bonds to the Owner in the forms prescribed in the Bid or Proposal Documents and Article 17 of the General Conditions of Construction Contract. The performance and payment bonds must set forth a penal sum in an amount not less than 95% of the Contract Sum. Each bond furnished by the Bidder must incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in the bonds. The penal sum of both the performance and payment bonds will be automatically increased in the amount of any increase to the Contract Sum. The performance and payment bonds furnished by the Bidder must be in the forms prescribed in the Bid or Proposal Documents and Article 17 of the General Conditions of Construction Contract. The Surety must be a corporate Surety authorized to do business in the State of Maryland and acceptable to the Owner. While determining Surety acceptability, the Owner may make such investigations as he deems necessary to determine the ability of the Bidder's Surety to perform its duties and obligations and the Bidder shall furnish to the Owner, within five (5) days of Owner request, all such data and information for this purpose as the Owner may request. The Owner reserves the right, in its absolute discretion and for any reason, to accept or reject any Surety proposed by the Bidder.

Failure to submit information in a timely manner as indicated may be cause to not award Contract.

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7.2 TIME OF DELIVERY AND FORM OF BONDS

- 7.2.1 The Bidder must deliver the required bonds to the Owner prior to the award and execution of the Contract by the Owner.
- 7.2.2 Unless otherwise specified in the Bid Documents, the bonds must be written in the form as set forth on pages **53 and 59**, and the Performance and Payment Bonds must comply with or exceed requirements set forth in Md. Code Ann., State Fin. & Proc. §17-101 through §17-111 (2006 Repl. Vol.).
- 7.2.3 The Bidder must require the person who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the Power of Attorney authorizing the person's signature.

ARTICLE 8

LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE ON TIME

- 8.1 The time in which the Contractor agrees to complete the Work is the essence of the Contract and failure to complete the Work within the time specified will entitle the Owner to, and it will, deduct and retain from any monies due the Contractor, liquidated damages in the amount of **seven hundred Dollars (\$700) per day**, for each calendar day in excess of the time specified by the Bid Documents for Substantial Completion of the Work. The sum shall not be considered as a penalty but as a sum mutually agreed upon as the ascertained damages suffered by the Owner because of the delay. Official starting date shall be as stated in the Notice to Proceed.
- 8.2 Requests for an extension of the completion time due to strikes, lack of materials, or any condition over which the Contractor has no control will be reviewed by the Owner after written application is made for a time extension to the Owner and Architect. Any request for an extension of time is to be made immediately upon occurrence of conditions that, in the opinion of the Contractor, warrant the extension, with reasons clearly stated and detailed proof given for all delays, and must be made in writing to the Owner and Architect. No time extension will be allowed except by formal approval of the Owner.

ARTICLE 9

FORM OF CONTRACT BETWEEN OWNER AND CONTRACTOR

- 9.1 FORM TO BE USED
 - 9.1.1 Unless otherwise provided in the Bid Documents, the Contract for the Work will be written on the Standard Form, "Fixed Price Construction Contract Between Owner and Contractor" included with this IFB.

ARTICLE 10

SALES TAX REQUIREMENT

- 10.1 Bidders are required to include sales tax in their Bids. See Md. Code Ann., Tax-Gen. §11-220 (2004 Repl. Vol.).

ARTICLE 11

BID PROTEST

- 11.1 All protests made pursuant to this solicitation must be in writing and delivered to the Director, Office of Procurement, (a) within ten (10) days after the Director, Office of Procurement publicly posts the Contract Award, if the Bidder seeks as a remedy the award of the Contract or costs under 11B-36(h) of the Montgomery County Code, or (b) before the submission date for bids, if the bidder seeks as a remedy the cancellation or amendment of the solicitation. Each protest must contain a protest filing fee in the amount of \$500 (US currency); if the fee is paid by check, then the check must be made out to "Montgomery County Government." The Director, Office of Procurement, may return the filing fee to the protesting bidder, if the protest is sustained. The Director, Office of Procurement must dismiss any protest not timely received.
- 11.2 Only a Bidder who is "aggrieved" may file a protest. Aggrieved means that the bidder who is filing the protest may be eligible for an award of the Contract if the protest is sustained (e.g., a fourth ranked bidder is not aggrieved unless the grounds for a protest, if sustained, would disqualify the top three ranked Bidders or would require that the solicitation be reissued).
- 11.3 Each protest must contain the following: identification of the solicitation; the name, address and telephone number of the protesting offeror; a statement supporting that the Bidder is aggrieved; and specification of all grounds for the protest, including submission of detailed facts and all relevant documents; citation to relevant language in the solicitation, regulations, or law relied upon; and all other matters that the Bidder contends support the protest. Both the burden of production of all relevant evidence, data, and documents, and the burden of persuasion to support the protest are on the Bidder making the protest.

ARTICLE 12

MANDATORY SUBMISSIONS

- 12.1 **MANDATORY BID SUBMISSIONS:**

The following checked items (each of which are described in detail in Mandatory, General and Special Terms and/or Specifications or Scope of Work Sections of IFB), are to be included with the Bid submission:

- Bid Guarantee, 5%. (Page 32).
- BID (Pages 18-23).
- Unit Prices (if applicable).
- Add & Deduct Alternates (if applicable).

The Bidder's Failure to submit all of the information as set forth above will result in the mandatory rejection of the Bid.

12.2 OPTIONAL BID SUBMISSIONS:

Minority, Female, Disabled Person Subcontractor Performance Plan (to ensure a Contract can move forward as a result of this solicitation, you are encouraged to submit the plan with your Bid).

12.3 PRE- AWARD SUBMISSIONS

The following checked items (each of which are described in detail in Mandatory, General and Special Terms and/or Specifications or Scope of Work Sections of IFB) must be provided upon request from the three (3) apparent low bidders within five (5) calendar days of the Owner's request.

- | | | | |
|-------------------------------------|---|-------------------------------------|-------------------------------|
| <input type="checkbox"/> | Current Manufacturer catalog(s) | <input type="checkbox"/> | Price List(s) |
| <input checked="" type="checkbox"/> | Bidder Qualifications See 6.1 and 6.2 | <input checked="" type="checkbox"/> | Financial Data See 6.4 |
| <input type="checkbox"/> | Installation Schedules | <input type="checkbox"/> | Personnel Data |
| <input checked="" type="checkbox"/> | References | <input type="checkbox"/> | Plans or Drawings |
| <input checked="" type="checkbox"/> | Itemized construction cost breakdown See Itemized Construction Cost Sheet (Page 23) | | |
| <input checked="" type="checkbox"/> | Central Vendor Registration, including submission of Federal Form W-9. First-time vendors must register at www.mcipcc.net. | | |

Failure to submit information as indicated within the specified time period may be sufficient cause for rejection to consider the Bidder as Non-Responsive.

12.4 AWARD SUBMISSIONS:

The following checked items (each of which are described in detail in Mandatory, General and Special Terms and/or Specifications or Scope of

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

Work Sections of IFB), must be submitted within ten (10) days after the date of the Owner's written notification of Intent to Award a Contract:

- | | | | |
|--------------|---|--------------|--|
| <u> X </u> | Performance Bond
(Required only for Bids
in excess of \$50,000.00) | <u> X </u> | Labor and Material
Payment Bond
(Required only for Bids
in excess of \$50,000.00) |
| <u> X </u> | Certificate of Insurance | | |
| <u> X </u> | Minority Business Program & Offerors Representation | | |
| <u> X </u> | Minority-Owned Business Addendum to the General Conditions of Contract Between County and Contractor and its companion document entitled Minority, Female, Disabled Person Subcontractor Performance Plan | | |

Failure to submit information in a timely manner as indicated may be cause to rescind Intent to Award Contract.

END OF INSTRUCTIONS TO BIDDERS

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Specification for Partial Roof Replacement/Repair
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DELEGATION OF CONTRACT ADMINISTRATOR

DELEGATION OF CONTRACT ADMINISTRATOR RESPONSIBILITY AND AUTHORITY. The Montgomery County Director, Department of General Services hereby delegates to the person identified below the responsibility and authority to perform the functions of the Contract Administrator for this Contract.

Isami C. Ayala-Collazo, Acting Chief
Division of Facilities Management
Montgomery County Department of General Services
1301 Seven Locks Road
Potomac, MD 20854
(240) 777-6022

Organizational Element: Division of Facilities Management

This delegation authorizes the Contract Administrator the functions as assigned in the General Conditions of Construction Contract and in the applicable regulations and procedures, commencing on the date that the Contract is signed by the Director, Office of Procurement, and terminating on the date contractor performance is completed (including final payment) or terminated.

Unless the Montgomery County Director, Department of General Services, changes this delegation of authority in writing, no other person is authorized to perform the functions of the Contract Administrator for this particular Contract.

BID TO MONTGOMERY COUNTY

Office of Procurement
Rockville Center
255 Rockville Pike, Suite 180
Rockville, Maryland 20850

Re: Mid-County DHHS 1301 Piccard Drive Building Partial Roof Replacement/Repairs Project

Dear Sir:

1. The Bidder has carefully examined and understands the Drawings, Instructions to Bidders, and the Specifications including all Addenda.
2. The Bidder has carefully examined all of the Contract Documents and all modifications thereto.
3. **The Bidder understands that the award will be based upon the lowest BASE BID only.**
4. The Bidder understands that Alternate Bid items may be accepted or rejected in any order at the Owner's discretion.
5. The Bidder understands that the Owner reserves the right to correct all mathematical errors in the Bid.
6. The Bidder understands that the failure of a Bidder to submit all of the Unit Prices, and all add & deduct Alternates will require mandatory rejection of the Bid.
7. **The Bidder understands that the successful Bidder will be required to commence work within ten (10) calendar days after the date of Notice to Proceed for Phase #1 and shall Substantially Complete the Contract within 120 calendar days of Notice to Proceed for Phase #2.**
8. **The Bidder agrees that liquidated damages will be paid in the sum of seven hundred Dollars (\$700.00) for each day of unexcused delay beyond the date set forth above for Substantial Completion.**
9. The Bidder understands that the failure of a Bidder to submit the Bid Guarantee or Base Bid will require mandatory rejection of the Bid.
10. Allowance of Work to be determined by Owner per Specification Section 012100 in the amount of:

a. Allowance no. 1:	\$25,000.00
Total:	\$25,000.00

Based on the foregoing representations, the Bidder hereby offers and agrees to do all the Work called for, in accordance with the Contract and Bid documents, if the Bid is accepted, for the following amount (the Bidder must include the \$25,000.00 allowance

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

in the Base Bid):

BASE BID: _____ **DOLLARS (Written)**

\$ _____ **(Numbers)**

Name of Firm: _____

SCHEDULE OF UNIT PRICES

UNIT PRICES

MANDATORY UNIT PRICES: Unit prices are used for materials or services that will be added to or deducted from the Contract by Change Order in the event the quantities of work required by the Contract Documents are increased or decreased. The unit prices listed in the "Schedule of Mandated Unit Prices" are applicable to all work in this project involving extra materials/services performed by the General Contractor or his subcontractors and /or credits to the Owner for materials/services deleted from the project. Mandatory Unit price includes all costs for the work as defined in the General Conditions of Contract including subcontractor profit and overhead. General Contractor mark-up is to be applied per the General Conditions. Prices as stated shall remain in effect through the end of the Contract warranty period.

The undersigned acknowledges the Mandatory unit price values are part of this bid proposal and agrees to add or delete items for the unit prices identified when requested by the County.

List of Unit Prices

Unit Price Number	Section		
	Description		
	Unit of Measure		
1	070150 "Maintenance of Membrane Roofing"	UNIT PRICE	
	Removal and Replacement of base flashings at rising walls	QUANTITY	100
	Linear feet	TOTAL	
2	070150 "Maintenance of Membrane Roofing"	UNIT PRICE	
	Cutting and repairing of blisters and ridges	QUANTITY	750
	Square feet	TOTAL	
3	070150 "Maintenance of Membrane Roofing"	UNIT PRICE	
	Cutting and providing full depth replacement repairs	QUANTITY	100
	Square feet	TOTAL	
Total unit prices		TOTAL	

Name of Firm: _____

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

BID TO MONTGOMERY COUNTY (cont'd)

Receipt is acknowledged of
Addenda and such is included
in this BID as follows:

Addenda No. _____ Date _____ - Mark here if there were no addenda.

SUBMITTED BY:

FIRM: _____

NAME: _____

TITLE: _____

ADDRESS: _____

PHONE: _____

FAX NO.: _____

E-MAIL ADDRESS: _____

SIGNATURE: _____

NOTE: NO BIDS WILL BE ACCEPTED UNLESS SUBMITTED IN INK OR TYPEWRITTEN. All signatures on offers, amendments, or related correspondence must be by persons who are authorized to bind the offerors contractually.

NAME AND SIGNATURE REQUIREMENTS FOR BIDS AND CONTRACTS

The correct and full legal business name of the entity involved must be used on bids received and on contract(s) issued as a result of this solicitation. A trade name, i.e., a shortened or different name under which the firm does business, must not be used when the full legal name is different. Corporations must have names that comply with State law, which requires a suffix indicating the corporate status of that business (e.g., Inc., Incorporated, etc.). Trade names may be indicated by individuals or corporations with the individual or corporate name followed by "t/a" (trading as) or "d/b/a" (doing business as), respectively.

The signature on the bid, contract, amendment, or related correspondence must conform to the following:

All signatures must be made by an authorized officer, partner, manager, member, or employee. The signing of an offer or a contract is a representation by the person signing that the person signing is authorized to do so on behalf of the offeror or contractor.

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Mid-County DHHS 1301 Piccard Drive

ITEMIZED CONSTRUCTION COST

This information must be provided from the three (3) apparent low bidders within five (5) calendar days of the Owner's request.

<u>DIVISION</u>	<u>AMOUNT</u>
1. GENERAL REQUIREMENTS	\$ _____
2. EXISTING CONDITIONS	\$ _____
7. THERMAL AND MOISTURE PROTECTION	\$ _____
9. FINISHES	\$ _____
22. PLUMBING	\$ _____
23. HEATING, VENTILATION AND AIR CONDITIONING (HVAC)	\$ _____
26. ELECTRICAL	\$ _____
ALLOWANCE	\$ <u>25,000.00</u>

TOTAL ITEMIZED CONSTRUCTION COST \$ _____

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MINORITY BUSINESS PROGRAM & OFFEROR'S REPRESENTATION

It is the policy of the County to recruit actively, minority-owned businesses to provide goods and services to perform governmental functions pursuant to Section 11B-57 of the County Code. Minority-owned businesses are described in County law as Minority/Female/Disabled Person owned businesses (MFD). MFD businesses include certain non-profit entities organized to promote the interests of persons with a disability demonstrating (on a contract by contract basis) that at least 51% of the persons used by the non-profit entity to perform the services or manufacture the goods contracted for by the County, are persons with a disability. MFD firms also include those firms that are 51% owned, controlled and managed by one or more members of a socially or economically disadvantaged minority group, which include African Americans who are not of Hispanic origin, Hispanic Americans, Native Americans, Asian Americans, Women and Mentally or Physically Disabled Persons.

Section 7 - "Minority Contracting", Montgomery County Procurement Regulations specifies the procedure to be followed and will govern the evaluation of offers received pursuant to this solicitation. A copy of Section 7 of the Procurement Regulations is available upon request.

Prior to awarding contracts with a value of \$50,000 or more, a prospective Contractor must demonstrate that a minimum percentage of the overall contract value as set by the County, will be subcontracted to certified MFD businesses. A decision as to whether the prospective Contractor has demonstrated a good faith effort to meet this subcontracting requirement will be made by the Director, Office of Procurement, or his/her designee, who may waive this requirement.

A sample of the MFD Report of payment Received is attached. This form is mailed to the MFD Subcontractor to complete for documentation of payment by the Prime Contractor. It is not to be completed by the Prime Contractor nor submitted with the MFD Subcontractor Performance Plan.

The Director, Office of Procurement, or his /her designee determines whether a waiver of MFD subcontracting would be appropriate, under Section 7.3.3.5 of the Procurement Regulations.

For further information regarding the MFD Business Program, please contact the MFD Program Manager, Division of Business Relations and Compliance at (240) 777-9912.

Offerors are encouraged (but not required) to complete the following:

I hereby represent that this is a Minority Business firm as indicated below (CIRCLE ONE):

AFRICAN AMERICAN	ASIAN AMERICAN	DISABLED PERSON
FEMALE	HISPANIC AMERICAN	NATIVE AMERICAN

Attach one of the following certification documents from: Maryland Department of Transportation (MDOT); Virginia Small, Women & Minority-Owned Business; Federal SBA 8(a); MD/DC Minority Supplier Development Council, Women's Business Enterprise National Council; or City of Baltimore.

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

Minority-Owned Business Addendum to General Conditions of Contract Between County and Contractor

- A. This contract is subject to the Montgomery County Code and the Montgomery County Procurement Regulations regarding participation in the Minority-Female-Disabled Person (MFD) procurement program.
- B. Contractor must subcontract a percentage goals listed below of the total dollar value of the contract, including all modifications and renewals, to certified minority owned businesses. The MFD subcontracting goal may be waived under appropriate circumstances by submission of a letter to the Minority Business Program Manager. The letter must explain why a waiver is appropriate. The Director of the Office of Procurement or designee may waive, in whole or in part, the MFD subcontracting goal if the Director determines that a waiver is appropriate under Section 7.3.3.5 of the Montgomery County Procurement Regulations. In determining if a waiver should be granted, the Director may require the Contractor to submit additional information; the Director may require the Contractor to submit some or all of this information on forms approved by the Director.

For Goals by each purchasing category, please refer to www.montgomerycountymd.gov/mfd

- C. The attached MFD Subcontractor Performance Plan, which must be approved by the Director, is an integral part of the contract between County and Contractor. In a multi-term contract, Contractor must submit a MFD Subcontract Performance Plan to be in effect for the life of the contract, including any renewal or modification.
- D. Contractor must include in each subcontract with a minority owned business a provision that requires the use of binding arbitration with a neutral arbitrator to resolve disputes between the Contractor and the minority owned business subcontractor. This arbitration provision must describe how the cost of dispute resolution will be apportioned; the apportionment must not, in the judgment of the Director, attempt to penalize a minority owned business subcontractor for filing an arbitration claim.
- E. County approval of the MFD Subcontractor Performance Plan does not create a contractual relationship between the County and the minority owned business subcontractor.
- F. Contractor must notify and obtain prior written approval from the Director regarding any change in the MFD Subcontractor Performance Plan.
- G. Before receiving final payment under this contract, Contractor must submit documentation showing compliance with the MFD Subcontracting Performance Plan. Documentation may include, at the direction of the Director, invoices, copies of subcontracts with minority owned businesses, cancelled checks, affidavits executed by minority owned business subcontractors, waivers, and arbitration decisions. The Director may require Contractor to submit periodic reports on a form approved by the Director. The Director may conduct an on-site inspection for the purpose of determining compliance with the MFD Subcontractor Performance Plan. If this is a multi-term contract, final payment means the final payment due for performance rendered for each term of the contract.

If the Contractor fails to submit documentation demonstrating compliance with the MFD Subcontractor Performance Plan, to the satisfaction of the Director, after considering relevant waivers and arbitration decisions, the Contractor is in breach of this contract. In the event of a breach of contract under this addendum, the Contractor must pay to the County liquidated damages equal to the difference between all amounts the Contractor has agreed under its Plan to pay minority owned business subcontractors and all amounts actually paid minority owned business subcontractors with appropriate credit given for any relevant waiver or arbitration decision. Contractor and County acknowledge that damages which would result to the County as a result of a breach under this addendum are difficult to ascertain, and that the liquidated damages provided for in this addendum are fair and reasonable in estimating the damage to the County of a breach of this addendum by Contractor. In addition, the County may terminate the contract. As the result of a breach under this addendum, The Director of the Office of Procurement must find the Contractor non-responsible for purposes of future procurement with the County for the ensuing three years.

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

MONTGOMERY COUNTY, MARYLAND
MINORITY, FEMALE, DISABLED PERSON SUBCONTRACTOR
PERFORMANCE PLAN

Contractor's
Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____ Fax Number: _____ Email: _____

CONTRACT NUMBER/PROJECT DESCRIPTION: _____

A. Individual assigned by Contractor to ensure Contractor's compliance with MFD Subcontractor Performance Plan:

Name: _____
Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____ Fax Number: _____ Email: _____

B. This Plan covers the life of the contract from contract execution through the final contract expiration date.

C. The percentage of total contract dollars, including modifications and renewals, to be paid to all certified minority owned business subcontractors, is _____% of the total dollars awarded to Contractor.

D. Each of the following certified minority owned businesses will be paid the percentage of total contract dollars indicated below as a subcontractor under the contract.

I hereby certify that the business(s) listed below are certified by one of the following: Maryland Department of Transportation (MDOT); Virginia Small, Woman and Minority Owned Business (SWAM); Federal SBA (8A); MD/DC Minority Supplier Development Council (MSDC); Women's Business Enterprise National Council (WBENC); or City of Baltimore.

A Certification Letter must be attached.

For assistance, call 240-777-9912.

1. Certified by: _____
Subcontractor Name: _____
Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____ Fax Number: _____ Email: _____

CONTACT PERSON: _____

Circle MFD Type:

AFRICAN AMERICAN
FEMALE

ASIAN AMERICAN
HISPANIC AMERICAN

DISABLED PERSON
NATIVE AMERICAN

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

The percentage of total contract dollars to be paid to this subcontractor : _____
This subcontractor will provide the following goods and/or services: _____

2. Certified by: _____
Subcontractor Name: _____
Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____ Fax Number: _____ Email: _____

CONTACT PERSON: _____

Circle MFD Type:

- | | | |
|------------------|-------------------|-----------------|
| AFRICAN AMERICAN | ASIAN AMERICAN | DISABLED PERSON |
| FEMALE | HISPANIC AMERICAN | NATIVE AMERICAN |

The percentage of total contract dollars to be paid to this subcontractor: _____
This subcontractor will provide the following goods and/or services: _____

3. Certified by: _____
Subcontractor Name: _____
Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____ Fax Number: _____ Email: _____

CONTACT PERSON: _____

Circle MFD Type:

- | | | |
|------------------|-------------------|-----------------|
| AFRICAN AMERICAN | ASIAN AMERICAN | DISABLED PERSON |
| FEMALE | HISPANIC AMERICAN | NATIVE AMERICAN |

The percentage of total contract dollars to be paid to this subcontractor: _____
This subcontractor will provide the following goods and/or services: _____

4. Certified By: _____

IFB # 1088145
Specification for Partial Roof Replacement/Repair
Mid-County DHHS 1301 Piccard Drive

The Contractor submits this MFD Subcontractor Performance Plan (Plan Modification No. _____) in accordance with the Minority Owned Business Addendum to General Conditions of Contract between County and Contractor.

CONTRACTOR SIGNATURE

USE ONE:

1. TYPE CONTRACTOR'S NAME: _____

Signature

Typed Name

Date

2. TYPE CORPORATE CONTRACTOR'S NAME: _____

Signature

Typed Name

Date

I hereby affirm that the above named person is a corporate officer or a designee empowered to sign contractual agreements for the corporation.

Signature

Typed Name

Title

Date

APPROVED:

Cherri Branson, Director, Office of Procurement

Date

Section 7.3.3.4(a) of the Procurement Regulations requires:
The Contractor must notify the Director, Office of Procurement of any proposed change to the Subcontractor Performance Plan.



Montgomery County
Division of Business
Relations & Compliance

MFD Report Of Payments Received

For Office Use Only

MFD Subcontractor Company Name: _____

Prime Contractor Company Name: _____

Contract Number/Title: _____

Project Location: _____

MFD Subcontract Amount: \$ _____

READ CAREFULLY BEFORE SIGNING

This certifies that for the month of _____, my company received \$ _____ for work performed, services rendered and/or materials supplied on the above contract.

TOTAL AMOUNT OF SUBMITTED INVOICES TO DATE: \$ _____

TOTAL PAYMENTS RECEIVED TO DATE: \$ _____

Are you experiencing any contract problems with the prime contractor and/or the project? YES [] NO []

I certify that the above information is true and accurate to the best of my record documentation and knowledge.

(TYPED/PRINTED COMPANY NAME)

(TYPED/PRINTED NAME OF COMPANY OFFICIAL) (TITLE)

SIGNATURE OF COMPANY OFFICIAL (DATE)

() - () - TELEPHONE FAX E-MAIL

Return by: Email - MFD@montgomerycountymd.gov FAX - 240-777-9952
For assistance, contact the MFD Office at 240-777-9912



Montgomery County
Division of Business
Relations & Compliance

MFD Report Of Payments Received

For Office Use Only

SAMPLE ONLY! NOT TO BE USED BY PRIME

MFD Subcontractor Company Name: _____

Prime Contractor Company Name: _____

Contract Number/Title: _____

Project Location: _____

MFD Subcontract Amount: \$ _____

READ CAREFULLY BEFORE SIGNING

This certifies that for the month of _____, my company received \$ _____ for work performed, services rendered and/or materials supplied on the above contract.

TOTAL AMOUNT OF SUBMITTED INVOICES TO DATE: \$ _____

TOTAL PAYMENTS RECEIVED TO DATE: \$ _____

Are you experiencing any contract problems with the prime contractor and/or the project? YES NO

Comments: _____

I certify that the above information is true and accurate to the best of my record documentation and knowledge.

(TYPED/PRINTED COMPANY NAME)

(TYPED/PRINTED NAME OF COMPANY OFFICIAL) (TITLE)

SIGNATURE OF COMPANY OFFICIAL (DATE)

() - () -
TELEPHONE FAX E-MAIL

Return by: Email – MFD@montgomerycountymd.gov FAX – 240-777-9952
For assistance, contact the MFD Office at 240-777-9912

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we _____
(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and _____
(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of _____
as Surety, hereinafter called the Surety, are held and firmly bound unto _____
(Here insert full name and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of _____

_____ Dollars (\$ _____),
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the Principal has submitted a bid for _____
(Here insert full name, address and description of project)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal, the Principal shall enter into a Contract
with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding
or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt
payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter
such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty
hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract
with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain
in full force and effect.

Signed and sealed this _____ day of _____ 19____

(Witness) } _____
(Principal) (Seal)

(Title)

(Witness) } _____
(Surety) (Seal)

(Title)

MONTGOMERY COUNTY, MARYLAND

FIXED PRICE CONSTRUCTION
CONTRACT BETWEEN
OWNER AND CONTRACTOR

This FIXED PRICE CONSTRUCTION CONTRACT (the "Contract") BETWEEN OWNER AND CONTRACTOR (Owner and Contractor together the "Parties") is made and entered into by and between MONTGOMERY COUNTY, MARYLAND a body corporate and politic and a political subdivision of the State of Maryland (the "Owner") and (the "Contractor").

This Contract is effective on the date executed by the Director, Office of Procurement.

This Contract is for the construction of a project identified as the Mid-County DHHS 1301 Piccard Drive Building Partial Roof Replacement/Repair Project in Montgomery County, Maryland (the "Project").

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements stated herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties agree:

1.

DOCUMENTS INCORPORATED BY REFERENCE

(A) This Contract consists of this Contract and any documents referenced in this Contract or in any of the following exhibits:

- (1) IFB No. 1088145
- (2) Drawings and Specifications for the Project identified on Attachment A;
- (3) General Conditions of Construction Contract, VGCofC 09162013;
- (4) Supplemental Conditions of Construction Contract, if any;
- (5) Mandatory Insurance Requirements; **(page 63)**
- (6) Performance and Payment Bonds; **(pages 52 and 58)**
- (7) addenda to any of the foregoing;
- (8) modifications issued hereafter to any of the foregoing;
- (9) Contractor's Acknowledgment of any Addendum;
- (10) Notice to Proceed;

- (11) Master Schedule and Critical Contract Completion Periods (**Section 00 8000**); and
- (12) all applicable provisions of the Montgomery County Code and Procurement Regulations in effect on the Bid or Proposal closing date and any procedural amendments or additions subsequently adopted are part of the Contract all of which are incorporated by reference and made a part of this Contract.

(B) All of these documents referenced in this Article 1 together are collectively referred to as the "Contract" or "Contract Documents". Documents not included or expressly referenced in this Article 1 do not form any part of this Contract. Capitalized terms used in this Contract have the meaning ascribed to them in the General Conditions of Construction Contract. The General Conditions of Construction Contract are supplemental and additional to the terms and conditions of this Contract and must be complied with by the Contractor as fully as if set forth verbatim in this Contract. In the event of any conflict between the terms of this Contract and the General Conditions of Construction Contract, the most stringent will govern.

2.

REPRESENTATIONS AND WARRANTIES OF THE CONTRACTOR

The Contractor makes the following representations and warranties in order to induce the Owner to execute this Contract. The Contractor recognizes that, in making these representations and warranties, Owner is entitled to rely upon the Contractor's representations and warranties and is relying upon them in entering this Contract. The Contractor, by executing this Contract, makes the following express representations and warranties to the Owner:

(A) The Contractor is fully qualified to act as the Contractor and perform the Work for the Project and has, and shall maintain, all licenses, permits or other authorizations necessary to act as the Contractor for, and to construct, the Work for the Project.

(B) The Contractor has become familiar with the Project Site and the local conditions under which the Project is to be constructed and operated.

(C) Contractor is responsible for performing Work shown on the Contract Documents, including reasonably implied or inferred Work from the Contract Documents, which a reasonably prudent contractor of Contractor's reputation, expertise and experience would conclude were inferable from the Contract Documents.

3.

INTENT AND INTERPRETATION

With respect to the intent and interpretation of this Contract, the Owner and the Contractor agree as follows:

(A) This Contract (which includes all Contract Documents) constitutes the entire and exclusive agreement between the parties with reference to the Work and the Project. This Contract supersedes any and all prior discussions, communications, representations, understandings, negotiations, or agreements.

(B) Anything that may be required, implied, or inferred by the documents that make up this Contract, or any one or more of them, must be provided by the Contractor for the Contract Sum within the Contract Time.

(C) Nothing contained in this Contract creates, nor is to be interpreted to create, privity or any other relationship whatsoever between the Owner and any person or entity except the Contractor or between the Contractor and any other person or entity except the Owner.

(D) When a word, term, or phrase is used in this Contract, it is to be interpreted or construed first, as defined in the General Conditions of Construction Contract including any supplemental terms and conditions of the Contract, if any; second, as defined in this Contract; third, if not defined, according to Referenced Standards and its generally accepted meaning in the construction industry; and fourth, if there are no Referenced Standards or generally accepted meaning in the construction industry, according to its common and customary usage.

(E) The words "include", "includes", or "including", as used in this Contract, are deemed to be followed by the phrase, "without limitation".

(F) The specification in this Contract of any act, failure, refusal, omission, event, occurrence, or condition as constituting a material breach of this Contract does not imply that any other, non-specified act, failure, refusal, omission, event, occurrence, or condition is to be deemed not to constitute a material breach of this Contract.

(G) The Contractor has a continuing duty to read, examine, review, compare, and contrast each of the Contract Documents that make up this Contract, and must give written notice to the Owner and the Architect of any conflict, ambiguity, error, or omission which the Contractor may find with respect to the Contract Documents that come to the attention of Contractor during the course of the

Work and before proceeding with any part of the Work affected by the conflict, ambiguity, error, or omission. The express or implied approval by the Owner or the Architect of any Shop Drawings or other Submittals does not relieve the Contractor of the continuing duties imposed by this Contract, nor is any such approval evidence of the Contractor's compliance with this Contract. The Owner has requested the Architect only to prepare documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction.

(H) In the event of any conflict, discrepancy, or inconsistency among any of the Contract Documents, the following shall control:

- (1) As between figures given on Drawings and scaled measurements, the figures govern;
- (2) As between large scale Drawings and small scale Drawings, the most stringent will govern;
- (3) As between Drawings and Specifications, the most stringent will govern; and
- (4) As between the General Conditions of Construction Contract or this Contract and the Drawings or Specifications, the General Conditions of Construction Contract and this Contract govern.

4.

OWNERSHIP OF THE DOCUMENTS WHICH MAKE UP THE CONTRACT

The Contract Documents, and each of them, as well as any other documents furnished by the Owner, remain the property of the Owner. The Contractor must not use, or permit to be used, any portion or all of the Contract Documents or other documents furnished by the Owner on other projects without the Owner's prior written authorization.

5.

CONTRACTOR'S PERFORMANCE

The Contractor must perform all of the Work required, implied or reasonably inferable from the Contract Documents including, but not limited to, the following:

- (A) Construction of the Work (including all warranty work) for the Project.
- (B) The furnishing and maintenance of all required surety bonds, insurance, Warranties, and related documentation.
- (C) The provision or furnishing, and prompt payment, of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, fuel, heat, light, cooling, or other utilities, required for construction of the Work for the Project, and all necessary permits and licenses required for the construction of the Work for the Project, as provided in the General Conditions of Construction Contract.
- (D) Full, prompt, and complete compliance with all of the Contract Documents, without limitation, including the General Conditions of Construction Contract.

6.

TIME FOR CONTRACTOR'S PERFORMANCE

- (A) The Contractor must commence the performance of this Contract upon Notice to Proceed as set forth in the General Conditions of Construction Contract and must diligently perform under the Contract and complete the Work without interruption through final completion of the Work for the Project. **The Bidder understands that the successful Bidder will be required to commence work within ten (10) calendar days after the date of Notice to Proceed for Phase #1 and shall Substantially Complete the Contract within 120 calendar days of Notice to Proceed for Phase #2.**
- (B) The Contractor must promptly notify the Owner and Architect in writing when Substantial Completion has been achieved. The Contractor must comply with the provisions of Section 14.2 of the General Conditions of Construction Contract.
- (C) The Contractor must notify the Owner and Architect in writing when Final Completion has been achieved and the Contractor is ready for a final inspection. The Contractor must comply with the provisions of Sections 14.3 and 14.4 of the General Conditions of Construction Contract.
- (D) **The Contractor must pay the Owner the sum of seven hundred Dollars (\$700.00) as Liquidated Damages for each day of unexcused delay beyond the date set forth above for Substantial Completion.** When the Owner reasonably believes that Substantial Completion will be inexcusably

delayed, the Owner is entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover Liquidated Damages applicable to the Delays. If and when the Contractor overcomes any unexcused Delay in achieving Substantial Completion, or any Delay, for which the Owner has withheld payment, the Owner will promptly release to the Contractor those funds withheld, but no longer applicable, as Liquidated Damages.

(E) The Contractor's payment of any Liquidated Damages to the Owner is in addition to and not exclusive of any other remedies available to the Owner under the terms of this Contract or the Contract Documents.

(F) All limitations of time applicable to the Contractor set forth in this Contract and the Contract Documents are material and are of the essence of this Contract.

7.

FIXED SUM AND CONTRACT PAYMENTS

(A) The Owner will pay, and the Contractor accepts, as full and complete payment for the Contractor's timely performance of its obligations under this Contract (including performance of and compliance with all of the General Conditions of Construction Contract and other Contract Documents) the fixed sum of _____ Dollars (\$_____). The sum set forth in this Article 7(A) constitutes the Contract Sum, which cannot be modified except as provided in the General Conditions of Construction Contract or by written Amendment executed by the parties to this Contract. **(List any alternates accepted to show difference between Base Bid and Contract Sum.)**

(B) The Contractor is bound by the Owner-approved Schedule of Values apportioning the Contract Sum among the different elements of the Work for the Project for purposes of periodic and final payment as provided in the General Conditions of Construction Contract. The Contractor's Schedule of Values must not be inflated, unbalanced or misstated in any way to give the Contractor an unfair advantage during the Bid or Proposal or construction processes. The violation of this provision by the Contractor constitutes a material breach of this Contract. The Contractor's Schedule of Values as approved by the Owner and Architect/Engineer as provided in the General Conditions of Construction Contract will be utilized for the Contractor's Applications for Payment.

(C) The Owner will pay the Contract Sum to the Contractor, less amounts

established for retainage, in accordance with Article 13 of the General Conditions of Construction Contract. All Applications for Payment must be in the format, and include all supporting information, required by the Contract Documents as well as any other information required by the Owner, the Architect, or both. The Owner and Architect will approve in writing the amount that is properly owing to the Contractor and certify the amount of payment then due to the Contractor as provided in the General Conditions of Construction Contract. The Owner will make payment to the Contractor as required by the General Conditions of Construction Contract. The amount of each such payment will be made in the amount approved for payment in accord with the General Conditions of Construction Contract less any amounts that the Contractor owes the Owner or which the Owner has the right to withhold under the Contract Documents. The Architect's approval of the Contractor's Applications for Payment does not preclude the Owner from exercising any of its rights in Article 7(F), below or elsewhere in the Contract Documents. As a condition precedent to payment, the Contractor must, if required by the Owner, furnish to the Owner properly executed waivers of lien, in a form acceptable to the Owner, from all Subcontractors, materialmen, laborers, Suppliers, or others having lien rights, in which the Subcontractors, materialmen, laborers, Suppliers, or others having lien rights, acknowledge receipt of all sums due pursuant to all prior Applications for Payment and waive and relinquish any liens, lien rights, or other claims relating to the Project Site or the Work. Furthermore, the Contractor warrants and represents that, upon payment of the Application for Payment submitted, title to all Work included in the payment is vested in the Owner. The Owner's right to require lien waivers as a precondition to payment is solely for the benefit of the Owner and shall not be construed to give any third party, including specifically any Subcontractors, materialmen laborers, Suppliers, or others having lien rights, or surety on any payment or performance bonds any rights nor make the Owner liable to any of them as a consequence of the Owner's decision or failure to request or obtain such lien waivers as a precondition to payment.

(D) When payment is received from the Owner, the Contractor must immediately pay all Subcontractors, materialmen, laborers, and Suppliers the amounts they are due for the Work covered by such payment, as provided in the General Conditions of Construction Contract. The Owner will have the right, but not the duty, to issue future checks and payment to the Contractor of amounts otherwise due under the Contract naming the Contractor and any such Subcontractor, materialmen, laborer, or Supplier as joint payees. Such joint check procedure, if employed by the Owner, does not create any rights in favor of any person or entity beyond the right of the named payees to payment of the check and does not require the Owner to repeat the procedure in the future.

(E) Neither payment to the Contractor, utilization of the Work or the Project for any purpose by the Owner, nor any other act or omission by the Owner is to be

interpreted or construed as an acceptance of any Work of the Contractor that is not strictly in compliance with construction industry standards and the requirements of this Contract.

(F) The Owner has the right to refuse to make payment and, if necessary, may demand the return of a portion or the entire amount previously paid to the Contractor due to any reason stated in Article 13 of the General Conditions of Construction Contract. The Contractor must immediately comply with any written demand by the Owner for repayment or reimbursement of the Owner for any amounts previously paid by the Owner as contemplated in this Article.

(G) The Contractor has no right to stop Work as a consequence of non-payment. In the event of any dispute between the Contractor and Owner involving the Contractor's claim to entitlement to payment the Contractor's only remedy is to file a claim with the Contract Administrator as provided in the General Conditions of Construction Contract. The Contractor must diligently proceed with the Work pending resolution of the claim or dispute. Any payments on Certificates for Payment which are approved by the Owner as "proper invoices" within the meaning of applicable laws and regulations not made within thirty (30) days after the Owner approves the Certificate for Payment shall bear interest at a rate equivalent to the interest rate paid by 5 year U.S. Treasury Bills as of the date interest first begins to accrue under Section 11B-34 of the Montgomery County Code, 2004, as amended. An Owner approved Certificate for Payment is one that has been certified as required by the Architect, accepted by the Contract Administrator or designee, and fully complies with the requirements of Article 13 of the General Conditions of Construction Contract.

(H) Prior to being entitled to receive final payment, and as a condition precedent to final payment, the Contractor must furnish the Owner all items required in Section 14.3 of the General Conditions of Construction Contract in the form and manner required by Owner, with a copy to the Architect.

8.

INFORMATION AND MATERIAL SUPPLIED BY THE OWNER

(A) The Owner will, if requested by the Contractor, furnish to the Contractor, prior to the execution of this Contract, any and all written and tangible material in its possession concerning conditions below ground at the Site of the Project. The Owner shall also furnish, if appropriate, the legal description of the Project Site, and any required survey in the Owner's possession or under the Owner's control.

(B) Geotechnical Studies: Geotechnical Studies refers to those reports of

explorations and tests of subsurface conditions at or contiguous to the Site, which have been prepared for the use of the Architect/Engineer and/or Owner in designing the project. Their accuracy or completeness is limited to the very narrow parameters of locations, timing and depth of the borings, pits and other analyses. As such, they are not intended to, and do not, provide a comprehensive representation of subsurface conditions. The Geotechnical Studies have been made part of the Contract Documents for the limited purpose of design of the Work. The Geotechnical Studies shall not be relied upon by the Contractor for any means or methods of construction. Contractors and Offerors may make their own investigation of existing subsurface conditions. For Contract Modification purposes, the Geotechnical Studies establish a baseline for expected subsurface conditions. The Contractor must show a material difference between the Geotechnical Studies and actual subsurface conditions to justify a Contract Modification.

9.

DUTIES, OBLIGATIONS AND RESPONSIBILITIES OF THE CONTRACTOR

In addition to any and all other duties, obligations, and responsibilities of the Contractor set forth in this Contract and the General Conditions of Construction Contract, the Contractor has and must perform the following duties, obligations, and responsibilities:

(A) The Contractor must continually perform its duties set forth in Article 3(G). The Contractor must not perform Work without adequate Drawings and Specifications, or, as appropriate, approved Shop Drawings, or other Submittals. If the Contractor performs Work knowing or believing it involves an error, inconsistency, or omission in the Contract, without first providing written notice to the Architect and Owner, the Contractor is responsible for the Work and must pay all costs of correcting it.

(B) All Work must conform strictly to the requirements of the Contract.

(C) The Contractor must strictly supervise the performance and completion of the Work, and must monitor the Work as it progresses. The Contractor is strictly liable for all acts and omissions of those engaged in the Work on behalf of the Contractor.

(D) The Contractor warrants that all labor furnished under this Contract will be competent to perform the tasks undertaken; that the product of such labor will yield only first-class results; that all materials used in the Work and equipment provided will be new and of high quality; that the Work will be complete, of high

quality, without defects, when completed; and that all of the Work will strictly comply with the requirements of the Contract. Any Work not strictly complying with the requirements of the Contract will be a breach of the Contractor's warranty.

(E) The Contractor must obtain and pay for all required permits, fees, and licenses as set forth in Article 5.2.3 of the General Conditions of Construction Contract, in any Supplemental Conditions of Construction Contract and in any other Contract Documents. The Contractor must comply with all Laws and Regulations applicable to the Project and to the Work.

(F) The Contractor must employ and maintain at the Project Site only competent supervisory personnel. Key personnel must be assigned by the Contractor to this Project and may be changed only as provided in the General Conditions of Construction Contract.

(G) The Contractor must provide the Owner and the Architect its Construction Project Progress Schedule in accordance with the General Conditions of Construction Contract. The Progress Schedule must conform to the General Conditions of Construction Contract, be in the format specified in the Contract Documents, and otherwise be acceptable to the Owner. The Contractor's Progress Schedule must be updated no less frequently than monthly and must be updated to reflect the current progress of the Work, any conditions that change the critical path or the dates for Substantial or Final Completion of the Work, and any additions or changes to the Work. Each such revision is to be furnished to the Owner and the Architect. Strict compliance with the requirements of this Article 9(G) is a condition precedent to payment to the Contractor, and failure by the Contractor to strictly comply with these requirements constitutes a material breach of this Contract.

(H) The Contractor must keep an updated copy of the Contract, the General Conditions of Construction Contract, any Supplemental Conditions of Construction Contract, and an updated posted set of the plans and specifications reflecting any and all changes at the Project Site. Additionally, the Contractor must keep a copy of, and a log of, approved Shop Drawings and other Submittals and copies of, and a log of, all Requests for Information (RFIs) and Supplemental Instructions (SIs) issued with respect to the Work or the Project at the Site at all times. All of these items shall be available to the Owner and the Architect during all regular business hours. Upon Final Completion of the Work, all of these items must be finally updated and provided to the Owner and will be the property of the Owner.

(I) Shop Drawings and other Submittals from the Contractor are not Contract Documents and are not part of the Contract. See Section 9.1.5 of the General

Conditions of Construction Contract. The Contractor must not do any Work requiring Shop Drawings or other Submittals unless the Shop Drawings and Submittals have been approved in writing by the Architect. All Work requiring approved Shop Drawings or other Submittals must be done in strict compliance with the Contract Documents. However, approval by the Architect or the Owner is not evidence that Work installed pursuant to the Shop Drawings or Submittals conforms to the requirements of this Contract. The Owner and the Architect have no duty to review partial Submittals or incomplete Submittals. The Contractor must maintain a Submittal log which must include, at a minimum, the date of each Submittal, the date of any resubmittal, the date of any approval or rejection, and the reason for any approval or rejection. The Contractor has the duty to carefully review, inspect, and examine any and all Submittals before submitting them to the Owner or the Architect.

(J) The Contractor must maintain the Project Site in a reasonably clean condition during performance of the Work. Upon Final Completion, the Contractor must thoroughly clean the Project Site of all debris, trash and excess materials or equipment as provided in the General Conditions of Construction Contract.

(K) At all times relevant to this Contract, the Contractor must permit the Owner and the Architect to enter upon the Project Site and to review or inspect the Work without formality or other procedure.

(L) The County reserves the right to request a background investigation from the Contractor for any or all of the Contractor's employees or Sub-contractors under this Contract, at any time while the contract is in place. Background investigations should be performed by the County only, and the standard is a criminal background investigation that bars entry for parties with criminal convictions pertaining to violent crimes, felonies, terrorism, etc. The County shall bear the cost of the background investigations.

10.

CONTRACT ADMINISTRATOR AND PROJECT ARCHITECT

The Contract Administrator for this Project is:

Isami C. Ayala-Collazo, Acting Chief
Division of Facilities Management
Montgomery County Department of General Services
1301 Seven Locks Road
Potomac, MD 20854
Phone: (240) 777-6022
Fax: (301) 279-8100

The "Architect", "Architect/Engineer" or "A/E" for this Project is:

**Gale Associates, Inc.
Attn: Steven J. Bohlen, P.E., RRC, RWC, BECxP
1122 Kenilworth Drive, Suite 206
Towson, MD 21204
Phone: (443) 279-4500
Fax: (443) 279-4560
E-mail: sjb@gainc.com**

Unless otherwise directed by the Owner in writing, the Architect will perform those duties and discharge those responsibilities allocated to the Architect in the General Conditions of Construction Contract.

THE DUTIES, OBLIGATIONS AND RESPONSIBILITIES OF THE CONTRACTOR UNDER THIS CONTRACT SHALL IN NO MANNER WHATSOEVER BE CHANGED, ALTERED, DISCHARGED, RELEASED, OR SATISFIED BY ANY DUTY, OBLIGATION OR RESPONSIBILITY OF THE ARCHITECT. THE CONTRACTOR IS NOT A THIRD-PARTY BENEFICIARY OF ANY CONTRACT BY AND BETWEEN THE OWNER AND THE ARCHITECT. IT IS EXPRESSLY ACKNOWLEDGED AND AGREED THAT THE DUTIES OF THE CONTRACTOR TO THE OWNER ARE INDEPENDENT OF, AND ARE NOT DIMINISHED BY, ANY DUTIES OF THE ARCHITECT TO THE OWNER.

11.

CLAIMS BY THE CONTRACTOR

Claims by the Contractor against the Owner are subject to the following terms and conditions:

(A) All Contractor claims against the Owner must be initiated by a written claim submitted to the Owner and the Architect in strict accordance with Articles 11, 12 and/or 16 of the General Conditions of Construction Contract, and the requirements of Chapter 11B of the Montgomery County Code, 2004, as amended, and the Montgomery County Procurement Regulations, Chapter 11B of the Code of Montgomery County Regulations (COMCOR), as amended. Any claim must be received by the Owner and the Architect no later than ten (10) days after the event giving rise to the claim. ANY CLAIM NOT FILED WITH THE OWNER AND ARCHITECT WITHIN SUCH TIME AND IN COMPLIANCE WITH THE PRECEDING PROVISIONS SHALL BE DEEMED CONCLUSIVELY TO HAVE BEEN WAIVED AND SHALL BE DISMISSED.

(B) The Contractor must continue its performance under this Contract regardless of the existence of any claims submitted by the Contractor.

(C) In connection with any claim by the Contractor against the Owner for compensation in excess of the Contract Sum, any liability of the Owner to the Contractor shall be strictly limited and computed in accord with Articles 11 and 12 of the General Conditions of Construction Contract and shall in no event include indirect costs (such as home office overhead) or consequential damages of the Contractor or any estimated costs or damages. **The Owner is not liable to the Contractor for claims of third parties, including Subcontractors or Suppliers. The Contractor may not add or join the Owner as a Party (third-party defendant or otherwise) in any litigation or arbitration between Contractor and any third parties, including Subcontractors or Suppliers.** In addition, the Owner's liability for any contract claims is limited in the case of a Change Order to amounts computed in accordance with Section 12.2.2 of the General Conditions of Construction Contract, and in the case of any compensable delay claim to amounts computed in accordance with Section 11.6.9 of the General Conditions of Construction Contract.

(D) In the event the Contractor is delayed in performing any task, which at the time of the Delay is then critical, as provided in the General Conditions of Construction Contract, or which during the delay becomes critical, as the sole and exclusive result of any act or omission by the Owner, or someone acting on the Owner's behalf, or by Owner-authorized Change Orders, unusually severe weather not reasonably anticipatable, fire, or other Acts of God, occurring without the fault or negligence of the Contractor, the date for achieving Substantial Completion, or, as applicable, Final Completion, will be appropriately adjusted by the Owner upon the written claim of the Contractor to the Owner and the Architect filed in full compliance with Article 11 of the General Conditions of Construction Contract. A task is critical within the meaning of this Article 11(D) if, the task is on the critical path of the most recent CPM Schedule of Record so that a Delay in performing the task will Delay the ultimate completion of the Project. ANY CLAIM FOR AN EXTENSION OF TIME BY THE CONTRACTOR MUST STRICTLY COMPLY WITH THE REQUIREMENTS OF ARTICLE 11(A) ABOVE. IF THE CONTRACTOR FAILS TO MAKE SUCH CLAIM AS REQUIRED IN THIS ARTICLE 11(D), ANY CLAIM FOR AN EXTENSION OF TIME WILL BE WAIVED AND SHALL BE DISMISSED.

12.

SUBCONTRACTORS

Within the time and conditions provided in Article 6 of the General Conditions of Construction Contract, the Contractor shall identify to the Owner and the Architect, in writing, those persons or entities that will be the Subcontractors on the Project. The Owner will state in writing any objections the

Owner may have to any such Subcontractors as provided in the General Conditions of Construction Contract. The Contractor must not enter into a subcontract with a Subcontractor to whom the Owner objects. All subcontracts shall afford the Contractor rights against the Subcontractor that correspond to those rights afforded to the Owner against the Contractor as provided in the General Conditions of Construction Contract, including those rights of Contract termination as set forth in the General Conditions of Construction Contract. Any replacement Subcontractors must be acceptable to the Owner.

13.

CHANGE ORDERS

The Owner may order one or more changes to the Work within the general scope of this Contract. The Contractor must proceed with any such changes, and any Contractor claim regarding any such change must be made in strict accordance with Articles 11, 12 and 16 of the General Conditions of Construction Contract and Article 11 of this Contract.

(A) The Contractor must notify and obtain the consent and approval of the Contractor's Surety with reference to all Change Orders if such notice, consent or approval is required by the Owner, the Architect, the Contractor's Surety or by law. The Contractor's performance of Change Order Work constitutes the Contractor's warranty to the Owner that the surety has been notified of, and consents to, such Change Order Work AND THE SURETY SHALL BE CONCLUSIVELY DEEMED TO HAVE BEEN NOTIFIED OF SUCH CHANGE ORDER WORK AND TO HAVE EXPRESSLY CONSENTED TO THE CHANGE ORDER WORK.

(B) ANY CLAIM ABOUT AN ADJUSTMENT IN THE CONTRACT TIME OR CONTRACT SUM DUE TO A CHANGE MUST BE GIVEN IN WRITING TO THE OWNER AND ARCHITECT AS PROVIDED IN ARTICLES 11, 12 AND 16 OF THE GENERAL CONDITIONS OF CONSTRUCTION CONTRACT AND ARTICLE 11 OF THIS CONTRACT, OR THE CLAIM IS WAIVED. Any failure to agree upon an adjustment in the Contract Time or Contract Sum must be resolved under Article 16 of the General Conditions of Construction Contract. The Contractor must proceed with the prosecution of the Work as changed, even if there is an unresolved claim. No charge for any extra work, time or material will be allowed, except as provided in this Article.

14.

DISCOVERING AND CORRECTING DEFECTIVE OR INCOMPLETE WORK

Inspection and correction of the Work and Contractor's warranties shall be as provided in Article 10 of the General Conditions of Construction Contract.

15.

NO TERMINATION BY THE CONTRACTOR

The Contractor does not have a right to terminate the Contract. As provided in Article 15 of the General Conditions of Construction Contract, the Contractor has no right to stop Work on the Project. In the event of any dispute between Contractor and Owner involving the Contractor's claim to entitlement to any payment, the Contractor, as required by the General Conditions of Construction Contract, must diligently proceed with the Work pending resolution of the dispute.

16.

OWNER'S RIGHT TO SUSPEND CONTRACTOR'S PERFORMANCE

The Owner has the right to suspend or stop Work as provided in Articles 11 and 15 of the General Conditions of Construction Contract.

17.

TERMINATION BY THE OWNER

The Owner may terminate this Contract in accordance with Article 15 of the General Conditions of Construction Contract.

18.

INSURANCE

The Contractor must comply with the insurance requirements set forth in the Bid or Proposal Documents and Article 17 of the General Conditions of Construction Contract.

19.

SURETY BONDS

The Contractor must furnish separate Bid, performance and payment bonds to the Owner in the forms prescribed in the Bid or Proposal Documents and Article 17 of the General Conditions of Construction Contract. The performance and payment bonds must set forth a penal sum in an amount not less than 95% of the Contract Sum. Each bond furnished by the Contractor must incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in the bonds. The penal sum of both the performance and payment bonds will be automatically increased in the amount of any increase to the Contract Sum. The performance and payment bonds furnished by the Contractor must be in the forms prescribed in the Bid or Proposal Documents and Article 17 of the General Conditions of Construction Contract. The Surety must be a corporate Surety authorized to do business in the State of Maryland and acceptable to the Owner. While determining Surety acceptability, the Owner may make such investigations as he deems necessary to determine the ability of the Contractor's Surety to perform its duties and obligations and the Contractor shall furnish to the Owner, within five (5) days of Owner request, all such data and information for this purpose as the Owner may request. The Owner reserves the right, in its absolute discretion and for any reason, to accept or reject any Surety proposed by the Contractor.

20.

PROJECT RECORDS

The Contractor must make available to the Owner and the Architect all or any part of any documents relating in any manner to the Project that are in the possession of the Contractor or any Subcontractor of the Contractor (the "Project Records") for inspection and copying at any reasonable time upon request by the Owner or the Architect. The Contractor must make the Contract Documents, Record Documents, and any Project Records available for inspection and copying by any state, federal, or other regulatory authority at any time upon the request of either the Owner or the state, federal, or other regulatory authority requesting the right to inspect or copy the Contract Documents, Record Documents, or Project Records. The Project Records include, but are not limited to, all written records concerning the Project, all drawings, printouts, disks, plans, specifications, submittals, correspondence, minutes, memoranda, tape recordings, videos, or other writings or things that document the Project, its design, and its construction, including the Record Documents, as defined in the General Conditions of Construction Contract. The Project Records expressly

include those documents reflecting the cost of construction to the Contractor, including the Contractor's Bid sheet(s) and/or Bid calculation takeoffs and estimates. The Contractor shall maintain and protect these documents for no less than four (4) years after Final Completion of the Project, or for any longer period of time as may be required by law or good construction practice.

21.

APPLICABLE LAW

This Contract must be construed under the law of the State of Maryland, without regard to conflicts of law provisions.

22.

SUCCESSORS AND ASSIGNS

This Contract is binding on the Parties and their respective successors, heirs, and assigns. The Contract must not be assigned without prior written consent of the Owner and except as otherwise provided in this Contract.

|

SIGNATURE PAGE FOLLOWS

Owner:

MONTGOMERY COUNTY,
MARYLAND

Contractor:

(Company Name)

(Signature)

Cherri Branson, Director
Office of Procurement

(Signature)

(Printed Name)

(Title)

(Date)

(Date)

Recommended by:

(Signature)

**Isami C. Ayala-Collazo, Acting Chief
Division of Facilities Management**

(Date)

This Contract form has been preapproved by the Office of the County Attorney and may not be modified without the concurrence of the Office of the County Attorney.

NAME AND SIGNATURE REQUIREMENTS FOR BIDS AND CONTRACTS

The correct legal business name of the Offeror must be used. A trade name (i.e., a shortened or different name under which the firm does business) must not be used when the legal name is different. Corporations must have names that comply with State Law. The Offeror's signature must conform to the following: All signatures must be made by an authorized officer, partner, manager, or employee. The signing of an Offer or a Contract is a representation and certification by the person signing that the person is authorized to sign the Offer or Contract on behalf of the Offeror or Contractor.

End of

CONSTRUCTION CONTRACT BETWEEN OWNER AND CONTRACTOR

ATTACHMENT A – SCHEDULE OF DOCUMENTS

(To be completed prior to execution of the Agreement)

List of Drawings

Sheet No.	Sheet Name	Date
G-001	COVER SHEET	4/12/18
G-002	STANDARD ABBREVIATIONS, LEGEND, SYMBOLS AND GENERAL NOTES	4/12/18
G-003	TYPICAL FLASHING CONFIGURATION	4/12/18
A-101	ROOF AREA PLAN – EXISTING CONDITIONS	4/12/18
A-102	ROOF AREA PLAN – NEW CONSTRUCTION	4/12/18
A-201	ELEVATIONS – EXISTING CONDITIONS	4/12/18
A-202	ELEVATIONS – NEW CONSTRUCTION	4/12/18
A-203	ELEVATIONS – NEW CONSTRUCTION	4/12/18
A-301	ROOF SECTION CROSS SECTIONS	4/12/18
A-302	SECTIONS – EXISTING CONDITIONS	4/12/18
A-303	SECTIONS – NEW CONSTRUCTION	4/12/18
A-501	DETAILS – EXISTING CONDITIONS	4/12/18
A-502	DETAILS – NEW CONSTRUCTION	4/12/18
A-503	DETAILS – NEW CONSTRUCTION	4/12/18
A-504	DETAILS – NEW CONSTRUCTION	4/12/18
A-505	DETAILS – NEW CONSTRUCTION	4/12/18
PH-01	PHOTOS	4/12/18

List of Specifications

Section No.	Section Name
011100	SUMMARY
012100	ALLOWANCES
012200	UNIT PRICES
012600	CONTRACT MODIFICATION PROCEDURES
012900	PAYMENT PROCEDURES
013200	CONSTRUCTION PROGRESS DOCUMENTATION
013300	SUBMITTAL PROCEDURES
015000	TEMPORARY FACILITIES AND CONTROLS
016500	PRODUCT DELIVERY REQUIREMENTS
017700	CLOSEOUT PROCEDURES
024119	SELECTIVE STRUCTURE DEMOLITION
040120	MAINTENANCE OF UNIT MASONRY
070150	MAINTENANCE OF MEMBRANE ROOFING
072200	ROOF AND DECK INSULATION
074243	COMPOSITE SOFFIT PANELS

075323	EPDM ROOFING
075420	THERMOPLASTIC ROOFING
076000	FLASHING AND SHEET METAL
079200	JOINT SEALANTS
099100	PAINTING
099653	COATINGS
221426.13	ROOF DRAINS
230510	MECHANICAL/ELECTRICAL GENERAL REQUIREMENTS
260001	BASIC ELECTRICAL REQUIREMENTS

End of ATTACHMENT A – SCHEDULE OF DOCUMENTS

Performance Bond

Bond No.: _____

_____, as surety ("Surety"), and _____

as principal ("Contractor"), enter into and execute this bond ("Performance Bond"), and bind themselves in favor of Montgomery County Maryland, as obligee ("Owner"), in the initial amount of 95% (ninety-five percent) of the Contract Sum (or such greater amount as the Contract Sum may be adjusted to from time to time in accordance with the Contract between the Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with the Owner dated _____ (the "Contract") for the Mid-County DHHS 1301 Piccard Drive Building Partial Roof Replacement/Repairs (the "Project") and,

WHEREAS, the Owner has required the Contractor to furnish this Performance Bond as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. **CONTRACT INCORPORATED; SURETY AND CONTRACTOR BOUND FOR FULL PERFORMANCE.** The Contract is incorporated by reference and made a part of this bond. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied.
2. **OWNER'S AFFIDAVIT OF CONTRACTOR BREACH OR DEFAULT.** If the Owner shall provide to Surety the written affidavit of the Owner stating that the Contractor is in breach or default of the Contract, and that such breach or default remains uncured by the Contractor, then upon delivery of such affidavit to the Surety in the method for providing notices as set forth in Paragraph 7 below, Surety must promptly notify the Owner in writing which action it will take as permitted in Paragraph 3.
3. **SURETY'S OBLIGATION UPON DELIVERY OF OWNER'S AFFIDAVIT OF CONTRACTOR'S BREACH OR DEFAULT.** Upon the delivery of the Owner's affidavit of breach or default by the Contractor as provided in Paragraph 2 above, the Surety may promptly remedy the breach or default or must, within thirty (30) days, proceed to take one of the following courses of

action:

- a. **Proceed Itself.** Complete performance of the Contract including correction of defective and nonconforming Work through its own contractors or employees, approved as being acceptable to the Owner, in the Owner's sole discretion, provided, however, that Owner's discretion to approve Surety's contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract and is not affiliated (as defined in the General Conditions of Contract) with the Contractor. During this performance by the Surety the Owner will pay the Surety from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. During this performance Surety's payment bond must remain in full force and effect; or

- b. **Tender a completing contractor acceptable to Owner.** Tender a contractor, approved as being acceptable to the Owner (in the Owner's sole discretion), together with a contract for fulfillment and completion of the Contract executed by the completing contractor, to the Owner for the Owner's execution. Owner's discretion to approve Surety's completing contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract and is not affiliated (as defined in the General Conditions of Contract) with the Contractor. Owner's discretion to approve Contractor as the completing contractor, however, shall be in Owner's sole subjective discretion. Upon execution by the Owner of the contract for fulfillment and completion of the Contract, the completing contractor must furnish to the Owner a performance bond and a separate payment bond, each in the form of those bonds previously furnished to the Owner for the Project by the Contractor. Each such bond must be in the Penal Sum of the full cost to complete the Contract. The Owner will pay the completing contractor from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. To the extent that the Owner is obligated to pay the completing contractor sums which would not have then been due and payable to the Contractor under the Contract (any sums in excess of the then remaining Contract balance less any sums due the Owner under the Contract), the Surety must pay to the Owner the full amount of those sums at the time the completing Contractor is tendered to

the Owner so that the Owner can utilize those sums in making timely payment to the completing contractor; or

- c. **Tender the Full Penal Sum.** Tender to the Owner the full Penal Sum of the surety bond. The Owner will refund to the Surety without interest any unused portion not spent by the Owner procuring and paying a completing contractor or completing the Contract itself, plus the cost allowed under Section 4, after completion of the contract for fulfillment and completion of the Contract and the expiration of any applicable warranties; or
 - d. **Other Acts.** Take any other acts mutually agreed upon in writing by the Owner and the Surety.
 - e. **IT SHALL BE NO DEFENSE TO SURETY'S OBLIGATION TO UNDERTAKE ONE OF THE PRECEDING COURSES OF ACTION THAT THE CONTRACTOR CONTENDS THAT IT IS NOT IN BREACH OR DEFAULT OF THE CONTRACT, OR THAT THE NOTICE OF BREACH OR DEFAULT WAS DEFECTIVE, OR THAT THE CONTRACTOR HAS RAISED ANY OTHER CLAIM OF DEFENSE OR OFFSET, PROVIDED ONLY THAT SURETY HAS RECEIVED THE AFFIDAVIT OF THE OWNER AS SPECIFIED IN PARAGRAPH 2.**
4. **SURETY'S ADDITIONAL OBLIGATIONS.** In addition to those duties set forth herein above, the Surety must promptly pay the Owner (i) all losses, costs and expenses resulting from the Contractor's breach(es) or default(s), including, without limitation, fees, expenses and costs for architects, engineers, consultants, testing, surveying and attorneys, plus (ii) liquidated or actual damages, whichever may be provided for in the contract, for lost use of the Project, plus (iii) reprocurement costs and fees and expenses, plus (iv) costs incurred at the direction, request, or as a result of the acts or omissions of the Surety; provided that in no event shall Surety's liability exceed the Penal Sum of this Bond.
5. **SURETY'S WAIVER OF NOTICE.** The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.
6. **NO THIRD PARTY BENEFICIARIES.** The Surety provides this Performance Bond for the sole and exclusive benefit of the Owner and, if applicable, any dual obligee designated by attached rider, together with their heirs, administrators, executors, successors and assigns. No other party, person or entity has any rights against the Surety.

7. **METHOD OF NOTICE.** All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name: _____
Attention: _____
Street: _____
City, State,
Zip _____

CONTRACTOR:

Name: _____
Attention: _____
Street: _____
City, State,
Zip _____

OWNER:

Montgomery County Government
Department of General Services
Chief, Division of Facilities Management
Attention: Isami C. Ayala-Collazo
1301 Seven Locks Road
Potomac, MD 20854

with a copy to:

Office of the County Attorney
Trevor Ashbarry, Chief, Division of Finance & Procurement
101 Monroe Street, Third Floor
Rockville, Maryland 20850

8. **STATUTE OF LIMITATIONS.** Any statutory limitation, which may be contractually superseded, to the contrary notwithstanding, any action hereon may be instituted so long as the applicable statute of limitations governing the Contract (including any warranty period) has not run or expired or within three (3) years following final completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner, whichever is longer.

9. **RECITALS.** The recitals contained in this Performance Bond are incorporated by reference herein and are expressly made a part of this Performance Bond.
10. **GOVERNING LAW.** This Performance Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.
11. **VENUE.** In the event any legal action shall be filed upon this Performance Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

SIGNATURE PAGE FOLLOWS

SIGNATURE PAGE FOR PERFORMANCE BOND FOR
CONTRACT No. XXXXXXX

Contractor

Surety

(Typed Firm Name)

(Typed Firm Name)

(Seal)

(Seal)

By:

By:

(Signature)

(Signature)

(Printed Name)

(Printed Name)

(Title)

(Title)

(Address)

(Address)

(Date of Execution)

(Date of Execution)

Payment Bond

Bond No: _____

_____, as surety ("Surety"), and _____ as principal ("Contractor"), enter into and execute this bond ("Payment Bond"), and bind themselves in favor of Montgomery County Government, as obligee ("Owner") in the amount of 95% (ninety-five percent) of the Contract Sum (or such greater amount as the Contract Sum may be adjusted to from time to time in accordance with the Contract between the Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with the Owner dated _____ (the "Contract") for the Mid-County DHHS 1301 Piccard Drive Building Partial Roof Replacement/Repairs (the "Project") and,

WHEREAS, the Owner has required the Contractor to furnish this Payment Bond containing the terms and conditions set forth herein as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. The Contract is incorporated by reference and made a part of this Agreement. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied, and, without limitation, specifically including Contractor's obligation to pay for labor, materials, services and equipment provided in connection with the Contract performance;
2. For purposes of this Payment Bond, Beneficiary is defined as a person or entity who has actually provided labor, material, equipment, services or other items for use in furtherance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract and having:
 - a. a direct contract with the Contractor; or
 - b. a direct contract with a subcontractor or sub-subcontractor of the Contractor; or

- c. rights, under the laws applicable in Montgomery County, Maryland, to file a lien, a claim or notice of lien, or otherwise make a claim against the Project, the Site, or against funds held by the Owner, if the Project is, or were, subject to such filing.
3. The Surety is not obligated hereunder to a Beneficiary other than a Beneficiary having a direct contract with the Contractor unless such Beneficiary has given written notice of its claim to the Contractor and the Surety within the longer of:
 - a. ninety (90) days after such Beneficiary provided labor, material, equipment, services or other items for use in furtherance of the Contract; or,
 - b. the period of time under the laws applicable in Montgomery County, Maryland for (1) filing of a lien, claim of lien, or notice of lien, if the Project is, or were, subject to such filing, or (2) otherwise making a claim against the Project or against funds held by the Owner; stating the amount claimed and identifying, by name and address, the person or entity to whom such labor, material, equipment, services or other items were provided.
4. In no event is the Surety obligated hereunder for sums in excess of the Penal Sum.
5. Upon receipt of a claim from a Beneficiary hereunder, the Surety must promptly, and in no event later than forty-five (45) days after receipt of such claim, respond to such claim in writing (furnishing a copy of such response to the Owner) by:
 - a. making payment of all sums not in dispute; and,
 - b. stating the basis for disputing any sums not paid.

The failure of Surety to identify a specific defense to all or part of a claim shall not be deemed an admission of liability by Surety or otherwise constitute a waiver of any claims or defenses that the contractor and/or Surety may have or acquire as to such claim, including, without limitation the right to dispute such claim.

6. No action shall be commenced by a Beneficiary hereunder after the passage of the longer of one (1) year following final completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner or any limitation period

provided under the laws applicable in Montgomery County, Maryland.

7. The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.
8. All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

CONTRACTOR:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

OWNER:

Montgomery County Government
Department of General Services
Chief, Division of Facilities Management
Attention: Isami C. Ayala-Collazo
1301 Seven Locks Road
Potomac, MD 20854

with a copy to:

Office of the County Attorney
Trevor Ashbarr, Chief, Division of Finance & Procurement
101 Monroe Street, Third Floor
Rockville, Maryland 20850

9. The recitals contained in this Payment Bond are incorporated by reference

herein and are expressly made a part of this Payment Bond.

10. This Payment Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.
11. In the event any legal action shall be filed upon this Payment Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

SIGNATURE PAGE FOLLOWS

Signature Page for Payment Bond for Contract No. XXXXXXXX

Contractor

Surety

(Typed Firm Name)

(Typed Firm Name)

(Seal)

(Seal)

By:

By:

(Signature)

(Signature)

(Printed Name)

(Printed Name)

(Title)

(Title)

(Address)

(Address)

(Date of Execution)

(Date of Execution)

MANDATORY INSURANCE REQUIREMENTS

Partial Roof Replacement and Repairs to 1301 Piccard Drive

Prior to the execution of the contract by the County, the proposed awardee/contractor and their contractors (if requested by County) must obtain, at their own cost and expense, the following *minimum* (not maximum) insurance coverage with an insurance company/companies licensed to conduct business in the State of Maryland and acceptable to the Division of Risk Management. This insurance must be kept in full force and effect during the term of this contract, including all extensions. The insurance must be evidenced by a certificate of insurance, and if requested by the County, the proposed awardee/contractor shall provide a copy of the insurance policies and additional insured endorsements. The minimum limits of coverage listed below shall not be construed as the maximum as required by contract or as a limitation of any potential liability on the part of the proposed awardee/contractor to the County nor shall failure to request evidence of this insurance in any way be construed as a waiver of proposed awardee / contractor's obligation to provide the insurance coverage specified. The Contractor's insurance shall be primary. Coverage pursuant to this Section shall not include any provision that would bar, restrict, or preclude coverage for claims by Montgomery County against Contractor, including but not limited to "cross-liability" or "insured vs insured" exclusion provisions.

Commercial General Liability

A minimum limit of liability of ***two million dollars (\$2,000,000)***, combined single limit, for bodily injury and property damage coverage per occurrence including the following coverages:

- Contractual Liability
- Premises and Operations
- Independent Contractors
- Products and Completed Operations

Installation / Renovation Floater

The proposed awardee shall provide a renovation floater on an all risk coverage basis against all perils to protect the County, the Contractor and its subcontractors. The policy shall endorse a completed value form, demolition and clearing clause and extra expense coverage. The policy must name Montgomery County, Maryland as loss payee.

Automobile Liability Coverage

A minimum limit of liability of ***one million dollars (\$1,000,000)***, combined single limit, for bodily injury and property damage coverage per occurrence including the following:

- owned automobiles
- hired automobiles
- non-owned automobiles

Workers' Compensation/Employer's Liability

Meeting all statutory requirements of the State of Maryland Law and with the following minimum Employers' Liability limits:

- Bodily Injury by Accident - \$100,000 each accident***
- Bodily Injury by Disease - \$500,000 policy limits***
- Bodily Injury by Disease - \$100,000 each employee***

Additional Insured

Montgomery County, Maryland, its elected and appointed officials, officers, consultants, agents and employees, must be included as an additional insured on Contractor's commercial general, automobile insurance, and contractor's excess/umbrella insurance if used to satisfy the Contractor's minimum insurance requirements under this contract, for liability arising out of contractor's products, goods and services provided under this contract. The stipulated limits of coverage above shall not be construed as a limitation of any potential liability of the contractor.

Policy Cancellation

Written notice of cancellation or material change of any of the policies is required, unless a greater period is required by law per policy provisions.

Certificate Holder

Montgomery County, Maryland
DGS / Facilities Management Division / Josh Malkin
1301 Seven Locks Road
Potomac, MD 20854

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Prevailing Wage Requirements for Construction Contract Addendum to the General Conditions of Contract between County and Contractor

The Contractor and all Subcontractors must comply with the Prevailing Wage Law contained in Chapters 11B-33C and 20-75 of the Montgomery County Code. Prevailing wage means the wage rate paid by employers that is determined by a governmental authority, based upon a particular geographic area, for a given class of labor and type of project. The purpose of a prevailing wage is to ensure that construction workers who work on public works contracts are paid the going rate for their services. The prevailing wage rates are established by the State of Maryland and apply to all of the Contractor's employees and any and all Subcontractors. The Contractor and all Subcontractors must comply with all of the requirements of the Prevailing Wage Law including, but not limited to, the following:

1. Pay employees the prescribed rate as annually established by the State of Maryland Commissioner of Labor and Industry; the prevailing wage rates in effect on the date a solicitation is issued will apply throughout the term of a contract resulting from that solicitation.
2. Pay employees overtime for work more than 10 hours in any single day, work more than 40 hours in a work week, or work on Sunday or legal holiday;
3. Classify employees in their proper work classification in conformance with the schedule established by the State of Maryland Commissioner of Labor and Industry;
4. Electronically submit payroll records through www.LCPTracker.net, within 14 days after the end of each payroll period, to verify that Prevailing Wage rates have been paid to employees. The payroll records must include the following:
 - A. The name, address and telephone number of the Contractor or Subcontractor;
 - B. The name and location of the job;
 - C. Each employee's:
 - a. Name;
 - b. Current address unless previously reported;
 - c. Specific work classification;
 - d. Daily straight time and overtime hours;
 - e. Total straight time and overtime hours for the payroll period;
 - f. Rate of pay;
 - g. Fringe benefits by type and amount;
 - h. Gross wages.
5. If a Contractor or any Subcontractors are late in submitting copies of any payroll records required to be submitted under the Prevailing Wage Law, the County may

deem Contractor's invoice(s) submitted to the County for payment unacceptable until the Contractor and Subcontractors provide the required records; and, the County may postpone processing payments otherwise due under the Contract or under an agreement to finance the Contract;

6. The Contractor and all Subcontractors must retain all payroll records for a period not less than five (5) years after the Work is completed;
7. The County may inspect the payroll records at any reasonable time and as often as it deems necessary;
8. The County may perform random or regular audits and investigate any complaint of a violation of the Prevailing Wage Law;
9. In the event the County determines that a provision of the Prevailing Wage Law has been violated, the County may withhold payment to the Contractor in an amount sufficient to pay each employee of the Contractor or any Subcontractors the full amount of wages due under the Prevailing Wage Law, and an amount sufficient to satisfy a liability of a Contractor or any Subcontractors for liquidated damages as provided under the Prevailing Wage Law, pending a final decision on the violation by the County;
10. Contractor may appeal a written decision of the Director, Office of Procurement, that the Contractor violated a provision of the Prevailing Wage Law to the Chief Administrative Officer ("CAO"), within ten (10) days after receiving a copy of the decision. The CAO must designate a hearing officer to conduct a hearing upon receipt of a timely appeal. If the Contractor does not appeal a written decision within ten (10) days after receipt, the decision of the Director, becomes final and binding;
11. Contractor and all Subcontractors must not discharge, or otherwise retaliate against, an employee for asserting any right under the Prevailing Wage Law or for filing a complaint of a violation;
12. An aggrieved employee is a third-party beneficiary of this Contract and the employee may by civil action recover the difference between the prevailing wage for the type of work performed and the amount actually received, with interest and a reasonable attorney's fee; and
13. Each Contract subject to the Prevailing Wage Law may specify the payment of liquidated damages to the County by the Contractor and any Subcontractors for any noncompliance with the Prevailing Wage Law. Liquidated damages are: \$10 for each calendar day that the payroll records are late; \$20 per day for each day that an employee is misclassified; and \$50 per violation of the requirement to post the

prevailing wage rates at the work site.

14. Where the initial Contract Sum is below the \$500,000.00 threshold, but it is subsequently increased and exceeds the \$500,000.00 threshold due to an approved Contract Modification, the amount of any such Contract Modification that causes the Contract Sum to exceed the \$500,000.00 threshold is subject to the Prevailing Wage Law.
15. The Contractor and all Subcontractors must post a clearly legible statement of each prevailing wage rate in a prominent and easily accessible place at the Work Site during the entire time Work is being performed, in English and any other language that is primarily spoken by the employees, at the Work Site.

INFORMATIONAL WAGE RATES

The wage rates listed below are published by the State of Maryland, Division of Labor and Industry, Prevailing Wage Unit.

The wage rates posted on this site are provided for **informational** purposes ONLY.

The wage and fringe rates may change between the time of issuance of the wage determinations and the award of the public works contract. Therefore, prior to the award of the public works contract, verification must be made with the public body, to insure that the rates contained in this determination are still prevailing.

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds \$500,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 50% or more of the project.

MONTGOMERY COUNTY	BUILDING CONSTRUCTION				Print Date Apr 23, 2018
CLASSIFICATION	MODIFICATION REASON	BASIC HOURLY RATE	BORROWED FROM	FRINGE BENEFIT PAYMENT	
BALANCING TECHNICIAN	AD	\$40.27		\$17.43	
BOILERMAKER	AD	\$35.00	033	\$31.45	
BRICKLAYER	AD	\$30.91		\$10.93	
BRICKLAYER/SAWMAN	AD	\$27.89	033	\$8.42	
CARPENTER	AD	\$28.36		\$11.59	
CARPENTER - SHORING SCAFFOLD BUILDER	AD	\$33.36	033	\$20.08	
CARPET LAYER	AD	\$28.78		\$11.95	
CEMENT MASON	AD	\$27.15		\$5.93	
COMMUNICATION INSTALLER TECHNICIAN	AD	\$23.20	033	\$0.00	a + b
DRYWALL - SPACKLING, TAPING, & FINISHING	AD	\$25.06		\$9.76	
ELECTRICIAN	AD	\$44.65		\$16.85	
ELEVATOR MECHANIC	AD	\$42.79		\$35.30	
FIREPROOFER - BY HAND	AD	\$42.79	033	\$31.89	
FIREPROOFER - SPRAYER	AD	\$23.00	033	\$4.24	
FIRESTOPPER	AD	\$27.56		\$7.13	
GLAZIER	AD	\$25.74		\$11.65	
INSULATION WORKER	AD	\$35.03		\$15.47	
IRONWORKER - FENCE ERECTOR	AD	\$30.25	033	\$18.72	
IRONWORKER - ORNAMENTAL	AD	\$31.15	033	\$20.63	
IRONWORKER - REINFORCING	AD	\$33.25		\$0.00	
IRONWORKER - STRUCTURAL	AD	\$31.15		\$20.63	
LABORER - AIR TOOL OPERATOR	AD	\$22.36		\$6.94	
LABORER - ASPHALT PAVER	AD	\$22.36		\$6.94	
LABORER - ASPHALT RAKER	AD	\$23.42		\$8.47	
LABORER - BLASTER - DYNAMITE	AD	\$22.36		\$6.94	
LABORER - BURNER	AD	\$22.36		\$6.94	
LABORER - COMMON	AD	\$23.42		\$8.47	
LABORER - CONCRETE PUDDLER	AD	\$23.42		\$8.47	
LABORER - CONCRETE SURFACER	AD	\$22.36		\$6.94	
LABORER - CONCRETE TENDER	AD	\$23.42		\$8.47	
LABORER - CONCRETE VIBRATOR	AD	\$23.42		\$8.47	

LABORER - DENSITY GAUGE	AD	\$23.42		\$8.47
LABORER - FIREPROOFER - MIXER	AD	\$23.42		\$8.47
LABORER - FLAGGER	AD	\$23.42		\$8.47
LABORER - GRADE CHECKER	AD	\$23.42		\$8.47
LABORER - HAND ROLLER	AD	\$23.42		\$8.47
LABORER - HAZARDOUS MATERIAL HANDLER	AD	\$22.36		\$6.94
LABORER - JACKHAMMER	AD	\$23.42		\$8.47
LABORER - LANDSCAPING	AD	\$23.42		\$8.47
LABORER - LAYOUT	AD	\$23.42		\$8.47
LABORER - LUTEMAN	AD	\$23.42		\$8.47
LABORER - MASON TENDER	AD	\$22.36		\$6.94
LABORER - MORTAR MIXER	AD	\$23.42		\$8.47
LABORER - PIPELAYER	AD	\$22.36		\$6.94
LABORER - PLASTERER - HANDLER	AD	\$23.42		\$8.47
LABORER - SCAFFOLD BUILDER	AD	\$22.36		\$6.94
LABORER - TAMPER	AD	\$23.42		\$8.47
MILLWRIGHT	AD	\$32.49		\$11.60
PAINTER	AD	\$25.06		\$9.76
PILEDRIVER	AD	\$29.94		\$10.98
PLASTERER	AD	\$28.83	033	\$6.15
PLASTERER - MIXER	AD	\$26.00	033	\$4.89
PLUMBER	AD	\$40.67		\$17.41 a
POWER EQUIPMENT OPERATOR - ASPHALT DISTRIBUTOR	AD	\$27.24		\$6.87
POWER EQUIPMENT OPERATOR - BOOM TRUCK	AD	\$34.08	021	\$3.49 a + b
POWER EQUIPMENT OPERATOR - BROOM / SWEEPER	AD	\$17.50	021	\$0.83
POWER EQUIPMENT OPERATOR - BULLDOZER	AD	\$27.75	021	\$11.90
POWER EQUIPMENT OPERATOR - CONCRETE PUMP	AD	\$36.50		\$0.00
POWER EQUIPMENT OPERATOR - CRANE	AD	\$41.12		\$10.35 a + b
POWER EQUIPMENT OPERATOR - CRANE - TOWER	AD	\$45.00		\$0.00
POWER EQUIPMENT OPERATOR - DRILL - RIG	AD	\$34.53		\$9.15
POWER EQUIPMENT OPERATOR - EXCAVATOR	AD	\$27.75	021	\$11.90
POWER EQUIPMENT OPERATOR - FORKLIFT	AD	\$19.00		\$1.45
POWER EQUIPMENT OPERATOR - GRADALL	AD	\$25.00	021	\$4.83
POWER EQUIPMENT OPERATOR - GRADER	AD	\$29.00	021	\$10.90 a + b
POWER EQUIPMENT OPERATOR - GUARD RAIL POST DRIVER	AD	\$45.72	033	\$30.63
POWER EQUIPMENT OPERATOR - HOIST	AD	\$24.68	033	\$12.97
POWER EQUIPMENT OPERATOR - LOADER	AD	\$29.00	021	\$13.66
POWER EQUIPMENT OPERATOR - MECHANIC	AD	\$32.89		\$9.11
POWER EQUIPMENT OPERATOR - ROLLER - EARTH	AD	\$28.75	021	\$11.76 a + b
POWER EQUIPMENT OPERATOR - SCREED	AD	\$20.00	021	\$4.21
POWER EQUIPMENT OPERATOR - SKID STEER (BOBCAT)	AD	\$24.79	021	\$11.90
POWER EQUIPMENT OPERATOR - SKIDDER	AD	\$20.50	021	\$0.00
POWER EQUIPMENT OPERATOR-VACCUM TRUCK	AD	\$23.40	021	\$3.30
RESILIENT FLOOR	AD	\$28.78		\$11.95
ROOFER/WATERPROOFER	AD	\$36.31	021	\$3.45
SHEETMETAL WORKER	AD	\$40.27		\$17.43
SPRINKLERFITTER	AD	\$36.15	033	\$19.32
STEAMFITTER/PIPEFITTER	AD	\$40.69		\$21.42 a
STONE MASON	AD	\$36.91	033	\$10.96
TILE & TERRAZZO FINISHER	AD	\$22.51		\$10.96

TILE & TERRAZZO MECHANIC	AD	\$27.44		\$11.99
TRUCK DRIVER - FLATBED	AD	\$23.50		\$0.00
TRUCK DRIVER - LOWBOY	AD	\$23.65	033	\$8.98
TRUCK DRIVER - TACK/TAR TRUCK	AD	\$26.85	021	\$4.91
TRUCK DRIVER - TANDEM	AD	\$25.75	021	\$0.00
TRUCK DRIVER - WATER	AD	\$18.50	021	\$2.26

FRINGE REFERENCES AS NOTED:

- a. PAID HOLIDAYS: New Year Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.
- b. PAID VACATIONS: Employees with 1 year service - 1 week paid vacation; 2 years service - 2 weeks paid vacation; 10 years service - 3 weeks paid vacation.

Incidental Craft Data: Caulker, Man Lift Operator, Rigger, Scaffold Builder, and Welder receive the wage and fringe rates prescribed for the craft performing the operation to which welding, scaffold building, rigging, operating a Man Lift, or caulking is incidental.

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds \$500,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 50% or more of the project.

Modification Codes:

- (AD) 17-209 Annual Determination from Survey Wage Data Received
- (CH) 17-211 Commissioners' Hearing
- (CR) 17-208 Commissioners' Review
- (SR) 17-208 Survey Review by Staff

Each "Borrowed From" county is identified with the FIPS 3-digit county code unique for the specific jurisdiction in Maryland.

For additional information on the FIPS (Federal Information Processing Standard) code, see <http://www.census.gov/datamap/fipslist/AllSt.txt>

The Prevailing Wage rates appearing on this form were originally derived from Maryland's annual Wage Survey. The Commissioner of Labor & Industry encourages all contractors and interested groups to participate in the voluntary Wage Survey, detailing wage rates paid to workers on various types of construction throughout Maryland.

A mail list of both street and email addresses is maintained by the Prevailing Wage Unit to enable up-to-date prevailing wage information, including Wage Survey notices to be sent to contractors and other interested parties. If you would like to be included in the mailing list, please forward (1) your Name, (2) the name of your company (if applicable), (3) your complete postal mailing address, (4) your email address and (5) your telephone number to PWMAILINGLIST@dllr.state.md.us. Requests for inclusion can also be mailed to: Prevailing Wage, 1100 N. Eutaw Street - Room 607, Baltimore MD 21201-2201.

END OF REPORT

GENERAL CONDITIONS OF CONSTRUCTION
CONTRACT

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ARTICLE 1

DEFINITIONS AND USE OF TERMS

1.1 DEFINED TERMS

1.1.1 Addendum. An Addendum is a written or graphic instrument issued prior to the opening of Bids or Proposals, which clarifies, corrects or changes the Solicitation.

1.1.2 Affiliated Entity. An Affiliated Entity is (i) any person who is a spouse, parent, natural or adopted descendant, spouse of such descendant, sibling of such person or a trust of which any person named in this clause (i) is the primary income beneficiary; (ii) any person who directly or indirectly owns, controls or holds the power to vote fifty percent (50%) or more of the outstanding voting securities (including partnership interests) of the person in question; (iii) any person fifty percent (50%) or more of whose outstanding securities (including partnership interests) are directly or indirectly owned, controlled by, or held with power to vote by the person in question; (iv) any person directly or indirectly controlling, controlled by, or under direct common control with the person in question; (v) if the person in question is a corporation, any executive officer or director of such person or of any corporation directly or indirectly controlling such person; (vi) if the person in question is a partnership, any general partner of the partnership or any limited partner owning or controlling fifty percent (50%) or more of either the capital or profits interest in such partnership; and (vii) if the person in question is a limited liability company, any managing member of the limited liability company or any member owning or controlling fifty percent (50%) or more of either the capital or profits interest in such limited liability company. As used in this definition, "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise.

1.1.3 Intentionally Not Used.

1.1.4 Allowance. An Allowance is an estimated monetary amount established in the Contract Documents and included in the Contract Sum for a portion of the Work to be performed by the Contractor.

1.1.5 Application for Payment. An Application for Payment is a request from the Contractor for a progress or final payment on the prescribed form and includes all information required to be submitted with the form to

substantiate the Contractor's right to payment. Unless otherwise provided, Applications for Payment must be submitted in the format specified by the Owner.

1.1.6 Architect, Architect/Engineer, A/E. The Architect, Architect/Engineer, A/E is a person or an entity identified as such in the Contract Documents.

1.1.7 Bid. The Bid is an offer to furnish construction in conformity with the specifications, terms and conditions, and other requirements included in the Invitation for Bids.

- .1 The *Base Bid* is the sum stated in the Bid for which the Contractor has offered to perform the Work described in the Bid Documents as the base.
- .2 A *Bid Alternate* or *Alternate* is an amount stated in the Contractor's Bid to be added to or deducted from the amount of the Base Bid if the corresponding Change in the Work, as described in the Bid Documents, is accepted by the Owner in the Contract.

1.1.8 Bid Documents. The Bid Documents means the Invitation for Bids and all attachments.

1.1.9 Bid, Performance and Payment Bonds. The term Bid, Performance and Payment Bonds refers to instruments of security issued in accordance with the requirements set forth in the Bid Documents or the Contract Documents by a surety authorized to do business in the State of Maryland and approved by the Owner.

1.1.10 Certificate for Payment. A Certificate for Payment is the original or a copy of the Contractor's Application for Payment, which has been reviewed and recommended by the Architect/Engineer.

1.1.11 Certificate of Final Completion. The Certificate of Final Completion is a form the Owner issues to confirm the date of Final Completion.

1.1.12 Certificate of Insurance. A Certificate of Insurance is a form acceptable to the Owner, describing and certifying the insurance coverage obtained by the insured Contractor or Subcontractor from an insurer acceptable to the Owner.

1.1.13 Certificate of Substantial Completion. The Certificate of Substantial Completion is a

form the Owner issues to confirm the Substantial Completion in accordance with Section 14.2.

1.1.14 Change Order. A Change Order is a written directive by the Owner to the Contractor directing a change in the Work which is within the general scope of the contract and which may increase or decrease the Contract Time and/or the Contract Sum issued with or without the consent of the Contractor.

1.1.15 Contract. The Contract is the written agreement between the Owner and the Contractor, as executed by the parties, covering the Work to be performed and fixing the Contract Time and the Contract Sum. The Contract is comprised of the Contract Documents.

1.1.16 Contract Administrator The Contract Administrator is the Owner's representative authorized to oversee administration of the Contract as provided in Section 4.1.

1.1.17 Contract Amendment. A Modification to a Contract signed by the Contractor and Director which provides for a change in the Contract provisions, including additional work outside the scope of the original Contract.

1.1.18 Contract Documents. The Contract Documents consist of the Contract between Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, addenda issued prior to execution of the Contract, other documents listed in the Contract, Modifications issued after execution of the Contract Performance and Payment Bonds, Notice to Proceed, mandatory insurance requirements, and Master Schedule and Critical Contract Completion Period. Unless specifically enumerated in the Contract, the Contract Documents do not include other documents such as bidding requirements (advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or portions of addenda relating to bidding requirements). The Contract Documents also include, by reference, the applicable provisions of the Montgomery County Code (2004), as amended, and the Montgomery County Procurement Regulations, as amended, in effect at the time of Contract award.

1.1.19 Contract Sum. The Contract Sum is the total amount stated in the Contract which is payable by the Owner to the Contractor for proper performance of the Work under the Contract Documents. The Contract Sum is subject to adjustment only as provided herein.

1.1.20 Contract Time. The Contract Time is the total period of time stated in the Contract between the Date of Commencement and Substantial Completion of the Work. The Contract Time is subject to adjustment only by Change Order as provided herein.

1.1.21 Contractor. The Contractor is the person or entity identified as such in the Bid or Proposal and referred to in the Contract executed by the Owner. The Contractor is also the person or entity identified as the principal on the Bid, Performance and Payment Bonds.

1.1.22 Coordination Drawings. Drawings prepared by the Contractor showing comprehensive coordination of all Work including but not limited to structural, architectural, vertical transportation, mechanical, plumbing, fire protection and electrical systems.

1.1.23 Date of Commencement. The Date of Commencement of the Work is the date established in the Notice to Proceed upon which the Contract Time begins to run; or if no date is established, then it is the date of the Notice to Proceed.

1.1.24 Date of Substantial Completion. The Date of Substantial Completion is the date certified by the Architect/Engineer and accepted by the Owner in accordance with Section 14.2 upon which the Work is found to be substantially complete.

1.1.25 Day. Unless otherwise specifically modified, the term "day" means a calendar day.

1.1.26 Defective or Nonconforming Work. "Defective or nonconforming" is Work that is unsatisfactory, faulty or deficient, in that it:

- .1 Does not conform to the Contract Documents;
- .2 Does not meet the requirements of any inspection, test or approval referred to in the Contract Documents or required by law;
- .3 Is used or not of recent manufacture;
- .4 Contains defects;
- .5 Represents an Or-Equal or Substitution not properly approved by the Owner; or
- .6 Has been damaged prior to Substantial Completion.

1.1.27 Delay. The term "delay" refers to any circumstance which has the effect of preventing the Contractor from performing Work, or a

portion thereof, which at the time of the delay was on the Critical Path of the most recent CPM Schedule of Record.

- .1 An *excusable delay*, as defined in Subsection 11.5.1 may entitle the Contractor to an adjustment in the Contract Time, but does not entitle the Contractor to any additional compensation.
- .2 A *compensable delay*, as defined in Subsection 11.5.2 may entitle the Contractor to additional compensation and an adjustment in the Contract Time.
- .3 An *unexcused delay*, as defined in Subsection 11.5.3 does not entitle the Contractor to an adjustment in the Contract Time or additional compensation, and may subject the Contractor to claims for damages from the Owner including Liquidated Damages.

1.1.28 Department. The Department means the County Department of General Services.

1.1.29 Director. The Director means the Director, Department of General Services.

1.1.30 Drawings. The Drawings are the graphic and pictorial portions of the Contract Documents identified in the executed Contract, generally including plans, elevations, sections, details, schedules and diagrams, and any revisions, supplements or clarifications thereto issued after execution of the Contract.

1.1.31 Field Order. A Field Order is a written instruction issued by the Owner to the Contractor directing a change in the Work when unforeseen and unanticipated conditions arise which require immediate action to mitigate costs or avoid delays. It may provide for additional compensation to be paid to the Contractor (outside of the Contract Sum under a separate encumbrance), but does not change the Contract Time or Contract Sum. A Field Order may also be issued directing the Contractor's performance of disputed work.

1.1.32 Final Completion. Final Completion is the stage in the progress of the Work, as confirmed by the Owner's acceptance of the Architect/Engineer's Certificate of Final Completion in accordance with Article 14, when all of the Work, including all Punch List work, is complete in accordance with the Contract Documents.

1.1.33 Geotechnical Studies. Geotechnical Studies refers to those reports of explorations and tests of subsurface conditions at or contiguous to the Site, which have been prepared for the use of the Architect/Engineer and/or Owner in designing the project. Their accuracy or completeness is limited to the very narrow parameters of locations, timing and depth of the borings, pits and other analyses. As such, they are not intended to, and do not, provide a comprehensive representation of subsurface conditions. The Geotechnical Studies have been made part of the Contract Documents for the limited purpose of design of the Work. The Geotechnical Studies shall not be relied upon by the Contractor for any means or methods of construction. Contractors and Offerors may make their own investigation of existing subsurface conditions. For Contract Modification purposes, the Geotechnical Studies establish a baseline for expected subsurface conditions. The Contractor must show a material difference between the Geotechnical Studies and actual subsurface conditions to justify a Contract Modification.

1.1.34 Hazardous Materials. Hazardous Materials means (a) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. §6901 et seq.), as amended from time to time, and regulations promulgated thereunder; (b) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601 et seq.), as amended from time to time, and regulations promulgated thereunder; (c) any "oil, petroleum products, and their by products" as defined by Md. Code Ann., Envir., §4-401(g) (1996 Repl.Vol.), as amended from time to time, and regulations promulgated thereunder; (d) any "controlled hazardous substance" or "hazardous substance" as defined by Md. Code Ann., Envir., §7-201 (1996 Repl. Vol.), as amended from time to time, and regulations promulgated thereunder; (e) any "infectious waste" as defined by the Md. Code Ann., Envir., § 9-227 (1996 Repl. Vol.), as amended from time to time and regulations promulgated thereunder; (f) any substance the presence of which on the Project site is prohibited, regulated, or restricted by applicable Laws or Regulations similar to those set forth in this definition; and/or (g) any other substance which by applicable Law or Regulation requires special handling in its Generation because of its effect or potential effect on the environment. The term "Generation" means the usage, collection,

generation, storage, transportation, treatment, or disposition.

1.1.35 Instructions to Bidders or Offerors.

The Instructions to bidders or Offerors are issued in conjunction with the Invitation for Bids or Request for Proposals, and set forth some of the requirements applicable to the preparation, submission, opening and consideration of Bids or Proposals and accompanying submittals, and the award and execution of the Contract.

1.1.36 Invitation for Bids. Invitation for Bids or IFB is a Solicitation to prospective Offerors, the response to which is analyzed in accordance with selection criteria set forth in the Solicitation for the purpose of ranking the Bids received.

1.1.37 Laws and Regulations. The term "laws and regulations" includes the applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction over the Contract or the Project.

1.1.38 Liquidated Damages. The term "liquidated damages" refers to the amount payable by the Contractor to the Owner for each day of unexcused delay in achieving Substantial Completion of the Work. The amount of liquidated damages is initially set forth in the Bid Documents and is stated in the executed Contract.

1.1.39 Modification. A Modification is (i) a Contract Amendment, (ii) a Change Order, or (iii) a Field Order.

1.1.40 Notice to Proceed. A Notice to Proceed is one or more written notice(s) given by the Owner to the Contractor fixing the date on which the Contract Time or a designated portion thereof will commence to run and by which the Contractor must start to perform the Work or a designated portion thereof as stated in the Notice to Proceed.

1.1.41 Offer. The term Offer refers to either a Bid or Proposal as the case may be.

1.1.42 Offeror. The term Offeror refers to the person or entity making an Offer.

1.1.43 Or-Equal Item. The term Or-Equal Item refers to an item of material or equipment proposed by the Contractor that is allowed by the Contract Documents and, in the Owner's sole discretion, is functionally equal to an item specified or described in the Contract Documents. "Functionally equal" means that the item is sufficiently similar to that specified or described that, in the opinion of the Owner, the

item meets or exceeds the physical characteristics, performance ratings, durability, serviceability, appearance and other relevant characteristics of the item specified or described in the Contract Documents, and that no change in design or related Work will be required. See Section 12.6.

1.1.44 Owner. The Owner is Montgomery County, Maryland. Unless noted otherwise, including specifically the exceptions outlined in Section 4.1, the authority of the Owner is granted to the Contract Administrator or such person as is expressly designated in writing by the Director as having such authority. For the purposes of ordering extra work by a Field Order, the Owner is defined as the Contract Administrator. Only the Director has the authority to execute a Change Order or Contract Amendment.

1.1.45 Product Data. Product Data generally consist of preprinted illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information prepared by a supplier and provided by the Contractor to illustrate materials or equipment to be incorporated in the Work.

1.1.46 Progress Schedule. The Progress Schedule is a schedule prepared by the Contractor, in accordance with the requirements of the Contract Documents and which is approved by the Owner, indicating the starting and completion dates for each portion of the Work, including any interim contractually required completion dates. The Contractor must prepare computer generated schedules in accordance with the Contract Documents.

1.1.47 Project. The Project is the total capital project administered by the Department, of which the Work performed under the Contract may be the whole or a part in conjunction with construction or other operations by the Owner or Separate Contractors.

1.1.48 Project Manager. The term Project Manager refers to the person designated as such by the Contractor having authority to act on behalf of the contractor with respect to all aspects of the Project and to whom the Superintendent reports.

1.1.49 Project Manual. The Project Manual is the volume assembled for the Project which generally includes the Specifications, the Bid or Proposal Documents, the Contract, any Geotechnical Studies, and other Project related documents.

1.1.50 Proposal. The Proposal is the Contractor's complete and properly signed response to a Request for Proposal.

1.1.51 Proposal Documents. The Proposal Documents means the Request for Proposal (RFP) and all addenda.

1.1.52 Punch List. The Punch List is the list initially prepared by the Contractor for review, supplementation and approval by the Owner and the Architect/Engineer at the time of Substantial Completion of all or a portion of the Work, identifying items that are required to be completed or corrected by the Contractor as part of Final Completion (as set forth in Article 14) of the Work.

1.1.53 Record Documents. The term Record Documents refers to record copies, maintained at the Site by the Contractor for the Owner, of the Drawings, Specifications, Addenda, Change Orders, Field Orders and other Modifications, the most recently approved Progress Schedule and Superintendent daily records, all in good order and marked currently to record all changes and selections made during construction and their approval, and record copies of approved Shop Drawings, Product Data, Samples and similar required Submittals.

1.1.54 Referenced Standards. The term Referenced Standards includes standards, standard details, specifications, manuals, regulations or codes of any technical society, organization or association, or of any governmental or quasi-governmental authority referred to in the Contract Documents to describe the nature or quality of any of the Work, whether such reference be specific or by implication, and means the latest standard, standard detail, specification, manual, regulation or code in effect at the time of Bid or Proposal opening, except as may be otherwise specifically stated in the Contract Documents.

1.1.55 Request for Proposal. Request for Proposal or RFP is a solicitation to prospective Offerors, the response to which is analyzed in accordance with selection criteria set forth in the solicitation for the purpose of ranking the Proposals received.

1.1.56 Samples. Samples are physical examples of products, materials, equipment, assemblies or workmanship to be incorporated in the Work, and which are intended to establish standards for the completed Work.

1.1.57 Schedule of Submittals. The Schedule of Submittals is a listing and time

schedule of Submittals prepared by the Contractor for review and approval by the Owner and the Architect/Engineer as provided in Subsection 11.2.5.

1.1.58 Schedule of Values. The Schedule of Values is a breakdown of the Contract Sum by Construction Specification Institute (CSI) divisions prepared by the Contractor for review and approval by the Owner and the Architect/Engineer as provided in Section 13.1.

1.1.59 Separate Contractor. The term Separate Contractor refers to a person or entity with which the Owner has contracted to construct other portions of the Project or perform other operations at the Site.

1.1.60 Shop Drawings. Shop Drawings generally consist of those drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, Supplier or distributor detailing the fabrication or assembly of some portion of the Work, copies of which are submitted by the Contractor to the A/E for approval to indicate the details of execution of that portion of the Work. The cost of preparing Shop Drawings, including Coordination Drawings, is the responsibility of the Contractor, which is included in the Contract Sum and for which the Contractor will not be paid any additional compensation. The Contractor must also, at no additional compensation, provide calculations to the A/E for approval for design/engineering portions of the Work. The submission and/or approval of Shop Drawings cannot change the Contract Documents.

1.1.61 Site. The term Site refers to that portion of the property on which the Work is to be performed or which has been otherwise set aside for use by the Contractor.

1.1.62 Site Survey. This term includes, but is not limited to site plans, topographic surveys and property surveys and refers to those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site which have been utilized by the Architect/Engineer or Owner in preparing the Contract Documents or which have been provided by the Owner for the Contractor's information in evaluating Site conditions.

1.1.63 Solicitation. The term Solicitation means an Invitation for Bid or a Request for Proposal and all addenda.

1.1.64 Specifications. The Specifications are that portion of the Contract Documents,

generally included in and identified as such in the Project Manual, setting forth the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

1.1.65 Subcontractor. A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work, and includes any Supplier who performs Work such as installation of materials and equipment. The term "Subcontractor" does not include a Separate Contractor or any subcontractors of a Separate Contractor.

1.1.66 Submittals. The term Submittals refers to all items relating to the performance of the Work which are required to be submitted by the Contractor to the Owner and/or the Architect/Engineer for review, acceptance or approval. Submittals include, but are not limited to, items such as the Schedule of Values, Progress Schedule, Schedule of Submittals, lists of Subcontractors and Suppliers, insurance certificates, Shop Drawings, Product Data, Samples, requests for substitutions or use of Or-Equal Items, Record Documents, Warranties and operating manuals, and similar items. As used herein, the term "Submittal" does not include change proposals submitted by the Contractor, the Contractor's Applications for Payment and supporting data, Disputes or Claims.

1.1.67 Substantial Completion. Substantial Completion is the stage in the progress of the Work, as confirmed by the Owner's acceptance of the Architect/Engineer's Certificate of Substantial Completion in accordance with Article 14, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents (i) so the Owner can occupy or utilize the entire Work or designated portion thereof for its intended use and (ii) that the completion or correction of any Punch List items can be accomplished within a period of 30 days.

1.1.68 Substitution. The terms Substitution and Substitute Item refer to an item of material or equipment proposed and certified by the Contractor as substantially equivalent to an item specified or described in the Contract Documents by using the name of a proprietary item, a particular manufacturer or a particular Supplier, and the substitution of the item is not expressly prohibited, and the proposed replacement, in the Owner's sole discretion, is

functionally, technically and aesthetically equal to the item specified or described.

1.1.69 Sub-subcontractor. A Sub-subcontractor is a person or entity who has a direct or indirect contract at any tier with a Subcontractor to perform a portion of the Work.

1.1.70 Superintendent. The term Superintendent refers to the person designated as the Contractor's representative at the Site with overall responsibility for direction and execution of the Work, and unless otherwise designated by the Contractor, for the protection of persons and property at the Site and compliance with all applicable Laws and Regulations.

1.1.71 Supplemental Conditions. The Supplemental Conditions are that part of the Contract Documents, designated as such, which amend or supplement these General Conditions.

1.1.72 Supplier. The term Supplier refers to any manufacturer, fabricator, supplier, distributor, materialman or vendor furnishing materials or equipment to be incorporated in the Work by the Contractor or any Subcontractor or Sub-subcontractor.

1.1.73 Surety. The term Surety refers to any corporation, person or entity, authorized to do business in the State of Maryland, which has issued a Bid Bond, Performance Bond, a Labor and Material Payment Bond, or similar security on the Contractor's behalf, in accordance with the requirements of the Contract Documents.

1.1.74 Taxes. The term Taxes includes all applicable federal, State, and local taxes and duties, including sales, consumer, use and similar taxes for the Work or portions thereof provided by the Contractor and all social security, unemployment, and similar employment taxes, withholding and contributions for employees, which are legally enacted before the opening of Bids or Proposals and effective at any time during the performance of the Work. **All Taxes applicable to the performance of the Work are payable by the Contractor and included in the Contract Sum. The Contractor will not be paid any additional compensation for payment of Taxes** except for Taxes which are legally enacted after the opening of Bids or Proposals.

1.1.75 Intentionally Not Used.

1.1.76 Unit Prices. The term Unit Prices refers to the rates stated in the Proposal or Bid Documents at which change work (additive or deductive work) is to be performed by the

Contractor or deducted from the Contract Sum. Unit Prices include all direct labor and materials costs, payroll burden, relocation of stockpiled materials as necessary, indirect job costs such as insurance, bonds, coordination, engineering, permits, cleanup, tools, profit, and overhead (which includes office overhead and site-specific overhead and general conditions) and all other costs necessary to complete the Work.

1.1.77 Warranties and Guarantees. The terms Warranties and Guarantees generally refer to written instruments, certificates, acknowledgments or similar documents required by the Contract Documents (other than the Contractor's general warranty) evidencing specific obligations and undertakings by the Contractor, Subcontractors, Sub-subcontractors and Suppliers, to correct, repair or replace a portion of the Work covered by such Warranty or Guarantee.

1.1.78 Work. The Work means the construction and services required by the Contract Documents, whether completed or partially completed, including all labor, materials, equipment and services provided or to be provided by the Contractor for incorporation into the completed construction required by the Contract Documents. The Work may constitute the whole or a part of the Project.

1.2 USE OF TERMS

1.2.1 Singular and Plural. The Owner, Architect/Engineer, Contractor, Subcontractor, Sub-subcontractor, Supplier, Separate Contractor, Surety, insurer and others are referred to throughout the Contract Documents as if singular in number. In the event that more than one person or entity occupies the position referred to and unless otherwise indicated, the term is interpreted to include all such persons or entities.

1.2.2 Technical Terms and Trade Usage. Terms in the Contract Documents which have well-known technical or construction industry meanings and are not otherwise defined are used in accordance with such recognized meanings unless the context clearly indicates otherwise.

1.2.3 Titles and Headings. The titles and headings of the various sections and subsections of these General Conditions and other Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents.

ARTICLE 2

THE CONTRACT

2.1 CONTRACT

2.1.1 Changes. The Contract may be changed only by a Modification.

2.1.2 Documents Excluded from the Contract. The Contract Documents do not include documents issued or provided to the Contractor for the information of the Contractor or for reference purposes and which are not specifically incorporated in the Contract Documents.

2.2 ORGANIZATION AND INTENT

2.2.1 Contract Documents Complementary. The Contract Documents are complementary, and what is required by one is as binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, are of like effect as if shown or mentioned in both.

2.2.2 Intent to Require Completed Project. The intent of the Contract Documents is to require that the Contractor provide all materials and labor, including tools, equipment and supervision, necessary for the proper execution and completion of the Work

2.2.3 Work Required if Reasonably Inferable. Performance by the Contractor is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. Where no explicit quality or standards for materials or workmanship are established for the Work, the Work is to be of good quality and consistent with the quality of surrounding Work which conforms to the requirements of the Contract Documents and to the standards for construction of the Project generally.

2.2.4 Organization of Drawings and Specifications. Organization of the Drawings around professional disciplines such as civil, architectural, structural, plumbing, mechanical and electrical, and of the Specifications into divisions, sections and articles, does not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade or excuse the Contractor of its obligation to properly allocate and provide for the performance of all Work under the Contract.

2.3 REFERENCED STANDARDS

2.3.1 Standards Incorporated. All Referenced Standards are incorporated into the Contract as fully as if printed and bound with the Specifications, but only to the limited extent that such standards are applicable to the Work.

2.3.2 Availability of Referenced Standards. The Contractor is responsible for obtaining and having available at the Site a copy of each Referenced Standard insofar as it is applicable to the Work.

2.3.3 Precedence of Contract Documents Over Referenced Standards. No provision of a Referenced Standard is effective to change (i) the procedures established in the Contract Documents or by any applicable laws or regulations, or (ii) the duties and responsibilities of the Owner, Architect/Engineer or Contractor from those set forth in the Contract Documents; nor is any provision of a Referenced Standard effective to assign to the Owner or the Architect/Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of Article 4 or any other provision of the Contract Documents.

2.4 OWNERSHIP AND USE OF DOCUMENTS

2.4.1 Copies Furnished. Unless otherwise provided in the Contract Documents, the Owner will furnish one (1) set of Drawings and the Project Manual free of charge to the Contractor. The Owner will make such additional copies of Drawings and Project Manuals as are reasonably necessary for execution of the Work available to the Contractor at a reasonable cost.

2.4.2 Ownership of Documents. The Drawings, Project Manuals and other documents furnished to the Contractor are the Owner's property.

2.4.3 Copyright and Other Reserved Rights. The Contractor may not own or claim a copyright in the Drawings, Project Manuals and other documents furnished.

2.4.4 Use and Reproduction of Documents. The Drawings, Project Manuals and other documents, including copies furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, the Architect/Engineer and any of their consultants whose authorship or copyright is

indicated thereon and Contractor must include a similar provision in all contracts with its Subcontractors and Suppliers. The Contractor is granted a limited license to use and reproduce applicable portions of the Drawings, Project Manuals and other documents furnished to them appropriate to and for use in the execution of their Work under the Contract Documents, including submittals or distributions to meet regulatory requirements. Submittal or distribution to meet regulatory requirements or for other authorized purposes in connection with this Project is not to be construed as publication in derogation of the Owner's, the Architect/Engineer's, or any of their consultants' copyright or other reserved rights. All copies made under this license must bear the same copyright notice, if any, as is shown on the cover page or on each of the Drawings, Project Manuals and other documents that are reproduced.

2.4.5 Record Documents. The Contractor must maintain at the Site for the Owner one set of Record Documents. These must be available to the Owner and the Architect/Engineer for their reference during the progress of the Work. The record drawings and any other Record Documents indicating changes or selections made during construction must be delivered to the Architect/Engineer for submittal to the Owner upon completion of the Work and before final payment becomes due.

2.4.6 Return of Documents. All copies of Drawings, Project Manuals and other documents furnished to the Contractor, must be suitably accounted for to the Owner, on request, upon completion of the Work. At the Owner's request, all copies not reasonably required for the Contractor's, Subcontractors' or Sub-subcontractors' records must be returned to the Owner.

ARTICLE 3

THE OWNER

3.1 OWNER'S REPRESENTATIVES

3.1.1 Designated Representatives. The Department carries out the Owner's responsibilities. Unless noted otherwise, including specifically the exceptions outlined in Section 4.1, the authority of the Owner is granted to the Contract Administrator or such person as is expressly designated in writing by the Director as having such authority. For the purposes of ordering extra work by a Field Order, the Owner is defined as the Contract Administrator or such person as is designated in

writing by the Director. Only the Director has the authority to execute a Change Order or Contract Amendment.

3.1.2 Representative of Legal Owner. In the event that the Owner is acting for the benefit of another private, nonprofit or governmental entity which is or will become the legal owner of the Project, such legal owner (i) will be identified in the Contract Documents, (ii) will be considered a beneficiary of this Contract, and (iii) will be entitled to enforce all rights and remedies of the Owner hereunder. Unless otherwise provided, however, **the Owner has assumed all responsibility for the performance of the Owner's obligations under this Contract, and nothing herein is to be construed to create any obligation of such legal owner to the Contractor or to provide the Contractor any rights or remedies against such legal owner.**

3.2 PROJECT INFORMATION

3.2.1 Site Surveys. The Owner may furnish surveys identifying the boundaries of the Site, the location of existing structures and restrictions of record such as easements and rights of way. The Owner may also furnish information with respect to topographical features and utilities of which the Owner is aware. It is the Contractor's responsibility to determine and verify all information provided by Owner including, but not limited to, grades and elevations. Notwithstanding the foregoing, the Contractor is entitled to rely on information provided by the Owner in arriving at its Contract Sum, and to the extent existing conditions are inconsistent with those shown on information provided by the Owner, the provisions of Section 12.4 shall govern.

It is the Contractor's responsibility to verify the existence and locations of utilities with the appropriate agencies and utility companies.

3.2.2 Site and Physical Data. Any Geotechnical Studies or other subsurface information including boring logs, soils and other reports, provided by the Owner to the Contractor.

3.2.3 Reliance by Contractor. The Contractor may not rely upon surface or Site and physical data with respect to the completeness of any reports and drawings for the Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by the Contractor or any of the Contractor's safety precautions and programs.

3.2.4 For Contract Modification purposes, the Geotechnical Studies establish a baseline for expected subsurface conditions. The Contractor must show a material difference between the Geotechnical Studies and actual subsurface conditions to justify a Contract Modification.

3.3 OWNER RESPONSIBILITIES

3.3.1 Access to Site. The Owner will furnish the Project Site as indicated in the Contract Documents, and such other lands which are designated in the Contract Documents, if any, for the use of the Contractor. The Contractor is responsible for obtaining any additional rights of way, approvals or easements for access to the Site and/or performance of the Contract resulting from the Contractor's use, means and methods. The Owner may identify in the Contract Documents encumbrances or restrictions not of general application but specifically related to use of the Site which are not of public record. If so identified in the Contract Documents, the Contractor must comply with them in performing the Work. Permanent easements for the completed facility or for changes in existing facilities will be obtained and paid for by the Owner, unless otherwise provided in the Contract Documents.

3.3.2 Permits and Fees. Unless otherwise indicated in the Contract Documents, the Owner will be responsible for securing and paying for (i) the building permit (provided that if the Contractor in any way modifies the building permits to phase the Work, then any additional cost resulting will be the responsibility of the Contractor), (ii) fees and surcharges for front footage, (iii) fees and surcharges for water, sewer and gas work and (iv) fees and permits for construction in the County and/or State road rights-of-way. **The Contractor will be responsible for obtaining and paying the costs of all other permits, fees, licenses, bonds and governmental approvals, except as otherwise indicated in the Contract Documents.**

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 CONTRACT ADMINISTRATION

4.1.1 Administration by Owner. The Contract is administered by the Contract Administrator, the identity of whom is set forth in Article 10 of the Contract. The Contract Administrator is authorized to administer the Contract commencing on the date that the Contract is signed by the Contracting Officer and terminating on the date the Contract is

completed or terminated. The Contract Administrator's authority is limited as follows:

- .1 Provide direction to the Contractor to ensure satisfactory and complete performance, including issuance of Field Orders;
- .2 Monitor and inspect Contractor performance to ensure acceptable timeliness and quality;
- .3 Maintain necessary documentation and records regarding Contractor performance and other pertinent matters;
- .4 Determine acceptance or rejection of Contractor's performance;
- .5 Provide Owner determinations in response to Contractor's requests for an increase in the Contract Time and/or an increase in the Contract Sum in accordance with Articles 11 and 12;
- .6 Approve or reject invoices for payment;
- .7 Furnish necessary reports to the Director;
- .8 Furnish notice of Contractor performance failures to the Director and to the Office of the County Attorney, as appropriate; and
- .9 Recommend Contract Modifications or terminations for default or convenience to the Director.

4.1.2 Contract Administrator Limitations of Authority. The authority of the Contract Administrator is limited to the functions set forth above. In particular, the Contract Administrator is NOT authorized to make determinations (as opposed to recommendations) that:

- .1 Alter or modify Contracts;
- .2 Terminate or cancel Contracts;
- .3 Approve, as opposed to recommend, Change Orders or Contract Amendments; or
- .4 Waive the Owner's Contract rights.

Unless the Director changes this delegation of authority, in writing, no other person is authorized to perform the functions of the Contract Administrator for this particular Construction Contract between Owner and Contractor.

4.1.3 Owner's Representatives. The Contract Administrator may further delegate authority and responsibility for performance of the Owner's administration of the Contract to designated individuals. For the purposes of ordering extra work by Field Order, the Owner is defined as the Contract Administrator.

4.2 CONSTRUCTION ADMINISTRATION

4.2.1 Performance of Construction Administration. Unless otherwise provided in the Contract Documents, ongoing administration of construction as provided in the Contract Documents will be performed by the Contract Administrator with the assistance of the Owner's Project Manager(s), Construction Representative(s), or others as designated by the Contract Administrator, under the overall direction of the Contract Administrator.

4.2.2 Status of Architect/Engineer. The Architect/Engineer is not an agent of the Owner, but will assist the Owner in the administration of the Contract and the Work, as described in the Contract Documents, and will be the point of contact for purposes of communication (i) during construction, (ii) until final payment is due, and (iii) with the Owner's concurrence, from time to time during the warranty period described in Section 10.2.

4.2.3 Owner's Project Manager Limitations of Authority. The Owner's Project Manager, Construction Representatives and others as designated by the Contract Administrator and the Architect/Engineer will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with other provisions of the Contract.

4.2.4 Communications. Except as otherwise provided in the Contract Documents, the Contractor must communicate through the Architect/Engineer. Communications by and with (i) the Architect/Engineer's consultants must be through the Architect/Engineer, (ii) Subcontractors, Suppliers and Contractor's consultants must be through the Contractor, and (iii) Separate Contractors and Owner's consultants must be through the Owner.

4.2.5 Change in Architect/Engineer's Duties. The Owner may make changes in the duties, responsibilities and limitations of authority of the Architect/Engineer as set forth in the Contract Documents, and will provide written notice of any significant changes to the Contractor. However, no such change will

provide the basis for any Claim for a change in the Contract Time or an increase in the Contract Sum.

4.2.6 Change of Architect/Engineer. In case of termination of employment of the Architect/Engineer by the Owner, the Owner will appoint a replacement Architect/Engineer whose status under and responsibilities as set forth in the Contract Documents, unless otherwise indicated in a notice of appointment to the Contractor, will be that of the former Architect/Engineer.

4.2.7 Timeliness of Construction Administration Services. The Owner and the Architect/Engineer will endeavor to provide approvals, information or services under their control with reasonable promptness to avoid unreasonable delay in the orderly progress of the Work, but the Owner will not be responsible for any delay where the Contractor has not provided reasonable prior notice in writing to the Owner of the time within which such approval, information or services will be required in order to avoid such delay.

4.3 ADMINISTRATION OF CONSTRUCTION

4.3.1 Interpretation and Clarification of Drawings and Specifications. The Architect/Engineer, with the approval of the Owner, may issue interpretations and clarifications of the Drawings and Specifications, in graphic or written form as appropriate, on written request of either the Owner or Contractor (Requests for Information (RFIs)), or when otherwise deemed advisable by the Architect/Engineer (Architect's Supplemental Instructions (ASIs)). The Architect/Engineer's response to requests from the Owner or Contractor for interpretations or clarifications (RFIs) will be made within fifteen (15) days of receipt of the written request. Any response is presumed to be a clarification of the Contract Documents reasonably inferable from them and will not form the basis for any Claim by either party for a change in the Contract Time or the Contract Sum. **If the Contractor contends that the response constitutes a change in the Work, the Contractor must obtain written direction from the Contract Administrator before proceeding with the Work as set forth in Subsection 4.3.12 titled Changes in the Work, and it must file a Claim for an increase in the Contract Time and/or an increase in the Contract Sum in accordance with Article 11 and/or Article 12 or the Contractor will be conclusively deemed to have waived any**

Claim for an increase in the Contract Time or an increase in the Contract Sum based on the interpretation or instruction contained in any RFI or ASI, or otherwise.

4.3.2 Standard of Interpretation. Interpretations and clarifications by the Architect/Engineer will be consistent with the intent of, and reasonably inferable from, the Contract Documents. When making such interpretations and clarifications, the Architect/Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable to the Contractor for results of interpretations or clarifications issued in good faith.

4.3.3 Interpretations and Decisions by Owner. The Owner will provide written interpretations and decisions concerning Contract terms and conditions within a reasonable time after written request is made by the Contractor or as otherwise required during the course of the Project. Any interpretation or decision is presumed to be a clarification of the Contract terms and conditions reasonably inferable from them and may not form the basis for any Claim by the Contractor for a change in the Contract Time or the Contract Sum. **If the Contractor contends that the interpretation or decision constitutes a change in the Work, the Contractor must file a Claim for an increase in the Contract Time and/or an increase in the Contract Sum in accordance with Article 11 and/or Article 12 or the Contractor will be conclusively deemed to have waived any Claim for an increase in the Contract Time or an increase in the Contract Sum based on the interpretation or decision.**

4.3.4 Acceptability of Superintendent and Key Personnel. The Contractor will be advised in writing if the Superintendent or other supervisory personnel prove unsatisfactory to the Owner as provided in Subsection 5.4.2.

4.3.5 Approval of Subcontractors and Suppliers. The Contractor will be advised in writing if the Owner has reasonable objection to, and rejects, any proposed Subcontractor or Supplier subject to review by the Owner, as provided in Subsection 6.1.2.

4.3.6 Approval of Submittals. The Architect/Engineer and the Owner, as appropriate, will review the Contractor's Submittals and take appropriate action thereon, as required for each type of Submittal. Review and approval of Shop Drawings, Product Data

Samples and similar Submittals will be as provided in Section 9.2.

4.3.7 Site Visits. The Architect/Engineer and Owner will make Site visits as provided in Subsection 10.3.2.

4.3.8 Rejection of Work. The Owner, in consultation with the Architect/Engineer, may reject Work as provided in Subsection 10.6.1.

4.3.9 Additional Inspection, Testing or Specific Approvals. The Architect/Engineer has authority to recommend, and the Owner has the authority to require, additional inspection, testing or specific approval of the Work as provided in Subsection 10.5.3.

4.3.10 Authority to Stop or Suspend Work. The Owner has the authority to stop or suspend the Work as provided in Subsections 11.4.1 and 11.4.2. The Architect/Engineer does not have authority to stop or suspend the Work on behalf of the Owner unless specific written authority from the Owner to do so is provided in any notice to stop or suspend the Work.

4.3.11 Review of Applications for Payment. Based on the Architect/Engineer's observations and evaluations of the Contractor's Applications for Payment and the Work, the Architect/Engineer will certify the amounts due the Contractor and will issue Certificates for Payment in such amounts to the Owner as provided in Section 13.3. The Owner will review and approve such Applications and Certificates and make payment on Owner-approved amounts within the time specified in the Section 13.4.

4.3.12 Changes in the Work. The Architect/Engineer may assist the Owner in preparing Change Orders as provided in Section 12.2, Field Orders as provided in Section 12.3 and Contract Amendments. The Architect/Engineer may, with the Owner's concurrence, authorize minor changes in the Work not involving an increase in the Contract Time or an increase in the Contract Sum.

Notwithstanding the foregoing or any other provision of the Contract, no additions to or changes in the Work or other extra Work may be performed and no Claim for additional compensation, credit, or increase of time is valid without written authorization by the Contract Administrator and/or Director. Accordingly, no course of conduct or dealings between the parties, no implied acceptance of changes in the Work, and no Claim that the Owner has been unjustly

enriched by any change to the Work, can be the basis for any Claim for an increase in the Contract Time or in the Contract Sum.

4.3.13 Substantial and Final Completion. As provided in Article 14, the Architect/Engineer and Owner will conduct inspections to determine the date or dates of Substantial Completion and the date of Final Completion. The Architect/Engineer and Owner will issue Certificates of Substantial and Final Completion and a final Certificate for Payment upon the Architect/Engineer's recommendation and Owner's determination that the Contractor has fully completed the Contract. The Owner may accept partial Substantial Completions as to portions of the Work which have reached Substantial Completion and are available for use by the Owner.

4.3.14 Recommendations on Payments, Changes, Claims and Disputes. If the Owner requests, the Architect/Engineer will make recommendations to the Owner concerning payments, changes, Claims and Disputes, and similar matters.

4.4 LIMITATIONS OF OWNER'S AND ARCHITECT/ENGINEER'S RESPONSIBILITIES

4.4.1 Charge or Control. Neither the Owner nor the Architect/Engineer have control over or charge of or are responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility as provided in Subsection 5.3.2 and Article 8. Neither the Owner nor the Architect/Engineer will be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

4.4.2 Actions not to Relieve Contractor. No action or failure to act on the part of the Owner or the Architect/Engineer, including but not limited to (i) the acceptance or approval of any Subcontractor, selection, Substitution or Or-Equal Item, Submittal or schedule, (ii) observation or inspection of any of the Work, (iii) the performance of any test or inspection, (iv) assistance in performance of Contractor's Work, or (v) the acceptance or failure to accept any portion of the Work, relieves the Contractor of responsibility for performing the Work in accordance with the Contract Documents.

4.4.3 Responsibility for Others. Neither the Owner nor the Architect/Engineer will have control over or charge of and will not be

responsible for acts or omissions of the Contractor, Subcontractors, Sub-subcontractors, Suppliers or their agents or employees, or of any other persons performing portions of the Work.

4.4.4 Inspection, Testing or Approval and Rejection of Work. The performance of any tests, inspections or approvals required by the Contract Documents does not relieve the Contractor of any of its obligations under the Contract Documents. The Owner's and the Architect/Engineer's authority to require and the Architect/Engineer's authority to recommend additional testing, inspection or approval of Work, and the Owner's and the Architect/Engineer's authority to reject defective or nonconforming Work, does not give rise to any duty or responsibility on the part of either to exercise such authority for the benefit of the Contractor or any other person or entity.

4.4.5 Stopping or Suspension of Work. The authority of the Owner to stop the Work under Subsections 11.4.1 or to suspend the Work under Subsection 11.4.2 does not give rise to any duty or responsibility on the part of the Owner to exercise such authority for the benefit of the Contractor or any other person or entity.

4.4.6 Payments. The issuance of a Certificate for Payment by the Architect/Engineer under Subsection 13.3.1 or the making of any progress payment or final payment by the Owner under Subsections 13.4.2 or 14.4.3 does not constitute acceptance of Work not complying with the requirements of the Contract Documents. The making of final payment does not constitute a waiver of claims by the Owner as provided in Subsection 14.4.5.

4.4.7 Occupancy or Use. Partial or entire occupancy or use of a portion or portions of the Work by the Owner under Section 14.1 does not constitute acceptance of Work not complying with the requirements of the Contract Documents.

4.4.8 Certificate of Substantial or Final Completion. Neither the issuance by the Architect/Engineer of a Certificate of Substantial or Final Completion under Subsections 14.2.6 or 14.4.1, nor acceptance thereof by the Owner, constitutes acceptance of Work not complying with the requirements of the Contract Documents.

ARTICLE 5

CONTRACTOR

5.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS

5.1.1 Review of Site Conditions. By executing the Contract, the Contractor represents that the Contractor has reviewed and understands the Contract Documents, has visited the Site and is familiar with local conditions under which the Work is to be performed, has correlated personal observations with the requirements of the Contract Documents, and has notified the Architect/Engineer of and obtained clarification of any discrepancies which have become apparent during the bidding or proposal period.

5.1.2 Review of Contract Documents. The Contractor must carefully study and compare the Contract Documents among themselves and further compare the Contract Documents with any other information furnished by the Owner pursuant to Section 3.2 before commencing Work at the Site and at frequent intervals during its progress.

5.1.3 Field Measurements and Site Conditions. The Contractor must take field measurements and verify Site conditions, and must carefully compare such field measurements and Site conditions and other information known to the Contractor with the Contract Documents, before ordering any material or doing any Work at the Site.

5.1.4 Inspection of Work. The Contractor must make frequent inspections during the progress of the Work to confirm that Work previously performed by the Contractor is in compliance with the Contract Documents and applicable laws and regulations and Referenced Standards and that portion of Work previously performed by the Contractor or by others are in proper condition to receive subsequent Work.

5.1.5 Compliance of Contract Documents with Laws and Regulations and Referenced Standards. If the Contractor believes that any portions of the Contract Documents do not comply with applicable laws, statutes, ordinances, building codes, and rules and regulations, or any orders by code enforcement officials or the Owner or its designees acting in the capacity of building code inspectors or Referenced Standards, the Contractor must promptly notify the Owner and the Architect/Engineer of the non-compliance as provided in Subsection 5.1.6 and request

direction before proceeding with the affected Work.

5.1.6 Notice of Discrepancies. The Contractor must promptly notify the Owner and the Architect/Engineer in writing of any apparent errors, inconsistencies, omissions, ambiguities, construction impracticalities or code violations discovered as a result of the Contractor's review of the Contract Documents including any differences between actual and indicated dimensions, locations and descriptions, and must give the Owner and the Architect/Engineer timely notice in writing of same and of any corrections, clarifications, additional Drawings or Specifications, or other information required to define the Work in greater detail or to permit the proper progress of the Work. The Contractor must provide similar notice with respect to any variance between its review of the Site and physical data and Site conditions observed.

5.1.7 Risk of Performance. If the Contractor performs any Work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission or code violation in the Contract Documents of which the Contractor is aware, without prompt written notice to the Owner and the Architect/Engineer and request for correction, clarification or additional information, as appropriate, the Contractor does so at its own risk and expense and all Claims relating thereafter are specifically waived. Notwithstanding the foregoing, the Owner acknowledges that the Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

5.2 LEGAL REQUIREMENTS

5.2.1 Compliance with Laws, Regulations and Orders. The Contractor must obtain all licenses and comply with and give all notices required by laws, ordinances, rules, regulations and lawful orders of public regulatory authorities bearing on performance of the Work, including the orders of the Owner or its designees acting in the capacity of building code inspectors. The Owner acknowledges that the Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. The Contractor shall promptly report to the Architect any errors, inconsistencies or omissions it discovers. It is recognized that the Contractor's review of Contract Documents is made in the Contractor's capacity as a

contractor and not as a licensed design professional.

5.2.2 Taxes. The Contractor must pay sales, consumer, use and similar taxes for the Work or portions thereof which are legally enacted when Bids or Proposals are received or negotiations concluded or which are enacted thereafter, whether or not yet effective or merely scheduled to go into effect. The Contractor is on notice that under Md. Code Ann., Tax-Gen'l, §11-220(b) (2004 Repl. Vol.), purchases made by the Contractor in furtherance of this Contract are not exempt from Maryland sales and use taxes by virtue of the Owner's status as a local government entity.

5.2.3 Permits and Fees. Unless otherwise provided in Section 3.3.2 or in the Contract Documents, the Contractor must obtain and pay for all permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work, including connections, tap fees and inspections in connection with the installation of utilities and any bonds required by any utilities for the performance of any utility Work on utility lines or within a utility easement, specialized trade permits such as for plumbing, mechanical and electrical work, and any fees and charges associated therewith which have been enacted or established at the time Bids or Proposals are received or negotiations concluded or which are enacted thereafter;

5.2.4 Compliance with U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Requirements. If a LEED certification level is specified in the Contract Documents, the Contractor must perform all contractor-responsible work in a manner to attain all specified LEED points, as defined by the U.S. Green Building Council (USGBC). The Contractor shall be solely responsible for planning, scheduling, performing, and documenting each LEED requirement for which the Contractor is responsible. The Contractor shall notify the Owner and the A/E of any questions concerning its LEED responsibilities within fifteen (15) days of the Notice to Proceed.

The Contractor shall be responsible for coordinating with, and providing documentation as required by, the Montgomery County Department of Permitting Services (MCDPS) to demonstrate that the Work was done in accordance with LEED requirements and to

allow MCDPS to issue a temporary use and occupancy permit at Substantial Completion.

Throughout the project, the Contractor shall coordinate with, and provide documentation to, the A/E to verify its compliance with LEED requirements. Before Substantial Completion, the Contractor shall provide all required LEED documentation to the A/E to enable the A/E to submit a full LEED package to the USGBC to verify that the Work was done in accordance with LEED requirements and to allow USGBC to issue certification of the project at the specified LEED level.

If the USGBC determines that the Project does not satisfy some of the specified LEED credits, and/or if the USGBC determines that the Project fails to obtain the specified LEED certification level, and the failure to obtain these specified LEED credits and/or certification is a result of the Contractor's failure to fulfill its contractual obligations, the Contractor shall, at the request of the County: (i) Correct all deficiencies in the Work to achieve the required credits and/or level of certification; and (ii) Pay to the Owner actual damages resulting from the Contractor's failure to perform its LEED requirements.

5.3 CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE

5.3.1 Assignment, Scheduling and Coordination. The Contractor is solely responsible for and has control over assigning, scheduling and coordinating all portions of the Work under the Contract performed by the Contractor's own forces and by its Subcontractors, Sub-subcontractors and Suppliers in accordance with the CPM Schedule of Record, unless the Contract Documents give other specific instructions concerning these matters.

5.3.2 Construction Means and Methods. The Contractor must provide continuous on-Site supervision and direction of the Work using the Contractor's best efforts. The Contractor has control over construction means, methods, techniques, sequences and procedures, unless the Contract Documents give other specific instructions concerning these matters, and is solely responsible therefore.

5.3.3 Discipline at the Site. The Contractor must enforce strict discipline and good order among the Contractor's employees and other persons for whose Work the Contractor is responsible, including Contractors,

Subcontractors, Sub-subcontractors, and Suppliers.

5.3.4 Responsibility for Subordinates. The Contractor is responsible for the acts and omissions of all persons performing portions of the Work at the Site, including but not limited to the Contractor's employees, Subcontractors, Sub-subcontractors, Suppliers, and the agents and employees of any of them.

5.3.5 Obligations Not Relieved. The Contractor is not relieved of its obligations to perform the Work in accordance with the Contract Documents, or to comply with applicable laws and regulations and Referenced Standards, by the activities or duties of the Owner or the Architect/Engineer in the administration of the Contract or of construction, or by tests, inspections or approvals required or performed by persons other than the Contractor.

5.4 SUPERINTENDENCE

5.4.1 Superintendent. The Contractor must employ a competent Superintendent and necessary assistants who represent the Contractor who must be in attendance at the Site at all times during the performance of the Work or any other operations by the Contractor at the Site until issuance of the Certificate of Substantial Completion, during the performance of any punch list work, and for such additional time thereafter as the Owner or Architect/Engineer may determine to be necessary for Final Completion.

5.4.2 Acceptability of Key Personnel. The Contractor's key project-specific personnel (including at a minimum the Superintendent, Project Manager and Quality Control Manager, as required by the Contract Documents) are subject to approval by the Owner and a list of them and their resumes in the form required by the Owner must be provided to the Owner in accord with Subsection 9.1.2.4. If the Owner advises the Contractor that any such personnel are unsatisfactory to the Owner, then the Contractor must promptly provide an acceptable substitute. If the Owner determines, during the Contractor's performance of the Work, that any such personnel are unsatisfactory, then the Contractor must promptly provide an acceptable substitute. The Contractor may not voluntarily change the Superintendent or key personnel without prior notice to and the consent of the Owner, not to be unreasonably withheld. The Owner may condition its consent on the Contractor's fully familiarizing the replacement

personnel with all Contract Documents and the status of the Work at the Contractor's expense.

5.4.3 Communications with Superintendent and Project Manager and Owner's Representatives and/or the Architect /Engineer. The Superintendent and Project Manager must be fluent in written and spoken English, and communications given to the Superintendent or Project Manager are as binding as if given to the Contractor. If the Contractor contends that any communication between its Superintendent and Project Manager and any Owner's representative or the Architect/Engineer constitutes a change in the Work entitling the Contractor to an increase in the Contract Time or Contract Sum, the Contractor must before proceeding with the work obtain the written authorization of the Contract Administrator directing the performance of the work and must file notice with the Owner and Architect/Engineer in accordance with Section 12.5, and file a Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Sum in accordance with Articles 11 and 12, or any Claim relating to such Work shall be deemed waived.

5.5 LABOR, MATERIALS AND EQUIPMENT

5.5.1 Labor, Materials and Equipment Provided by Contractor. Unless otherwise provided in the Contract Documents, the Contractor must provide and pay for all labor, materials, equipment, and utilities required for the performance of the Contract.

5.5.2 Royalties and License Fees. The Contractor must pay all royalties and license fees and comply with any licensing requirements required in connection with the use of a particular design, process or product of a particular manufacturer or manufacturers. The Contractor must defend suits or claims for infringement of copyrights, patent rights or trade secrets and must hold the Owner and Architect/Engineer harmless from liability and indemnify the Owner and Architect/Engineer against any loss or damage on account thereof.

5.5.3 Compliance with Contract Documents, Approved Submittals, and Interpretations. The Contractor must perform the Work in accordance with: (i) the Contract Documents; (ii) Submittals approved pursuant to Section 9.2 to the extent they are not in conflict with the Contract Documents; and (iii) interpretations and instructions issued by the Architect/Engineer pursuant to Subsection 4.3.1.

5.5.4 Compliance with Manufacturers' Instructions. Unless otherwise specifically provided in the Contract Documents, the Contractor must store, handle, install, and test all materials and equipment in accordance with the manufacturers' or Suppliers' most recent instructions and recommendations. In the event such instructions or recommendations are in conflict with any provisions of the Contract Documents, the Contractor must give prompt notice of the conflict to the Owner as provided in Subsection 5.1.6.

5.5.5 Labor. The Contractor must provide, and must also ensure that its Subcontractors and Sub-subcontractors provide, a sufficient number of properly skilled workers and crews to perform the Work in a safe and expeditious manner in accordance with the approved Progress Schedule, including appropriate proportions of laborers, apprentices, journeymen, masters and foremen, and must not permit employment of persons who are unfit to perform or are not skilled in tasks assigned to them.

5.5.6 Allowances. The Contract Sum and Contract Time include all Allowances required by the Contract Documents. The Contractor must perform all Work covered by an Allowance unless directed otherwise by the Owner. The Contractor must provide proposed or actual costs to the Owner for performing any Allowance work. If acceptable to the Owner, the Owner will then direct the Contractor to perform the Work through written notification. The Owner may require that work covered by an Allowance be purchased on the basis of the lowest responsive bid of at least three competitive bids approved by the Owner, unless the Contract Documents specify a Unit Price for the work, in which case the Allowance work must be provided at the Unit Price. Work covered by Allowances must be supplied for such amounts and by such persons or entities proposed by the Contractor and approved by the Owner or as the Owner may otherwise direct, unless the Contract Documents specify a Unit Price for the work, in which case the work must be provided at the Unit Price.

5.5.7 Adjustments for Allowances. Unless otherwise provided in the Contract Documents:

- .1 Allowances designated in the Contract Documents provide for the estimated direct cost of all labor, materials and equipment, including unloading, storage, and handling at the Site, labor, installation costs, transportation to the Site and all required taxes, less

applicable trade discounts **but do not include the Contractor's overhead or profit, which are included in the Contract Sum and are not compensable under the Allowances;**

- .2 Whenever actual costs (excluding those amounts indicated above as included in the Contract Sum and not compensable) are more than a monetary Allowance, the Contractor shall be entitled to an appropriate Contract Modification to reflect the difference between the costs set forth in subsection .1;
- .3 If actual costs are less or equal to the amount of a monetary Allowance, the Contractor shall include only such actual costs in the Contractor's Application for Payment; the Contract Sum must be reduced by an appropriate Contract Modification to reflect the deletion of an Allowance or lower actual costs of an Allowance; and
- .4 **All time required for the performance of work covered by an Allowance is conclusively presumed to be included in the Contract Time, unless the cost of the work exceeds the Allowance amount and the Contractor demonstrates a Delay to the critical path of the CPM Schedule of Record and requests an increase of time in accordance with Article 11.**

5.6 CONSTRUCTION OPERATIONS

5.6.1 Use of Site. The Contractor must confine operations at the Site to areas permitted by law, ordinances, permits, and the Contract Documents and must not unreasonably encumber the Site with materials and equipment. The Owner may establish reasonable additional limitations on the Contractor's use of the Site to accommodate the needs of the Owner, Separate Contractors, users of occupied facilities the public, or other forces authorized by the Owner to perform work. Provided, however, if such limitations are made known to the Contractor after the date bids are received, the Contractor may be entitled to an equitable adjustment in the Contract Time and/or Contract Sum if the Contractor can demonstrate that such limitations adversely impact the prosecution of the Work.

5.6.2 Benchmarks and Layout of Work. The Contractor must establish the exterior lines and elevations of all buildings and structures to be erected on the Site, and lines and grades of Site Work such as roads, utilities and Site grading, based on reference points, the location of existing structures or improvements, or benchmarks identified in the Contract Documents or Site Surveys provided by the Owner. The Contractor must protect and preserve such established reference points, and if they are disturbed, the cost of their relocation and replacement must be borne by the Contractor. The Contractor must provide a professional certification by a **State of Maryland** registered professional engineer or land surveyor as to the actual location of building lines prior to the construction of the foundations. **Once foundation work is complete, and prior to commencing construction of the superstructure for the Project, Contractor must submit to Owner a certified building location survey as completed by a State of Maryland registered land surveyor.** The Contractor must establish the building grades, lines and levels, and column, wall and partition lines required by its Subcontractors in laying out their Work. At the completion of the Work, the Contractor must provide another professional certification by a registered professional engineer or land surveyor as to the location of the completed improvements in relation to property lines, building lines, easements, and other boundaries.

5.6.3 Working Hours. Except as otherwise provided in the Contract Documents, all Work must be performed between the hours of 7:00 a.m. and 4:00 p.m. Monday through Friday exclusive of County, State and federal holidays unless more restrictive hours are required by the Montgomery County Code or other applicable law governing the Contractor's performance of the Work. The Owner has the right to impose further restrictions on working hours reasonably related to the use of occupied facilities provided, however, the Contractor shall be entitled to an equitable adjustment in the Contract Time and/or Contract Sum if such restrictions are imposed after the date bids are received if the

Contractor can demonstrate that such limitations adversely impact the prosecution of the Work. No delays resulting from compliance with **applicable laws or regulations may form the basis for any Claim by the Contractor for delay damages or additional compensation or for any increase in the Contract Time; any delays arising from restrictions related to the use of occupied facilities are non-compensable and any requests for an increase in the Contract Time relating to them must be filed in accord with Article 11 or the same will be conclusively deemed to have been waived.** The Contractor must not permit work outside of such hours or on a Saturday, Sunday or other County, State or federal holiday without the written consent of the Owner, given after prior written notice to the Architect/Engineer; such consent, if given, may be conditioned upon payment by the Contractor of the Owner's and Architect/Engineer's additional costs and fees incurred in monitoring such off-hours Work. The Contractor must notify the Owner as soon as possible if Work must be performed outside such times in the interest of the safety and protection of persons or property at the Site or adjacent thereto, or in the event of an emergency. In no event shall the Contractor permit Work to be performed at the Site without the presence of the Contractor's Superintendent and/or persons responsible **for the protection of persons and property at the Site and compliance with all applicable Laws and Regulations, if different from the Superintendent.**

5.6.4 Noise Ordinance. The Contractor must comply with the Montgomery County Noise Ordinance (Chapter 31B) of the Montgomery County Code and any successor or substitute provisions covering the regulation of noise levels. It is the duty of the Contractor to familiarize itself with those provisions and perform the Work in compliance with those provisions.

5.6.5 Temporary Facilities. Except as otherwise provided in the Contract Documents, the Contractor must provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other temporary facilities and services necessary for proper execution and completion of the Work, including measures for sediment control, storm water management and waste disposal. The Contractor must not use any preexisting facilities of the Owner without the specific written consent of the Owner, except as indicated in the Contract Documents. The

Contractor is solely responsible for temporary facilities and services provided or utilized by the Contractor and must remove those not required to remain at the completion of the Work or any portion thereof; must promptly correct any damage caused by the erection, use or removal of temporary facilities; and must restore the Site and any adjacent areas to their original condition or that required by the Contract Documents upon completion of the Work.

5.6.6 Cutting, Patching and Finishing. The Contractor is responsible for all cutting, patching and finishing required to complete the Work or to make its parts fit together properly. The responsibility of the Contractor, Owner and Separate Contractors with respect to cutting, patching and finishing work by others is as provided in Subsection 7.2.4.

5.6.7 Cleaning Up. The Contractor must keep the Site and adjacent areas free from accumulation of waste materials or rubbish caused by operations under the Contract, and must keep tools, construction equipment, machinery and surplus materials suitably stored when not in use. If the Contractor fails to do so in a manner reasonably satisfactory to the Owner or the Architect/Engineer within forty-eight (48) hours after notice or as otherwise required by the Contract Documents, the Owner may clean the Site and back charge the Contractor for all costs associated with the cleaning.

5.6.8 Utilities.

.1 Temporary Utilities. Unless otherwise specified in the Contract Documents, the Contractor, at its own expense, must:

- (1) Furnish all temporary heat, cooling ventilation, and humidity control including all required apparatus and fuel as may be necessary to protect the Work fully, both during its execution and until Final Completion and acceptance. Contractor must not use any method of heating, cooling, ventilation, or humidity control of the building unless approved by the Owner in advance;
- (2) Provide all temporary on-Site water service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents. All temporary service must be removed by

Contractor unless otherwise specified in the Contract Documents;

- (3) Furnish all temporary electric service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents;
- (4) Furnish all temporary telephone and data service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents; and
- (5) The Contractor must provide and maintain in a neat, sanitary condition such accommodations for the use of the Contractors and Subcontractors employees as may be necessary to comply with the requirements and regulations of the Department of Health and Human Services of Montgomery County, or of other authorities having jurisdiction, and shall commit no public nuisance.

.2 Existing Utilities.

- (1) The existence and locations of underground or other utilities and other construction indicated on the plans are not guaranteed by Owner.
- (2) Contractor must investigate and verify the existence and location of underground or other utilities before commencing the Work. Work performed near existing structures and utilities must be done safely by hand. Contractor is responsible for any damage to, and for maintenance and protection of, existing utilities and structures.
- (3) At Contractor's expense the Contractor must coordinate with utilities companies for the adjustment, moving or relocation as necessary of existing structures, utility poles, lines, services, or other appurtenances located in, or affected by, the Work which was discoverable by a thorough site visit, and/or a careful review of the Contract Documents. No increase in the Contract Time or an increase in

the Contract Sum will be granted for any Delay associated with such coordination whether caused by the Contractor, a public utility, any other third party or the Owner acting in its governmental capacity. The Contractor will be allowed an increase in the Contract Sum and/or an increase in the Contract Time associated with the adjustment, removal, or relocation of any operational but unknown and unmarked utilities which were not discoverable by a thorough site visit, and/or a careful review of the Contract Documents. Any Claim for adjustment of the Contract Time or the Contract Sum must be filed within the time and in accordance with the provisions of Articles 11 and 12 or any Claim to such will be deemed to have been conclusively waived.

.3 Permanent Utilities.

- (1) Contractor must arrange for and coordinate the installation and inspection of permanent utilities with all appropriate utility companies. The installation cost and the time associated with such work is included in the Contract Time and the Contract Sum unless otherwise specified in the Contract Documents. **No increase in the Contract Time or an increase in the Contract Sum will be granted for any Delay associated with obtaining such permanent utilities whether caused by the Contractor, a public utility, any other third party or the Owner acting in its governmental capacity.** The Contractor is responsible for the costs for its use of permanent utilities until Substantial Completion.

5.6.9 Air Pollution Control

- .1 The Contractor must comply with the Montgomery County Air Quality Ordinance (Chapter 3) of the Montgomery County Code and any successor or substitute provisions covering the regulation of air quality.

- .2 Hauling of Materials: All fine-grained loose materials hauled to or from a project must be covered to prevent spillage and blowing.
- .3 Disposal of Materials: Disposal of materials by burning at any location within the project site is prohibited. Any off-site burn area receiving materials from the project site must have a Fire Permit from the Montgomery County Department of Environmental Protection and conform to all laws and regulation associated with said Fire Permit.

- .1 The Contractor must not enter into any subcontract, contract, agreement, purchase order or other agreement for the furnishing of any portion of the materials, services, equipment or Work with any party or entity if such party or entity is an Affiliated Entity with which the Contractor has a direct or indirect ownership, control or interest unless such agreement has been approved by the Owner, such approval not to be unreasonably withheld, after full disclosure in writing by the Contractor to the Owner of such affiliation or relationship and all details relating to the proposed arrangements.
- .2 The Contractor shall submit the name of all principal Subcontractors to the Owner within sixty (60) days after Notice to Proceed and shall have all principal Subcontractors under contract within ninety (90) days of Notice to Proceed.

ARTICLE 6

SUBCONTRACTORS AND SUPPLIERS

6.1 SELECTION AND RIGHT OF REJECTION

6.1.1 Identification of Subcontractors and Suppliers. Unless otherwise provided in the Contract Documents or the Instructions to Bidders, the Contractor, within ten (10) days after issuance of the Notice to Proceed and before commencing Work at the Site, must furnish in writing to the Owner through the Architect/Engineer the names of Subcontractors and Suppliers which the Contractor intends to utilize during the first thirty (30) days, and those then known to the Contractor who are proposed for each principal portion of the Work. This list must be consistent with the Contractor's Progress Schedule required by Subsection 11.2.1 and Schedule of Submittals required by Subsection 11.2.6. Such principal Subcontractors include, but are not limited to, (i) those performing ten percent (10%) or more of the amount of the Work as indicated by the Contractor's Schedule of Values; (ii) any Subcontractor whose Work falls on the critical path of the Contractor's Progress Schedule, and (iii) those responsible for excavation, structural steel, concrete, masonry, plumbing, mechanical, electrical, roofing and finish work. The Contractor must submit any proposed changes or additional names as the Work progresses, not less than thirty (30) days prior to the date on which the Contractor intends to contract with the proposed Subcontractor or Supplier, and sufficiently in advance of such date to permit a reasonable time for review.

6.1.2 Qualification of Subcontractors The Owner may make such investigations as he deems necessary to determine the ability of any Subcontractor to perform its work, and the Contractor and Subcontractor shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner may visit any Subcontractor's place of business and review any other factors relevant to a determination of the Subcontractor's ability to perform its work. The Owner reserves the right to reject any Subcontractor who has previously failed to perform properly or to complete in a timely manner, or whose proposed Subcontractors, Suppliers, or Surety have similarly failed to perform properly or timely, contracts of a similar nature, or if investigations show the Subcontractor unable to perform the requirements of the Subcontract.

.1 Upon Owner request, Subcontractors shall furnish under oath the following proof of qualifications to perform its proposed work. Subcontractor shall furnish a description of comparable work performed by him within the previous five years indicating the location, contract scope, contract sum, type of construction, name, address and phone number of owner and architect, date work completed, and construction period in days. Upon Owner request, Subcontractors may be

required to furnish additional information as proof of qualifications. Failure to submit any requested information within 10 days of Owner request shall be sufficient cause to reject the Subcontractor.

.2 Upon Owner request, Subcontractors shall furnish a current condensed net worth statement and financial references for verification of financial responsibility.

.3 All Subcontractors must be licensed, as required by law, to perform its proposed work. Upon Owner request, Subcontractors shall furnish evidence of required licenses.

6.1.3 Acceptance of Subcontractors and Suppliers. The Architect/Engineer will, within a reasonable time, advise the Contractor in writing if the Owner rejects any proposed Subcontractor or Supplier, stating the reasons therefore, or stating that additional information is required in order to make a determination as to the acceptability of any proposed Subcontractor or Supplier.

6.1.4 Use of Acceptable Subcontractors and Suppliers. The Contractor must not contract with a proposed Subcontractor or Supplier who has been rejected by the Owner. If the Contractor wishes to change a previously-selected Subcontractor or Supplier, the Contractor must submit the name of the replacement for review and acceptance as provided in Subsection 6.1.1.

6.1.5 Owner's Right to Require Removal. The Owner has the right to require the Contractor to remove a Subcontractor or Supplier, for any occurrence which, if done by the Contractor, would be a breach of the Contract.

6.1.6 Replacement Subcontractors and Suppliers. If the Owner requires removal of a Subcontractor or Supplier, the Contractor must propose another to whom the Owner has no reasonable objection. The Contractor is not entitled to any adjustment in the Contract Time or the Contract Sum occasioned by such change if the removal is for any occurrence which, if done by the Contractor, would be a breach of the Contract, or if the Contractor has failed to act promptly and responsively in submitting names as required.

6.2 SUBCONTRACTUAL RELATIONS

6.2.1 Subcontracts Required. The Contractor must require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by the Contract Documents, assumes toward the Owner and the Architect/Engineer. Each subcontract must allow to the Subcontractor, unless otherwise agreed to by the Owner, rights, remedies and redress against the Contractor equivalent to those that the Contractor, by the Contract Documents, has against the Owner. The Contractor must require each Subcontractor to enter into similar agreements with Subcontractors.

6.2.2 Intentionally Not Used.

6.2.3 Subcontract Provisions. The Contractor must submit a copy of each subcontract to the Owner upon request. Each subcontract must specifically include provisions that:

- .1 Preserve and protect the rights of the Owner under the Contract with respect to the Work to be performed under the subcontract so that the subcontracting thereof will not prejudice such rights;
- .2 Require the Subcontractor to comply with all applicable licensing, bonding and insurance requirements;
- .3 Require submission to the Contractor of submittals in sufficient time and in such detail as will enable the Contractor to review, approve and submit such submittals in accordance with Article 9;
- .4 Require that the Work under the subcontract be performed in accordance with the requirements of the Contract Documents and applicable laws and regulations.
- .5 Require the Subcontractor to comply with all applicable employment laws, regulations and requirements of the Contract, including requirements concerning equal employment opportunity and affirmative action and Minority Female and Disabled (MFD) requirements applicable to Subcontractors;
- .6 Require submission to the Contractor of applications for payment in

sufficient time and in such detail as will enable the Contractor to apply for payment in accordance with Article 13, and provide for payment to Subcontractors as provided in Section 6.3;

- .7 Require that all requests and/or Claims for additional costs, increase of time, damages for delays or otherwise with respect to subcontracted portions of the Work for which the Owner, the Architect/Engineer, any Separate Contractor, or any of their consultants, subcontractors, agents or employees might be liable, be submitted through the Contractor in sufficient time and in such detail as will enable the Contractor to comply with the requirements of Articles 11, 12 and 16 for such requests or Claims;
- .8 Require the Subcontractor to indemnify as provided in Section 8.4;
- .9 Expressly provide for the contingent assignment referred to in Section 6.4;
- .10 Obligate the Subcontractor specifically to consent to the provisions of this Section; and
- .11 Allow the Subcontractor and applicable Sub-subcontractor to be terminable at no cost to the Owner or the Contractor if the Contract is terminated.

6.3 PAYMENTS TO SUBCONTRACTORS AND SUPPLIERS

6.3.1 Payments by Contractor to Subcontractors and Suppliers. As required by Md. Code Ann., Real Prop., §9-302 (2003 Repl. Vol.), the Contractor shall pay each Subcontractor and Supplier, within seven (7) days after receipt of payment from the Owner that portion of the amount paid to the Contractor on account of such Subcontractor's or Supplier's portion of the Work to which the Subcontractor or Supplier is entitled. Retainage withheld from payments to a Subcontractor or Supplier must not exceed the contract retainage applicable to the Contractor on account of that Subcontractor's or Supplier's portion of the Work. The Contractor and Subcontractors are put on notice that payments made to them under the Contract are held in trust for their

Subcontractors and Suppliers under Md. Code Ann., Real Prop., §9-201 (2003 Repl. Vol.) .

6.3.2 Intentionally Not Used.

6.3.3 Substantial Completion Payment and Final Payment to Subcontractors and Suppliers. The Contractor must make payment (excluding retainage, amounts withheld for completion of Punch List and correction of any defective Work) to Subcontractors and Suppliers within a reasonable time after Substantial Completion of the Work. Remaining retainage payments and any amounts previously withheld for completion of Punch List and correction of any defective Work must be made to Subcontractors and Suppliers within seven (7) days after receipt of final payment by the Contractor.

6.3.4 Intentionally Not Used.

6.3.5 Information Regarding Payments. The Owner may at its discretion, and the Architect/Engineer may if so authorized by the Owner, furnish directly to a Subcontractor or Supplier on its request, if practicable, information regarding the Contract, including percentages of completion claimed or amounts applied for by the Contractor and action taken thereon by the Architect/Engineer and Owner on account of portions of the Work done by such Subcontractor or Supplier.

6.3.6 Responsibility for Payment to Subcontractors. Neither the Owner nor the Architect/Engineer shall have any obligation to pay or to see to the payment of any moneys to any Subcontractor or Supplier or provide any information to either. Notwithstanding any provision to the contrary in this Article 6 or in any other provision of the Contract Documents, any obligations imposed upon the Contractor with respect to Subcontractors and Suppliers is solely for the benefit of the Owner and Architect/Engineer and shall not be construed as giving any Subcontractor or Supplier any rights against the Owner or the Architect /Engineer or creating any privity of contract between the Owner and Architect/Engineer on one hand and any Subcontractor or Supplier on the other hand.

6.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS AND PURCHASE ORDERS

6.4.1 Assignment. Each subcontract and Contractor's purchase order for a portion of the Work, including contracts for the purchase or rental of temporary facilities and equipment,

must be assignable by the Contractor to the Owner under the conditions of this Section at no cost or change in price or time of performance on account of the assignment.

6.4.2 Election by Owner. The assignment of subcontracts and Contractor's purchase orders is effective only after termination of the Contract by the Owner pursuant to Sections 15.2 or 15.3, and only for those subcontracts or purchase orders which the Owner accepts by notifying the Contractor and Subcontractor or Supplier in writing.

6.4.3 Rights of Surety. The assignment of subcontracts and Contractor's purchase orders is subject to the prior rights of the Surety, if any, on the Project.

6.4.4 Liability for Prior Obligations. In the event the Owner accepts an assignment, the Owner is not liable for any obligations of the Contractor to the Subcontractor or Supplier arising prior to the effective date of the assignment, other than payment for Work performed in accordance with the Contract Documents and for which the Owner has not made payment to the Contractor. In no event does such assignment act as a release of the Contractor or its Surety from any of their obligations to the Owner, the Subcontractor, Supplier, or any other person or entity affected thereby. The Contractor must insert a provision to this effect and to the effect of Subsection 6.4.1 in all contracts with its Subcontractors and Suppliers and require all Subcontractors to insert a similar provision in all contracts with any Sub-subcontractor.

ARTICLE 7

WORK BY OWNER AND BY OTHERS

7.1 OTHER WORK AT THE SITE

7.1.1 Owner's Rights Reserved. The Owner reserves the right to perform work at the Site with its own forces, to permit work to be performed at the Site by other forces, and to award separate contracts in connection with other portions of the Project.

7.1.2 Identification of Work by Others. Work to be performed by the Owner or by Separate Contractors is identified as such in the Contract Documents. If a question arises concerning the allocation of responsibilities among the Contractor and the Owner or any Separate Contractor, the Contractor must promptly request an interpretation or decision as provided in Subsection 4.3.3.

7.1.3 Coordination of Other Work. The Contractor must cooperate in coordinating its Work with the work, if any, of the Owner, Separate Contractors, and any other forces permitted by the Owner to perform work at the Site without an increase in the Contract Time or the Contract Sum. The Contractor must, in addition, coordinate its Work with other work at the Site as required in the Contract Documents without an increase in the Contract Time or the Contract Sum. Such coordination will be performed as designated in the Contract Documents by the Owner the Architect/Engineer, a separate consultant retained by the Owner such as a construction manager, or may be assigned to the Contractor or a Separate Contractor, and any such assignment shall be without an increase in the Contract Time or in the Contract Sum. In the event such coordination is not performed by the Owner's own personnel, the Owner will advise the Contractor in writing of the person or entity who will be responsible for such coordination, and will describe the duties, authority and limitations of authority of such person or entity.

7.1.4 Construction Schedules. In the event the Owner is performing work at the Site with its own forces or by Separate Contractors or permitting other forces to perform work at the Site, the Owner will be responsible for providing the Contractor with appropriate and necessary activities, durations, and/or fragnets indicating the work and that such information shall be input into the Contractor's Project Schedule. The Contractor must participate with the Owner and any Separate Contractors and other forces permitted by the Owner to perform work at the Site in jointly reviewing the overall Project Progress Schedule when directed to do so. The Contractor must make any revisions to the Contractor's Progress Schedule that are necessary to accommodate work by the Owner and Separate Contractors and any other forces permitted by the Owner to perform work at the Site and to avoid delays and interruptions in the overall Project Progress Schedule. **The Contractor may be entitled to a change in the Contract Time or Contract Sum as a result of any Delays, impacts or inefficiencies resulting from interferences or lack of Site availability caused by Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site provided Contractor submits a Claim in accordance with Articles 11, 12 and 16.**

7.1.5 Communications through Owner. Communications among the Contractor and

Separate Contractors must be conducted through the Owner, except as provided in Subsections 7.2.4 and 7.2.5.

7.2 CONTRACTOR'S RESPONSIBILITY

7.2.1 Contractor to Afford Access to Others. The Contractor must afford the Owner and Separate Contractors and other forces permitted by the Owner to perform work at the Site reasonable opportunity for introduction and storage of their materials and equipment and performance of their work and related activities.

7.2.2 Connection with Other Work. The Contractor must connect its Work with that of the Owner and Separate Contractors and other forces permitted by the Owner to perform work at the Site as required by the Contract Documents, the overall Project Progress Schedule, and the directions of the Owner and its authorized representatives.

7.2.3 Inspection and Notice of Unsuitability. If part of the Contractor's Work or other operations depends for proper execution or results, upon, or may adversely be affected by, construction or operations by the Owner or a Separate Contractor or other forces permitted by the Owner to perform work at the Site, the Contractor must, as soon as practicable but in all events in sufficient time to prevent delay, disruption, hindrance or interference with the performance of the Contractor's work and prior to proceeding with that portion of the Work, report in writing to the Architect/Engineer and the Owner any apparent discrepancies or defects in, or other conditions pertaining to, such other construction or operations that would prevent the Contractor from achieving proper execution and results of the Work. **Failure of the Contractor to report such conditions prior to proceeding with the Work constitutes an acknowledgment (i) that the construction by the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable, and (ii) that their operations will not adversely affect the performance of the Work.**

7.2.4 Cutting, Patching and Finishing of Work by Others. The Contractor must not damage or endanger fully or partially completed construction by the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site by cutting, patching, finishing or otherwise altering such

construction, or by excavation. The Contractor must not cut or otherwise alter such work by others except with written consent of the Owner; such consent will not be unreasonably withheld. The Contractor must not unreasonably withhold from the Owner or a Separate Contractor or other forces permitted by the Owner to perform work at the Site the Contractor's consent to cutting, patching, finishing or otherwise altering the Contractor's Work.

7.2.5 Remedy of Damage to Work by Others. The Contractor must promptly remedy damage caused by the Contractor to completed or partially completed construction or to property of the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site as provided in Subsection 8.2.7.

7.3 MUTUAL RESPONSIBILITY OF THE OWNER AND SEPARATE CONTRACTORS

7.3.1 Responsibility for Cleaning Up. If a disagreement arises among the Contractor, Separate Contractors or other forces permitted by the Owner to perform work at the Site and the Owner as to their respective responsibilities for maintaining the Site, the Work and surrounding area free from waste materials and rubbish as described in Subsection 5.6.6, the Owner may clean up or direct the Contractor or a Separate Contractor or other forces permitted by the Owner to perform work at the Site to do so, and allocate the cost thereof among them.

7.3.2 Disagreements Involving Separate Contractors. If a disagreement arises among the Contractor and any Separate Contractors or other forces permitted by the Owner to perform work at the Site over delays, impacts, inefficiencies, additional costs or damage to their work or property at the Site, the Contractor must, upon due notice to the Owner make a good faith effort to settle with such Separate Contractor. If a settlement is not reached, the Contractor must submit a Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Sum in accordance with Articles 11 and 12. If a Separate Contractor or other forces permitted by the Owner to perform work at the Site brings a claim under the Montgomery County Procurement Regulations against the Owner on account of any delay, impacts, inefficiencies, additional cost or damage alleged to have been caused by the Contractor, the Owner will notify the Contractor who must participate in such proceedings at the Contractor's expense. If any judgment or award against the Owner arises therefrom, the

Contractor must indemnify the Owner from liability for any loss or damage and must reimburse the Owner for all fees and costs including attorney's, consultant's and expert's fees which the Owner has incurred in the defense and satisfaction of such claim, to the extent that the delay, impacts, inefficiencies, additional cost or damage is attributable to the acts, failures to act, or negligence of the Contractor or anyone for whom the Contractor is responsible.

in storage on or off the Site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and

- .3 Other property at the Site or adjacent thereto and not designated for removal, relocation or replacement in the course of construction.

ARTICLE 8

PROTECTION OF PERSONS AND PROPERTY

8.1 RESPONSIBILITY FOR SAFETY

8.1.1 Responsibility for Site Safety. The Contractor is responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

8.1.2 Appointment of Safety Officer. The Contractor must designate a responsible, properly trained and qualified member of the Contractor's organization who must maintain a full-time presence at the Site and whose duty is the prevention of accidents and the maintenance of safety programs, precautions and procedures. This person is the Contractor's Superintendent unless otherwise permitted or required by the Contract Documents, in which case the safety officer must be designated by the Contractor in writing to the Owner and Architect/Engineer.

8.1.3 Compliance with Legal Requirements. The Contractor must comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

8.2 SAFETY OF PERSONS AND PROPERTY

8.2.1 Protections Required. The Contractor must take reasonable precautions for the safety of, and must provide reasonable protection to prevent damage, injury or loss to:

- .1 All persons at and adjacent to the Site and other persons who may be affected by the Work or other operations of the Contractor;
- .2 The Work and materials and equipment to be incorporated therein or otherwise utilized in the performance of the Contract, whether

8.2.2 Notices and Safeguards. The Contractor must implement and maintain, as required by the Contract Documents, applicable laws and regulations and orders of public authorities having jurisdiction (including without limitation OSHA and MOSH), manufacturers' instructions or recommendations, existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including issuing appropriate notices, distributing material safety data sheets and other hazard communication information, providing protective clothing and equipment, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

8.2.3 Loading. The Contractor must not load nor permit any part of any structure at the Site to be loaded or subjected to stresses or pressures so as to endanger its safety or that of adjacent structures or property.

8.2.4 Hazardous Activities. When explosives or other hazardous materials or equipment are stored or used or unusual methods are employed or hazardous conditions are present in the performance of the Work, the Contractor must exercise utmost care and conduct such activities under supervision of properly qualified personnel.

8.2.5 Qualified Personnel. The Contractor must ensure that all work is performed by qualified personnel, trained in accordance with all applicable laws and regulations, to safely perform the work.

8.2.6 Emergencies. In an emergency affecting safety of persons or property, the Contractor must take all necessary action, without the necessity for any special instruction or authorization from the Owner or the Architect/Engineer, to prevent threatened damage, injury or loss. The Contractor must promptly but in all events within twenty-four (24) hours of the occurrence report such action in writing to the Owner and the Architect/Engineer. If the Contractor incurs additional costs on account of or is delayed by such action, the

Contractor may file a Claim requesting a change in the Contract Time or Contract Sum to account for such action in accord with Articles 11 and 12. **Any such Claim must be filed within ten (10) days of the occurrence or it will be conclusively deemed to have been waived.** Any adjustment in the Contract Time or Contract Sum shall be limited to the extent that the emergency work is not attributable to the fault or neglect of the Contractor or otherwise the responsibility of the Contractor under the Contract Documents.

8.2.7 Notice of Physical Injury or Damage.

If the Contractor suffers physical injury or damage to person or property because of an act or omission of the Owner, or of any of the Owner's employees or agents, or of others for whose acts it is contended that the Owner is liable, written notice of such injury or damage, whether or not insured, must be given to the Owner within a reasonable time not exceeding forty eight (48) hours after the onset or occurrence of such damage or injury or such shorter time as may be required by the Occupational Safety & Health Administration (OSHA). The notice must provide sufficient detail to enable the Owner to investigate the matter. **If notice is not received by the Owner within the time specified, any Claim arising from the occurrence will be deemed to be conclusively waived,** except to the extent of any applicable insurance (excluding self-insurance) coverage covering such occurrence. **The provisions of this subsection may not be used by the Contractor in lieu of the requirements of Article 12 when the Contractor is seeking an adjustment in the Contract Sum and are in addition to the requirements of Article 11 when the Contractor is seeking an adjustment in the Contract Time.**

8.2.8 Remedy of Property Damage. The Contractor must promptly remedy damage and loss to property referred to in Subsections 8.2.1.2 and 8.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, a Supplier, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable, unless otherwise instructed in writing by the Owner. This obligation is in addition to, and not in limitation of, the Contractor's obligations for indemnification under Section 8.4. The Contractor shall not be responsible for the security of materials, equipment and tools of Separate Contractors and other forces permitted by the Owner to perform work at the Site..

8.2.9 Responsibility for Site Security. The Contractor is responsible for taking all reasonable and necessary precautions to secure and protect the Site, the Work, materials and equipment to be incorporated therein, and any tools or equipment of the Contractor necessary or beneficial to the performance of the Work from damage due to vandalism, theft, arson, or other criminal mischief. The Contractor must repair and/or replace that portion of the Work and any materials or equipment to be incorporated therein and any tools or equipment of the Contractor necessary or beneficial to performance of the Work which are damaged or stolen due to vandalism, theft, arson, or any other criminal mischief at its expense whether or not covered by insurance. No increase of the Contract Time or increase in the Contract Sum will be granted to the Contractor as a consequence of any delay, impacts or inefficiencies resulting from any act of vandalism, theft, arson or other criminal mischief whether or not caused or contributed to by the Contractor's negligence. The Contractor is responsible for securing the Site against unlawful and unauthorized entry.

8.3 HAZARDOUS MATERIALS

8.3.1 Disclosure, Identification and Handling. The Contractor must maintain at the Site, available to the Owner and the Architect/Engineer, appropriate information pertaining to all Hazardous Materials brought to the Site. Such materials must be properly labeled or identified, and the Contractor must properly store, handle and use them at all times. Manufacturers and distributors are required by the federal Hazard Communication Standard (29 CFR §1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" law to label each Hazardous Material or chemical container, and to provide Material Safety Data sheets to the purchaser. The Contractor must comply with these laws and must provide the Owner and Architect/Engineer with copies of all relevant documents, including Material Safety Data sheets prior to performance of services or contemporaneous with delivery of goods. The Contractor must provide and designate appropriate and secure areas for their storage and must notify the Owner and Architect/Engineer of their presence and location at the Site. The Contractor must not store Hazardous Materials at the Site in excess of those reasonably needed for the Contractor's current operations, and must properly remove or dispose of all Hazardous Materials, including combustible waste, as soon as possible after

completion of the operations in which they are utilized.

8.3.2 Discovery of Hazardous Materials at the Site. In the event the Contractor encounters on the Site material reasonably believed to be a Hazardous Material (other than those for which the Contractor may have specific responsibility for remediation under the Contract), and the Contractor's reasonable precautions will be inadequate to prevent foreseeable damage or injury and the Contractor cannot proceed with the Work in the absence of the removal, containment or remediation of the Hazardous Material, the Contractor must immediately stop Work in the area affected and report, within twenty four (24) hours the condition to the Owner and the Architect/Engineer in writing.

8.3.3 Investigation and Remediation. Upon receipt of notice of suspected Hazardous Materials, the Owner will cause an investigation to be made to verify the presence and extent of such materials, to determine whether such materials are in fact hazardous, and the steps necessary for their removal, containment or remediation.

8.3.4 Resumption of Work. If the Owner's investigation confirms the presence of Hazardous Materials which present a risk of injury or damage which will not be adequately protected against by the Contractor's reasonable precautions, then the Work in the affected area must not thereafter be resumed except at the written direction of the Owner. The Work in the affected area will be resumed promptly (i) in the absence of a finding of Hazardous Material by the Owner, (ii) upon the removal, containment or remediation of the Hazardous Materials, or (iii) upon the establishment of appropriate safety precautions.

8.3.5 Adjustments for Hazardous Materials. The Contractor may request a change in the Contract Time or Contract Sum if the Contractor incurs additional costs on account of or is delayed by the need to remove, contain or remediate Hazardous Materials which has not been rendered harmless at the Site unless the Contractor is responsible for same under the Contract. Any such requested change in the Contract Time or Contract Sum must be made in within ten (10) days of the Owner's approved resumption of Work referenced in Subsection 8.3.4 and must fully comply with Articles 11 and 12 or any Claim will be deemed conclusively waived by the Contractor.

8.4 INDEMNIFICATION

8.4.1 Indemnity and Duty to Defend. The Contractor shall defend, indemnify and hold harmless the Owner, its consultants and Separate Contractors, the Architect/Engineer, the Architect/Engineer's consultants, and any of their Subcontractors, Sub-subcontractor, Suppliers, agents and employees from and against liability for all claims, damages, (including incidental and consequential), losses (including purely economic losses) and expenses, including but not limited to attorneys', expert witnesses' and consultants' fees, which arise out of or result from (a) the performance of the Work, (b) operations at the Site or (c) any act or omission by the Contractor. Such performance, operations, acts or omissions of the Contractor include the performance, operations, acts or omissions of the Contractor's Subcontractors, sub-subcontractors, Suppliers and their respective agents and employees and anyone for whose acts said parties may be liable. This indemnity obligation and the duty to defend applies, regardless of whether or not such claim, damage, loss or expense is also caused or is alleged to have been caused in part by the negligence or act or omission of a party indemnified hereunder, provided it is also caused or alleged to have been caused at least in part by the Contractor, a Subcontractor, Sub-subcontractor, Supplier or their agents or anyone directly or indirectly employed by them or anyone for whose acts said parties may be liable. The duty to defend accrues at the time a claim that potentially is within the scope of coverage of the indemnity herein is made against the indemnitee(s). For purposes of this Subsection 8.4.1, the term Owner includes its boards, agencies, agents, officials and employees.

8.4.2 Effect of Limitations on Statutory Benefits. In claims against any indemnitee hereunder by an employee of the Contractor, a Subcontractor, Sub-subcontractor or Supplier or anyone directly or indirectly employed by them or anyone for whose acts said parties may be liable, the indemnification obligation and duty to defend under Subsection 8.4.1 are not limited by the amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor, Sub-subcontractor or Supplier under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

8.4.3 Limitation as to Negligence of Indemnitee(s). The Contractor's obligations under Subsection 8.4.1 to indemnify (but not the duty to defend which shall apply nonetheless) do

not apply to the extent that, but only to the extent that, any claim, damage, loss or expense as to bodily injury to any person or damage to property (but not as to purely economic claims, damages, losses or expenses as to which the Contractor's obligation under Subsection 8.4.1 shall nonetheless apply) is ultimately determined to result from the sole and exclusive negligence of the indemnitee(s).

8.4.4 Other Rights of Indemnity. The indemnification obligations of this Section 8.4 must not be construed to negate, abridge, or reduce any common-law or statutory rights of the indemnitee(s) which would otherwise exist as to such indemnitee(s).

ARTICLE 9

SUBMITTALS

9.1 SUBMITTALS REQUIRED

9.1.1 Precontract Submittals. The Owner reserves the right to require certain Submittals before executing the Contract. Submittals required before execution of the Contract include, but are not limited to, the following:

- .1 Performance and Payment Bonds acceptable to the Owner as provided in Subsection 17.1;
- .2 Policies and certificates of insurance acceptable to the Owner as provided in Subsections 17.2.7 and 17.3.9; and
- .3 Other submittals required by the Bid or RFP Documents.

9.1.2 Initial Submittals. Unless otherwise provided in the Bid or RFP Documents or the Contract Documents, Submittals required within the first thirty (30) days (or such shorter period as specified in the following sections) after issuance of a Notice to Proceed include, but are not limited to, the following:

- .1 A Progress Schedule for approval by the Architect/Engineer and the Owner as provided in Subsection 11.2.1 which must be provided within fifteen (15) days of the Notice to Proceed;
- .2 A Schedule of Submittals including Shop Drawings, Product Data Samples and other Submittals for approval by the Architect/Engineer as provided in Subsection 11.2.6;
- .3 A list of Subcontractors and Suppliers as provided in Subsection 6.1.1 which must be provided within ten (10) days of the Notice to Proceed;

- .4 A list of Contractor's key personnel as provided in Subsection 5.4.2;
- .5 A Schedule of Values as provided in Subsection 13.1.1 which must be provided within ten (10) days of the Notice to Proceed;
- .6 A construction quality control (CQC) plan as provided in the Specifications, if applicable; and
- .7 Other Submittals required by the Contract Documents.

9.1.3 Submittals During Construction.

Unless otherwise provided in the Contract Documents, Submittals required during the course of construction include, but are not limited to, the following:

- .1 A certified building location survey as provided in Subsection 14.3.3.7;
- .2 [This subsection intentionally not used];
- .3 Progress reports (regular and intermittent) as provided in the Specifications, properly identified and authenticated;
- .4 Certificates of inspection, approval and test reports as provided in Subsection 10.5.7;
- .5 Monthly Progress Schedules as provided in Subsection 11.2.5 and Section 9 (G) of the Contract;
- .6 Applications for Payment with supporting documentation as provided in Section 13.2; and
- .7 Shop Drawings, Product Data Samples and other Submittals required by the Contract Documents.

9.1.4 Closing Submittals. Unless otherwise provided in the Contract Documents, Submittals required upon Substantial and Final Completion of the Work include those described in Subsections 14.2.2 and 14.3.3.

9.1.5 Purpose of Submittals. Submittals required by the Contract Documents are not Contract Documents. The purpose of their submission is to demonstrate, for those operations or portions of the Work for which Submittals are required, the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents, or otherwise to demonstrate the Contractor's compliance with

the requirements of the Contract Documents. Review of Submittals is subject to the limitations of Subsection 9.2.7.

9.1.6 Performance of Work. The Contractor must not perform any portion of the Work requiring submission, review or approval of Submittals until the respective Submittal has been submitted and any required approval has been given. Such Work must be in accordance with approved Submittals and the Contract Documents. In the event of a conflict between an approved Submittal and the Contract Documents, the requirements of the Contract Documents shall control over the approved Submittal. The Contractor must correct at its cost, and without any adjustment in Contract Time, any Work the correction of which is required due to the Contractor's failure to obtain approval of a Submittal required to have been obtained prior to proceeding with the Work, including, but not limited to, correction of any conflicts in the Work resulting from such failure.

9.2 SUBMISSION, REVIEW AND APPROVAL OF SUBMITTALS

9.2.1 Contractor's Submission. The Contractor must prepare and submit to the Architect/Engineer Submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors or other forces permitted to perform work at the Site. The Contractor must submit them in accordance with the Schedule of Submittals provided under Subsection 11.2.6. The Contractor must provide the Owner and the Architect/Engineer with copies of all Submittals made to regulatory agencies.

9.2.2 Verification of Information in Submittals. By submitting Shop Drawings, Product Data, Samples and similar Submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents. All Submittals must bear the following certification, signed and dated by the Contractor, and by any Subcontractor, Sub-subcontractor or Supplier who has prepared the Submittal for the Contractor:

"I certify that the requirements of the Contract Documents have been met and all dimensions,

conditions and quantities are verified as shown on the attached Submittal."

The foregoing certification will be deemed to have been inserted into any Submittal from which it has been omitted.

9.2.3 Identification of Submittals. All Submittals, including Shop Drawings and Samples, must include submittal tracking numbers coinciding with the Specification section and Submittal log and must be dated and marked to show the names of the Project, Architect/Engineer, Contractor, originating Subcontractor, Sub-subcontractor, manufacturer or Supplier, and separate detailer if pertinent. Shop Drawings must completely identify Specification section and locations at which materials or equipment are to be installed. Reproductions of Contract Drawings are acceptable as Shop Drawings only when specifically authorized in writing by the Architect/Engineer. Submittals must be submitted under cover of a Submittal form approved by the Owner which must include at a minimum the information required in this subsection, the identity of each recipient of the Submittal, and such other information as the Owner may require.

9.2.4 Deviations from Contract Requirements. At the time of submission, the Contractor must specifically note in the transmittal form any deviations in the Submittal from the requirements of the Contract Documents. No such deviation will be considered as having been approved solely by reason of approval of a Submittal in which the deviation was noted; instead, if the Contractor is seeking approval of the deviation from the Contract Documents, the Contractor must comply with the provisions of Section 12.6 governing approval of Or-Equal items or Substitutions, as applicable.

9.2.5 Return Without Action. Incomplete Submittals will be returned to the Contractor without action and must be promptly completed and resubmitted by the Contractor. Submittals made by the Contractor which are not required by the Contract Documents may be returned without action.

9.2.6 Review and Action by Architect/Engineer. The Architect/Engineer or the Owner, or both as appropriate for the type of Submittal, will review and approve or take other appropriate action upon the Contractor's Submittals. Such action will be taken with such reasonable promptness as to cause no

unreasonable delay in the Work, provided that Contractor has acted promptly in submitting, correcting and resubmitting such Submittals and sufficient time has been allowed to permit adequate review. A minimum of thirty (30) Days for review must be allowed, unless otherwise agreed to in writing by the Architect/Engineer.

9.2.7 Scope of Review. Review of Submittals will be only for the limited purpose of checking for conformance with the design concept expressed in and the specific requirements of the Contract Documents. Review of such Submittals is not conducted for the purpose of determining their accuracy and completeness, reviewing the means and methods of fabrication or assembly, confirming details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor in accordance with the Contract Documents.

9.2.8 Correction and Resubmission. The Contractor must submit additional information or make any corrections required and must resubmit the required number of corrected copies of Submittals for further review and approval or other appropriate action required by the Contract Documents until such approval or other action is taken. No delay will be recognized, and no increase of Contract Time will be given, for any delay in approval of Submittals which results from returning Submittals to the Contractor for incompleteness, correction and resubmission. If more than two (2) resubmittals are required the Contractor must pay any amounts the Owner owes the Architect for review of further resubmittals.

9.2.9 Identification of Revisions. The Contractor must direct specific attention, in writing or on resubmitted Submittals, to any revisions made in a resubmitted Submittal other than those requested by the Owner or the Architect/Engineer on previous Submittals. No such revision will be considered as having been approved solely by reason of approval of a Submittal in which the revision was noted.

9.2.10 Responsibility for Deviations, Revisions, Errors and Omissions in Submittals. Approval of any Submittal will not extend to, and the Contractor will not be relieved of responsibility for, (i) deviations or revisions not specifically identified and approved in accordance with Subsections 9.2.4 or 9.2.9, or (ii) any errors or omissions in Submittals, except to the extent such errors or omissions occur in the Contract Documents and are the

responsibility of the Architect/Engineer and/or Owner. Review and approval of the Contractor's Submittals by the Owner and/or the Architect/Engineer will not relieve the Contractor of its obligations under the Contract, nor will it constitute approval of safety precautions or of any construction means, methods, techniques, sequences or procedures of fabrication or assembly. The approval of a specific item does not indicate approval of an assembly of which the item is a component.

9.2.11 Professional Certifications. The Contractor must provide professional certifications on submittals and shop drawings as required by the Contract Documents. The Owner and the Architect/Engineer are entitled to rely on the accuracy and completeness of professional certifications of performance criteria of materials, systems or equipment required by the Contract Documents.

9.2.12 Submittals for Finishes. The Architect/Engineer may postpone review of Submittals requiring color or finish selections until such time as all such Submittals have been submitted. Any delays and/or extra costs resulting from incomplete Submittals are the responsibility of the Contractor.

ARTICLE 10

QUALITY CONTROL PLAN, COMMISSIONING REPORT AND WARRANTIES

10.1 QUALITY CONTROL PLAN AND COMMISSIONING REPORT

10.1.1 Quality Control Plan. Unless noted otherwise in the Contract Documents, the Contractor must prepare and submit a quality control plan in accordance with the requirements of the Contract Documents for review and approval by the Owner within thirty (30) days of Notice to Proceed. The Contractor must comply with the requirements of the approved quality control plan.

10.1.2 Commissioning Plan. Unless noted otherwise in the Contract Documents, the Owner will provide a commissioning plan to the Contractor; the Contractor must comply with the requirements of the Owner's commissioning plan. If noted in the Contract Documents, the Contractor must prepare and submit a commissioning plan in accordance with the requirements of the Contract Documents for review and approval by the Owner. The Contractor must comply with the requirements of the approved commissioning plan.

10.2 GENERAL WARRANTY AND SPECIAL WARRANTIES

10.2.1 General Warranty. The Contractor warrants to the Owner that all materials and equipment furnished under the Contract will be of first quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents.

10.2.2 Duration of General Warranty. The Contractor warrants and guarantees for one (1) year from Substantial Completion, or for a longer period that is otherwise expressly stated in the Contract Documents, the Work. This includes a Warranty and Guarantee against any and all defects for a minimum period of one (1) year from Substantial Completion or any longer period stated in the Contract Documents. The Contractor must correct any and all defects in material and/or workmanship which may appear during the Warranty and Guarantee period, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the Owner, within a reasonable period of time, and to the Owner's satisfaction.

10.2.3 Relation to Specific Correction Provisions and Other Remedies. The Contractor's general warranty and any additional or special warranties are not limited by the Contractor's obligations to specifically correct defective or nonconforming Work as provided in Section 10.6, nor are they limited by any other remedies provided in the Contract Documents. The Contractor shall also be liable for any damage to property or persons (including death) including consequential and direct damages relating to any breach of the Contractor's general warranty or any additional or special warranties required by the Contract Documents.

10.2.4 Additional or Special Warranties. The Contractor must furnish all special warranties required by the Contract Documents no later than Substantial Completion. The Owner may require additional special warranties in connection with the approval of "Or-Equals" or Substitutions, Allowance items, Work which is defective or nonconforming, or the acceptance of nonconforming Work pursuant to Subsection 10.6.3.

10.3 OBSERVATION AND INSPECTION OF WORK

10.3.1 Access to Work. The Contractor must provide the Owner and the Architect/Engineer

safe access to the Work at all times that it is in preparation or progress wherever located.

10.3.2 Site Visits. The Owner, its Construction Representatives, its consultants and the Architect/Engineer may visit the Site at intervals appropriate to the stage of construction to conduct progress meetings, to make observations and inspections and to become generally familiar with the progress and quality of the completed Work, and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents.

10.3.3 Responsibility of Contractor. Neither the observations of Owner or the Architect/Engineer nor the performance of any inspections, tests or approvals relieves the Contractor from its obligations to perform the Work in accordance with the Contract Documents.

10.4 UNCOVERING OF WORK

10.4.1 Uncovering of Prematurely Covered Work. If a portion of the Work is covered contrary to the request of the Owner or its designee or the Architect/Engineer, or to specific requirements of the Contract Documents, or prior to any required inspection or testing, the Owner or its designee or the Architect/Engineer may require that the covered Work be uncovered by the Contractor for observation, inspection, testing or approval as appropriate. Any Work that is damaged or removed by such uncovering must be replaced at the Contractor's expense and without change in the Contract Time.

10.4.2 Uncovering of Other Covered Work. If a portion of the Work has been covered which is not required by the Contract Documents or any other requirement to remain uncovered, or which the Owner or its designee or the Architect/Engineer has not specifically requested to observe, test, inspect or approve prior to its being covered, the Owner or its designee or the Architect/Engineer, with the Owner's concurrence, may require that such Work be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, a Change Order will be issued to account for the cost of uncovering and replacement (**if a Change Order is not issued, the Contractor must file a Claim for adjustment of the Contract Sum within the time and containing the information required in Article 12 or the same will be deemed to be conclusively**

waived), and if it affects activities on the critical path, the Contractor may file a Claim requesting an adjustment in the Contract Time (**if a Change Order is not issued, the Contractor must file a Claim requesting an adjustment of the Contract Time within the time and containing the information required in Article 11 or the same will be deemed to be conclusively waived**). If such Work is not in accordance with the Contract Documents or any other requirement, the Contractor must bear the costs and time impacts of uncovering, testing, inspection, specific approval, correction and replacement, including the additional costs of the Owner's and the Architect/Engineer's services and all delays relating thereto.

10.5 TESTS, INSPECTIONS AND APPROVALS BY OTHERS

10.5.1 Required Tests, Inspections and Approvals. The Contractor must arrange for tests, inspections and approvals of portions of the Work required by the Contract Documents, laws, ordinances, rules, regulations or orders of public authorities having jurisdiction, or the Owner or its designee acting as a public authority, to be made at an appropriate time. Unless otherwise provided in the Contract Documents, such tests, inspections and approvals, other than those provided by public authorities, must be provided by an independent testing laboratory or entity acceptable to the Owner, and the Contractor must bear all related costs of tests, inspections and approvals. The Contractor must give the Owner, through the Architect/Engineer, timely notice of when and where tests and inspections are to be made so the Owner and the Architect/Engineer may observe such procedures.

10.5.2 Tests and Inspections by Owner. If indicated in the Contract Documents, the Owner will hire, and pay the costs for, inspection and testing agencies for specific portions of the Work. The Contractor must coordinate with any Owner-hired inspection and testing agencies and arrange for (schedule) tests, inspections and approvals of portions of the Work required by the Contract Documents without delaying the Work.

- .1 Notice of Problems with Owner-hired Inspection Agencies.** The Contractor shall promptly notify the Owner of any problems or concerns with Owner-hired inspection and testing agencies.

- .2 Mis-scheduling of Owner-hired Inspection Agencies.** The Contractor is responsible for coordinating and accurately scheduling Owner-hired inspection and testing agencies so that the work is ready for inspection when scheduled with the agencies. The Contractor's failure to accurately schedule inspections and/or tests with the Owner-hired agencies causes the Owner unnecessary costs. If the Contractor repeatedly fails to accurately schedule the inspections/testing agencies' time, the Owner will backcharge the Contractor for the cost of the unnecessary Site visits by the Owner-hired agencies.

10.5.3 Scheduling of Tests, Inspections and Approvals. The Contractor must schedule all tests, inspections or specific approvals required by law or the Contract Documents so as to avoid any delay in the Work.

10.5.4 Additional Tests, Inspections and Specific Approvals. The Owner may, in its discretion, require the Contractor to perform additional testing, or obtain inspection or specific approval of any portion of the Work, whether or not such Work is fabricated, installed or completed. However, neither a recommendation made by the Architect/Engineer nor a decision by the Owner either to require or not to require such testing, inspection or specific approval gives rise to a duty or responsibility of the Owner or the Architect/Engineer to the Contractor, Subcontractors, Sub-subcontractors, material and equipment Suppliers, their agents or employees, or other persons performing portions of the Work.

10.5.5 Other Tests, Inspections and Specific Approvals Required by Owner. In addition to the tests required by this Section 10.5, the Owner may at any time arrange for other tests, inspections and specific approvals to be performed by others selected by the Owner, at the Owner's expense. The Contractor must cooperate with the Owner and provide access to the Work for such tests, inspections and approvals.

10.5.6 Notice to Contractor. If the Owner, in its discretion, determines that portions of the Work require additional testing, inspection or approval not included under Subsection 10.5.1, the Owner or the Architect/Engineer will instruct the Contractor to make arrangements for such additional testing, inspection or approval, and

the Contractor must give timely notice to the Owner and the Architect/Engineer of when and where tests and inspections are to be made so the Owner and the Architect/Engineer may observe such procedures. Unless otherwise provided, additional testing, inspection and approval must be conducted by an organization selected by the Contractor that is acceptable to the Owner. The Owner shall bear such costs except as provided in Subsections 10.5.9 and 10.6.2.

10.5.7 Observation of Tests, Inspections or Approvals. If the Owner or the Architect/Engineer is to observe tests, inspections or approvals, they will do so, so as not to delay any critical path activities and, where practicable, at the normal place of testing, provided reasonable notice of them has been given by the Contractor to the Owner and Architect/Engineer.

10.5.8 Certificates of Testing, Inspection and Approval. Required certificates of testing, inspection or approval must, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect/Engineer for the Owner.

10.5.9 Costs of Re-Testing, Inspection and Approval. If testing, inspection or approval under Subsections 10.5.1, 10.5.3 or 10.5.4 reveals failure of any portion of the Work to comply with the Contract Documents or applicable legal requirements, the Contractor must bear all costs and time impacts made necessary by such failure, including costs of the Owner's and Architect/Engineer's additional services and expenses and the costs of repeated testing, inspection or approval, and Contractor's cost to correct.

10.6 REJECTION AND CORRECTION OF WORK

10.6.1 Rejection of Nonconforming Work. The Owner and the Architect/Engineer may reject Work at any time that does not conform to the Contract Documents. Unless the Contractor is specifically instructed otherwise, any Work that fails a required test, inspection or approval will be considered as having been rejected, whether or not specific notice of rejection is given by the Owner or the Architect/Engineer.

10.6.2 Contractor to Correct or Replace Rejected Work. The Contractor must promptly correct or, at the Owner's option, replace Work which is rejected by the Owner or the Architect/Engineer as defective or which otherwise fails to conform to the requirements of

the Contract Documents, whether before or after Substantial Completion. The Owner may require additional testing or inspection of such Work as provided in Subsection 10.5.3. The Contractor must bear the costs and any time impact related to correcting or replacing such rejected Work, including costs of the Owner's and the Architect/Engineer's additional services and expenses and the costs of additional or repeated testing, inspection or approval and all delays relating thereto.

10.6.3 Acceptance of Defective or Nonconforming Work. If the Owner determines that it is in its best interests to accept Work which is not in accordance with the requirements of the Contract Documents instead of requiring its correction or replacement, the Owner may accept such Work with an appropriate corresponding adjustment reducing the Contract Sum and, if appropriate, the Contract Time. Any such acceptance of defective or nonconforming Work will not extend to defects or deficiencies not expressly revealed to the Owner in writing at the time of acceptance. Any such acceptance to be effective must be in writing and signed by the Director.

10.6.4 Removal of Defective or Nonconforming Work. The Contractor must promptly remove from the Site and dispose of any materials, supplies or equipment that does not comply with the requirements of the Contract Documents and/or which has been rejected by the Owner.

10.6.5 Contractor to Bear Cost to Correct or Replace Other Work. The Contractor must bear the cost and any time impact related to correcting or replacing any construction of the Owner or Separate Contractors or other forces permitted to perform work at the Site which is destroyed or damaged by the Contractor's correction, removal or replacement of Work that does not comply with the requirements of the Contract Documents.

10.6.6 Failure to Correct or Replace. If the Contractor fails to correct or replace Work that is rejected, defective or nonconforming within a reasonable time as required by the Owner, the Owner may correct or replace it. The Owner may remove and dispose of, or at its discretion, store for subsequent auction or private sale, the remaining materials or equipment. All costs of correction, removal, replacement, disposal, storage or sale, including costs of the Owner's and the Architect/Engineer's additional services, must be borne by the Contractor and may be

backcharged by the Owner against the Contract Sum.

10.6.7 Artistic Decisions. The Owner's decisions in matters relating to artistic effect are final.

10.7 SPECIFIC CORRECTION OF WORK

10.7.1 Specific Correction Period. Unless otherwise provided in the Contract Documents for a particular item or class of Work, and in addition to any other warranty provided in this Contract, the Contractor must correct or replace any Work found to be defective, non-complying or nonconforming, or any Work (whether by the Contractor or by others) affected thereby, discovered during the specific correction periods as follows:

- .1 Within one year after the Date of Substantial Completion of the Work or designated portion thereof;
- .2 Where the Owner takes partial occupancy or use, one year after the date for commencement of warranties established under Subsection 14.1.5;
- .3 The period of time, if any, established by terms of an applicable special warranty required by the Contract Documents; or
- .4 In the case of hidden or latent defects discovered within the period established by the applicable statute of limitations, a period of one year from the date that the Owner discovers, or should reasonably have discovered, the defect, noncompliance or nonconformance.

10.7.2 Specific Correction Required. If, within the applicable specific correction period provided in Subsection 10.7.1, any of the Work does not comply with the requirements of the Contract Documents, the Contractor must correct or, at the Owner's sole option, replace it promptly after receipt of written notice from the Owner to do so, unless the Owner elects to accept such Work in accordance with Subsection 10.6.3.

10.7.3 Notice and Demand for Specific Correction Obligation. The Owner will give notice to the Contractor within a reasonable time after discovery of Work which it believes to be subject to specific correction. The Owner will afford the Contractor an opportunity to jointly inspect the Work within a reasonable time after such notice, and will, at the Contractor's request,

arrange for the Architect/Engineer's presence at such inspection. If no agreement is reached between the Owner and Contractor as to the responsibility and steps to be taken for correction, the Owner may issue a demand for correction to the Contractor, who must comply promptly with the demand. Failure to comply with such demand constitutes a material breach of the Contract. **Any Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Sum with respect to such demand for correction must be filed by the Contractor in accordance with Articles 11 and/or 12 or the same will be deemed to have been conclusively waived.**

10.7.4 Extension of Specific Correction Obligation. If the Work remains uncorrected, or if the Work has exhibited a pattern of repeated failure requiring repeated correction, the applicable specific correction period will recommence in its entirety upon the completion of the latest specific correction period.

10.7.5 Inspection Prior to Warranty Expiration. Thirty (30) days prior to the expiration of the correction period provided for in Subsection 10.7.1, the Contractor must conduct a joint inspection of the Work with the Owner and the A/E to determine whether any additional items remain to be corrected.

10.7.6 Effect on Other Remedies. Nothing contained in this Section 10.7 is to be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. This Section relates only to the specific obligation of the Contractor to correct or replace the Work, and has no relationship to the time within which the Contractor's obligations under the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct or replace the Work. In addition, the Contractor shall also be liable for any damage to property or persons (including death) including consequential and direct damages relating to any defective Work or Work which fails to conform to the requirements of the Contract Documents.

ARTICLE 11

TIME

11.1 COMMENCEMENT

11.1.1 Date of Commencement and Notice to Proceed. The Owner will issue a Notice to Proceed and make the Site available to the

Contractor within a reasonable time after execution of the Contract. The date on which the Contract Time commences, as established in the Notice to Proceed, will not be postponed by failure to proceed with the Work by the Contractor or persons or entities for whom the Contractor is responsible. For phased work noted in the Contract Documents, multiple Notices to Proceed may be issued by the Owner.

11.1.2 Preconstruction Conference.

Promptly after the Notice to Proceed has been issued but before the Work at the Site begins, the Owner will conduct a preconstruction conference with the Contractor and any Separate Contractors to review Project requirements including, but not limited to, preliminary Submittals, schedules, Site utilization, construction operations to occur at the Site during the succeeding sixty (60) days, communications, coordination with Separate Contractors, payment procedures, and other matters.

11.1.3 Commencement of Work at the Site.

The Contractor must not commence operations on the Site prior to issuance of the Notice to Proceed.

11.2 CONSTRUCTION SCHEDULES

11.2.1 Contractor's Initial Progress Schedule.

Within fifteen (15) days after issuance of the Notice to Proceed, the Contractor must prepare and submit for the Owner's and Architect/Engineer's approval a proposed Initial Critical Path Method Project Schedule (ICPM) for performance of the Work, which schedule may be a cost and man-loaded Progress Schedule, if so specified in the Contract Documents. The Contractor will not receive any payments until such time the ICPM has been submitted and approved by the Owner. The schedule must (i) conform to all specified time limits, including Substantial, Final and any interim Completion dates, established by the Contract Documents, (ii) include all Work for each element of the Project as required by the Contract Documents, (iii) include the schedule for all Submittals, (iv) include all testing, inspections and commissioning required by the Contract Documents, and (v) provide for expeditious and practicable execution and completion of the Work within the Contract Time.

11.2.2 Requirements of the Progress Schedule.

The ICPM must further comply with the scheduling specifications set forth in the Contract Documents, and to the extent not

inconsistent therewith, must also fully comply with the following requirements.

The Contractor must plan, schedule, and construct the Work using a Critical Path Method Project Schedule (CPM). The CPM must be used for coordinating and monitoring all the work specified in the Contract Documents including all activities of Subcontractors, Sub-subcontractors, vendors, Suppliers, utilities, the Owner, Separate Contractors, authorities having jurisdiction, and all other parties associated with the construction of the Contract. All work including but not limited to submittals, major procurement, delivery, and construction activities must be included. All activities specified in the Contract Documents must be included in the CPM. The CPM must be based upon the entirety of the Contract Documents. **The software utilized for the CPM must generate files that are compatible with Primavera Project Planner.**

Float. The CPM utilizes float. Float is defined as the amount of time between when an activity "can start to finish" and when an activity "must start or finish". Float is a shared commodity for the use of the Owner and the Contractor and is not for the exclusive use or benefit of either party. The parties have the full use of the float until it is depleted.

Scheduling Representative. The Contractor must designate a scheduling representative, prior to submission of the Initial Critical Path Method Project Schedule (ICPM). The scheduling representative is the person primarily responsible for development and maintenance of the Contractor's CPM schedule. The scheduling representative will represent the Contractor in all matters regarding the schedule and must attend all schedule related meetings.

The Contractor must submit the qualifications of the designated scheduling representative to the Owner for approval within ten (10) days of Notice-to-Proceed. This approval is required before the ICPM will be accepted. The designated scheduling representative must have at least three years of verifiable experience in preparing and maintaining CPM project schedules on contracts of similar size and complexity. Replacement of the scheduling representative by the Contractor will require written approval from the Owner.

Initial Critical Path Method Project Schedule (ICPM). The ICPM must consist of:

- (a) A time scaled diagram. The ICPM time scaled diagram will have a scale and format that is acceptable to the Owner and Architect/Engineer. The activities must be labeled with the activity identification clearly shown for each activity. All relationships between activities must be shown;
- (b) Tabular reports with activities sorted as follows:
- (1) Activity ID. This report must include predecessors and successors for each activity with leads and lags shown;
 - (2) Activity ID. This report must include resources. This report must clearly define the resources assigned to each activity.
 - (3) Early Start, Total Float;
 - (4) Total Float, Early Start;
 - (5) Project Area (if applicable);
 - (6) Project Phase (if applicable); and
 - (7) Responsibility e.g., Contractor, specific subcontractor, specific supplier, the Owner, utilities and specific third parties.
- The header of each tabular report must include the project name, Contract number, data date, run date and number, and report type.
- The body of each report must include the activity identification, activity description, original and remaining duration, early/late start and finish dates, percent complete, actual start/finish dates, total float, and calendar designation for every activity.
- (c) Written Narrative (WN). The WN must comply with the requirements described hereinafter;
- (d) Printed Calendars. The printed calendars must include a listing, description, and calendar form tabulation of all calendars used in the ICPM. The calendar must contain the total number of anticipated work days (including day and night shifts) required to complete all the work required in the Contract. The calendars must delineate the holidays and anticipated non-work days or periods including inclement weather days. An explanation of the Contractor's basis for determining each non-work day or period must be included in the WN; and
- (e) Data disc containing all of the information contained in the CPM. The format must be compatible with Primavera Project Planner software.
- All construction activities must have durations not exceeding 10 working days, unless otherwise approved by the Owner and Architect/Engineer. Activities for review and approval of Submittals and shop drawings by the Architect/Engineer must be given durations of not less than 30 calendar days. The Contractor may submit a short list of highly critical approval activities to the Architect/Engineer. The Architect/Engineer will make every effort to expedite the approval of these Submittals; however, this will not alter the requirements to include 30 calendar days for all approvals in the ICPM. Durations for other procurement activities will be evaluated on a case by case basis.

The latest calculated early finish date in the ICPM shall equal the Contract calendar date for Substantial Completion specified in the Contract Documents. If the Contractor submits an earlier Substantial Completion date than specified in the Contract Documents, the Owner, upon approval of the ICPM, may issue a Change Order to adjust the Substantial Completion date to that shown on the ICPM.

For all Contracts with a Contract Sum exceeding eight million dollars (\$8,000,000), the Contractor must resource load all construction activities in its schedule and schedule updates with the material, equipment, and manpower planned to be utilized by the Contractor and its subcontractor in accomplishing each activity. Resource loading of the CPM must be fully explained in the WN.

The Owner and/or Architect/Engineer reserve the right to require specific activities and/or milestones to be added to the CPM (consistent with the Work).

The Contractor must utilize activity codes to categorize activities by at least the following: project area; project phase; and responsibility, e.g. Contactor or specific subcontractors.

The Contractor must provide a WN as part of the ICPM. This WN must explain the sequence of work, the critical path, interim completion dates, project phasing, non-work days, or periods, and labor and equipment resources (as appropriate). In addition, the Contractor must explain how the ICPM has provided for: permit requirements, environmental requirements, coordination with other public Contractors, milestone dates (for the Contract or other related contracts), coordination with other entities, coordination with all utility companies, special non-work days or periods, and weather in its ICPM. The WN must explain the specific scope of each critical activity and the basis used to determine the original duration of each activity, i.e., production rate and anticipated quantities.

All Work specified in the Contract Documents must be addressed in the WN. The Contractor shall utilize the WN to explain the following:

- (a) Relationships between activities not obviously identified;
- (b) Equipment usage and limitations;
- (c) Manpower usage and limitations;
- (d) Activity codes, abbreviations, and activity identification system;
- (e) All Calendars and how they are utilized in the CPM;
- (f) Date or time constraints;
- (g) All abbreviations in the ICPM; and
- (h) Scheduling of weather and temperature sensitive activities.

The Contractor must complete and submit the proposed ICPM within 15 calendar days after issuance of the Notice to Proceed; submission to the Architect/Engineer and Owner for review and approval shall include: one electronic copy and two paper sets (in color) to the A/E, and one electronic copy and three paper sets (in color) to the Owner.

The Architect/Engineer and Owner will complete the review of the Contractor's ICPM within 30 calendar days after the submittal. If required, the Architect/Engineer may convene a Joint Review Conference at which the Architect/Engineer, Owner and Contractor (including its scheduling representative) will make corrections and adjustments to the proposed ICPM. If a revision is necessary due to the Owner's or Architect/Engineer's review

or the Joint Review Conference, the proposed revision must be submitted by the Contractor within seven calendar days after the Contractor received the Owner's and/or Architect/Engineer's review comments or within seven calendar days after the date of the Joint Review Conference, whichever is the latest. Revisions must conform to the requirements for the ICPM. The Owner and Architect/Engineer will respond to the revised ICPM within seven calendar days after the revised ICPM is received.

Any delay in starting work caused by the acceptance of the ICPM by the Owner or Architect/Engineer will not be considered as a basis for any adjustments in the Contract Time or Contract Sum.

When the Owner notifies the Contractor that the ICPM has been accepted, that document will become the CPM schedule of record. The Contractor will be responsible for implementing and executing the work specified in the Contract in strict conformance with the CPM Schedule of Record. The CPM Schedule of Record will be the Contractor's work plan for completing the entire Contract as specified in the Contract Documents.

CPM Updates. The Contractor must update the CPM Schedule of Record and submit to the Owner and A/E for review on a monthly basis and at more frequent intervals as required by the issuance of Change Orders and Field Orders or other conditions of the Work and Project and as provided in Article 9 (G) of the Contract. The monthly updates of the CPM Schedule of Record are required to be submitted concurrent with the Contractor's monthly Application for Payment; however, the CPM update is required whether the Contractor submits a Application for Payment for a month or not.

CPM update submissions must contain the activity data as specified in (a) through (e) of the ICPM. The update must describe the progress of the project to date. The WN must include a description of the work performed during the update periods, current critical path,

the amount of float on the critical path, any delays or disruptions experienced by the Contractor during the period of the update, any change in manpower or equipment, any systematic revision, and any potential delays or disruptions.

Systematic Revisions to the Schedule of Record. Systematic Revisions are defined as one or more of the following:

- (a) A change in the specified original duration of an activity;
- (b) A change in the logic of the schedule;
- (c) A change in the calendars or to the calendar to which an activity is assigned;
- (d) A change to resources;
- (e) A change to any actual date, previously established;
- (f) The deletion or addition of an activity;
- (g) A change to, addition of, or deletion of a date or time constraint;
- (h) A change to, addition of, or deletion of an activity code;
- (i) A change to an activity description; and
- (j) Any change order than updating an activity.

If the Contractor indicates in the WN that a monthly CPM update contains no systematic revisions from the previous CPM Schedule of Record, the monthly CPM update must consist solely of updating the previous CPM schedule of record with actual data (actual start dates, actual finish dates, completion percentage, etc.). In the event the Contractor is submitting a monthly CPM update without any systematic revisions,

no pre-coordination with the Owner and/or A/E is required.

When the Contractor proposes to make a systematic revision(s) to the CPM, the Contractor (including its scheduling representative) must verbally discuss the proposed revision(s) with the Owner and Architect/Engineer. If the revision(s) is/are determined to be minor in nature, the Owner and Architect/Engineer will allow the Contractor to include the revision on the next CPM Update. If the Owner or Architect/Engineer determines that the revision is not minor in nature, the Contractor must submit its proposed systematic revision(s) in writing to the Owner and Architect/Engineer for review and approval prior to deviating from the CPM Schedule of Record.

The proposed revision(s) must describe the reason for the proposed revision(s), the resulting critical path, and all particulars of the revision. These must include, but not be limited to, changes in the method or manner of the work, changes in resources, addition or deletion of manpower, increased or decreased quantities, defective work, and acceleration of work.

After review, the A/E and Owner shall provide direction on what systematic revisions, if any, are acceptable. The Contractor shall submit its monthly CPM Schedule based on this direction.

Approval and/or Acceptance of Monthly CPM Schedule Update. The Owner, with input from the A/E shall approve, accept or reject the Contractor's monthly CPM Schedule update.

Approval: The Owner will approve a CPM Schedule update if (1) the update accurately reflects the project status as of the data date, (2) any systematic revisions are acceptable, (3) the schedule meets all other contractual requirements, and (4) the schedule's projected Substantial Completion date is at or precedes the contractual Substantial Completion date.

An approved CPM Schedule Update becomes the CPM Schedule of Record and no further action is required by the Contractor.

Acceptance: The Owner will accept but not approve a CPM Schedule update if (1) the update accurately reflects the project status as of the data date, (2) any systematic revisions are acceptable, and (3) the schedule meets all other contractual requirements but the schedule's projected Substantial Completion date is later than the contractual Substantial Completion date.

An accepted CPM Schedule Update becomes the CPM Schedule of Record but the Contractor must take corrective action to return the project to schedule so that Substantial Completion can be achieved within the Contract Time. Before the next CPM Schedule Update, the Contractor shall submit a written description to the Owner and the A/E of its plan to overcome the delay.

Upon approval or acceptance by the Owner and Architect/Engineer, the update will become the CPM schedule of record for the period between its data date and the data date of the next approved update.

Rejection: The Owner may reject a CPM Schedule update if (1) the update does not accurately reflect the project status as of the data date, (2) utilized systematic revisions are not acceptable, (3) the schedule does not meet any contractual requirement, or (4) the schedule's projected Substantial Completion date is later than the contractual Substantial Completion date for two (2) or more consecutive months and the Contractor is not making adequate efforts to remedy the Delay.

A rejected CPM Schedule Update must be reworked to incorporate the comments of the Owner and/or the A/E and be resubmitted to the Owner and the A/E. Resubmittal by the Contractor must be made within seven calendar days after receipt of the Owner and/or Architect/Engineer's review comments. The Owner reserves the right to reject any proposed revision which adversely

impacts the Owner, utilities, or other concerned parties. **No new schedule update shall be submitted until a rejected Update is resubmitted and accepted or approved by the Owner.**

Failure to timely submit a CPM Schedule update may result in the Architect/Engineer or Owner withholding payment until submission and approval/acceptance. Failure to timely resubmit a CPM Schedule update which can be approved or accepted by the Owner may result in the Architect/Engineer or Owner withholding payment until an acceptable Update or Revision is submitted.

Updates must not include any systematic revisions to the previous CPM Schedule of Record, unless prior approval by the Owner and Architect/Engineer is received for the insertion of revisions.

The Contractor will attend bi-weekly progress meetings at the project site. At these meetings, the Contractor will provide a report on the actual status of the Work as compared to the latest CPM Schedule of Record.

11.2.3 Coordination with Other Schedules.

The Contractor must revise its Progress Schedule as necessary to conform to the overall Project Progress Schedule incorporating schedules of the Owner and any Separate Contractors as provided in Subsection 7.1.4.

11.2.4 Review and Approval of Schedules.

The Contractor's Progress Schedule must include, at no additional cost, details requested by the Owner or the Architect/Engineer and be in the format specified in the Contract Documents and as provided in this Article 11. The Owner and the Architect/Engineer will review and approve or take other appropriate action on the Contractor's Progress Schedule, but only for the limited purpose of checking for general conformance with the requirements of the Contract Documents, this Article 11, and the schedules of the Owner, Separate Contractors and other forces permitted by the Owner to perform work at the Site. Any changes to the schedule required by the Owner or the Architect/Engineer must be made by the Contractor and the schedule resubmitted to the Owner for approval. Review and approval or

acceptance of the schedule does not relieve the Contractor of its obligations to complete the Work within the Contract Time or any interim completion dates required by the Contract Documents, nor does it constitute approval of any construction means, methods, techniques, sequences or procedures. The approval or acceptance of any schedule or any schedule adjustment made as part of the approval/acceptance of any schedule does not constitute, nor does it provide the basis for, any Claim for an increase of the Contract Time or any Claim for an increase in the Contract Sum.

11.2.5 Schedule of Submittals. The Contractor must prepare and keep current, for the Owner's and the Architect/Engineer's approval, a Schedule of Submittals which is part of the Progress Schedule. The Schedule of Submittals must allow at least thirty (30) days for review and approval of each Submittal by the Architect/Engineer, and sufficient additional time, if required, for (i) review and approval by regulatory bodies and (ii) their correction and resubmission by the Contractor and any Subcontractors or Suppliers. The Schedule of Submittals must identify all schedules, Shop Drawings, Product Data, Samples, Warranties, operating manuals and other Submittals provided for review or required for approval by the Owner or the Architect/Engineer, which indicates the dates or times which the Contractor proposes to submit each such Submittal (allowing sufficient time for review, correction and resubmission if required, and approval) and the dates or times on or within which such Submittals must be approved in order to avoid a delay in the progress of the Work.

11.3 PROJECT PROGRESS

11.3.1 Contract Time Reasonable. By executing the Contract, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

11.3.2 Time is of Essence. The Contractor acknowledges that completion of the Contract by the dates specified for Substantial and Final Completion is critical to the Owner, time being of the essence.

11.3.3 Contractor to Proceed Expeditiously. The Contractor must proceed expeditiously with adequate forces and maintain progress in accordance with the latest approved Progress Schedule.

11.3.4 Conformance to Schedules. The Contractor must conform to the most recently

approved Progress Schedule. The Contractor must complete the indicated Work or achieve the required percentage of completion, as applicable, within any interim completion dates established in the most recently approved Progress Schedule.

11.3.5 Progress Record. The Contractor must maintain at the Site, available to the Owner and the Architect/Engineer for their reference during the progress of the Work, a color copy of the latest approved Progress Schedule, a copy of the latest CPM Schedule of Record (if different from the latest approved Progress Schedule) and any approved revisions thereto. **The Contractor must keep current records of and mark on a copy of the CPM Schedule of Record the actual commencement date, progress, and completion date of each scheduled activity indicated on the Progress Schedule.**

11.3.6 Substantial Completion Within Contract Time. The Contractor must achieve Substantial Completion within the Contract Time.

11.3.7 No Damages for Prevention of Early Completion The Contractor represents that its bid includes all costs, overhead and profit which may be incurred throughout the Contract Time and the period between Substantial and Final Completion. Accordingly, **the Contractor may not make any Claim for delay damages based in whole or in part on the premise that the Contractor would have completed the Work prior to the expiration of the Contract Time but for any claimed delay.**

11.3.8 Acceleration to Comply with Schedule. If the Contractor's progress is not maintained in accordance with the latest approved Progress Schedule, or the Owner determines that the Contractor is not diligently proceeding with the Work or has evidence reasonably indicating that the Contractor will not be able to conform to the most recently approved Progress Schedule, the Contractor must, promptly and at no additional cost to the Owner, take all measures necessary to accelerate its progress to overcome the delay and ensure that there will be no further delay in the progress of the Work and notify the Owner thereof. Any extension of working hours requires approval of the Owner, which will not be unreasonably withheld but may be subject to reasonable conditions including payment for additional or overtime services of the Owner, the Architect/Engineer and any other applicable consultants, testing or regulatory agency costs.

11.3.9 Acceleration of Schedule. The Owner reserves the right to issue a written directive to accelerate the Work which may be subject to an appropriate adjustment, if any, in the Contract Sum. **If the Owner directs an acceleration of the Project Schedule and no adjustment is made in the Contract Sum, or if the Contractor disagrees with any adjustment made, the Contractor must file a request for increase to Contract Time as provided in Article 12 or any Claim for such will be deemed to be conclusively waived.**

11.4 SUSPENSION OR STOPPAGE OF WORK

11.4.1 Owner's Right to Stop the Work. If the Contractor fails to correct Work, or any portion thereof, which is not in accordance with the requirements of the Contract Documents or fails on more than one occasion to carry out Work in accordance with the Contract Documents, the Owner may, order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. The Owner or its designee, acting in the capacity of a building inspection official, has the power to stop Work as may be necessary to enforce compliance with applicable codes and regulations. Work stoppage in accordance with this Subsection does not entitle the Contractor to an increase in Contract Time or damages for delay. If the Contractor disagrees with the Owner's right to stop the Work, the Contractor must file a Claim for increase in the Contract Time and/or increase in the Contract Sum in accordance with Articles 11 and/or 12 as applicable or any Claim for such will be deemed to be conclusively waived.

11.4.2 Owner's Right to Suspend Work for Convenience. The Owner may, without cause and for its convenience, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine, subject to an appropriate adjustment in the Contract Time and/or Contract Sum. **The Contractor is not entitled to profit on any adjustment to the Contract Sum due to any such stoppage, suspension, interruption or delay.** If no adjustment is made in the Contract Sum as a consequence of the suspension order, or if the Contractor disagrees with any adjustment made, the Contractor must file a Claim for increase in the Contract Time and/or increase in the Contract Sum in accordance with Articles 11 and/or 12 as applicable or any Claim for such will be deemed to be conclusively waived.

11.4.3 Disagreements Involving Non-payment. In the event of any disagreement between the Contractor and the Owner involving the Contractor's Claim to entitlement of any payment, the Contractor must diligently proceed with the Work pending resolution of the disagreement subject to the provisions of Section 7(G) of the Contract.

11.5 DELAYS

11.5.1 Excusable Delay. An excusable Delay is a Delay in the progress of the Work which at the time of the Delay was a critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Contractor from achieving Substantial Completion before the expiration of the Contract Time, caused by conditions which could not reasonably be anticipated by, are beyond the control of, and are without the fault or negligence of the Owner, as set forth in 11.5.2, the Contractor or anyone for whose acts the Contractor is responsible. **Excusable Delay does not include any delay caused in whole or in part by any Subcontractor, Sub-subcontractor or Supplier which is considered unexcused Delay. There shall be no compensation whatsoever for excusable delay.** Excusable Delay may, but does not necessarily, include:

- .1 Weather delay as further defined in Subsection 11.6.3;
- .2 Act or omission of government and regulatory agencies and officials (other than the Owner in its capacity as Owner);
- .3 Act or omission by third parties including utilities;
- .4 Catastrophic event such as fire, flood and unavoidable casualties; and
- .5 Strike or labor dispute.

11.5.2 Compensable Delay. Compensable Delay is limited to delay in the progress of the Work which at the time of the delay was critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Contractor from achieving Substantial Completion before the expiration of the Contract Time, caused solely and exclusively by acts or omissions of the Owner (excepting actions taken by the Owner to protect the public health or safety or to conform to law).

11.5.3 Unexcused Delay. Unexcused Delay is delay in Work which at the time of the delay was critical path activity as shown on the most recent

CPM Schedule of Record and which prevents the Contractor from achieving Substantial Completion before the expiration of the Contract Time, and which is not excusable delay or compensable delay. No increase in the Contract Time or increase in the Contract Sum will be provided for an unexcused Delay.

11.6 TIME AND RELATED COST ADJUSTMENTS

11.6.1 Notice of Delay. The Contractor must provide written notice of any actual or prospective Delay promptly, and in no event later than five (5) days after the occurrence of the event or omission giving rise to such Delay. The notice must be provided both to the Architect/Engineer and the Contract Administrator within the specified time.

The written notice must contain the following information:

- .1 A detailed statement of the reasons and causes for the Delay;
- .2 Inclusive dates of the Delay (start date only if end date is not known);
- .3 Specific portions of the Work affected by the actual or prospective Delay; provide specific Activity Names and Numbers from the most recent CPM schedule of record
- .4 Status of Work (affected Activities) affected before commencement of the Delay;
- .5 Effect of the Delay on available "float" for referenced Activities; and
- .6 Specific action (if any) required by the A/E and/or the Owner to remedy or mitigate the Delay.

If the Contractor fails to provide the written notice containing the specified information, within the five (5) days, as prescribed above, the Contractor will not receive any consideration, in a Claim for an increase in Contract Time and/or for a Claim for an increase in the Contract Sum, for the time period before a written notice (containing the specified information) is provided to the Owner and the A/E.

11.6.2 Continuing Delay. In the case of a continuing Delay (an actual or prospective Delay to a activity or activities for which the Contractor cannot progress pending further information), the Contractor must provide the initial notice (as described in the preceding subsection) and a

further notice at each progress meeting throughout the duration of the Delay. The further notices must contain all of the specific information required in the preceding Subsection. **A continuing Delay ends when the Contractor has sufficient information to progress the affected work, not when the affected work is completed. The Contractor must request an increase in the Contract Time in accordance with 11.6.3 when the delayed work can progress again.**

11.6.3 Request for an Increase in Contract Time. If the Contract contends that the Delay is an excusable or compensable Delay, and it is entitled to an increase in Contract Time, the Contractor, in addition to providing the notice in Subsection 11.6.1, must submit a request for additional Contract Time to the Owner and the A/E within fifteen (15) days of the event ending the Delay. **The Contractor's failure to provide the written request for an increase in Contract Time containing the information specified in the following Subsection within the fifteen (15) days prescribed above will be conclusively deemed a waiver of any Claim for Delay arising from such occurrence.**

11.6.4 Concurrent Delay. Concurrent delay is two or more separate Delays, as defined in Section 11.5, in the progress of the Work, one or more which is caused by the Owner and one or more which is caused by the Contractor which, at the time of the Delay, delayed critical path activities as shown on the most recent CPM Schedule of Record, that occur during the same time period, and each Delay independently delayed the Contractor from achieving Substantial Completion before the expiration of the Contract Time. Any concurrent Delay will be considered an excusable Delay; therefore, the Contractor will receive a corresponding increase in Contract Time, but will not receive any compensation for a concurrent Delay.

11.6.5 Supporting Documentation. The Contractor's request for an increase in the Contract Time must identify those portions of the latest CPM Schedule of Record affected by the delay and must include an estimate of the cost and probable effect of the delay, if any, on the progress of the Work. Supporting documentation must include, but is not limited to:

- .1 A written detailed statement of the reasons and causes for the delay;
- .2 Inclusive dates of the delay;

- .3 Specific portions of the Work affected by the actual or prospective delay; provide specific Activity Names and Numbers from the most recent CPM schedule of record;
- .4 Status of Work affected before commencement of the delay;
- .5 Effect of the delay on available "float" time for the referenced activities and the Project;
- .6 A critical path method (CPM) analysis demonstrating that the delay has affected an activity (or activities) on the critical path of the most recent CPM schedule of record at the time of the occurrence of the delay; and
- .7 If the Contractor claims that the delay is an excusable delay or compensable delay, evidence that the delay was unforeseeable, beyond the Contractor's control, and without the fault or negligence of the Contractor or the negligence of anyone for whose acts the Contractor is responsible including any Subcontractor, sub-subcontractor or Supplier; and in the case of a compensable delay, was caused solely and exclusively by the acts or omissions of the Owner (excepting actions taken by the Owner to protect the public health or safety or to conform to law) or anyone for whose acts the Owner is responsible, and which are unreasonable under the circumstances involved and not reasonably within the contemplation of the parties.

11.6.6 Additional Time for Unusually Severe Weather. In order for the Contractor to be entitled to an increase of the Contract Time under this Subsection, the following conditions must be satisfied:

- .1 The weather experienced at the Project Site during the Contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the Project location during any given month;
- .2 The unusually severe weather must delay Work which at the time of the unusually severe weather was a critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Contractor

from achieving Substantial Completion before expiration of the Contract Time. The delay must be beyond the control and without the fault or negligence of the Contractor. For example, the impacted critical activity must not have occurred during unusually severe weather due to previous unexcused delays; and

- .3 The Contractor must have provided a request for an increase in the Contract Time of the weather-related delay complying with Subsection 11.6.3 above. The last day of the each month will be the date of the end of the delay for purposes of the fifteen (15) day requirement for submission. Any request for an increase in the Contract Time for a weather-related delay must be submitted by the 15th of the following month.

The following schedule of monthly anticipated adverse weather delays will constitute the base line for monthly weather time evaluations. The Contractor's Progress Schedule including all updates must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY

January	7 work days
February	6 work days
March	6 work days
April	7 work days
May	7 work days
June	6 work days
July	4 work days
August	5 work days
September	3 work days
October	5 work days
November	4 work days
December	4 work days

Upon Notice to Proceed and continuing throughout the Contract, the Contractor must record on its daily CQC and/or field reports, the occurrence of adverse weather and resultant impact to actual and scheduled Work. Actual adverse weather delay days must prevent Work on critical path activities for fifty (50) percent or more of the Contractor's scheduled workday. The number of actual adverse weather delays must include only the Contractor's scheduled workdays impacted by actual adverse weather

(even if the adverse weather occurred in the previous month), be calculated chronologically from the first to the last day each month, and be recorded as full days. If the Contractor has complied with Subsection 11.6.3 and the number of actual adverse weather delay workdays exceeds the number of days anticipated in the table above, and have adversely affected critical path weather-dependent activities, the Contractor is entitled to an increase in the Contract Time, but not an increase in the Contract Sum (i.e. weather delays are excusable delays).

The preceding calculation and methodology is based on work days. To convert any justified time increase to calendar days, the number of justified work days shall be multiplied by (7/5 = 1.4), and rounded to the nearest whole number, to determine justified calendar days [Example: 2 work days would be converted to 2.8 (3) calendar days.]

11.6.7 Strikes and Labor Disputes. If strikes or labor disputes are to be considered as the basis for an excusable delay, they must be documented by data evidencing (i) the trades directly and indirectly involved in or affected by the strike or labor dispute, (ii) reasons for the strike or labor dispute, (iii) the onset and duration of the strike or labor dispute, and (iv) the measures taken by the Contractor to avoid or overcome the effects of any delay.

11.6.8 Review and Adjustment of Schedules. Upon receipt of a request for an increase in the Contract Time from the Contractor complying with Subsection 11.6.3 and 11.6.4 (and if applicable 11.6.5) above, the Owner will review the most recent CPM Schedule of Record to determine (i) whether the delay is in fact an excusable or compensable delay, and (ii) whether any adverse effects of the delay can be overcome by an adjustment in the Progress Schedule including the application of any unused "float" time available in the schedule. The Owner may require the Contractor to submit a more detailed Progress Schedule than previously required in order to permit the Owner to evaluate the delay. Based on such review, the Contractor must, if required by the Owner, submit for the Owner's approval a revised Progress Schedule, which minimizes the adverse effects of the delay. After review, the Owner will issue a determination of the validity of the Contractor's request. If justified, the Owner will prepare a Change Order or Contract

Amendment for an increase in the Contract Time.

11.6.9 Limitation on Adjustments. No increase in the Contract Time or increase in the Contract Sum will be allowed for any delay or part thereof occurring more than fifteen (15) days before written request for an increase in the Contract Time for the delay is provided by the Contractor.

1. No increase in the Contract Time or increase in the Contract Sum will be made to the extent that performance is, was or would have been suspended, delayed or interrupted by another cause for which the Contractor is responsible. No increase in the Contract Sum will be made to the extent performance was or would have been suspended, delayed or interrupted by another cause for which the Owner is not solely and exclusively responsible.
2. **The Contractor will not receive any compensation for profit, additional bond cost or overhead (which includes extended office overhead and site-specific overhead and general conditions) or any other cost or compensation or any other damages of any kind or nature whatsoever whether incurred by the Contractor, its Subcontractor or Suppliers for delay, all of which are irrevocably waived by Contractor where the delay results from performance of additional Work (Change Order or Field Order Work including bilateral, unilateral, and constructive changes) beyond the Work required by the Contract Documents and the Contractor is paid for the additional Work. The Contractor acknowledges and agrees that the profit, additional bond cost and overhead (which includes extended office overhead and site-specific overhead and general conditions) if any, incurred by the Contractor in performing work beyond the Work required by the Contract Documents and any and all other costs, compensation or damages due Contractor (including any of its Subcontractors or Suppliers), is included in, and payable to the Contractor as part of the Change Order or Field Order**

Work. Contractor waives any and all other damages and cost of any nature or kind whatsoever including Claims for local and cumulative impacts as a result of such Change Order Work and any and all other Claims of any type or nature whatsoever including any Claim for loss of productivity or loss of efficiency.

3. The Contractor will be compensated for compensable delays only for actual and direct damages resulting from such compensable delays. Actual direct damages are limited to site specific general conditions and do not include any indirect costs such as home office overhead. The Contractor will be compensated for such actual and direct damages for compensable delays not attributable to performance of Change Order. Work for which the Contractor is not otherwise compensated in an amount not to exceed the lesser of (i) a daily rate computed by dividing eight percent (8%) of the original Contract Sum by the original Contract Time or (ii) a daily rate computed by dividing the Contractor's profit, bond cost and site-specific overhead (but not home office overhead) for the original Contract Sum by the original Contract Time.
4. **The Contractor for itself and its Subcontractors and Suppliers, irrevocably waives any and all other compensation and delay damages as a result of any compensable delays, including without limitations any Claims for any indirect cost and any Claims for loss of productivity or loss of efficiency.**

11.6.10 Denial of Adjustments in Time or Money. In the event the Owner denies the Contractor's Claim for a change in the Contract Time or, in the case of a compensable delay, a change in the Contract Sum, the Contractor may, within thirty (30) days after such denial, submit a Claim as provided in Article 16. Submissions made prior to the denial must be resubmitted as part of the Claim after the denial. Any Claim on account of denial of a change which is not made within such thirty (30) days of the denial will be deemed conclusively to have been waived.

11.7 DAMAGES FOR DELAY

11.7.1 Delay Damages.

- .1 By executing a Bilateral Change Order, Field Order or Contract Amendment, the Contractor represents that the Contractor is not entitled to an increase in Contract Time or an increase in the Contract Sum beyond that specified in the Bilateral Change Order, Field Order or Contract Amendment for the Work performed or to be performed under the Modification. Nor is the Contractor entitled to an increase of the Contract Time or an increase in the Contract Sum as a result of the issuance by the Owner of a Unilateral Change Order or Field Order unless a Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Sum is made by the Contractor as and when required by this Article 11 and Article 12.
- .2 No Claim for an increase in the Contract Time and/or Claim for an increase in the Contract Sum or Claims for damages may be made by the Contractor or paid to the Contractor for any delay, disruption, inefficiency, interference or hindrance from any cause whatsoever, whether foreseeable or not, including (i) acts or omissions by the Owner, its agents, employees or consultants, (ii) Contract Documents that are negligently prepared or contain inaccurate statements, or (iii) force majeure and circumstances beyond the Contractor's control. The sole remedy for delays, disruptions or hindrances will be non-compensable increases in Contract Time for completion of the Work.
- .3 The provisions of the preceding subsection do not apply to Claims that meet all of the following conditions: (i) the Claim arises under the Contract; (ii) the Claim is limited to actual and direct damages (i.e. profit, additional bond costs (if any) and overhead (only site-specific overhead and not including home office overhead)) incurred as a result of a

delay in completing the Project which the Contractor acknowledges are fully compensated for by payment of the adjustment amount specified in Subsection 11.6.9; (iii) the Contract establishes a time limit for achieving Substantial Completion and the Claim is for critical path delays that prevent achievement of Substantial Completion of the Contract within that time limit; (iv) the delay for which damages are claimed is caused solely and exclusively by the Owner; (v) the delay is not caused by actions taken by the Owner to protect the public health or safety or to conform to law; and (vi) the Contractor has fully complied with Section 11.6.

- .4 An increase in Contract Time shall be granted only for an excusable delay that is beyond the Contractor's control and occurs without the Contractor's fault or negligence. No increase in Contract Time will be granted in the absence of a written request for the increase in Contract Time complying with Section 11.6.

11.7.2 Liquidated Damages. The Owner will suffer financial loss if Substantial Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, the Contractor agrees to pay, as Liquidated Damages and not as a penalty, the amount stipulated in the Contract for each and every day of unexcused delay in achieving Substantial Completion.

11.7.3 Assessment of Liquidated Damages. The Owner may assess and deduct the applicable amount of Liquidated Damages from any payment due the Contractor. If the unpaid balance of the Contract Sum is less than the amount of the Liquidated Damages, the Contractor or its Surety must pay the deficiency to the Owner upon demand.

ARTICLE 12

CHANGES

12.1 CHANGE INSTRUMENTS

12.1.1 Amendment only by Written Modification. The Contract may be amended

or modified only by a written Modification as defined in Subsection 1.1.39.

12.1.2 Change Instruments. Changes in the scope of the Contract may be effected only by a written Amendment signed by the Contractor and Owner. Changes in the Work which are within the general scope of the Contract may be effected, without invalidating the Contract, by a Change Order or Field Order. The Contract Time and Contract Sum may be changed only by a Change Order or Contract Amendment.

12.1.3 Change Proposals. The Contractor must submit a request for change to the Contract Sum (change proposal) covering a contemplated change within ten (10) days after request of the Owner or the Architect/Engineer or within ten (10) days of the event giving rise to the Contractor's request for a change in the Contract Sum or Contract Time. No increase in the Contract Time or increase in the Contract Sum or will be allowed the Contractor for the cost or time involved in making change proposals. Change proposals must define or confirm in detail the Work which is proposed to be added, deleted, or changed and must include any adjustment which the Contractor believes to be necessary in (i) the Contract Time, or (ii) the Contract Sum. Any proposed adjustment must include detailed documentation including but not limited to: cost, properly itemized and supported by sufficient substantiating data to permit evaluation including cost of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Contractor, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). Change proposals are binding upon the Contractor and may be accepted or rejected by the Owner in its discretion. Acceptance of a change proposal may only be made in a written Modification. The Owner may, at its option, instruct the Contractor to proceed with the Work involved in a unilateral Change Order or unilateral Field Order in accordance with this Article 12, without accepting the change proposal in its entirety.

12.1.4 Preparation and Submission of Change Orders and Contract Amendments. If the Owner determines that a change proposal is appropriate, the Contract Administrator or

designee will prepare and submit a request for a Change Order or Contract Amendment providing for an appropriate adjustment in the Contract Time or Contract Sum, or both, for further action by the Director. No such change is effective until the Change Order has been approved by the Director.

12.1.5 Performance of Changes. Unless otherwise provided, the Contractor must perform changes in the Work promptly upon receipt of executed Modifications under applicable provisions of the Contract Documents.

12.2 CHANGE ORDERS

12.2.1 Utilization. A Change Order is a written directive by the Owner to the Contractor directing a change in the Work which is within the general scope of the contract and which may increase or decrease the Contract Time and/or the Contract Sum issued with or without the consent of the Contractor.

12.2.2 Adjustments in Amount Payable to Contractor. A Change Order may provide for an adjustment in the amount payable to the Contractor based only on one of the following methods:

- .1 A fixed or not-to-exceed sum agreed to by the Owner and Contractor and stated in the change instrument;
- .2 Unit Prices stated in the Contract Documents; or
- .3 Reasonable and fair cost estimate, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Contractor, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). **The total percentage of overhead and profit payable by the Owner (to both the Contractor and all subtier subcontractors), regardless of the subtier which performs the work,**

shall not exceed twenty percent (20%).

- .4 Actual cost, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to actual cost of labor, actual cost of materials, supplies and equipment, actual rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Contractor, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). **The total percentage of overhead and profit payable by the Owner (to both the Contractor and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%).**
- .5 In the absence of an agreement between the Owner and Contractor, the amount must be determined in accord with Subsection 12.2.2.2 or 12.2.2.3 above, using whichever will result in the lowest cost to the Owner.

12.2.3 Adjustments in Progress Schedule. A Change Order may provide for an adjustment in the Contract Time if justified by the requirements of Article 11.

12.2.4 Absence of Proposed Adjustments. If a Change Order is silent as to any adjustment to the Contract Time or the Contract Sum, it will be conclusively presumed that none is intended and none will be allowed unless the Contractor files an objection as and when specified in the following Subsection

12.2.5 Action Upon Receipt. Upon receipt of a Unilateral Change Order, the Contractor must promptly proceed with the change in the Work involved. The Contractor must advise the Owner and the Architect/Engineer in writing, promptly and in no event later than ten (10) days after issuance of the Change Order, of the Contractor's objection (i) to the amount or method, if any, provided for in the Unilateral Change Order for adjustment in the Contract

Time or in the amount payable to the Contractor, or (ii) to the absence of any adjustment to the Contract Time or the Contract Sum. Any objection to be valid must contain the specific adjustment in the Contract Time or the Contract Sum to which the Contractor claims it is entitled including a detailed explanation of the basis for its request. A Claim for an increase in the Contract Time, to be valid, must contain the supporting documentation specified in Subsection 11.6. A Claim for an increase in the Contract Sum, to be valid, must further be documented and calculated as specified in Subsection 12.2.2. **Failure of the Contractor to object as and when specified in this Subsection is deemed an acceptance of the Unilateral Change Order as issued and a waiver of any Claim by the Contractor to any adjustment to the Contract Time or the Contract Sum.**

12.3 FIELD ORDERS

12.3.1 Utilization. A Field Order is a written instruction issued by the Owner to the Contractor directing a change in the Work when unforeseen and unanticipated conditions arise which require immediate action to mitigate costs or avoid delays. It may provide for additional compensation to be paid to the Contractor (outside of the Contract), but does not change the Contract Time or Contract Sum.

- .1 The Owner may issue a unilateral Field Order to avoid Project Delay before the Contractor has prepared its cost proposal. In these instances, the Contractor should, unless noted otherwise on the Field Order, submit its cost proposal within ten (10) days and the Owner will review the cost proposal in accordance with Section 12.3.
- .2 The Owner may issue a Field Order directing the Contractor to proceed with work which the Contractor and the Owner and/or A/E disagree as to whether it is a Change to the Work. In these instances, the Contractor shall submit its Claims for an increase in the Contract Time and/or an increase in the Contract Sum in accordance with Articles 11 and 12 and the County will make a determination on the Claims. If the Contractor disagrees with the determination, the Contractor must file a Dispute in accordance with Article 16.

12.3.2 Adjustments in Amount Payable to Contractor. A Field Order may provide for an adjustment in the amount payable to the Contractor based only on one of the following methods:

- .1 A fixed or not-to-exceed sum stated in the change instrument;
- .2 Unit Prices stated in the Contract Documents;
- .3 Reasonable and fair cost estimate, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Contractor, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). **The total percentage of overhead and profit payable by the Owner (to both the Contractor and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%);**
- .4 Actual cost, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to actual cost of labor, actual cost of materials, supplies and equipment, actual rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Contractor, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. **The term 'cost' as used in this subsection is limited to the cost incurred in the actual performance of the work.** The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). **The total percentage of**

overhead and profit payable by the Owner (to both the Contractor and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%); or

- .5 In the absence of an agreement between the Owner and Contractor, the amount must be determined in accord with Subsections 12.3.2.2 or 12.3.2.3 above, using whichever will result in the lowest cost to the Owner.

12.3.3 Adjustments in Progress Schedule.

A Field Order may not be used to adjust the Contract Time. If the Contractor files an objection under Subsection 12.3.5 below which results in an entitlement by the Contractor to an increase in the Contract Time, it will be implemented by execution of a Change Order or Contract Amendment.

12.3.4 Absence of Proposed Adjustments. If a Field Order is silent as to any adjustment to the Contract Time or the Contract Sum, it will be conclusively presumed that none is intended and none will be allowed unless the Contractor files an objection as and when specified in the following Subsection.

12.3.5 Action Upon Receipt. Upon receipt of a (unilateral or bilateral) Field Order, the Contractor must promptly proceed with the change in the Work involved. The Contractor must advise the Owner and the Architect/Engineer in writing, promptly and in no event later than ten (10) days after issuance of the Field Order, of the Contractor's objection (i) to the amount or method, if any, provided for in the Field Order for adjustment in the Contract Time or to the Contract Sum, or (ii) to the absence of any adjustment in the Contract Time or to the Contract Sum. **Any objection to be valid must contain the specific adjustment to the Contract Time or the Contract Sum to which the Contractor claims it is entitled including a detailed explanation of the basis for the Claim.** A Claim for an increase in the Contract Time, to be valid, must contain the supporting documentation specified in Section 11.6. A Claim for an increase to the Contract Sum, to be valid, must further be documented and calculated as specified in Subsection 12.2.2. **Failure of the Contractor to object as and when specified in this Section is deemed an acceptance of the Field Order as issued and a waiver of any Claim by the Contractor to an adjustment to the Contract Time or the Contract Sum.**

12.4 DIFFERING CONDITIONS (SITE AND STRUCTURAL)

12.4.1 Differing Site Conditions. This Contract contains a Differing Site Condition clause and requests may be made by the Contractor and, if justified, approved by the Owner for an increase in Contract Time and an increase in the Contract Sum as consequence of differing site or subsurface conditions encountered by the Contractor. For Contract Modification purposes, the Geotechnical Studies establish a baseline for expected subsurface conditions. The Contractor must show a material difference between the Geotechnical Studies and actual subsurface conditions to justify a Contract Modification.

The Contractor must promptly, before conditions are disturbed and in no event later than five (5) days after first observing such conditions, give written notice to the Owner and Architect/Engineer of:

- .1 Subsurface or latent physical conditions at the site which differ materially from those indicated in the Contract; or
- .2 Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract.

Failure of the Contractor either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within five (5) days of first observing such conditions is conclusively deemed a waiver of any Claim relating to such conditions.

12.4.2 Differing Structural Conditions in Remodeling or Renovation Contracts. If this is a Contract for a remodeling or renovation of an existing structure and the Contractor encounters conditions in the structure (not as to the site or subsurface conditions) which differ materially from those indicated in the Contract Documents, the Contractor must give written notice thereof to the Owner and the Architect/Engineer promptly before conditions are disturbed and in no event later than five (5) days after first observing such conditions. **Failure of the Contractor either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within five (5) days of first observing such conditions is conclusively deemed a waiver of any entitlement to an increase in the**

Contract Time and/or an increase in the Contract Sum relating to such conditions.

12.4.3 Investigation and Determination by Architect/Engineer. After receipt of the written notice, the Architect/Engineer will promptly investigate any alleged differing condition(s) and provide a written report of its findings to the Owner. If the Architect/Engineer and Owner determine that the conditions vary materially from the Contract Documents, the Architect/Engineer will produce technical revisions to the Contract Documents as required. The Contractor shall submit Claims for an increase in the Contract Time and/or an increase in the Contract Sum in accordance with Articles 11 and 12 and the Owner will issue a corresponding Modification. To avoid Delay, the Owner may issue a unilateral Field Order or Change Order before receipt of the contractor's Claim. In that instance, a second Modification will be issued after review and acceptance of the Contractor's Claims. If the Owner determines that the actual conditions are not materially different or that no change in the terms of the Contract is justified, the Owner will so notify the Contractor in writing.

12.4.4 Claims Over Differing Structural Conditions. If the Contractor objects to the Owner's finding under Subsection 12.4.3, the Contractor must file a notice as and when provided in Subsection 12.5.1 below and the same will be resolved as provided in Subsection 12.5.2 below. **Failure of the Contractor to file the notice as and when required by Subsection 12.5.1 below and Article 11 of the Contract will be conclusively deemed a waiver of any Claim relating to any such differing condition.**

12.5 CONSTRUCTIVE CHANGES AND DISPUTED ADJUSTMENTS

12.5.1 Notice to Owner and Architect/Engineer. The Contractor must advise the Owner (Contract Administrator) and the Architect/Engineer in writing promptly and in no event later than ten (10) days after (i) issuance of any interpretation, clarification, instruction, direction or order whether orally or in writing from either the Owner or the Architect/Engineer, or (ii) the occurrence of any event or discovery of any condition (including any condition as provided in Section 12.4 above), which the Contractor believes or has reason to believe entitles the Contractor to an increase in the Contract Time or an increase in the Contract Sum; and except in the case of an emergency involving possible loss of life or

bodily injury or property damage exceeding \$50,000, the required written notice must be provided by the Contractor prior to proceeding with the Work. Failure of the Contractor to provide such notice constitutes an acceptance of the interpretation, clarification, instruction, direction, order, event or condition without adjustment to the amount payable to the Contractor and/or the Contract Time and a conclusive waiver of any Claim relating to the same. Any objection to be valid must contain the specific adjustment to the Contract Time and/or Contract Sum to which the Contractor claims it is entitled including a detailed explanation of the basis for the request. A Claim for an increase in the Contract Time must further contain the supporting documentation specified in Section 11.6. A Claim for an increase in the Contract Sum must further be documented and calculated as specified in Subsection 12.2.2.

12.5.2 Disputed Adjustments. All disputed adjustments under this Contract will be determined in accordance with Article 16 if, as conditions precedent thereto, the Contractor has timely provided all notices and objections required under the terms of the Contract.

12.6 SUBSTITUTIONS AND OR-EQUAL ITEMS

12.6.1 Allowance of Substitutions and Or-Equal Items. The Contract Sum and Contract Time are based on the requirements of the Contract Documents and use of the materials and equipment specified therein. Proposals to use Substitutions and Or-Equal Items after Contract execution is neither invited nor favored by the Owner. Or-Equal Items will be considered only where permitted by the Specifications, and Substitutions will be considered only where the specified item is not available or where significant overall cost savings are offered to the Owner. No Substitution or Or-Equal Item will be used without specific written acceptance of the Owner, which may be withheld in the sole discretion of the Owner. The determination by the Owner that an item is not an "or-equal" but a proposed Substitution, and any decision by the Owner regarding the acceptability or use of an Or-Equal or Substitution will be final and without further recourse by the Contractor. In making such determinations the Owner may, but will not be required, to rely upon the recommendations of the Architect/Engineer.

12.6.2 Or-Equal Items. The Contractor must submit any requests for the use of an Or-Equal Item, if specifically permitted by the

Specifications, to the Owner in writing through the Architect/Engineer. If in the Owner's sole discretion an item of material or equipment proposed by the Contractor is functionally equal to that named and sufficiently similar so that no change in design or related Work will be required, it may be considered for eligibility as an Or-Equal Item, in which case further review of the proposed item will, in the Owner's sole discretion, be accomplished subject to compliance with all of the requirements for acceptance of a proposed Substitution except as expressly waived by the Owner. A decision in the Owner's sole discretion that an item of material or equipment proposed by the Contractor does not qualify as an Or-Equal Item, does not preclude a request by the Contractor that it be considered a proposed Substitution under Subsection 12.6.3. An Or-Equal Item may only be accepted by the Owner in writing.

12.6.3 Substitutions. After the Contract has been executed, the Owner and Architect/Engineer will consider a formal request submitted by the Contractor for the substitution of products or materials in place of those specified, when such request is accompanied by:

- .1 Evidence that the specified item is unavailable;
- .2 Complete data on the proposed Substitution substantiating compliance with the Contract Documents, including product identification and description, performance and test data, references and samples where applicable, and an itemized comparison of the proposed item with the products specified or named in the Contract Documents;
- .3 Data indicating the effect of the Substitution on the Progress Schedule and the Contract Time, if any, on the general design and artistic effect where applicable, and its effect on work under separate contracts;
- .4 accurate cost data on the proposed item in comparison with the product specified, whether or not the Substitution of such item will require an adjustment to the Contract Sum; and
- .5 Any additional information required by the Owner or the Architect/Engineer to permit evaluation.

12.6.4 Representations by Contractor. Requests for Substitution based on Subsection 12.6.3 above are understood to mean that the Contractor:

- .1 Represents having personally investigated the proposed Substitution and having determined that it is equal or superior in all respects to that specified;
- .2 Will warrant the Substitution to the same extent and will provide the same or better special Warranties and Guarantees for the Substitution as was required for the item originally specified;
- .3 Certifies that the cost data is complete and includes all related costs under the Contract including, if known to the Contractor, cost under separate contracts and the Architect/Engineer's redesign costs, and that the Contractor waives all Claims for additional costs and agrees to pay all such additional costs, whether known or not, related to the Substitution including any cost which subsequently become apparent;
- .4 Certifies that the schedule and time data are complete and include all related time under the Contract (excluding time under separate contracts and for the Architect/Engineer's redesign), and that the Contractor waives all Claims for delay related to the Substitution which subsequently become apparent; and
- .5 Will coordinate the installation of the proposed Substitute, making such changes as may be required for the Work to be complete in all respects.

12.6.5 Costs Borne by Contractor. The Contractor must bear all costs of preparing and submitting requests for Substitutions and the use of Or-Equal Items. The Contractor bears the risk for the proper fit and performance of substituted and "or-equal" materials and the burden for additional work, time and expense resulting from substituted and "or-equal" materials. The costs of the Owner's and Architect/Engineer's additional services attributable to their review, evaluation, acceptance, design and implementation must also be borne by the Contractor.

12.6.6 Timeliness. All requests for use of an Or-equal or Substitution must be made in a timely manner in sufficient time to permit adequate review and approval or acceptance by the Owner and the Architect/Engineer, coordination with Separate Contractors, and preparation of any changes to the Contract Documents which would be required by acceptance of any proposed Substitution or Or-Equal Item so as not to delay the Work or the Project.

12.6.7 Improper Substitutions. Submission of an item as part of a Shop Drawing, Sample or Product Data does not constitute compliance with Section 12.6, even if the Shop Drawing, Sample or Product Data is or has been approved. **The Owner may direct removal of any unapproved Substitutions and/or Or-Equal items, and replacement with approved items, at Contractor's cost and with no increase in the Contract Time.**

ARTICLE 13

PAYMENTS

13.1 SCHEDULE OF VALUES

13.1.1 Submission. Within ten (10) days after issuance of a Notice to Proceed, the Contractor must submit to the Architect/Engineer a Schedule of Values which allocates the Contract Sum among all portions of the Work.

13.1.2 Form and Contents of Schedule of Values. The Schedule of Values must be prepared in such a manner that each item of Work and each subcontracted item of work is shown as one or more line items on AIA Document G703, Continuation Sheet (latest edition), or such other form as may be prescribed by the Owner. Unless otherwise required, each line item must include its allocable share of the Contractor's overhead and profit. The Schedule of Values must be prepared in such detail and must be supported by such data to substantiate its accuracy as required by both the Owner and the Architect/Engineer.

13.1.3 Review and Approval. The Architect/Engineer will review the Schedule of Values with the Owner and advise the Contractor of its approval or any revisions that may be required for approval. This Schedule of Values as approved by the Architect/Engineer and Owner, will be used as a basis for reviewing the Contractor's Applications for Payment, and must be revised and resubmitted as necessary to reflect adjustments to the Contract Sum by approved Contract Modifications.

13.2 APPLICATIONS FOR PAYMENT

13.2.1 Initial Review and Submission. The Contractor must submit to the Architect/Engineer complete and itemized Applications for Payment for Work on a monthly basis in accordance with a schedule approved by the Owner. Each Application for Payment must be consistent with the approved Schedule of Values. In order to expedite the review and approval of Applications for Payment, the Contractor may submit to and review with the Architect/Engineer and Owner a draft Application for Payment at a progress meeting prior to submitting a formal Application for Payment.

13.2.2 Form and Contents of Application. The form of Application for Payment must be AIA Document G702, Application and Certificate for Payment, supported by AIA Document G703, Continuation Sheet (latest edition), or such other form as may be prescribed by the Owner. The application must be notarized and supported by sufficient data to demonstrate the Contractor's right to payment and compliance with the payment provisions of the Contract to the satisfaction of the Owner and the Architect/Engineer, such as copies of requisitions from Subcontractors and material Suppliers, partial lien waivers, releases and other documents. Each Application for Payment must reflect approved Change Orders and Contract Amendments and the Contract retainage provided for in the Contract Documents.

13.2.3 Inclusion of Stored Materials. Applications for Payment may include materials and equipment delivered and suitably stored at the Site for subsequent incorporation in the Work. **The Owner has no obligation or responsibility to pay for materials stored off the Site.** If determined to be in the Owner's best interest and specifically approved in writing in advance by the Owner, an Application for Payment may include materials and equipment stored off the Site at a location agreed upon in writing which is within Montgomery County. **Material stored out of Montgomery County will not be considered for payment.** Payment for materials and equipment stored on or off the Site is conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to protect the Owner's interest. Payment for materials and equipment stored off the Site will, in addition, be conditioned upon the Contractor's provision of applicable insurance, storage and transportation to the Site.

13.2.4 Exclusion of Amounts Not Payable to Subcontractors and Suppliers. Under applicable provisions of Maryland law, payments received by the Contractor are held in trust for Subcontractors and Suppliers who have furnished labor and materials covered by an Application for Payment. Accordingly, **Applications for Payment may not include requests for payment of amounts for Work performed by a Subcontractor or Supplier that the Contractor does not intend to pay for said work.**

13.2.5 Contract Retainage. Until Substantial Completion of the Work, the amount of each monthly Application for Payment must include the value of each line item as indicated on the approved Schedule of Values, to the extent completed, less contract retainage of ten percent (10%). Such contract retainage will apply whether or not the Owner is entitled to withhold additional amounts under the Contract. The Contractor has no right to receive any such retainage, or interest thereon, until Substantial Completion. Upon Substantial Completion and with the Surety's consent to the reduction in the retainage, the Contract retainage will be reduced to five percent (5%) of the Contract Sum if the manner of completion of the Work and its progress are and remain satisfactory to the Owner and the Architect/Engineer, and will remain in effect until Final Completion.

If the Project has LEED requirements, the Contract retainage will be reduced to not more than one percent (1%) of the Contract Sum if Surety consents to the reduction in the retainage and the Contractor has performed all requirements for Final Completion except for issuance, by the USGBC, of the LEED certification at the level required in the Contract Documents.

The full ten percent (10%) retainage will be reinstated if the manner of completion of the Work and its progress do not remain satisfactory to the Owner and the Architect/Engineer, or if the Surety withholds its consent, or if there is a failure to properly perform under any of the provisions of the Contract.

13.2.6 Passage of Clear Title. The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. By submitting an Application for Payment, the Contractor further warrants that all Work for which payments have previously been received

from the Owner are free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material Suppliers, or other persons or entities having provided labor, materials and equipment relating to the Work.

13.2.7 Contractor's Certification. Before the Contractor receives a progress payment, the Contractor must certify in writing that, in accordance with contractual arrangements, Subcontractors and Suppliers:

- .1 Have been paid from the proceeds of previous progress payments; and
- .2 Will be paid in a timely manner from the proceeds of the progress payment currently due.

The foregoing certification will be deemed to have been inserted into any Application for Payment from which it has been omitted.

In the event the Contractor has not paid or does not pay as certified, such failure **constitutes a ground for Termination under Subsection 15.3.2** of the Contract.

13.2.8 Application of Payments for Field Orders. The Contractor shall submit its Application for Payment of Field Orders monthly to the Architect/Engineer on a separate document from the Contract Application for Payment. The Contractor can submit for partial completion of Field Orders and retainage is not applied to Field Order work.

13.3 CERTIFICATES FOR PAYMENT

13.3.1 Issuance of Certificate for Payment. The Architect/Engineer will, within ten (10) days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment for such amount as the Architect/Engineer determines is properly due, with a copy to the Contractor, or notify the Contractor and Owner in writing of the Architect/Engineer's reasons for withholding certification in whole or in part as provided in Subsection 13.3.3.

13.3.2 Representation in Certificate for Payment. The issuance of a Certificate for Payment will constitute a representation by the Architect/Engineer to the Owner, based on the Architect/Engineer's observations at the Site and the data comprising the Application for Payment, that to the best of the Architect/Engineer's knowledge, information and belief, (i) the Work has progressed to the point indicated and (ii) the quality of the Work, to the extent certified as

having been completed, is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Architect/Engineer, in writing in the Certificate for Payment, and are not binding upon the Owner. The issuance of a Certificate for Payment will not be a representation that the Architect/Engineer has (i) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (ii) reviewed construction means, methods, techniques, sequences or procedures, or (iii) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

13.3.3 Withholding Certification. The Architect/Engineer may decide not to certify payment and may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect/Engineer's opinion the representations to the Owner required by Subsection 13.3.2 cannot be made. If the Architect/Engineer is unable to certify payment in the amount of the Application for Payment, the Architect/Engineer will notify the Contractor and Owner as provided in Subsection 13.3.1. If the Contractor and Architect/Engineer cannot agree on a revised amount, the Architect/Engineer will promptly issue a Certificate for Payment for the amount for which the Architect/Engineer is able to make such representations to the Owner. The Architect/Engineer may also decide not to certify payment or may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect/Engineer's opinion to protect the Owner from loss because of the causes set forth in Subsection 13.3.4.

13.3.4 Grounds for Withholding Certification. The Architect/Engineer may withhold certification, or the Owner may withhold payment, to the extent reasonably necessary, to protect the Owner from loss on account of:

- .1 The quality of a portion, or all, of the Contractor's Work not being in accordance with the requirements of this Contract and with construction industry standards;

- .2 Claims made, or likely to be made, against the Owner or its property on account of the Contractor's performance;
- .3 Reasonable evidence that the Contractor has failed to use Contract funds, previously paid the Contractor by the Owner, to pay Contractor's Work and Project-related obligations including, but not limited to, Subcontractors, laborers and material and equipment Suppliers;
- .4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 Loss by, or damage to the Owner or another contractor;
- .6 Reasonable evidence that the Contractor's rate of progress is such that, in the Owner's opinion, Substantial or Final Completion of the Work for the Project, or both, may be inexcusably delayed;
- .7 Failure to carry out the Work in accordance with the Contract Documents;
- .8 The quantity of the Contractor's Work being less than that stated in the Contractor's Application for Payment, or otherwise;
- .9 Other items which entitle the Owner to a setoff against the amounts due the Contractor; or
- .10 Failure of the Contractor to remove or bond off liens by its Subcontractors or Suppliers.

13.3.5 Release of Certificate When Grounds Removed. When the reasons for withholding certification are removed, the Architect/Engineer will certify payment for amounts previously withheld.

13.4 PROGRESS PAYMENTS

13.4.1 Withholding of Payment by Owner. The Owner may withhold payment on a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if the Owner, based on its own Site observations, inspections or other evidence available to the Owner, does not concur with the Architect/Engineer's representations under Subsection 13.3.2 or with the Architect/Engineer's finding of removal of

conditions as provided in Subsection 13.3.5. In such case the Owner will notify the Architect/Engineer and the Contractor of the reasons for withholding payment in whole or in part as permitted by this Subsection 13.4.1. If the Contractor and Owner cannot agree on a revised amount, the Owner will promptly initiate payment for an amount which the Owner determines to be appropriate. The Owner may also decide not to make payment as necessary to protect the Owner from loss because of the causes set forth in Subsection 13.3.4. In that event, Contractor must submit a revised Application for Payment for the Owner's review and approval once such causes have been remedied along with evidence reasonably satisfactory to the Owner that such causes have in fact been remedied.

13.4.2 Payment. Payments on Certificates for Payment which are approved by the Owner as "proper invoices" within the meaning of applicable laws and regulations will be paid within thirty (30) days after the Owner approves the Certificate for Payment.

13.4.3 Payment Not Acceptance of Defective Work. Issuance of a Certificate for Payment by the Architect/Engineer or the making of any progress payment by the Owner does not constitute acceptance of Work that is not in accordance with the Contract Documents.

13.4.4 Payment Contingent on Performance. Progress payments may be withheld to the extent the Contractor is not in full compliance with the Contract. The Owner's failure to make progress payments is not an event of default by the Owner under the Contract, nor does it give rise to the right of the Contractor to stop work.

13.4.5 Waiver of Claims by Contractor Acceptance of progress payments by the Contractor, a Subcontractor, Sub-subcontractor or Supplier (to the extent not previously waived) constitutes a waiver of Claims arising from any occurrence existing prior to payment, or arising from performance of the Work for which payment is made by that payee except those previously made in writing and identified by that payee as unsettled on the Application for Payment and which fully comply with the requirements of Articles 11, 12 and/or 16.

ARTICLE 14
SUBSTANTIAL AND FINAL COMPLETION

14.1 PARTIAL OCCUPANCY OR USE

14.1.1 Occupancy by Owner. The Owner may occupy or use any completed or partially completed portion of the Work prior to Substantial Completion of all of the Work pursuant to Subsection 14.1.2.

14.1.2 Notice by Owner. The Owner may, at any time, request the Contractor in writing to permit the Owner to occupy or use any such portion of the Work. Such partial occupancy or use may commence whether or not the portion is Substantially Complete. Consent of the Contractor to partial occupancy or use must not be unreasonably withheld.

14.1.3 Notice by Contractor. When the Contractor considers that a portion of the Work designated in the Contract Documents for partial occupancy or use can be occupied or used for its intended purpose without significant interference with the Contractor's performance of the remainder of the Work, the Contractor may notify the Owner and the Architect/Engineer in writing and request an inspection of that portion and a partial Certificate of Substantial Completion. Such notice must be issued not less than ten (10) days in advance of the date that such Work will be ready for inspection. The determination whether the particular portion of the Work may be occupied for its intended use is at the Owner's sole discretion.

14.1.4 Inspection. Following notice by either the Owner or the Contractor, the Contractor must prepare and submit to the Architect/Engineer a list of items remaining to be completed or corrected as provided in Subsection 14.2.3. Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect/Engineer will jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition and stage of progress of the Work.

14.1.5 Conditions for Partial Occupancy or Use. Unless otherwise provided in the Contract Documents or by agreement between the Owner and the Contractor, such partial occupancy or use will be subject to the Owner's assumption of responsibility for security, operation, safety, maintenance, heat, utilities, damage to the Work (other than damage caused by the Contractor) and insurance with respect to the portions of the Work to be occupied or used by the Owner. The period for correction of such portions of the Work and Warranties required by the Contract Documents will commence upon such partial occupancy or use.

14.1.6 Partial Occupancy or Use Not Acceptance of Defective Work. Unless otherwise agreed to in writing by the Owner, partial occupancy or use of a portion or portions of the Work does not constitute acceptance of Work not complying with the requirements of the Contract Documents.

14.2 SUBSTANTIAL COMPLETION

14.2.1 Notice and Request for Preliminary Inspection. When the Contractor considers that the Work is substantially complete and that items remaining to be completed or corrected can be accomplished within another thirty (30) days, the Contractor must give written notice to the Owner and the Architect/Engineer and request an inspection of the Work as provided in Subsection 14.2.3. The Contractor's notice and request for an inspection must be accompanied by a comprehensive Punch List describing all items to be completed or corrected before final completion and the Submittals required by Subsection 14.2.2. The Contractor must proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the Contractor's responsibility to complete all Work in accordance with the Contract Documents.

14.2.2 Submittals on Substantial Completion. In addition to the Punch List, the Contractor must submit the following with its request for a determination of Substantial Completion:

- .1 A use and occupancy permit;
- .2 Final test reports as provided in Subsection 10.5.7 and certificates of inspection and approval required for use and occupancy;
- .3 Fire Marshal's approval;
- .4 Approvals from, and transfer documents for, all utilities;
- .5 Warranties and Guarantees as provided in Subsection 10.2.4,
- .6 Final, approved operating and maintenance manuals for materials and systems specified in the Contract Documents;
- .7 All documents and verification of training required in accordance with any Quality Control or Commissioning Plan; and
- .8 Schedule to complete the Punch list and value of Work not yet complete.

14.2.3 Substantial Completion Inspection and Correction. Upon receipt of the Punch List, the Architect/Engineer will make an inspection to determine whether the Work or designated portion thereof is substantially complete and whether remaining items can be completed or corrected within thirty (30) days. The Owner may make a similar inspection. If such inspection(s) disclose any deficiency not included on the Punch List, the Architect/Engineer shall add the deficiency to the Punch list. If such inspection(s) discloses any item, whether or not included on the Punch List, which, in the opinion of the Owner or the Architect/Engineer or Owner, (i) must be completed or corrected before the Work can be occupied or used for its intended purpose, or (ii) cannot be completed or corrected within thirty (30) days, the Architect/Engineer will so advise the Contractor, and the Contractor must promptly complete or correct such item prior to Substantial Completion.

14.2.4 Reinspection. If the Architect/Engineer advises the Contractor per Subsection 14.2.3 that Work is required prior to Substantial Completion, the Contractor must complete the required Work. Following the completion or correction of Work required by the Owner or the Architect/Engineer before issuance of a Certificate of Substantial Completion, the Contractor must notify the Owner and the Architect/Engineer and request another inspection by the Owner and the Architect/Engineer to determine Substantial Completion. The Contractor must submit a revised Punch List with such notice. The Architect/Engineer will promptly notify the Contractor if the Owner or the Architect/Engineer do not concur that the Work is substantially complete. In such case, the Contractor must bear the cost of any additional services of the Owner or the Architect/Engineer until the Work is determined to be Substantially Complete.

14.2.5 Certification of Substantial Completion. When the Owner and the Architect/Engineer concur that the Work is Substantially Complete and that Work remaining to be completed or corrected can be accomplished within a period of thirty (30) days, the Architect/Engineer will prepare a Certificate of Substantial Completion and a revised (final) Punch List. The Certificate of Substantial Completion must be signed by the Contractor, Architect/Engineer and the Owner with the Owner's signature indicating acceptance of Substantial Completion. The Certificate of

Substantial Completion shall include the final Punch List and shall fix the Date of Substantial Completion and the time periods within which the Contractor must finish all items on the Punch List accompanying the Certificate.

14.2.6 Execution and Acceptance of Certificate. The Certificate of Substantial Completion and accompanying Punch List must be signed by the Owner and Contractor, which will constitute their written acceptance of responsibilities assigned to them in such Certificate.

14.2.7 Conditions of Substantial Completion. To the extent provided in the Contract Documents or in the Certificate of Substantial Completion, the Owner, upon execution of the Certificate, will assume responsibility for security, operation, safety, maintenance, heat, utilities, damage to the Work (other than damage caused by the Contractor) and insurance.

14.2.8 Commencement of Warranties. Warranties required by the Contract Documents will commence on the Date of Substantial Completion of the Work unless otherwise provided in the Certificate of Substantial Completion or the Contract Documents.

14.2.9 Delivery of Premises and Access to Work. Upon execution of the Certificate of Substantial Completion, the Contractor will deliver custody and control of such Work to the Owner. The Owner will thereafter provide the Contractor reasonable access to such Work to permit the Contractor to fulfill the correction, completion and other responsibilities remaining under the Contract and the Certificate of Substantial Completion.

14.2.10 Timing of Final Completion. Unless otherwise provided in the Certificate of Substantial Completion, the Contractor must complete or correct all items included in the final Punch List within thirty (30) days after the Date of Substantial Completion.

14.2.11 Broom Clean. At the time of Substantial Completion, in addition to removing rubbish and leaving the building "broom clean," the Contractor must replace any broken or damaged materials, remove stains, spots, marks and dirt from decorated Work, clean all fixtures, vacuum all carpets and wet mop all other floors, and comply with such additional requirements, if any, which may be specified in the Contract Documents.

14.3 FINAL COMPLETION

14.3.1 Notice and Request for Final Inspection. When the Contractor has completed or corrected all items on the final Punch List and considers that the Work is complete and ready for final acceptance, the Contractor must give written notice to the Owner and the Architect/Engineer and request a final inspection of the Work as provided in Subsection 14.3.2. The Contractor's notice and request for a final inspection must be accompanied by a final Application for Payment and the Submittals required by Subsection 14.3.3.

14.3.2 Final Inspection and Certificate of Final Completion. Upon receipt of the Contractor's notice and request for final inspection, the Owner and the Architect/Engineer will promptly make such inspection and, when the Owner and the Architect/Engineer concur that the Work has been fully completed and is acceptable under the Contract Documents, the Architect/Engineer will issue a Certificate of Final Completion to the Owner. The Contractor's notice and request for final inspection constitutes a representation by the Contractor to the Owner that the Work has been completed in full and strict accordance with terms and conditions of the Contract Documents. The Architect/Engineer will promptly notify the Contractor if the Owner or the Architect/Engineer do not concur that the Work is finally complete. In such case, the Contractor complete and/or correct the outstanding Work and must bear the cost of any additional services of the Owner or the Architect/Engineer until Final Completion is achieved.

14.3.3 Final Submittals. Neither final payment nor any remaining retained percentage will become due until the Contractor submits the following documents to the Architect/Engineer:

- .1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner), have been paid or otherwise satisfied, submitted on AIA Document G706, Affidavit of Payment of Debts and Claims (latest edition) or such other form as may be prescribed by the Owner;
- .2 A release or waiver of liens on behalf of the Contractor and a similar release

or waiver on behalf of each Subcontractor and Supplier, accompanied by AIA Document G706A, Affidavit of Release of Liens (latest edition) or such other form as may be prescribed by the Owner;

- .3 A written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents;
- .4 Consent of Surety to final payment, submitted on AIA Document G707 (latest edition) or other form prescribed by the Owner;
- .5 Other data required by the Owner establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be prescribed by the Owner;
- .6 A certified building location survey and as-built site plan in the form and number required by the Contract Documents;
- .7 All warranties and bonds required by the Contract Documents;
- .8 Record Documents as provided in Subsection 2.4.5 and return of Contract Documents as provided therein;
- .9 Attic stock items as required by the Contract Documents; and
- .10 As applicable, documentation of approval by the Montgomery County Department of Permitting Services (DPS) of all Storm Water Management (SWM) work as to allow close-out of the SWM Permit. DPS approval will be based on satisfying all DPS Permit requirements including the submission of acceptable as-built SWM drawing and other required SWM documents.

14.3.4 USGBC LEED Certification Required for Final Completion. If the Project has LEED requirements, Final Completion will not be granted until the USGBC has issued the LEED certification for the Project at the level required in the Contract Documents or until the USGBC

has determined that there are no contractor-responsible LEED deficiencies.

14.4 FINAL ACCEPTANCE AND PAYMENT

14.4.1 Final Certificate for Payment. The Architect/Engineer and the Owner will promptly review the final submittals, and after notice from the Owner that all final submittals are acceptable and that the Contract has been fully performed, the Architect/Engineer will issue a final Certificate for Payment. The Contractor's Application for final Payment constitutes a further representation that the conditions listed in Subsections 14.3.2 and 14.3.3 as precedent to the Contractor's being entitled to final payment have been fulfilled.

14.4.2 Delay in Final Completion. If, after Substantial Completion of the Work, Final Completion cannot be achieved and is materially delayed through no fault of the Contractor or as a result of issuance of Contract Modifications issued after Substantial Completion, and the Architect/Engineer so confirms, the Owner will, upon Application for Payment by the Contractor and Certification of Payment by the Architect/Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted, provided that the remaining Contract balance for Work not fully completed or corrected after making such payment is not less than the greater of (i) the amount of the retainage stipulated in the Contract Documents and currently being retained or (ii) the Owner's estimate of the amount necessary to complete and correct any Work not fully completed or corrected after making such payment. Provided further that if bonds have been furnished, the written consent of Surety to payment of the balance due for that portion of the Work fully completed and accepted is submitted by the Contractor to the Architect/Engineer prior to the Architect/Engineer's issuance of the Certificate for Payment. Such payment will be subject to the same terms and conditions governing final payment.

- .1 Additional Work requested by the Owner after Substantial Completion.** If the Owner directs that Work be performed beyond the Work specified in the Contract but within the general scope of the Contract (Change Order or Field Order Work) after Substantial Completion, the

Contractor is entitled to an increase in the Contract Time equal to the time required to perform the additional Work, but is still liable to the Owner for any prior unexcused delays.

14.4.3 Final Payment. Final payment, constituting the entire unpaid balance of the Contract Sum and other amounts payable to the Contractor, less any amounts withheld by the Owner under Subsection 14.4.4, will be made by the Owner to the Contractor not more than thirty (30) days after:

- .1** The Contract has been fully performed by the Contractor except for the Contractor's responsibility to correct nonconforming Work as provided in Subsection 10.2.2 and to satisfy other requirements, if any, which necessarily survive final payment; and
- .2** A final Certificate for Payment has been issued by the Architect/Engineer and approved by the Owner as a "proper invoice" within the meaning of applicable laws and regulations.

14.4.4 Withholding by Owner from Final Payment. The Owner may deduct such sums from final payment as may be due on account of actual or Liquidated Damages or other unsettled obligations under the Contract Documents, such as the acceptance of defective or nonconforming Work and costs payable by the Contractor.

14.4.5 Waiver of Claims by Owner. The making of final payment does not constitute a waiver of claims by the Owner arising from the Contractor's performance of the Work including but not limited to:

- .1** Liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2** Failure of the Work to comply with the requirements of the Contract Documents;
- .3** Terms of Guarantees or Warranties required by the Contract Documents; and
- .4** Unresolved claims or disputes.

14.4.6 Waiver of Claims by Contractor. Acceptance of final payment by the Contractor, a Subcontractor, Sub-subcontractor or Supplier (to the extent not previously waived) constitutes a waiver of Claims arising from any occurrence existing

prior to final payment, or arising from, performance of the Work for which final payment is made by that payee except those previously made in writing and identified by that payee as unsettled on the final Application for Payment and which fully comply with the provisions of Articles 11, 12 and 16.

ARTICLE 15

RIGHTS AND REMEDIES

15.1 OWNER'S RIGHTS AND REMEDIES

15.1.1 Special and Additional Testing and Inspection. The Owner, on its own initiative or upon the recommendation of the Architect/Engineer, has the right to require additional inspection or testing of the Work as provided in Section 10.5.

15.1.2 Rejection of Nonconforming Work. The Owner has the right and the Architect/Engineer has authority to reject Work which does not conform to the Contract Documents as provided in Subsection 10.6.1 and to require its correction or replacement as provided in Subsection 10.6.2 unless accepted by the Owner under Subsection 10.6.3.

15.1.3 Withholding of Certificates and Withholding of Payments. The Architect/Engineer has the authority to withhold a Certificate for Payment in accordance with Subsections 13.3.3 and 13.3.4. The Owner has the right to withhold payment on a Certificate for Payment as provided in Subsections 13.3.4 and 13.4.1.

15.1.4 Additional Bonds and Insurance. The Owner has the right to require the Contractor to furnish additional bonds as provided in Subsections 14.3.4 and 17.1.3 and additional insurance as provided in Subsection 17.4.4.

15.1.5 Removal of Superintendent, Personnel, Subcontractors or Suppliers. The Owner has the right to require the Contractor to remove and replace the Contractor's Superintendent, Project Manager, Quality Control Manager and/or any of the Contractor's key project personnel, at no additional cost to the Owner, if the Contractor fails to maintain good order and discipline at the Site under Subsection 5.3.3, if any key personnel proves to be unsatisfactory under Subsection 5.4.2, or if personnel are not properly qualified as required by Subsection 5.5.5. The Owner has the right to require the removal and replacement of any Subcontractor or Supplier as provided in Subsections 6.1.5 and 6.1.6.

15.1.6 Stopping or Suspending the Work. The Owner has the right to order the Contractor to stop the Work as provided in Subsection 11.4.1 or to suspend the Work as provided in Subsection 11.4.2.

15.1.7 Correction of Defective Work by Owner. The Owner has the right to correct rejected or nonconforming or defective Work as provided in Subsection 10.6.6.

15.1.8 Cleaning Up. If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so as provided in Subsection 5.6.7.

15.1.9 Owner Takeover. If the Contractor defaults or otherwise neglects to carry out or complete the Work or a designated portion thereof in accordance with the Contract Documents, whether before or after Substantial Completion, the Owner may include with any notice of default in the performance of such Work, notice of the Owner's intent to remedy the default and perform the Work itself or with other forces, if not remedied by the Contractor within the time specified in the notice, in which case an appropriate Change Order will be issued deducting from payments then or thereafter due the Contractor the cost of correcting the deficiencies or completing such Work, including compensation for the Owner's and the Architect/Engineer's additional services made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor must pay the difference to the Owner upon written demand.

15.2 TERMINATION BY OWNER FOR CONVENIENCE

15.2.1 Owner's Right to Terminate for Convenience. The Owner may, at any time, terminate the Contract or any portion thereof or of the Work for the Owner's convenience and without cause.

15.2.2 Action by Contractor Upon Notice. Upon receipt of written notice from the Owner of termination, the Contractor must:

- .1 Cease operations as directed by the Owner in the notice and, if required by the Owner, participate in an inspection of the Work with the Owner and the Architect/Engineer to record the extent of completion thereof, to identify the Work remaining to be completed or corrected, and to determine what temporary facilities, tools, equipment

and construction machinery are to remain at the Site pending completion of the Work;

- .2 Complete or correct the items directed by the Owner, and take actions necessary, or that the Owner may direct, for the protection and preservation of any stored materials and equipment and completed Work;
- .3 Unless otherwise directed by the Owner, remove its tools, equipment and construction machinery from the Site, and
- .4 Except as directed by the Owner, terminate all existing subcontracts and purchase orders related to the Work and enter into no further subcontracts or purchase orders therefor.

15.2.3 Action by Owner Following Notice.

Following written notice from the Owner of termination, the Owner may:

- .1 Take possession of the Site and of all materials and equipment thereon, and at the Owner's option, such temporary facilities, tools, construction equipment and machinery thereon owned or rented by the Contractor that the Owner elects to utilize in completing the Work;
- .2 Accept assignment of subcontracts and purchase orders as provided in Section 6.4, and
- .3 Complete the Work by whatever reasonable method the Owner may deem expedient.

15.2.4 Contract Adjustments.

In case of termination for the Owner's convenience, the Contractor will be entitled to compensation only for the following items:

- .1 Payment for acceptable Work performed up to the date of termination;
- .2 The costs of preservation and protection of the Work if requested to do so by the Owner;
- .3 The cost of terminating the following contracts including:
 - (i.) Purchased materials but only if not returnable and provided to the Owner, or the restocking or return charge, if any, if returnable at the Owner's written election;

- (ii.) Equipment rental contracts if not terminable at no cost but not to exceed an amount equal to thirty (30) days rental;

- .4 Documented transportation costs associated with removing Contractor-owned equipment;
- .5 Documented demobilization and close-out costs; and
- .6 Overhead and profit on the foregoing not to exceed ten (10%) percent.

The Contractor will not be compensated for the cost of terminating subcontracts which must be terminable at no cost to the Owner if the Contract is terminated. The Contractor will not be compensated for the cost of any idled employees unless the employee is under a written employment contract entitling the employee to continued employment after termination of the Contract and the employee cannot be assigned to other work provided that in all events the Contractor's costs must be limited to thirty (30) days of employment costs from the date of the notice of termination. **The Contractor is not entitled to any other costs or compensation (including lost or expected profit, uncompensated overhead or related expenses, or the cost of preparing and documenting its compensable expenses under this Subsection 15.2.4 as a consequence of the Owner's termination of the Contract for convenience. The Contractor conclusively and irrevocably waives its right to any other compensation or damages (compensatory or punitive) arising from termination of the Contract.** If the Owner and the Contractor are unable to agree upon the amounts specified in this subsection, the Contractor may submit a Claim as provided in Article 16. The Claim must be limited to resolution of the amounts specified in Subsections 15.2.4.1, 15.2.4.2, 15.2.4.3 and 15.2.4.4 of this Subsection 15.2.4. **No other cost, damages or expenses may be claimed or paid to the Contractor or considered as part of the Claim, the same being hereby conclusively and irrevocably waived by the Contractor.** Any such Claim must be filed with the Director within thirty (30) days of the termination of the Contract and must contain a written statement setting forth the specific reasons and supporting calculations as to the amounts the Contractor claims to be entitled to under this Subsection, all with supporting documentation of all cost claimed as a result of the termination of the Contract.

15.2.5 Obligations to Continue. The Contractor's obligations surviving final payment under the Contract, including without limitation those with respect to insurance, indemnification, and correction of Work which has been completed at the time of termination, remains effective notwithstanding termination for convenience of the Owner.

15.3 TERMINATION BY THE OWNER FOR CAUSE

15.3.1 Owner's Right to Terminate for Cause. The Owner may terminate the Contract for cause for any of the reasons set forth in the following Subsection 15.3.2.

15.3.2 Grounds for Termination. The Owner has the right to terminate the Contract for cause if the Contractor:

- .1 Fails to supply adequate properly skilled workers or proper materials;
- .2 Fails to make payment to Subcontractors or Suppliers for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors or Suppliers;
- .3 Fails to comply with any laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;
- .4 Fails to perform the Work in accordance with the Contract Documents or otherwise breaches any provision of the Contract Documents;
- .5 Files for bankruptcy (voluntary or involuntary);
- .6 Is guilty of an anticipatory breach or repudiation of the Contract;
- .7 Fails to make satisfactory progress in the prosecution of the Contract; or
- .8 Endangers the performance of this Contract.

15.3.3 Notice of Termination. The Director may terminate the Contract, in whole or in part, whenever the Director determines that sufficient grounds for termination exist as provided in Subsection 15.3.2. The Director will provide the Contractor with a written notice to cure the default. If the default is not cured, the termination for default is effective on the date specified in the Director's written notice. However, if the Director determines that default contributes to the curtailment of an essential

service or poses an immediate threat to life, health, or property, the Director may terminate the Contract immediately upon issuing oral or written notice to the Contractor without any prior notice or opportunity to cure. In addition to any other remedies provided by law or the Contract, the Contractor must compensate the Owner for additional costs that foreseeably would be incurred by the Owner, whether the costs are actually incurred or not, to obtain substitute performance. A termination for default is a termination for convenience if the termination for default is later found to be without justification.

15.3.4 Action by Contractor and Owner. Upon termination for cause, the Contractor must take those actions described in Subsection 15.2.2, and the Owner may take those actions described in Subsection 15.2.3, subject to the prior rights of the Contractor's Surety.

15.3.5 Suspension of Payments. When the Owner terminates the Contract for cause, the Contractor is not entitled to receive further payment until the Work is completed and the costs of completion have been established.

15.3.6 Adjustments and Payments. If the unpaid balance of the Contract Sum less amounts which the Owner is entitled to offset from the unpaid Contract balance including actual or Liquidated Damages, exceeds the costs of completing the Work, including compensation for the Owner's and the Architect/Engineer's services made necessary thereby, such excess will be paid to the Contractor or Surety, as directed by the Surety. If such costs exceed the unpaid Contract balance, the Contractor must pay the difference to the Owner upon written demand. This obligation for payment survives termination of the Contract.

15.3.7 Right to Take Other Than Low Bid. In completing the Work following termination for cause or for convenience, the Owner is not required to solicit competitive bids or to award completion work to the lowest bidder, but may obtain such completion work and related services on the basis of sole source procurement and negotiated compensation.

15.3.8 Termination As If For Convenience. If, after termination of the Contract, it is determined that the Owner did not have sufficient grounds to terminate for cause, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Owner, and the

provisions of Section 15.2, including Subsection 15.2.4, will apply.

15.4 CONTRACTOR'S NO RIGHT TO STOP WORK

The Contractor has no right to stop Work as a consequence of non-payment. In the event of any disagreement between the Contractor and Owner involving the Contractor's entitlement to payment, the Contractor's only remedy is to file a Claim in accordance with Article 16. The Contractor must diligently proceed with the Work pending resolution of the Claim, Dispute and/or Dispute Appeal. If, however, an Application for Payment has been approved for payment by the Owner, and the Owner fails to make payment within sixty (60) days of the approval for payment by the Owner, the Contractor may upon ten (10) days written notice to the Owner, stop work if payment is not made by the Owner within ten (10) days following the notice.

ARTICLE 16

CLAIMS, DISPUTES, AND DISPUTE APPEALS

16.1 CLAIM

A Claim is a written request by the Contractor that seeks the payment of money, an adjustment of time, an adjustment or interpretation of a Contract provision, or other relief arising under or relating to the Contract. Claims include all requests for additional Contract Time and/or Contract Sum in accordance with Articles 11 and/or 12.

A Claim must be filed, in writing, with the Contract Administrator within the time and containing the information required in:

- .1 Section 11.6, as to an excusable or compensable delay;
- .2 Subsection 12.2.5, as to a unilateral Change Order;
- .3 Subsection 12.5.1, as to a Constructive Change;
- .4 Subsection 12.3.5 as to a unilateral Field Order;
- .5 Subsections 12.4.3, 12.4.4 and 12.5.1 as to differing Site and Structural conditions; and
- .6 Subsection 15.2.4 as to a disagreement arising from termination of the Contract.

As to a disagreement over interpretation of a Contract provision or the Contract Documents,

the Contractor must file a Claim within ten (10) days of issuance or statement of the contrary interpretation by Owner.

As to any other Claim arising under or relating to the Contract, the Work or the Project, the Contractor must file a Claim within ten (10) days of the event giving rise to the Claim, unless otherwise specified in the Contract Documents.

A Claim will be deemed to have been conclusively waived by the Contractor if it is not filed within the specified time or it does not contain the required information.

16.2 CONTRACT ADMINISTRATOR'S DECISION ON CONTRACTOR'S CLAIM

The Contract Administrator is responsible for issuing decisions on Claims. The Contract Administrator's final decision on a Claim shall be considered an event giving rise to a Dispute and the Contractor must file any Dispute within the time period stated in Section 16.3 from the date of the Contract Administrator's final decision.

16.3 DISPUTE

A Dispute means an unresolved Claim. If a Contractor's Claim is denied, in whole or in part, by the Contract Administrator, the Contractor must file any Dispute the Contractor may wish to take, with the Director, within thirty (30) days of the event giving rise to the Dispute. The Contractor waives any Dispute not timely filed. The Director must dismiss a Dispute that is not timely filed.

16.4 APPEAL OF THE DIRECTOR'S DECISION (DISPUTE APPEAL).

The Director must decide a Dispute within 45 days after receiving the Dispute unless the Contractor agrees to extend the time for a decision. If the Director denies a Dispute, in whole or in part, the Contractor may file a Dispute Appeal with the Chief Administrative Officer for Montgomery County, Maryland. The Contractor must file a Dispute Appeal within 30 days after receiving the Director's decision, or if no decision is rendered by the Director within 45 days, within 75 days after submitting the Dispute. The Dispute Appeal will thereafter be resolved as provided by Section 11B-35 of the Montgomery County Code and Section 14.2 of the Montgomery County Procurement Regulations or their respective successor provisions. Article 16 is the Contractor's sole and exclusive remedy for resolution of any and all Disputes arising under or relating in any way to the Contract, the Work or the Project. The

deadlines set forth in Article 16 and in the Montgomery County Code and Procurement Regulations are jurisdictional and if not complied with will result in denial and dismissal of the Dispute and Dispute Appeal.

16.5 INCORPORATION OF THE MONTGOMERY COUNTY CODE AND PROCUREMENT REGULATIONS

All Disputes must be decided under the Montgomery County Code and the Montgomery County Procurement Regulations which is the Contractor's sole and exclusive remedy for resolving Disputes under this Contract.

ARTICLE 17

INSURANCE AND BONDS

17.1 PERFORMANCE AND PAYMENT BONDS

17.1.1 Requirement for Bonds. For construction Contracts exceeding one hundred thousand dollars (\$100,000.00) in amount, the Contractor must furnish a performance bond and a payment bond, each in an amount equal to ninety five percent (**95%**) of the Contract Sum as security for the faithful performance of the Contract and as security for the payment of all persons performing labor and furnishing materials in connection with the Work; for construction Contracts exceeding fifty thousand dollars (\$50,000.00) but not exceeding one hundred thousand dollars (\$100,000.00) the Contractor must furnish a performance bond and a payment bond, each in an amount equal to fifty percent (50%) of the Contract Sum as security for the faithful performance of the Contract and as security for the payment of all persons performing labor and furnishing materials in connection with the Work. The performance bond and the payment bond must be in such form as the Owner may require and must be delivered to the Owner prior to execution of the Contract by the Owner. The Surety must be acceptable to the Owner and must be approved to transact business in the State of Maryland. No bond will be required for Contracts under fifty thousand dollars (\$50,000.00). **The Contractor shall also be required, at no cost to the Owner, to provide Performance and Payment Bonds required by any utilities for performance of any utility Work or Work on utility lines or within utility easements.**

17.1.2 Copies to be Furnished to Beneficiaries. Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising

under the Contract, the Contractor must promptly furnish a copy of the bonds to such person or entity.

17.1.3 Owner's Right to Require Additional Bonds. The Owner has the right to require the Contractor, or any Subcontractor or Sub-subcontractor under any contract over \$50,000.00 in amount, to furnish such additional bonds as are reasonably required by the Owner, the cost of which will be borne by the Owner, unless otherwise specified in the Contract Documents.

17.2 CONTRACTOR'S LIABILITY INSURANCE

17.2.1 Requirement for Insurance. The Contractor must purchase from and maintain with a company or companies licensed to do business in the State of Maryland such insurance as will protect the Contractor from claims set forth in Subsection 17.2.2 which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor, Supplier, or Sub-subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

17.2.2 Scope of Coverage. The scope of the Contractor's liability insurance coverage must include the following:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages from personal injury which are sustained (i) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (ii) by another person;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property,

including loss of use resulting therefrom;

- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and
- .7 Claims for which the Contractor is obligated to indemnify others under the requirements of Section 8.4.

17.2.3 Additional Insureds. The Owner and the Architect/Engineer and any additional consultants of either who are identified to the Contractor in writing must be included as additional insureds by endorsement to the policies.

17.2.4 Insurance Coverage and Limits of Liability. The insurance coverage and limits required by Subsections 17.2.1 and 17.2.2 must be written for not less than limits of liability specified in the Contract Documents or required by law, whichever is greater.

17.2.5 Duration of Coverage. Coverages, whether written on an occurrence or claims-made basis, must be maintained without interruption from Notice to Proceed until Final Completion or subsequent termination of any coverage required by the Contract Documents to be maintained after final payment.

17.2.6 Notice of Cancellation, Expiration or Non-renewal. The insurance policies required by this Section 17.2 must contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least sixty (60) days prior written notice has been given to the Owner. The Certificates of Insurance and certified copies of the policies furnished by the Contractor to the Owner under the following Subsection 17.2.7 must evidence compliance with this requirement. The Contractor must promptly furnish to the Owner any information of which it is aware concerning reduction or lapse including non-renewal of coverage.

17.2.7 Certificates and Policies of Insurance. Certificates of Insurance acceptable to the Owner and evidencing compliance with this Section 17.2 must be filed with the Owner prior to commencement of the Work. **At the request of the Owner throughout the Contract term, the Contractor must promptly submit certified copies of such policies.** If any of the insurance coverages are required to remain in force after final payment, additional

certificates evidencing continuation of such coverage must be submitted with the Contractor's final Application for Payment.

17.2.8 Acceptance or Approval by Owner. The form and substance of all insurance policies required to be obtained by the Contractor are subject to the approval of the Owner.

17.3 PROPERTY INSURANCE

17.3.1 Owner's Coverage Limited. **The Owner does not provide property insurance coverage for the Work or the Project. The Owner's property insurance specifically excludes coverage of projects under construction, renovations or supplies, materials and equipment stored at the Site for incorporation into the Work.**

17.3.2 Builder's All Risk Property Insurance Coverage to Be Provided by Contractor. The Contractor must provide Builder's All Risk Property Insurance with a company or companies lawfully authorized to do business in the State of Maryland. This insurance must include the interests of the Owner, the Contractor and its Subcontractors, Sub-subcontractors and Suppliers.

17.3.3 Policy Form. Builder's All Risk Property Insurance must be written on a Risk of Loss basis (Special Coverage) including collapse and debris removal, on a Completed Value form of policy. Cost for reasonable compensation for the Architect/Engineer's services and expenses required as a result of such insured loss must be included as part of the amount of insurance.

17.3.4 Amount of Coverage. The Builder's All Risk Property Insurance policy furnished by the Contractor must be written in an amount equal to one hundred percent (100%) of the insurable value of the Work as well as subsequent modifications thereto for the entire Work at the Site.

17.3.5 Scope of Coverage. The Builder's All Risk Property Insurance policy furnished by the Contractor must include coverage for items of labor and materials in place or to be used as part of the permanent Work, including surplus materials, temporary structures, and miscellaneous materials and supplies incidental to the Work.

17.3.6 Work Stored or in Transit. Unless otherwise provided in the Contract Documents, the Builder's All Risk insurance must cover portions of the Work stored off the Site pursuant to the written approval of the Owner at the value

established in the approval or if not established in the approval notice, at one hundred percent (100%) of the replacement value, and also portions of the Work in transit.

17.3.7 Duration of Builder's All Risk Property Insurance Coverage. Such Builder's All Risk Insurance must be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until Substantial Completion.

17.3.8 Notice of Cancellation, Expiration or Non-renewal. The Builder's All Risk policy furnished by the Contractor must contain a provision that coverages afforded under the policy will not be cancelled or allowed to expire until at least sixty (60) days' prior written notice has been given to the Owner. The policies and Certificates of Insurance furnished by the Contractor to the Owner under the following Subsection 17.3.9 must evidence compliance with this requirement. The Contractor must promptly furnish to the Owner any information of which it is aware concerning reduction or lapse including non-renewal of coverage.

17.3.9 Certificates and Policies of Insurance. Certificates of Insurance acceptable to the Owner and evidencing compliance with this Section 17.3 must be filed with the Owner along with a certified copy of the Builder's All Risk policy prior to commencement of the Work and as requested by the Owner, during the Work. If the insurance coverages are required to remain in force after final payment, additional certificates evidencing continuation of such coverage must be submitted with the Contractor's final Application for Payment.

17.3.10 Absence of Coverage. If the Contractor is unable to purchase such insurance required by the Contract and with all of the coverages described in this Article 17, and in the amounts specified in the Contract Documents, the Contractor must so inform the Owner in writing prior to commencement of the Work. The Owner may then obtain insurance which will protect its interests and those of the Contractor, Subcontractors, Sub-subcontractors and Suppliers in the Work, and the cost thereof will be charged to the Contractor. If the Owner is damaged by the failure or neglect of the Contractor to purchase or maintain insurance as described above, without so notifying the Owner, then the Contractor must bear all reasonable costs properly attributable thereto.

17.4 OTHER INSURANCE

17.4.1 Owner's Liability Insurance. The Owner is responsible for purchasing and maintaining its own liability insurance and, at its option, may purchase or self-insure and maintain other insurance to protect itself against claims which may arise from operations under the Contract. The Contractor is not responsible for purchasing and maintaining such Owner's liability insurance unless specifically required by the Contract Documents.

17.4.2 Boiler and Machinery Insurance. The Owner, at its option, after Substantial Completion or acceptance of a portion of the Work, and until final acceptance, may require the Contractor to extend or purchase boiler and machinery insurance to cover such boilers and machinery, the cost of which will be borne by the Contractor.

17.4.3 Insurance Covering Partial Use or Occupancy. Partial occupancy or use in accordance with Section 14.1 will not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor will take reasonable steps to obtain consent of the insurance company or companies and will not, without mutual written consent, take any action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

17.4.4 Other Insurance Required by Owner. The Owner has the right to require the Contractor, or any Subcontractor or Sub-subcontractor, to furnish such additional insurance coverage as is reasonably required by the Owner. The additional costs of such insurance will be borne by the Owner, unless otherwise specified in the Contract Documents, who will issue an appropriate Modification to the Contract adjusting the Contract Sum. If the Contractor disagrees with the adjustment made in the Contract Sum, the Contractor must file a Claim as and when provided in Article 16. A claim for an increase in the Contract Sum, to be valid, must further be documented and calculated as specified in Subsection 12.2.2. **Failure of the Contractor to file a Claim as and when specified in this Subsection is deemed a waiver of any claim by the Contractor to an adjustment in the Contract Sum.**

17.5 GENERAL PROVISIONS

17.5.1 Adjustment of Insured Losses by Owner. A loss insured under the Builder's All

Risk insurance will be adjusted by the Owner and the Contractor and made payable to the Owner as fiduciary for the insureds, as their interests may appear.

17.5.2 Distribution of Proceeds by Owner and Contractor. Upon the settlement of an insured loss, the Owner will deposit in a separate account proceeds received, which the Owner will distribute in accordance with such agreement as the parties in interest may reach, or in accordance with a final determination under the disputes provisions of Article 16. The Owner, during the pendency of any such dispute, in its discretion, may apply the proceeds to the reconstruction of the Work, and to payment of the Owner's extended performance costs including but not limited to Liquidated Damages, A/E and staff costs and loss of use costs. The Contractor must pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate written agreements must require Subcontractors to make payments to their Sub-subcontractors in similar manner.

ARTICLE 18

NONDISCRIMINATION IN EMPLOYMENT

The Contractor agrees to comply with the nondiscrimination in employment policies and provisions prohibiting unlawful employment practices in Montgomery County contracts as required by Section 11B-33 and Section 27-19 of the Montgomery County Code, as well as all other applicable state and federal laws and regulations regarding employment discrimination. The Contractor assures the Owner that, in accordance with applicable law, it does not, and agrees that it will not discriminate in any manner on the basis of race, color, religious creed, ancestry, national origin, age, sex, marital status, disability, or sexual orientation. The Contractor must bind its Subcontractors to the provisions of this Article 18; and by appropriate written agreements must require subcontractors to similarly bind their sub-subcontractors to the provisions of this Article 18.

ARTICLE 19

STATUTORY REQUIREMENTS

19.1 ETHICS REQUIREMENTS/POLITICAL CONTRIBUTIONS

The Contractor must comply with the ethics provisions contained in chapters 11B and 19A, Montgomery County Code, which include the

following: (i) a prohibition against making or offering to make certain gifts, Section 11B-51(a); (ii) a prohibition against kickbacks, Section 11B-51(b); (iii) a prohibition against a person engaged in a procurement from employing or offering to employ a public employee, Section 11B-52(a); (iv) a prohibition against a contractor that is providing a recommendation to Montgomery County from assisting another party or seeking to obtain an economic benefit beyond payment under the contract Section 11B-52(b); (v) a restriction on the use of confidential information obtained in performing a contract, Section 11B-52(c); (vi) a prohibition against contingent fees, Section 11B-53. Furthermore, the Contractor specifically agrees not to violate Sections 11B-51, 11B-52, 11B-53, 19A-12 and/or 19A-13 of the Montgomery County Code. In addition, the Contractor must comply with the political contribution reporting requirements currently codified under Title 14 of Article 33 of the Annotated Code of Maryland.

19.2 MINORITY CONTRACTING

19.2.1 Policy. Pursuant to Section 11B-57 of the Montgomery County Code, it is the policy of the Owner to actively recruit minority businesses to provide goods and services for the performance of governmental functions. Minority-owned businesses are described in Montgomery County law as Minority/Female/Disabled-owned businesses (MFD). MFD businesses include certain non-profit entities organized to promote the interest of persons with a disability demonstrating (on a contract-by-contract basis) that at least 51% of the persons used by the non-profit entity to perform the services or manufacture the goods contracted for by the Owner, are persons with a disability. MFD firms also include firms that are 51% owned, controlled and managed by one or more member(s) of socially or economically disadvantaged minority groups, which include: African-Americans (not of Hispanic origin), Hispanic Americans, Native Americans, Asian Americans, women and the mentally or physically disabled.

19.2.2 Applicable Regulations. Montgomery County Procurement Regulations, Section 7, "Minority Contracting," (COMCOR 11B.00.01.07 *et seq.*) delineate the procedure to be followed. A copy of Section 7 of the Procurement Regulations is available on request.

19.2.3 Minority Business Addendum. The Minority Business Addendum, PMMD 91, is incorporated into and made a part of the Contract.

19.3 AMERICAN STEEL

19.3.1 American Steel. To the extent required in Md. Code Ann., State Fin. & Proc., §17-303 (2006 Repl. Vol.), Contractor must use or supply only American steel products; provided, however, Contractor must notify Owner if Owner is entitled to an exception under Section 17-303 because:

- .1 The price of American steel products is not reasonable as provided in Md. Code Ann., State Fin. & Proc., §17-304 (2006 Repl. Vol.);
- .2 American steel products are not produced in sufficient quantity to meet the requirements of the Contract; or
- .3 The purchase of American steel products would be inconsistent with the public interest.

Should Contractor fail to notify Owner as required by this Subsection, Owner is entitled to a reduction in the total cost of the Contract by an amount equal to the savings which would have resulted had Owner not bought American steel products.

19.4 PREVAILING WAGE

19.4.1 State of Maryland

If the funds for the Project are less than fifty percent (50%) State money, the Contractor is excused from performing all acts required of a Contractor under Md. Code Ann., State Fin. & Proc., §17-201 et seq. (2006 Repl. Vol.), otherwise the Contractor must perform all acts required by that law and refrain from doing all acts prohibited by that law, unless therein exempted or excluded. It is the Contractor's responsibility to determine from the Owner the percentage of State money allocated to the Work.

19.4.2 Montgomery County

The Contractor and all tiers of Subcontractors and Sub-subcontractors must comply with the Prevailing Wage Law contained in Chapters 11B-33C, and 20-75 of the Montgomery County Code and the requirements set forth below:

- .1 Prevailing wage means the wage rate paid by employers that is determined by a governmental authority, based upon a particular geographic area, for a given class of labor and type of project;

- .2 The purpose of a prevailing wage is to ensure that construction workers who work on public work contracts are paid the going rate for their services.
- .3 The prevailing wage rates are established by the State of Maryland and apply to all of the Contractor's employees and any and all Subcontractors and Sub-subcontractors.
- .4 The wage rates in effect, at the time the Owner issued the solicitation, are valid for the duration of the Contract.
- .5 The Contractor and all Subcontractors and Sub-subcontractors must pay employees the prescribed wage rates, as established by the State of Maryland Commissioner of Labor and Industry, in effect at the time the Owner issued the solicitation.
- .6 The Contractor and all Subcontractors and Sub-subcontractors must pay employees overtime for work more than 10 hours in any single day, work more than 40 hours in a work week, or work on Sunday or legal holiday;
- .7 The Contractor and all Subcontractors and Sub-subcontractors must classify employees in their proper work classification in conformance with the schedule established by the State of Maryland Commissioner of Labor and Industry;
- .8 The Contractor and all Subcontractors and Sub-subcontractors must electronically submit payroll records through www.LCPTTracker.net, within 14 days after the end of each payroll period, to verify that Prevailing Wage rates have been paid to employees. The payroll records must include the following:

The name, address and telephone number of the Contractor or Subcontractor;
 The name and location of the job;
 Each employee's:
 Name;
 Current address unless previously reported;
 Specific work classification;

Daily straight time and overtime hours;
 Total straight time and overtime hours for the payroll period;
 Rate of pay;
 Fringe benefits by type and amount; and
 Gross wages.

- .9 If a Contractor and any of the Subcontractors and Sub-subcontractors are late in submitting copies of any payroll records required to be submitted under the Prevailing Wage Law, the Owner may deem invoices unacceptable until the Contractor, Subcontractors and Sub-subcontractors provide the required records, and may postpone processing payments due under the Contract or under an agreement to finance the Contract;
- .10 The Contractor, Subcontractors and Sub-subcontractors must retain all payroll records for a period not less than five (5) years after the Work is completed;
- .11 The Owner may inspect the payroll records at any reasonable time and as often as necessary;
- .12 The Owner and/or its agent may perform random or regular audits and investigate any complaint of a violation of the Prevailing Wage Law;
- .13 In the event the Owner determines that a provision of the Prevailing Wage Law has been violated, the Owner may withhold payment to the Contractor sufficient to pay each employee of the Contractor or any Subcontractors and Sub-subcontractors the full amount of wages due under the Prevailing Wage Law and an amount sufficient to satisfy a liability of a Contractor, Subcontractors, or Sub-subcontractors for liquidated damages as provided under the Prevailing Wage Law, pending a final decision on the violation by the Owner;
- .14 Contractor may appeal a written decision of the Director, Department of General Services, that the Contractor violated a provision of the Prevailing Wage Law to the Chief

Administrative Officer ("CAO") within ten (10) days after receiving a copy of the decision. The CAO must designate a hearing officer to conduct a hearing upon receipt of a timely appeal. If the Contractor does not appeal a written decision within ten (10) days after receipt, the decision of the Director, Department of General Services, becomes final and binding;

- .15 Contractor and all Subcontractors and Sub-subcontractors must not discharge or otherwise retaliate against an employee for asserting any right under the Prevailing Wage Law or for filing a complaint of a violation;
- .16 Each Contract subject to the Prevailing Wage Law may specify the payment of liquidated damages to the County by the Contractor and any Subcontractors and Sub-subcontractors for any noncompliance with the Prevailing Wage Law. Liquidated damages for this Contract are: \$10 for each calendar day that the payroll records are late; \$20 per day for each day that an employee is misclassified; and \$50 per violation of the requirement to post the prevailing wage rates at the work site;
- .17 The failure of the Contractor and any of the Subcontractors and Sub-subcontractors to comply with the Prevailing Wage Law constitutes a material default under the Contract;
- .18 "An aggrieved employee" is a third-party beneficiary of this Contract and the employee may by civil action recover the difference between the prevailing wage for the type of work performed and the amount actually received, with interest and a reasonable attorney's fee; and
- .19 Where the initial Contract Sum is below the \$500,000.00 threshold, but it is subsequently increased and exceeds the \$500,000.00 threshold due to an approved Contract Modification, the amount of any such Contract Modification that causes the Contract Sum to exceed the \$500,000.00 threshold is subject to the Prevailing Wage Law.
- .20 The Contractor, Subcontractors and Sub-subcontractors must post a

clearly legible statement of each prevailing wage rate in a prominent and easily accessible place at the Work Site during the entire time Work is being performed, in English and any other language that is primarily spoken by the employees, at the Work Site.

19.4.3 Bond. If required to comply with Md. Code Ann., State Fin. & Proc., § 17-213(b), the Contractor must provide a suitable bond or guarantee, in a form approved by Owner, to insure the proper payment of the prevailing wage as required thereunder.

19.5 COST AND PRICING DATA

Chapter 11B of the Montgomery County Code and the Montgomery County Procurement Regulations require that cost and pricing data be obtained from contractors in certain situations. The Contractor guarantees that any cost and pricing data provided to the Owner will be accurate and complete. The Contractor grants the Director access to all books, records, documents, and other supporting data in order to permit adequate evaluation of the Contractor's proposed price(s). The Contractor also agrees that, in addition to all other remedies, the price to the Owner, including profit or fee, may, at the option of the Owner, be reduced to the extent that the price was based on inaccurate, incomplete, or noncurrent data supplied by the Contractor.

19.6 HAZARDOUS AND TOXIC SUBSTANCES

Manufacturers and distributors are required by federal "Hazard Communication" provisions (29 CFR §1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" Law, to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Contractor must comply with these laws and must provide the Owner with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with delivery of goods.

19.7 HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA) COMPLIANCE

Contractor must comply with all requirements in the federal Health Insurance Portability and Accountability Act (HIPAA), to the extent that HIPAA is applicable to this Contract.

Furthermore, Contractor must enter into the Owner's standard Business Associate Agreement when Contractor or the Owner, as part of this Contract, may use or disclose to one another, to the individual whose health information is at issue, or to a third-party, any protected health information that is obtained from, provided to, made available to, or created by, or for, the Contractor or the Owner.

19.8 IMMIGRATION REFORM AND CONTROL ACT

The Contractor warrants that both the Contractor and its Subcontractors do not, and shall not, hire, recruit or refer for a fee, for employment under this Contract or any Subcontract, an alien while knowing the alien is an unauthorized alien, or any individual without complying with the requirements of the federal Immigration and Nationality laws, including any verification and record keeping requirements. The Contractor further assures the Owner that, in accordance with those laws, it does not, and will not, discriminate against an individual with respect to hiring, recruitment, or referral for a fee, of an individual for employment or the discharge of an individual from employment, because of the individual's national origin or, in the case of a citizen or prospective citizen, because of the individual's citizenship status.

ARTICLE 20

MISCELLANEOUS PROVISIONS

20.1 MISCELLANEOUS PROVISIONS.

20.1.1 Assignment. The Contractor may not assign any part of the Contract without written consent of the Owner which consent is within the Owner's sole discretion.

20.1.2 Assignment of Payments. In the event the Contractor desires to make an assignment of any monies due or to become due under the Contract, the Contractor must file a copy of consent of Surety and a fully executed copy of the assignment with the Owner and the Architect/Engineer. Any such assignment must be approved by the Director.

20.1.3 Audit Provisions. The Owner has the right to examine the Contractor's, its Subcontractors', Sub-subcontractors' and Suppliers' records directly or indirectly pertaining or relating to the Work or the Contract. The Owner must be granted access to and an opportunity to copy such records at all reasonable times during the Contract period and for three (3) years thereafter.

20.1.4 Extent of Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

20.1.5 Governing Law. The Contract is governed by the laws of the State of Maryland and of Montgomery, Maryland.

20.1.6 Obligations Surviving Termination. The Contractor's obligations under the correction of Work provisions of the Contract, Warranties, representations, indemnification obligations and other continuing obligations survive acceptance of the Work under the Contract and termination of the Contract; and do not relieve the Contractor of the Contractor's obligations thereunder.

20.1.7 Severability of Provisions. If any one or more of the provisions contained in the Contract Documents should be deemed invalid, illegal or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein are not to be affected or impaired thereby; provided the same does not materially alter the rights or obligations of the parties.

20.1.8 Third Parties. The Contract Documents are not to be construed to create a contractual relationship of any kind other than between the Owner and Contractor except as specified in Subsection 3.1.2.

20.1.9 Venue and Jurisdiction. The Contractor hereby waives venue and jurisdiction and submits to the venue and jurisdiction of the Circuit Court for Montgomery County, Maryland, relating to administrative appeals. **Any suit or action involving this Contract may only be brought in the Circuit Court for Montgomery County Maryland and only under the Maryland Rules governing administrative appeals, which along with Article 16 is the Contractor's sole and exclusive remedy for any and all Disputes arising under or relating in any way to the Contract, the Work or the Project.**

20.1.10 Waiver of Breach. Any action or failure to act by the Owner, Architect/Engineer or Contractor does not constitute a waiver of any of their rights or obligations under the Contract. No such action or failure to act, whether or not repeated, constitutes a continuing waiver of any

requirements of the Contract or any approval of or acquiescence in any breach.

20.1.11 Written Notice. Written notices are to be given to the representatives of the parties designated in the Contract. Written notice are deemed to have been duly served if delivered in person to the addressee for which it was intended, or if delivered or sent by mail to the last business address known to the party giving notice, provided that if sent by mail it must be by first class mail postage prepaid except, if to the Owner in which case it must be by registered or certified mail. Any notice given by facsimile or e-mail must be confirmed by a copy delivered personally or by mail, and in the case of the Owner, by registered or certified mail. The date of any notice is deemed to be the earlier of the date of personal delivery or receipt by facsimile or e-mail or similar means, or if mailed, the earlier of actual receipt or three (3) days after the postmark date.

20.1.12 Intellectual Property Approval And Indemnification – Infringement.

If the Contractor will be preparing, displaying, publicly performing, reproducing, or otherwise using, in any manner or form, any information, document, or material that is subject to a copyright, trademark, patent, or other property or privacy right, then the Contractor must:

.1 At its expense obtain all necessary licenses, authorizations, and approvals related to its use;

.2 Include the Owner in any approval, authorization, or license related to its use at no cost to the Owner; and

.3 Indemnify and hold harmless the Owner from and against all liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, suits, or actions, and attorneys' fees and the costs of the defense of the Owner, in any suit, including appeals, based upon or arising out of any allegation of infringement, violation, unauthorized use, or conversion of any patent, copyright, trademark or trade name, license, proprietary right, or other related property or privacy interest.

END GENERAL CONDITIONS OF CONSTRUCTION CONTRACT.

SECTION 00 8000 – MASTER SCHEDULE AND CRITICAL CONTRACT COMPLETION PERIODS

(Durations are in Calendar Days)

Phase 1 - Preconstruction Activities

Approval of Initial Submittals **30** days after receipt of Notice to Proceed # 1 (*)

(*) Initial Submittals, as defined by Subsection 9.1.2 of the General Conditions of Construction Contract (GCCC), must be submitted by the Contractor within the time periods specified in GCCC Subsection 9.1.2. All initial Submittals must be approved by the Architect/Engineer and Owner prior to Owner's issuance of Notice to Proceed # 2 for construction. Therefore, the referenced time period for this Phase is approximate and dependent on several factors including the quality of the Submittals.

List of Subcontractors: The time periods referenced in GCCC Subsection 6.1.1 begin upon issuance of Notice to Proceed # 1. The name of all subcontractors working in the first 30 days after Notice to Proceed # 2 must be submitted within 10 days of Notice to Proceed # 1 - and must be approved by the County before issuance of Notice to Proceed # 2.

Other activities during Phase 1 include:

- Pre-construction meetings with Owner and/or regulatory agencies,
- Demarcation of Limits of Disturbance (LOD) for inspection and approval by regulatory agencies,
- Tree protection as required by regulatory agencies,
- Preparation and submission of other Submittals for A/E review, and
- Other administrative activities as required by regulatory agencies.

Work on the Site, beyond those activities specifically identified above, is not permitted until issuance of Notice to Proceed # 2.

Phase 2 - Construction

Substantial Completion of the Work **120** days after Date of Commencement in Notice to Proceed # 2

Final Completion **30** days after Substantial Completion

Note: The Date of Commencement is the date established in Notice to Proceed # 2 upon which the Contract Time begins to run; or if no date is established, then it is the date of Notice to Proceed # 2. The Contract Time is the total period of time between the Date of Commencement and Substantial Completion of the Work.

**End of SECTION 00 8000
MASTER SCHEDULE AND CRITICAL CONTRACT COMPLETION PERIODS**

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**End of SECTION 00 8000
MASTER SCHEDULE AND CRITICAL CONTRACT COMPLETION PERIODS**

SECTION 011100 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Project Identification: Project consists of: Roof replacement and repair.
1. Project Location: 1301 Piccard Drive, Rockville, MD 20850
 2. Owner: Montgomery County Government.
- B. This Section outlines the scope of work included in the roof replacement project at Mid-County Department of Health and Human Services Building in Rockville, MD. Refer to the appropriate specification section for further information about installation methods and components to be provided. In general, the work includes, but is not limited to, the following items:
1. Remove and dispose of existing roofing systems and components, including membrane, insulation, base sheets, flexible and metal flashings, and associated materials and components at Roof Areas E and F (Division 02 Section "Selective Structure Demolition").
 2. Repair deteriorated concrete deck (Division 03 Section "Maintenance of Concrete").
 3. Provide roof membrane repairs, and stripping and flashing repairs, as needed to roof areas receiving modified bitumen capsheet overlay and /or coating. Refurbish existing roof drains (Division 07 Section "Maintenance of Membrane Roofing").
 4. Provide modified bitumen capsheet overlay at Roof Area C (Division 07 Section "Maintenance of Membrane Roofing").
 5. Provide new multi-layered insulation systems at replacement roof areas (Division 07 Section "Roof and Deck Insulation").
 6. Provide composite panels at soffits (Division 07 Section "Composite Wall Panels).
 7. Provide Ethylene-Propylene-Diene-Monomer (EPDM) membrane at Roof Area C vertical walls (Division 07 Section "Ethylene-Propylene-Diene-Monomer (EPDM) Roofing").
 8. Provide adhered thermoplastic membrane roofing system (Division 07 Section "Thermoplastic Roofing").
 9. Provide counterflashings, and miscellaneous sheet metal fabrications (Division 07 Section "Flashing and Sheet Metal").
 10. Provide sealant and backer materials at exterior vertical masonry joints and existing skylights (Division 07 Section "Joint Sealants").
 11. Prepare, prime, and paint exterior surfaces of exposed steel and interior wall and ceiling finishes replaced or repaired (Division 09 Section "Painting").
 12. Provide urethane roof coatings on all built-up roof systems, including flashings, and elastomeric coating on concrete balconies (Division 09 Section "Coatings").
 13. Provide roof drain assemblies at existing roof drain locations and leader piping. Refurbish existing drain assemblies where indicated (Division 22 Section "Roof Drains").
 14. Disconnect and reconnect existing mechanical/electrical components to restore proper operation to rooftop equipment following installation of roofing (Division 23 Section "Mechanical/Electrical General Requirements").

- C. The Contract Documents showing the existing construction of the facility were developed from historic documents and from limited field observations by the Architect and its consultants. Actual conditions may vary from those shown. Hidden conditions may be discovered over the course of the work. Further evaluation may uncover conditions which may require remedial attention prior to proceeding with demolition or construction. Contractor shall be aware of the need to proceed with diligence and care and shall notify Architect of conditions which do not reflect those indicated or which require further testing and repair prior to proceeding. Contractor shall correct conditions that are detrimental to timely and proper execution of the Work. Contractor shall not proceed until unsatisfactory conditions have been corrected. Commencement or continuation of work constitutes acceptance of conditions and responsibility for satisfactory performance.

1.2 PROJECT CONDITIONS

- A. The building will be occupied and in use during construction. Take necessary precautions to create as little disturbance or disruption to the building and its occupants as possible during the work.
- B. Supply, install, and maintain barriers, protection, warning lines, lighting, and personnel required to segregate the work area(s) from pedestrian or vehicular traffic, as well as to prevent damage to the building, its occupants, and the surrounding landscaped and paved areas. The Contractor shall observe all applicable OSHA and MOSHA requirements.
- C. Schedule and execute work without exposing the building interior to the effects of inclement weather. Protect the building and its occupants against such risks and repair/replace work-related damage to the Owner's satisfaction.
- D. The Contractor shall not be responsible for reported roof related leaks which exist prior to initiating work in the leak areas. The Contractor shall be responsible for all roof related leaks and damage to existing roofing at all locations in which he has initiated work, to include trafficking and materials storage. If damage occurs, the Contractor shall repair damaged areas. Provide and maintain necessary protection and repairs to existing roofing to prevent interior leakage.
- E. Supply labor, equipment, tools and appliances necessary for the proper completion of the work.
- F. Do not install roofing systems or sealants during precipitation, including fog, or when air temperature is below 40° F (4° C) or is expected to go below 40° F (4° C) during application, or when there is ice, frost, moisture, or visible dampness on the roof.
- G. Phased or temporary construction will only be permitted as specified. Schedule, execute, and coordinate work on a daily basis so that components are installed completely and permanently as specified.
- H. Schedule, coordinate, and execute work to avoid traffic on completed roof areas. Coordinate work to prevent this situation by working away from completed roof areas, toward roof edges and access ways.
- I. Roofing that is removed shall be made 100% weathertight in the same day's operations.

- J. Supply shoring, supports, and other items or materials necessary to brace and support the structure, fixtures, and facilities affected by the work. This includes, but is not limited to, heating and air handling ducts, lighting, rooftop equipment and other items presently supported by or suspended from the roof decks to be removed, and associated structural members. Supply temporary walkways and ramps necessary to remove existing decking systems and install the replacement deck materials.
- K. Roof construction and materials shall comply with these specifications and the latest editions of the following:
 - 1. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
 - 2. The National Roofing Contractors Association (NRCA) "Roofing and Waterproofing Manual"
 - 3. The Asphalt Roofing Manufacturers Association (ARMA).
 - 4. Factory Mutual Global (FMG) publications "Loss Prevention Data for Roofing Contractors" and "Building Materials Approval Guide"
 - 5. Underwriters Laboratories, Inc. "Roofing Materials and Systems Directory"
 - 6. All work shall be performed in accordance with the International Building Code (IBC) in effect at the time of Bid and applicable Federal, State, and local code amendments, requirements, and publications.
- L. All workmanship and materials shall be of the best construction practice. Should a conflict arise between the specification requirements and those of the referenced publications, the better quality or more stringent requirement will prevail. Specification requirements that exceed the minimum requirements of the Manufacturer shall be complied with by the Contractor.
- M. Coordinate the work in this Section with other Sections, including preparatory work, building protection, daily clean-up, and protection of building and occupants.
- N. Supply labor, vacuums, tools and appliances necessary to keep the interior and exterior building and site areas below and around the construction clean, with as little accumulation of dust and debris as possible on a daily basis.
- O. Work will be observed by an on-site observer paid for by the Owner.

1.3 REFERENCES

- A. Applicable publications: Publications listed herein form a part of this Specification to the extent referenced and are indicated in the text by basic designation only. Applicable publications referenced shall be those that were issued and in use at the time of the Bid Submission.

1.4 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference will be held with the Owner, Owner's Representatives, Contractor, and involved trades to discuss all aspects of the project. The Contractor's foreman or field representative will attend this conference. The foreman must be proficient in reading and writing English and shall be on site at all times that work is performed.

- B. The Owner shall reserve the right to require an alternate superintendent and/or foreman.
- C. The preconstruction conference shall not be held until all specified submittals have been received, reviewed, and accepted as to form by the Owner and Owner's Representative.
- D. Delivery of materials and commencement of construction shall not proceed until the preconstruction conference is held. Delays in obtaining a complete set of submittals shall not extend the contracted completion date.

1.5 EMERGENCY RESPONSE

- A. The Contractor shall provide the Owner with after-hours (24-hour) emergency telephone numbers of the Contractor's superintendent and foreman.
- B. The Contractor must respond to emergency situations or calls within two (2) hours.

1.6 CONSTRUCTION SCHEDULE

- A. Proper coordination of all aspects of the work by the Contractor and any sub-trades is critical to ensure proper installation and performance of the work. The Contractor's Construction Schedule shall clearly outline the coordination between job tasks of all involved disciplines. Subject to review and acceptance by the Owner, this Schedule will be strictly adhered to by the Contractor and sub-trades.
- B. The Contractor's Construction Schedule shall clearly identify the on-site crew foreman and the size of the crew to be utilized. The crew size shall remain consistent and work shall be continuous throughout the project, from start-up to completion.
- C. The Owner shall review the Contractor's Construction Schedule prior to the start of any work. After defining the location(s) of the work progress, the Owner shall arrange to control occupancy in the building to the greatest extent possible. It shall be the responsibility of the Contractor to supply the Owner with written notice, 72 hours in advance, if his work location(s) for a workday is different from the schedule. The Contractor shall update his Construction Schedule weekly and submit a copy to the Owner for review.
- D. The Contractor shall schedule periodic site visits by the Membrane Manufacturer providing the warranty during the construction period. Announce the Manufacturer's site visit (inspection) to the Owner 72 hours prior to its occurrence. Visits by the Manufacturer's representative shall be made prior to project start-up, one week into the start of construction, with inspections prior to the installation of the membrane surfacing, at project completion, and as requested by the Owner. The Contractor shall provide the Owner a copy of the Manufacturer's written report for each inspection, indicating Manufacturer's comments pertaining to installation of materials and any corrective recommendations. In addition, the Contractor is responsible to notify and obtain acceptance from the Membrane Manufacturer on detail changes that may affect the roof system warranty.

1.7 SCHEDULE OF VALUES

- A. Provide a line item breakdown of construction labor and materials costs for each Specification Section included in these Contract Documents. Additionally, provide line item values for Unit Price, Alternate, and Allowance Work included in these Specifications. Utilize AIA Forms G702 and G703, to prepare and submit the Schedule of Values.

1.8 WORK HOURS

- A. Working Hours including Noise Restrictions: The standard permitted Working Hours shall be between 7:00 a.m. and 4:00 p.m. Monday through Friday exclusive of County holidays. See General Conditions for additional information. In addition to standard work hour restrictions, the Contractor shall comply with the Montgomery County Department of Environmental Protection's permissible noise levels for construction activities during the hours of 7:00 a.m. to 9:00 p.m., Monday through Friday, and 9:00 a.m. to 3:00 p.m. on Saturday. Noise generated by construction activities beyond these hours is strictly prohibited.
- B. Work outside these hours may be allowed with 48 hours minimum notice to the Owner. Work on Saturday or Sunday may be performed from 9:00 a.m. to 3:00 p.m., with prior approval from the Owner. The Owner reserves the right to disapprove or suspend a request to work outside of normal working hours. The Owner also reserves the right to determine when building coverage is necessary or in the best interest of the Owner. The cost of providing building maintenance personnel on site for weekend work or after hours work shall be borne by the Contractor.

1.9 OWNER AND ARCHITECT/ENGINEER REPORTING DEFICIENCIES

- A. The Owner, Architect/Engineer, and other design consultants will visit the site periodically and may issue field reports to the Contractor Field Superintendent. Any issues or deficiencies in the Work identified in any such field reports shall be recorded in the Construction Progress Documentation reports and corrected.
- B. Progress meetings will be conducted regularly (typically every two weeks) by the Architect/Engineer and shall be attended by the Owner, Contractor, Contractor Field Superintendent, and applicable subcontractor. Any issues or deficiencies in the Work identified in these meetings shall be recorded in the Construction Progress Documentation and corrected.

1.10 DIMENSIONS AND QUANTITIES

- A. Verify dimensions and quantities in the field prior to bid submission. The Project Plans and Drawings have been compiled from various sources and may not reflect the actual field conditions at the time of construction.
- B. The Contractor is solely responsible for means and methods of construction. Make necessary investigations to become familiar with the project conditions.
- C. Additional compensation due to unfamiliarity with project conditions will not be considered.

- D. In case of inconsistency between Drawings and Specifications or within either document, the better quality and/or greater quantity of work shall be provided, as determined by the Owner.

1.11 SAFETY DATA SHEETS

- A. Safety Data Sheets (SDSs) shall be submitted in complete sets to the Owner for all products to be used prior to any work being performed.

1.12 GUARANTEES AND WARRANTIES

- A. Refer to specific Sections of this specification for systems and product warranty requirements. Verify with Manufacturer of proposed systems and products that specified warranty requirements are acceptable, without exception, prior to selecting materials for use on this project.
- B. Submit a full Contractor's Guarantee of the Work to be free from defect in materials and workmanship upon Substantial Completion, and prior to final payment. This Guarantee shall be for a period of five (5) years from the date of Substantial Completion, and shall be signed by a Principal of the Contractor's firm, and sealed if a corporation.

1.13 CLEAN-UP

- A. Restore property of the Owner to its original condition prior to the start of construction. Refer to Division 01 Section "Temporary Facilities and Controls." General clean-up of the site shall be performed on a daily basis.
- B. Clean, restore, and/or replace items stained, dirtied, discolored, or otherwise damaged due to the Work, as required by the Owner.
- C. Clean roof, building (interior and exterior), landscaped areas, and parking areas so they are free of trash, debris, and dirt caused by or associated with the Work.
- D. Clean out drain leaders and piping to the point where it exits the building. Demonstrate roof drainage systems are operating by running water from a hose for 30 minutes into each drain in the presence of the Owner.
- E. Sweep paved areas clean.

1.14 PERMITS

- A. The Contractor will obtain and pay for any and all permits required to perform the work.

1.15 OWNER OCCUPANCY

- A. Owner will occupy premises during entire construction period. Cooperate with Owner in scheduling operations to minimize conflict with Owner's use of facility.

- B. Predetermine and obtain approval, in advance, from Owner, for vertical and horizontal transportation of labor and construction materials onto and off of the building roof.
- C. Do not transport labor or construction materials to the roof via the interior of the facility.
- D. Utility Shutdowns: Obtain written approval from the Owner for any required shutdown or outage of any utility. Schedule any outages to minimize impact on existing operations. Comply with all applicable codes and ordinances.

1.16 PRE-JOB DAMAGE SURVEY OF FACILITY

- A. Perform a thorough pre-job survey of property and all affected and adjacent areas of the building with Owner prior to starting the work in order to document existing damage. Contractor shall document the survey on video tape and provide a copy to the Owner prior to commencing work. Damaged items identified during the survey will not be the responsibility of Contractor unless further damaged by Contractor during execution of project.

1.17 CORRECTION OF DAMAGE TO PROPERTY

- A. Consider any damage to building or property not identified in the pre-job damage survey as having resulted from execution of this Contract and correct at no additional expense to Owner.
- B. The Contractor will include in the Base Bid the cost to perform any roof related repair that is due to Contractor's faulty workmanship and/or materials.
- C. Repair, immediately, damages to facility or site that present a safety hazard or danger to the public.

1.18 SUMMARY OF PROJECT REQUIREMENTS

- A. The Work requirements of the Contract are summarized by reference to the Bidding Requirements, the Contract forms, the Conditions of the Contract, the Specification, the Drawings, and Addenda and Contract Modifications, including, but not limited to, the printed matter referenced in these requirements. It is recognized that the Work is affected or influenced by governing regulations, natural phenomenon (including weather conditions), unforeseen conditions uncovered by the Work, and other forces outside of the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011100

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section contains instructions that relate to an Allowance to be included in the Contract sum. Owner may elect certain aspects of work that cannot be determined at this time.

1.2 ALLOWANCE FOR PRODUCTS AND SERVICES

- A. The amount of the allowance includes:
 - 1. The cost of the product or services to the Contractor, less any applicable trade discount.
 - 2. Delivery of product to the site.
 - 3. Labor required under the allowance to perform the work.
 - 4. Applicable taxes.
 - 5. Applicable Contractor mark-up.
- B. Allow the sum of \$25,000 to be carried in the Base Bid for unseen work discovered during demolition or otherwise identified by the Owner and performed by the Contractor during the course of the project.

1.3 SELECTION OF PRODUCTS UNDER ALLOWANCE

- A. Owner's duties:
 - 1. Consult with Contractor in consideration of work, products and suppliers, or installers.
 - 2. Make selection designating:
 - a. Product, model, finish.
 - b. Accessories and attachments.
 - c. Supplier and installer, as applicable.
 - d. Cost to contractor, delivered to the site or installed, as applicable.
 - e. Manufacturer's warranties.
 - f. Define scope of additional work.
 - 3. Transmit decision to Contractor.
 - 4. Prepare Field Directive and Authorization of Cost Proposal.
- B. Contractor's duties:
 - 1. Assist Owner in determining qualified suppliers or installers.
 - 2. Obtain proposals from suppliers and installers when requested by Owner.
 - 3. Make appropriate recommendations for consideration of Owner.
 - 4. Notify Owner promptly of:

- a. Any reasonable objections Contractor may have against any supplier or party under consideration for installation.
- b. Any effect on the construction schedule anticipated by selections under consideration.

1.4 CONTRACTOR RESPONSIBILITY FOR PURCHASE, DELIVERY, AND INSTALLATION

- A. On notification of selection, execute purchase agreement with designated supplier and perform the designated work.
- B. Arrange for and process Shop Drawings, product data, and samples, as required.
- C. Make all arrangements for delivery.
- D. Upon delivery, promptly inspect products for damage or defects.
- E. Submit claims for transportation damage.
- F. Install, work, and finish products in compliance with requirements of Contract Documents.

1.5 ADJUSTMENT OF COSTS

- A. Upon determination of scope of repairs by Owner, submit cost proposal in accordance with Contract Conditions.
- B. Should the net cost be more than the specified amount of the allowance, the Contract Sum will be adjusted accordingly by Change Order.
- C. Should the net cost be less than the specific amount of the allowance, the Contract Sum will be adjusted accordingly by the Change Order.
- D. Submit documentation for actual additional costs at the site or other expenses caused by the selection under the allowance, within 30 days after completion of execution of the work.
- E. Failure to submit claims within the designated time will constitute a waiver of claims for additional costs.
- F. At Contract closeout, reflect all approved authorizations of allowance funds in the final statement of accounting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

1.1 SUMMARY

- A. The Owner may elect certain aspects of the work, whose quantity cannot be determined at this time, to be performed or deleted by the Contractor. If such work items are elected or are not performed, the Contract price will be adjusted accordingly by the Unit Price amount shown for each item in the Bid Forms.

1.2 GENERAL CONDITIONS

- A. A Unit price is 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.
- B. By submitting a bid, the Contractor acknowledges acceptance of the established Unit Prices for their use in determining the value of change work. Prices as stated will remain in effect until final completion of the Contract.
- C. Performance of Work not authorized by a Change Order or Field Order, whether or not such work is set forth hereunder as a Unit Price item, shall not be considered cause for extra payment beyond the Contract Sum.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Prior to commencing removal or replacement of materials set forth in the schedule of Unit Prices, the Contractor shall notify the Owner in sufficient time to permit proper inspection and measurements to be taken. Only quantities that have been approved in writing by the Owner will be considered in determination of adjustments to the Contract Amount.
- C. Unit Prices and quantities are provided to adjust the specific work items because quantity of work is unknown. Work of similar scope as those unit price items contained in and defined by the Construction Documents shall not be considered as Unit Price Work.
- D. 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 inspector acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. For removal and replacement of more/less base flashings at rising walls than the one hundred (100) linear feet carried in the Base Bid as outlined in Division 07 Section "Maintenance of Membrane Roofing."
- B. For the cutting and repairing of more/less blisters and ridges than the seven hundred fifty (750) square feet carried in the Base Bid, as outlined in Division 07 Section "Maintenance of Membrane Roofing."
- C. For cutting and providing full depth replacement repairs than the one hundred (100) square feet carried in the Base Bid, as outlined in Division 07 Section "Maintenance of Membrane Roofing."

END OF SECTION 012200

SECTION 012600 – CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications. Articles 11 and 12 of the General Condition of Contract contain detailed contractual requirements for Contract Modifications which must be followed in addition to requirements in this Section.
- B. Related Sections include the following:
 - 1. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Architect/Engineer may issue Supplemental Instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time. If the Contractor contends that any Supplemental Instructions constitute a Change, it shall notify the Architect/Engineer and Owner of such within the time limit specified in the General Conditions of the Contract and shall prepare a Contractor-Initiated Proposal as indicated in 1.4.B below.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: For any Owner-initiated proposal requests, the Architect/Engineer or the Owner will issue a detailed description of any proposed change in the Work that may require adjustment to the Contract Sum and/or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect/Engineer or Owner are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within the time specified in Proposal Request after receipt of Proposal Request, submit a quotation indicating the adjustments to the Contract Sum and/or the Contract Time necessary to execute the change.
 - a. For any requested change to the Contract Sum, the Contract must provide a detailed cost breakdown of all costs/credits required to perform the change. Cost breakdown shall include but not be limited to: defined material and equipment costs including quantities and unit costs with trade discounts, defined labor costs

- including man-hours and hourly rates, applicable taxes, delivery charges, profit, overhead, bond, and insurance costs. If requested, furnish survey data to substantiate quantities.
- b. For any requested extension to the Contract Time, the Contractor must provide the information specified in Article 11 of the General Conditions of Contract including an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
3. Contractor-Initiated Proposals: If latent, unforeseen, or other conditions (including Contract Document deficiencies) require a Contract modification, the Contractor shall submit a request for a change.
- a. If the Contractor discovers a condition, requiring a Contract Modification, that requires technical direction from the Architect/Engineer and/or the Owner, the Contractor shall immediately notify the Architect/Engineer and the Owner of such. If the Owner concurs, an Owner-initiated Proposal Request will be generated and the procedure outlined in 1.4.A above will be followed.
 - b. If the Contractor discovers a condition requiring a Contract Modification but not requiring technical direction, the Contractor shall issue a statement to the Owner and Architect/Engineer outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - c. For any requested change to the Contract Sum, the Contractor must provide a detailed cost breakdown of all costs/credits required to perform the change. Cost breakdown shall include but not be limited to: defined material and equipment costs including quantities and unit costs with trade discounts, defined labor costs including man-hours and hourly rates, applicable taxes, delivery charges, profit, overhead, bond, and insurance costs. If requested, furnish survey data to substantiate quantities.
 - d. For any requested extension to the Contract Time, the Contractor must provide the information specified in Article 11 of the General Conditions of Contract including an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

1.5 CHANGE INSTRUMENTS

- A. Changes in the scope of the Contract may be effected only by a written Amendment signed by the Owner and Contractor. Changes in the Work which are within the general scope of the Contract may be effected by a written and executed Change Order or Field Order.
- B. Change Order: A Change Order is a written order signed by the Owner (Director, Office of Procurement) directing the Contractor to perform a Change in the Work. If time or circumstances do not allow issuance of a Bilateral Change Order (i.e. signed by Owner and

Contractor), the Owner will issue a Unilateral Change Order (i.e. signed by Owner only) directing a Change. The Contractor must proceed diligently with the Change work upon receipt of any executed Change Order. A Change Order may be used to adjust the Contract Sum and/or the Contract Time.

- C. Field Order: A Field Order is a written instruction issued by the Owner (Contract Administrator) to the Contractor directing a change in the Work when unforeseen and unanticipated conditions arise which require immediate action to mitigate costs or avoid delays. It may provide for additional compensation to be paid to the Contractor (outside of the Contract), but does not change the Contract Time or Contract Sum. If time or circumstances do not allow issuance of a Bilateral Field Order (i.e. signed by Owner and Contractor), the Owner will issue a Unilateral Field Order (i.e. signed by Owner only) directing a Change. The Contractor must proceed diligently with the Change work upon receipt of any executed Field Order.

1.6 COORDINATION

- A. Promptly, and before the next Application for Payment submission, revise the Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum as shown in the Change Order. Record and invoice Field Order amounts separately.
- B. Promptly, and before the next Progress Schedule submission, revise the project Progress Schedule to reflect any change in Contract Time authorized by Change Order; revise schedule to adjust times for other items of work affected by the change.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental 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 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.
 - 3. Division 1 Section "Contractor Quality Control" for additional requirements for payments.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor, and approved by the Architect/Engineer and the Owner, allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing and processing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - 2. Submit the Schedule of Values to Architect/Engineer and Owner for approval within 15 days after issuance of Notice to Proceed and at least seven (7) days before initial requisition for payment. The Schedule of Values must be approved prior to approval of contractor's initial requisition for payment.
 - 3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

- B. **Format and Content:** The breakdown values in the Schedule of Values must be true and accurate and consistent with actual project costs incurred. Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
1. **Identification:** Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect/Engineer.
 - c. Architect/Engineer's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value; and percentage of the Contract Sum to nearest one-hundredth percent adjusted to total 100 percent.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site; see 1.4.C below.
 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. **Allowances:** Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 8. 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.
 9. Major temporary facilities and other overhead cost items that are not a direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
 10. **Schedule Updating:** Update the Schedule of Values before each Application for Payment when Change Orders and/or Contract Amendments result in a change in the Contract Sum. Field Orders do not change the Contract Sum and should not be listed in the Schedule of Values.
- C. **Off-Site Storage:** Payment will not be made for materials and equipment stored off the site, except at Owner's sole discretion and prior approval. In general, material stored out of the County will not be approved for payment. If the Owner allows off-site storage, the corresponding Application shall be accompanied by:

1. Statement describing and quantifying the item(s) being stored,
2. Statement certifying location of the bonded warehouse(s) where materials or equipment is being stored,
3. Signed Affidavit of Storage,
4. Certificate of Insurance,
5. Bill of Sale made to Owner and
6. Statement certifying that item, or any part thereof, will not be installed in any construction other than work under this Contract.

Any approved material stored offsite shall be made available for inspection by the Architect/Engineer or Owner prior to payment.

1.5 APPLICATION FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect/Engineer and paid for by Owner. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Unless noted otherwise, applications for payment shall be made monthly, near the end of each month. The period of construction work covered by each Application for Payment will usually be the preceding month. In order to expedite the review and approval of each application for payment, submit to and review with the Architect/Engineer and the Owner a draft (pencil copy) of each application for payment prior to submitting a formal copy.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as the forms for Applications for Payment. Equivalent forms will be considered at Contractor's request.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect/Engineer 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 have been made.
 2. Include amounts of Change Orders issued before the last day of construction period covered by application.
- E. Transmittal: Submit two (2) signed and notarized original copies of each Application for Payment to Architect/Engineer by a method ensuring receipt within 24 hours. Upon Owner request, each application shall include Subcontractors' and Material Suppliers' waivers of liens. Provide required quality-control documentation and similar required documentation such as an updated Progress Schedule. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: Upon Owner request, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

- G. 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 and suppliers.
 2. Approved Schedule of Values
 3. Contractor's CPM Construction Schedule.
 4. Products list.
 5. Submittals Schedule (preliminary if not final).
 6. List of Contractor's staff assignments and principal consultants.
 7. Copies of trade permits, authorizations and licenses from authorities having jurisdiction for performance of the Work.
 8. Initial progress report.
 9. Data needed to acquire Owner's insurance.
 10. Contractor's Quality Control Plan.
- H. 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.
 3. Contractor's request for partial release of retainage at Substantial Completion should be made separately from progress application for payment.
- I. 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 all Project closeout requirements including completion of all punchlist items.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. All required warranties.
 4. Updated final statement, accounting for final changes to the Contract Sum.
 5. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 6. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 7. AIA Document G707, "Consent of Surety to Final Payment."
 8. Evidence that claims have been settled.
 9. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 10. Final liquidated damages settlement statement.
 11. Certificate of Final Completion
 12. Certification of satisfaction/release of all Permits including the Storm Water Management Permit.
 13. Removal of all temporary facilities, utility service connections, surplus materials, rubbish and similar materials.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013200 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 1. Contractor's Construction Schedule.
 2. Submittals Schedule.
 3. Daily construction reports.
 4. Material location reports.
 5. Field condition reports.
 6. Special reports.
 7. Construction photographs.

1.3 SUBMITTALS

- A. Submittals Schedule: Within fifteen (15) days of Notice-to-Proceed, submit four copies of Submittals Schedule; two copies to be retained by the Architect/Engineer, one copy to be retained by the Owner; and one copy that will be returned by the Architect/Engineer for the Contractor's administrative use. Arrange the following information in a tabular format:
 1. Scheduled date for first submittal.
 2. Specification Section number and title.
 3. Submittal category (action or informational).
 4. Name of subcontractor.
 5. Description of the Work covered.
 6. Scheduled date for Architect's final release or approval.
- B. Construction Schedule: Refer to Article 11 of the General Conditions of Contract (GCC).
 1. Submit, for Owner approval, Qualification Data for scheduling consultant specified in GCC Article 11 to demonstrate capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other specified information.
 2. Contractor's Initial CPM Construction Schedule: Submit two printed copies and two electronic copies (one each to Owner and Architect/Engineer) of initial CPM construction schedule. Printed copies shall be large enough to show entire schedule for entire construction period. Submit additional sets of initial construction schedule as necessary to obtain Owner and Architect/Engineer approval of initial schedule.
 3. CPM Construction Schedule Updates: As required by project conditions, but at least monthly, submit two printed copies and two electronic copies (one each to Owner and

Architect/Engineer) of CPM construction schedule update. Printed copies shall be large enough to show entire schedule for entire construction period. Submit additional sets of construction schedule updates as necessary to obtain Owner and Architect/Engineer approval of update. Each update shall include changes to the last approved Schedule Update. Updates are required to be submitted with each contractor's requisition for payments; requisitions will not be processed without corresponding schedule update. Schedule updates shall be submitted at least monthly even if requisitions for payments are not submitted.

4. Written narrative: Concurrent with each CPM schedule submission, submit two printed copies (one each to Owner and Architect/Engineer) of the CPM Written Narrative. The Narrative shall include a summary of changes to logic, duration, etc. since the preceding approved schedule. The Narrative shall also include copies of each computer-generated tabular report specified in GCC Article 11.

C. Daily Construction Reports: Superintendent's and Quality Control Manager's daily reports shall be submitted to the Owner's Construction Representative contemporaneously (within a maximum of two working days). Submit two copies at monthly intervals, to be retained by the Architect/Engineer.

D. Material Location Reports: Submit three copies at monthly intervals, to be retained by the Architect.

E. Field Condition Reports: Submit copies to the Architect and Owner, at time of discovery of differing conditions.

F. Special Reports: Submit copies to the Architect and Owner, at time of unusual event.

1.4 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from parties involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Refer to Article 11 of the General Conditions of Contract and Paragraph 1.3.

2.2 SUBMITTALS SCHEDULE

- A. Article 11 of the General Conditions of Contract requires that all Procurement activities, including the Submittals Schedule, be incorporated into the Construction CPM Schedule. The following Submittals Schedule shall be provided consistent with the information in the overall project schedule.
- B. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.3 REPORTS

- A. Daily Construction Reports: Contractor Superintendent shall prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site. Provide the count of each subcontractor's personnel and the work (identified by Construction Schedule Activity Numbers as appropriate) being done by each subcontractor.
 - 2. List and count of General Contractor personnel at Project site. Identify the work (identified by Construction Schedule Activity Numbers as appropriate) being done by Contractor's forces.
 - 3. List of separate contractors at Project site. Include the count of each separate contractor's personnel and the work (identified by Construction Schedule Activity Numbers) being done by each subcontractor.
 - 4. Total Count of personnel at Project site.
 - 5. Visits by third parties including utilities, third-party inspectors, etc.
 - 6. Equipment at Project site (including hours equipment was utilized, idle and down for maintenance)
 - 7. Material deliveries.
 - 8. High and low temperatures and general weather conditions, including any weather events requiring stoppage or some or all of the Work
 - 9. Accidents.
 - 10. Meetings and significant decisions.
 - 11. Unusual events (refer to special reports).
 - 12. Stoppages, delays, shortages, and losses.
 - 13. Meter readings and similar recordings.
 - 14. Emergency procedures.
 - 15. Orders and requests of authorities having jurisdiction.
 - 16. Change Orders received and implemented.
 - 17. Written Modifications received and implemented.
 - 18. Services connected and disconnected.
 - 19. Equipment or system tests and startups.
 - 20. Substantial Completions authorized.

- B. Material Location Reports: At monthly intervals (consistent with the monthly requisition for payment), prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on, and delivery dates for, materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately upon discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Interpretation (RFI). Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence

2.5 CONSTRUCTION PHOTOGRAPHS

- A. Employ a qualified independent commercial photographer (minimum of three years' experience in commercial photography), mutually agreeable to Owner and Architect/Engineer, to take construction photographs.
- B. Cooperate with photographer; provide access to Work, and reasonable use of temporary facilities including temporary lighting.
- C. Take a comprehensive set of photographs, at monthly intervals, from commencement of Work until Substantial Completion of Project documenting the work performed during that month. Submit the photographs, with the monthly requisition for payment, to the Owner and the Architect/Engineer. Photographs shall be submitted monthly even if a requisition for payment is not submitted for that month.
- D. Before beginning construction, take photographs of all existing conditions including sitework, existing buildings, structures and utilities. In particular, take photographs of any existing damage or deficiencies in existing conditions, including conditions adjacent to the project site, prior to commencement of work.
- E. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.
- F. Views
 1. Take photographs from a sufficient number of (at least three) different exterior views and from a sufficient number of interior views to show construction progress. Consult with Architect/Engineer for recommendations on views.
 2. Photograph from locations to factually illustrate condition of construction and state of progress.
 3. To the extent practicable, take successive monthly photographs from the same overall view as preceding monthly photographs.
- G. Do not sell or display photographs in publications without permission of Owner.

- H. Prints: Provide color prints:
1. Quantity: 3 prints of each photograph
 2. Brilliance: Glossy
 3. Texture: Smooth
 4. Contrast: High
 5. Size: 8 by 10 inches
 6. Mount prints in clear plastic jackets with 1 inch binding margin at long edge (capable of 3-ring binder storage).
 7. Identify each print on back in lower right-hand corner, listing:
 - a. Name of project
 - b. Orientation of view including description of vantage point, in terms of location, direction viewed (by compass point), and elevation or story of construction
 - c. Date and time of exposure
 - d. Photographer's numbered identification of exposure
 8. Deliver one set of prints to Owner and one set to Architect; one set is for Contractor's file.
- I. Digital Images: Submit a complete set of digital image electronic files as a Project Record Document on CD-Rom.
1. Submit images exactly as originally recorded in the digital camera without alteration, manipulation, editing or modification.
 2. Provide images in uncompressed TIFF format, produced by a digital camera with minimum sensor size of 4.0 megapixels and with an image resolution of not less than 1600 x 1200 pixels.
 3. Images shall have same aspect ratio as the sensor, uncropped.
 4. Provide following information:
 - a. Date and Time: Include date and time in filename, if photograph is not accurately date stamped by camera.
 - b. Orientation of view including description of vantage point, in terms of location, direction viewed (by compass point), and elevation or story of construction,
 - c. Unique sequential identifier.

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Refer to Article 9 of the General Conditions of Contract for additional submittal requirements.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- C. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.

2. Provide a space approximately 6 by 8-inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
- D. Deviations: Deviations from specifications are considered substitutions. Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals as proposed substitutions. Further identify deviations by providing a written description for each deviation or variation from the contract documents.
- E. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- F. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will discard submittals received from sources other than Contractor.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked "Approved or approved as noted."
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Use only final submittals with mark indicating "Approved or approved as noted" taken by Architect.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Compliance with specified referenced standards.
 - 4. Number of Copies: Submit four copies of Product Data, unless otherwise indicated. Architect will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal of Architect's CAD Drawings is otherwise permitted.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Shopwork manufacturing instructions.
 - f. Templates and patterns.
 - g. Schedules.
 - h. Notation of coordination requirements.
 - i. Notation of dimensions established by field measurement.
 - j. Relationship to adjoining construction clearly indicated.
 - k. Seal and signature of professional engineer if specified.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11-inches but no larger than 30 by 40-inches.
 - 3. Number of Copies: Submit two opaque (bond) copies of each submittal. Architect will return one copy.

- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.
- E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location.
1. Number of Copies: Submit one copy of product schedule or list, unless otherwise indicated. Architect will return one copy.
- F. Construction Schedule: Construction schedule showing sequence and duration of activities.
- G. Schedule of Values: Itemize separately labor and materials for each technical section within the Specification as they will be shown on the Application for Payment (use AIA form G703).
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design.
1. Number of Copies: Submit three copies of subcontractor list, unless otherwise indicated. Architect will return one copy.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- C. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- D. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- E. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- F. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- I. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- J. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
- K. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Statement on condition of substrates and their acceptability for installation of product.

2. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- L. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- M. Safety Data Sheets (SDSs): Submit information directly to Owner; do not submit to Architect.
1. Architect will not review submittals that include SDSs and will return them for resubmittal.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes requirements for the provision and utilization of temporary facilities to protect the Owner's property, the site, and construction materials, and for daily maintenance and cleanup of the site during the project.

1.2 CONTRACTOR'S USE OF EXISTING FACILITIES

- A. Limit use of the premises to the work indicated, so as to allow for the Owner's uninterrupted occupancy and use. Confine operations to the areas indicated under the Contract. Conformance to the regulations set forth by the Owner regarding use of existing facilities is mandatory.
- B. Sanitary facilities shall be provided by the Contractor. Use of the building's sanitary facilities is not permitted.
- C. Owner will assist in controlling occupancy. Contractor shall provide and place portable barricades, as coordinated with the Owner, under work areas inside the building.
- D. Clean interior and exterior areas affected by the construction on a daily basis. Do not allow construction debris, waste materials, tools, excess packaging materials or other construction related materials to accumulate on the roof, in the facility, or on the exterior grounds and pavements.
- E. See Division 01 Section "Product Delivery Requirements" for product storage facilities and requirements.

1.3 UTILITIES

- A. Electrical service will be provided to the Contractor free of charge by the Owner through exterior electrical outlets if available and operable. Use shall be limited to construction hours. The Owner reserves the right to charge the Contractor for excessive electrical service usage (i.e., wasteful usage). Should charges be considered, the Owner will notify the Contractor in writing of his intent, 48 hours in advance.
- B. Water for construction purposes will be provided to the Contractor free of charge by the Owner through exterior water spigots if operable. The Owner reserves the right to charge the Contractor for excessive or wasteful use. Should charges be considered, the Owner will notify the Contractor in writing of his intent, 48 hours in advance. Drinking water shall be provided by the Contractor.
- C. All other utilities required will be provided by the Contractor.

- D. Plumbing, heating, and electrical work, including reinstallation of equipment and other work to be performed by the Contractor, shall be carried out without interference to the building's normal operation. Where work requires interruption of service, the Contractor shall make advance arrangements with the Owner for dealing with such interruption.
- E. Ensure proper and safe operation and maintenance of utility systems within the construction limits, whether these are supplied by the Owner's distribution system or otherwise, until the work is accepted by the Owner. Maintain and operate appurtenances within the construction area that serve the distribution system, subject to periodic inspection by the Owner's operating personnel. Inspection by any representative or personnel of the Owner shall not relieve the Contractor of his responsibilities in connection with operation and maintenance of these facilities and equipment.

1.4 ACCESS

- A. Provide ladders, scaffolding and staging as required to access the project area(s) in accordance with OSHA and MOSHA guidelines. Should damage to the building occur, restore damaged areas to their original condition, clean up debris, and provide other access to the roof for the duration of the project.
- B. Do not interfere with normal building operations. Coordinate activities with the Owner and building occupants.

1.5 BARRIERS

- A. Install temporary fencing, warning lines, barriers and guards, as required, to segregate the construction areas from adjacent operational facilities, occupants and the public. In the event that access cannot be interrupted in the construction area, provide protection above doorways and walks in the construction area. Provide guard lights on barriers and lighting as necessary to prevent vandalism of work and storage areas. The Owner is not responsible for Contractor's losses due to damage or theft by vandals.
- B. Install protective coverings at paving and building walls adjacent to hoist prior to starting work. Lap protective coverings at least 1-foot, secure against wind, and vent to prevent condensation of moisture on covered surfaces. Maintain the protective coverings in place for the duration of the project. Cover windows adjacent to Contractor operation areas with plywood.

1.6 TEMPORARY PROTECTION

- A. Provide suitable Owner approved temporary protection to prevent the entrance of debris and obstructions into the building. Provide warning signs to reroute personnel around areas of dangerous work. Place warning barriers at roof perimeters and at deck openings. Clearly label temporary covers over deck openings. Do not permit openings to remain unprotected overnight. Schedule operations to allow for completion of new roofing over a predetermined area of roof within a day's work. Use special care to avoid damaging roofing and flashing when working on the roof of the building.

- B. Provide temporary tie-ins between existing and new roof systems as specified and detailed. Tie-in construction shall completely prevent interior leaks, migration of moisture from existing to new construction, and damage of any type to the facility. Provide necessary quality control at tie-ins on a daily basis to prevent leaks.
- C. Avoid traffic on completed roof areas. Coordinate work to prevent this situation. Should temporary access be required, provide temporary substrate protection for trafficked areas.
- D. Protect drainage systems from debris accumulation during construction. Ensure roof drains and leader pipes are not restricted when Contractor is not on site.
- E. Protect materials scheduled to be reused from damage by placing them in labeled containers or wrappings stored in a weathertight trailer.
- F. Provide temporary protection such as plywood and tarps for streets, drives, curbs, sidewalks, landscaping, and existing exterior improvements during all phases of the project.

1.7 ROOFTOP PROTECTION

- A. Provide plywood walkways, with 1/2-inch thick rubber walkway pad or 1-inch thick high density insulation protection beneath, for protection of new or existing roof areas which must be trafficked, and for roof membrane protection below demolition work that occurs above new or existing roof areas.

1.8 DEBRIS REMOVAL

- A. The Owner shall designate crane and refuse container locations. These areas shall be sectioned off with proper warning lines.
- B. Removed materials shall not be thrown freely from the roof but shall be lowered to the ground by crane in suitable containers or in an enclosed chute, in order to reduce the spread of dust and other debris.
- C. Supply adequate covered receptacles for waste, debris and rubbish. One receptacle will be allowed on site at a time, and must be immediately removed from the site when full. Clean the project area daily and prior to moving the receptacle to another location on the site. Locations shall be as permitted by the Owner. Disposal shall be off-site in a legal dump authorized to accept construction demolition solid wastes.

1.9 WEATHER PROTECTION

- A. Weather protection includes temporary protection of components adversely affected by moisture, wind, heat, and cold by covering, patching, sealing, enclosing, ventilating, cooling, and/or heating. Provide protection for locations within the project area as necessary, to protect the building and its contents, trafficked adjacent areas, new construction materials and accessories. The cost of heat, fuel and power necessary for proper weather protection shall be the responsibility

of the Contractor. Installed weather protection shall comply with safety regulations and provisions for adequate ventilation and fire protection.

1.10 VOLATILE MATERIALS

- A. The Contractor is reminded that adhesives, solvents, bitumens, etc., are highly volatile and flammable materials. These materials, along with tools, applicators, and rags, shall not be stored on or within the building. No overnight storage on the roof will be allowed. Do not transport materials through the building. Take precautions and closely follow the specification requirements for fire protection on site during construction.
- B. Locate and use flame-heated equipment so as not to endanger the structure, other materials on site, or adjacent property. Do not place flame-heated equipment on the roof. Locate and use flame-heated equipment in specific areas approved by the Owner. Do not relocate flame-heated equipment without prior approval from the Owner.
- C. The use of flame-heated equipment or torches on the roof is prohibited unless specifically approved in writing by the Owner.

1.11 FIRE PROTECTION

- A. Provide necessary temporary fire protection for the building, its contents and materials during construction. Do not store combustibles inside the building or on the roof. Store adhesives, caulks, and cleaning solvents away from the building using a method approved by local fire officials. Should cutting, burning, or welding be necessary, provide a fire watch during operations and for four hours minimum after completion of the operations.
- B. Do not use open flames near adhesives, caulks, or cleaning solvents as they will readily ignite. Rags soaked with cleaning solvent shall not be discarded in the dumpsters, but shall be stored in a separate metal receptacle and removed from the site daily.
- C. Comply with local fire codes and obtain permits necessary from the local fire department. Provide a copy to the Owner. Provide recently tested, fully charged fire extinguishers around the storage area, rubbish receptacle and two fire extinguishers on the roof within 50 feet of the Work.

1.12 INTERIOR PROTECTION AND RESTORATION

- A. Protect and cover fixed items, furniture, equipment, appliances, fixtures, bookcases, etc. within the building below the work areas.
- B. At the Owner's direction, remove portable furniture, equipment, appliances, fixtures, materials, stock, etc. within the building below the work area to an adjacent area for protection.
- C. Remove, temporarily support, suspend and protect existing items requiring removal during the installation of the new work and properly replace these items to their original condition and to the Owner's satisfaction. These items include but are not limited to suspended ceilings, lighting fixtures, heating and air handling ductwork, electrical conduit, etc.

1.13 CLEAN-UP

- A. Clean and restore interior building spaces beneath the work areas to original condition prior to the construction.
- B. Debris, dust and dirt shall be swept completely clean at the joists, beams, overhead accessories and similar items. Those items soiled or stained from the work shall be cleaned and refinished.
- C. Electrical fixtures damaged by the construction shall be replaced with an equal in shape, color, manufacturer, and capacity at no added expense to the Owner.
- D. Interior ceiling finishes which are damaged by the construction shall be repaired or replaced with a system equal in color, texture, and finish at no added expense to the Owner.
- E. Floors shall be swept and vacuumed completely clean of dust, dirt, and debris. The Owner will wash and re wax floors, but only as part of a normal or routine maintenance procedure. Heavily soiled, stained, or damaged floor areas will be cleaned, repaired, and/or replaced by the Contractor at no additional cost to the Owner.
- F. Open ducts, grills, thermostats, electric boxes, or similar fixtures and items which can be soiled or affected by the work or which might conduct dust to other areas shall be masked, protected, and cleaned by the Contractor.
- G. Windows, blinds, curtains, shelving, edges, lighting, etc. shall be cleaned to their original condition prior to the start of the roof renovation, and to the satisfaction of the Owner.
- H. Remove completely temporary protection materials and facilities from the site upon completion of the work and demobilization of the project.
- I. Restore streets, drives, curbs, sidewalks, landscaping, and existing improvements disturbed by the construction operations to their condition at the start of the work.

1.14 NOTIFICATION

- A. Notify the Owner's Representative at least 72 hours in advance of the desire to extend, connect, disconnect, turn on or off HVAC, steam, electric, water or other service from the Owner's supply systems. The actual operation shall be witnessed by authorized representatives of the Owner. Plumbing, heating and electrical work, including installation of equipment and any other work to be performed by the Contractor, shall be carried out without interference with the Owner's normal operation. Where work requires interruption of a service, make advance arrangements with the Owner for dealing with such interruption.

1.15 VEHICLES

- A. Acceptable areas for the locations of the Contractor's vehicles shall be as designated by the Owner. No other areas may be utilized without the Owner's permission.

1.16 WALKWAY COVERING

- A. Install walkway coverings where designated on the drawings or above entrances which must remain accessible. The framework supporting the walkway covering shall be free-standing and well braced. The roof covering and support framing shall be designed to support a live load of at least 150 psf. The roof coverings shall be of width sufficient to cover the entire walkway or sidewalk. A minimum height clearance of 6-feet 8-inches, or as required to allow building doors to open, shall be maintained below coverings. Should coverings obscure the building's address, a temporary address shall be installed so as to be visible from the street. Lettering shall be approved by the Owner. Protection shall be in accordance with all applicable OSHA standards.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link (Site Enclosure) Fencing: Minimum 2-inch, 9-gage, galvanized steel, chain-link fabric fencing; minimum 8-foot high with galvanized steel pipe posts; minimum 2-3/8-inch OD line posts and 2-7/8-inch OD corner and pull posts, with 1-5/8-inch OD top and bottom rails. Provide concrete bases for supporting posts.
- B. Lumber and Plywood: Unless noted otherwise, comply with requirements in Division 06 Section "Rough Carpentry."
- C. Paint: Comply with requirements in Division 09 Section "Painting."

2.2 TEMPORARY FACILITIES

- A. General: Maintain all temporary facilities and controls necessary for the performance of the Work. Comply with all applicable codes and regulations of authorities having jurisdiction; obtain permits as required. Locate and install all facilities and controls where acceptable to the local authorities having jurisdiction, utility, and Owner and remove same and terminate, in a manner suitable to the utility owner, at completion of the Work or when otherwise directed. Pay all costs associated with the provision and maintenance of temporary facilities and controls including power, water, and fuel (if any) consumed until Substantial Completion.
- B. Storage and Staging Areas: The Contractor shall be responsible for coordination, protection, and safekeeping of products stored on site under this Contract, including soil cut and fill. Refer to Contract Documents for any defined staging areas.
 - 1. Move stored products that interfere with construction of the Work, or operations of the Owner, or separate contractors.
 - 2. Obtain any pay for use of additional storage or staging areas as needed for the Work.
 - 3. Provide storage areas sized to storage requirements for products of individual Sections, allowing for access and orderly maintenance and inspection of products.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Heating Equipment: Unless Owner authorizes use of permanent heating system, provide UL Listed or FM approved vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Tankers
 - 1. As part of the Contractor's Construction Schedule, the proposed location(s) of tanker equipment shall be submitted for the Owner's review.
 - 2. Kettles will not be permitted on site. Tankers shall only be located in areas accepted by the Owner.
 - 3. Tankers shall be kept a minimum of 15-feet away from exterior building walls and shall be segregated from the surrounding areas by temporary fencing.
 - 4. Heat asphalt in a tanker designed to prevent contact of flame with surfaces of asphalt. Equip tankers with visible thermometer and thermostatic controls set to asphalt temperature limits specified herein. Keep controls in working order and calibrated. Use immersion thermometers, accurate within a tolerance of $\pm 2^{\circ}$ F ($\pm 1^{\circ}$ C), to check temperatures of the asphalt each hour. Provide these temperatures to the Owner. If temperatures exceed the maximum temperatures specified, remove the asphalt from the site. Do not cut back the asphalt.
 - 5. The designated asphalt tanker operator must remain on the same elevation, within 50 feet and within visual contact of the operational tanker at all times, and perform no other duties than tending the tanker to monitor bitumen temperatures during tanker operation and ensure that safe heating temperatures are not exceeded. The Owner reserves the right to require an alternate tanker operator, without obligation to show cause or reason for the request.
 - 6. Provide a minimum of two fully charged and operable fire extinguishers at the asphalt tanker location. Fire extinguishers shall be of the type designed for the intended use.
 - 7. Kettles will be considered for use if properly equipped with an operating fume recovery system or if "smokeless" asphalt is utilized.

PART 3 - EXECUTION (Not Used)

END OF SECTION 015000

SECTION 016500 - PRODUCT DELIVERY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section contains instructions and requirements for the provision and maintenance of adequate delivery, storage, and handling on site of products and materials to be utilized in the Work.

1.2 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Store cementitious products and materials on elevated platforms.
 - 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 7. Protect stored products from damage and liquids from freezing.
- D. Deliver materials in sufficient quantity to allow continuity of work. Deliver materials to the site in original sealed containers bearing manufacturer's name and brand designation. Where materials are designated by a referenced specification, containers or packages shall bear specification

number, type, and class as applicable. Do not deliver materials that are not approved for use. Remove such materials from the site immediately.

- E. Store roofing materials on site in areas designated by the Owner. Materials are to be stored in box trailers or in elevated piles completely wrapped in waterproof tarps. Tilt stock piles for effective drainage and utilize tie-downs to protect tarps against wind blow-offs. Store flammable materials such as adhesives in storage containers suitable for flammable substances. Mark materials that are exposed to the elements for removal from site. Do not incorporate defective or rejected materials in the Work.
- F. Handle materials with equipment selected and operated so as not to damage the materials or the roofing. Handle roll materials in a manner to prevent damage to the edges or ends. Seal containers when their contents are not being used to prevent premature curing or damage to materials. Damaged or improperly stored materials shall be marked and removed from the site immediately.
- G. No more materials shall be stored on the roof than can be installed in one day. Distribute materials brought to the roof so that the uniform load shall be less than 20 PSF. Evenly distribute materials for daily operations to prevent concentrated loads. The weight of workmen, equipment, and materials shall not exceed the capacity of the structure.
- H. Misshapen, oval, creased, and/or damaged roll goods shall not be used in the new roof system. The Contractor shall handle and store roll materials to prevent such conditions. The Contractor shall also ensure that roll goods accepted from the manufacturer are in good condition. The Owner will not be responsible for, nor accept, roll goods that are defective.

1.3 TOOLS AND EQUIPMENT

- A. Contractor is responsible for delivery, storage, maintenance, and security of tools and equipment.

1.4 INSPECTION AND NOTIFICATION

- A. Materials stored on site and subject to damage from wind, precipitation, hail, or other potential climactic conditions will be subject to inspection on a daily basis by the Owner or Owner's Representative. Absorptive materials such as lumber, insulation and felts will be tested periodically for moisture content.
- B. Upon notification by the Owner or Owner's Representative of insufficient protection of or damage to materials on site, the Contractor shall, within 24 hours, properly restore protection and replace or repair damaged materials and systems. Should the Contractor not accomplish immediate repair or replacement when notified, the Owner shall have the proper protection installed at the Contractor's expense.

1.5 MANUFACTURER'S INFORMATION

- A. Submit the roofing system materials manufacturer's written instructions concerning storage and handling of materials, including adhesives, cements, sealants, and accessories. Provide the following information:

1. Manufacturer's "shelf-life" of materials, including the date of manufacture of perishables such as volatiles, caulking, and mastics.
 2. Acceptable latent moisture content for absorptive materials such as lumber, insulation, and felts.
 3. Manufacturer's requirements for storage facilities concerning temperature, humidity, and ventilation.
- B. Provide and maintain on site manufacturer's information concerning storage and handling of flammable or volatile materials, such as Safety Data Sheets, for the duration of the project.
- C. Comply with the manufacturer's recommendations and these Specifications for on site storage of materials.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 016500

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial 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. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 4. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 5. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 6. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
 - 7. Submit certificate of manufacturer's inspection.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 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.

1.3 FINAL COMPLETION

- A. Refer to General Conditions Article 14.3.
- B. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
 - 1. Submit a final Application for Payment.

2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- C. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- 1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)
- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
- 1.5 CORE SAMPLES
- A. The Owner reserves the right to have core sampling performed by the Contractor where moisture contamination is suspected within the new roof system until the expiration of the Contractor's warranty. Core sample locations shall be chosen by the Owner and be performed at no cost to the Owner.
- 1.6 WARRANTIES
- A. Submittal Time: Submit manufacturer's warranties and contractor's guarantees on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- 1.7 PROJECT CLOSEOUT SUBMITTALS
- A. When both the Owner or Owner's Representative and the Manufacturer's Representative agree that the Contractor has performed according to the Specifications and has installed the materials to the satisfaction of the Manufacturer, submit the following:
1. Specified Contractor's and Manufacturer's Warranties and Guarantees.
 2. Lien Releases from Contractor, subcontractor, and suppliers (AIA Forms G706, G706A).
 3. Consent of Surety to Final Payment (AIA Form G707).

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. 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.

END OF SECTION 017700

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Removal of existing roofing, curtain wall, and related materials.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, and locations of temporary set up areas.
- B. Predemolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.
- C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- D. Proposed locations of chutes, dumpsters, cranes, hoists, and other temporary equipment or facilities required for demolition work.
- E. Proposed methods for interior and exterior protection and clean-up during removal and re-roofing operations.
- F. Provide schedule, updated weekly, indicating areas of roof where demolition will occur. Notify Owner of schedule changes.

1.4 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241; OSHA, 29 CFR 1926.1101; EPA, NESHAP 40 CFR, Part 60.
- E. Comply with State and Local requirements.

1.5 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately below and adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

1.7 DEMOLITION AND TRANSPORT

- A. Conveyances: Buggies or wheelbarrows used on roofs to transport removed debris to chutes or crane apparatus location shall be of size and design to prevent damage to deck and structure.

- B. Chutes: Provide enclosed chutes for debris transfer from roof areas at height of 10-feet or more. Do not allow debris to spill from bottom of chute directly onto ground. Direct chutes into approved construction debris container (dumpster). Control and contain dust and noise from falling debris by use of breaks in vertical alignment of chute or tarps covering dumpster. Provide hose with nozzle near chute outlet to wet debris, as necessary, for dust control.
- C. Hoists/Cranes: Provide hoists or cranes to remove debris and transport materials to and from roof. Secure materials to prevent loss during lifting. Place debris transported from roof directly in approved construction debris containers. Provide proper protection of wall areas for entire height directly adjacent to or under area of hoisting.
- D. Use of “bobcat” type removal equipment on roof is prohibited.
- E. Mechanical cutting equipment: Roof cutting equipment shall be equipped with operable blade depth setting mechanisms to control cutting depth of blade and prevent damage to structural deck during cutting operations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 GENERAL

- A. During removal of existing roofing and related materials, report to Owner areas of damaged, deteriorated, or otherwise unsuitable structural deck or framing materials exposed during work. Do not cover or remove unacceptable deck or framing areas until reviewed by Owner. Provide temporary protection to areas in question. Use care in removal of membrane flashings and decking to prevent damage to substrates.
- B. Do not remove more material than can be replaced in one day with the new specified roof system.
- C. Take precautions to prevent water on or within existing roof system from migrating into building or new roof system.

- D. Review available prints and/or inspect interior of structure to ascertain if electrical or other service has been placed above roof deck or in contact with underside of deck.
- E. Set cutting blades of mechanical cutting equipment to proper depth to prevent scoring or damage to structural deck. Use care in removal of membrane flashing to prevent damage to substrates.
- F. Control visible emissions during roof removal and at dumpster level.
- G. Remove roof materials down to structural deck. Sweep, clean, and vacuum debris from deck surfaces, including flutes of steel deck.

3.3 SELECTIVE DEMOLITION

- A. Demolish and remove existing materials as expressly indicated or implied on the drawings. Demolition shall include but may not be limited to the following:
 1. Remove existing roofing system(s) and associated components in preparation for new systems.
 2. Remove abandoned rooftop penetrations, and associated materials. Prepare opening to receive new decking or enclosure as specified.
 3. Remove existing sheet metal caps, fascias, edge metal, counterflashings, penetration flashings, and related sheet metal items unless indicated on Drawings to remain.
 4. Remove existing roof drains and associated materials in preparation for new drain bowl assemblies and leader pipe connections. Where indicated, remove existing drain hardware only in preparation for installation of new hardware.
- B. Removed and Reinstalled Items:
 1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
- B. Burning: Do not burn demolished materials.

- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.5 CLEANING

- A. Clean demolition materials and debris from roof daily.
- B. Clean debris that has fallen into building, including material on top surface of ceiling. If deemed necessary by the Owner the Contractor shall remove and reinstall ceiling tiles suspected of harboring construction debris and clean the affected areas.
- C. Repair damage to building by replacing damaged material or component in-kind.
- D. Clean site daily to satisfaction of Owner.
- E. Dispose of debris and demolition materials at landfill in accordance with applicable regulations.
- F. Remove construction related debris that accumulates on top of ceiling tiles.

END OF SECTION 024119

SECTION 070150 – MAINTENANCE OF MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. This section specifies requirements for the following Scope of Work:
 - 1. Provide roof membrane repairs.
 - 2. Provide stripping and flashing repairs.
 - 3. Provide modified bitumen capsheet overlay and one ply of granular SBS base flashings at penetrations and perimeter walls on Roof Area C.

1.2 SUBMITTALS

- A. Submit manufacturer's and supplier's literature for all items specified under Part 2 of this Section.
- B. Submit confirmation letter from roof membrane manufacturer, stating that Contractor is an approved and recommended applicator in good standing.
- C. Submit letter of notification to roof membrane manufacturer indicating scope of repair work for warranty.

1.3 QUALITY ASSURANCE

- A. Do not deliver to site or install material or system that has not been approved. Remove materials installed without prior approval upon Owner's request.
- B. Restrict traffic on completed roof areas. Coordinate work to prevent trafficking by working toward roof edges and access ways. Should access to completed roof areas be necessary, provide protection for trafficked areas in accordance with Division 01, Section "Temporary Facilities and Controls."

1.4 SUPPLEMENTAL PROJECT CONDITIONS

- A. Refer to Division 01 for additional project conditions.
- B. Comply with OSHA and other applicable safety requirements. Use of open flames strictly prohibited.
- C. Do not provide products that contain asbestos.
- D. Surfaces to receive the new membrane and flashings shall be thoroughly clean and dry. Should surface moisture such as dew exist, the Contractor shall provide the necessary equipment to dry the surface prior to application. The use of the open flames is strictly prohibited.

- E. Maintain existing performance requirements:
 - 1. Fire Resistance: Listed by Underwriters' Laboratories as Class A roof system.
 - 2. Wind Uplift Resistance: Meets attachment requirements for FM Global 1-90.

1.5 GUARANTEES

- A. See Division 01, Section "Summary of Work."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers:
 - 1. Johns Manville International, Inc.
 - 2. GAF Materials Corporation
 - 3. Firestone Building Products Company
 - 4. Soprema, Inc.

2.2 ROOFING MEMBRANE PLIES

- A. Ply Sheet: ASTM D 2178, Type VI, asphalt-impregnated, glass-fiber felt.
- B. Capsheet (for repair and overlay): ASTM D 6164, Grade G, Type II, polyester-reinforced, SBS-modified asphalt sheet; granular surfaced; fire-rated; suitable for application with hot asphalt; white granules.

2.3 FLASHING MATERIALS

- A. Reinforcing ply: ASTM D 6164, Grade S, Type I, polyester reinforced, SBS-modified asphalt sheet; suitable for application with cold adhesive.
- B. Flashing Sheet: ASTM D 6164, Grade G, Type II, polyester-reinforced, SBS-modified asphalt sheet; suitable for application with hot asphalt; white granule surfacing.

2.4 ASPHALT MATERIALS

- A. Asphalt Primer: ASTM D 41.
- B. Roofing Asphalt: ASTM D 312, Type IV.
- C. Adhesive: ASTM D 3019, Type III, trowel grade, SBS modified adhesive; suitable for vertical or horizontal applications.

2.5 ACCESSORIES AND AUXILIARY PRODUCTS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use.
- B. Fasteners
 - 1. Nails for membrane terminations at wood nailers and curbs: 11 gauge; ASTM A 153, hot-dip galvanized; large-head, annular threaded roofing nails, 1-1/2-inches long, with 1-inch diameter cap.
 - 2. Fasteners for terminating base flashings through plywood sheathing at masonry walls:
 - a. Stainless steel or fluorocarbon coated concrete/masonry screws 1/4-inch diameter, 2-inch long; Rawl Tapper manufactured by Powers/Rawl.
 - b. Drive pins with zinc sheaths and stainless steel pins 1/4-inch diameter, 2-inch long; Zamac Nailins by Powers/Rawl.
 - c. Accepted substitute.
 - 3. Flat discs to be installed beneath masonry fasteners for securing base flashings: ASTM A 153, 20 gauge galvanized steel; 1-1/2-inches in diameter, minimum.
 - 4. Fasteners for re-securing rooftop equipment to curbs: Sheet metal to wood blocking connections and mechanical unit securement (exposed securement): Self-drilling, self-tapping, Number 10, stainless steel hex-washer-head screws, 1-1/2-inch long, with metal-capped EPDM washers.
- C. Self-adhering Flashing Sheet: High Temperature modified bitumen membrane with release-paper backing, 40 mils thick; Ice and Water Shield HT by W. R. Grace, Colphene 1000 by Soprema, or approved equal.
- D. Roofing sealant for sealing perimeters or edges of roof membrane: Roofing Manufacturer's standard adhesive.
- E. Lap Bleed Finish Granules: Ceramic granules sized and colored to match flashing sheet surfacing as supplied by membrane manufacturer.
- F. Liquid-applied reinforced flashings: One-component polyurethane/bitumen coating woven polyester reinforcing scrim with embedded ceramic granule coating; ALSAN Flashing by Soprema, Inc. or approved equal.
- G. Cants: Wood fiber board (ASTM C 208); 4-inch face; 1-1/2-inch thickness.

PART 3 - EXECUTION

3.1 GENERAL

- A. Ensure that surfaces to receive membrane, flashing, and surfacing are clean and dry. Should surface moisture such as dew exist, provide necessary equipment to dry surface prior to application. Use of open flames is strictly prohibited.

- B. Remove dirt, debris, and dust from substrate surfaces by brooming and vacuuming prior to application of materials.
- C. Comply with the flashing and roof membrane manufacturers' written instructions and these Specifications for all installations and associated work. In case of discrepancies, the greater quantity and/or better quality of work, as determined by the Owner, will prevail.
- D. Do not dilute any material with solvent or dilutant unless approved by Owner in writing prior to use.

3.2 PREPARATION

- A. Remove materials that will affect adhesion or attachment of repairs.
 - 1. Clean coated surfaces to remove dirt, contaminants, or other materials affecting adhesion.
 - 2. Remove loose, damaged, or delaminated felts or flashing plies. Cut back to area of sound, well attached material. Avoid damage to adjacent and substrate materials.
 - 3. Verify that substrate materials are in good condition. Replace or reattached as necessary. If moisture is discovered in insulation or within membrane plies, notify Owner.
 - 4. Unroll modified bitumen sheets and allow to relax before application.
- B. Asphalt Primer: Apply at rates recommended by membrane manufacturer.
 - 1. Prime masonry, concrete, and sheet metal surfaces in contact with bituminous materials, including sheet metal flanges (both sides) and lead sheet at drain sumps (both sides) with asphaltic primer prior to roofing or flashing installation. Allow primer to dry thoroughly prior to installing membrane materials.
 - 2. Prime asphaltic surfaces to receive new materials, including aluminized asphalt coatings and aged asphalt surfaces.

3.3 ASPHALT APPLICATION

- A. Do not exceed application temperature and asphalt heating temperatures specified for asphalts to be used. Refer to asphalt supplier's EVT, FBT, and FP temperature data when heating and setting asphalts. Do not heat asphalt above finish blowing temperature or 475 degrees F; whichever is lower, for more than four hours
- B. Temperature variance of steep asphalt: When installing felt plies, apply asphalt when asphalt temperature is within plus or minus 25 degrees F of EVT printed on bitumen container label or bill of lading. Do not heat asphalt above finish blowing temperature or 500 degrees F, whichever is lower, for more than four hours.
- C. Remove heated asphalt that has exceed temperature restrictions cited above from site. Ensure that such asphalt is not included in Work.
- D. Apply asphalt to achieve complete coverage at rates specified.

3.4 ROOF MEMBRANE REPAIR

- A. Repair blisters, splits, fishmouths, and other membrane defects. Remove loose, damaged felts in preparation of repair.
- B. Prime surfaces to receive patch.
- C. Match number of plies removed with new felt plies, with minimum of 2. Install first ply to extend 6-inches beyond defect in each direction. Install subsequent plies to extend 3-inches beyond preceding plies.
- D. Adhere felt plies in full mopping of hot asphalt, approximately 23 pounds per square. Ensure that asphalt bleeds through entire surface of felt. Repair defects before installing next ply.

3.5 REINFORCING PLY INSTALLATION (AT BASE FLASHING REPAIRS)

- A. Set reinforcing plies at base flashings and other detailed areas in full, uniform bed of SBS-modified bitumen adhesive applied by trowel at minimum rate of coverage, as recommended by membrane manufacturer.
- B. Cut reinforcing plies across width of roll for base flashings at walls, curbs, and other vertical applications to lengths sufficient to provide full coverage to top of vertical element, across cant, and 6-inches onto horizontal surface of built-up membrane. Embed sheet in adhesive by applying pressure with dry trowel at top of cant and working toward top of wall or curb.
- C. Starting again at top of cant, apply pressure with trowel, working across face of cant and toward horizontal surface of base ply and embed lower portion of sheet. Ensure that membrane is solidly set in adhesive with no voids or bridging at cant.
- D. Provide 3-inch laps and stagger laps. Provide additional reinforcing strip at vertical corners lapped 3-inches onto each vertical side and 3-inches onto horizontal built-up membrane.

3.6 FLASHING SHEET INSTALLATION (REPAIRS AND OVERLAY)

- A. Flashing (cap) sheets may be installed in either cold adhesive or hot asphalt.
- B. Verify that repairs have been made to field membrane and reinforcing sheet in area adjacent to cant to receive flashing sheet. Snap chalk line 4-inches minimum from edge of reinforcing ply and on field side of roof.
- C. Verify that reinforcing plies set in cold adhesive have sufficiently cured prior to mopping in top stripping or flashing sheet. Follow manufacturer's recommendations for curing times.
- D. Flashing Ply
 - 1. Cut flashing sheet across width of roll to provide full coverage to top of vertical element and minimum of 4-inches beyond edge of reinforcing ply on horizontal membrane surface.

2. Apply asphalt to both vertical element and back of flashing sheet. Embed flashing sheet into hot asphalt by applying pressure, starting at top of cant and working toward top of wall or curb.
 3. Apply sufficient pressure to ensure full and continuous adhesion of membrane with no air pockets, voids, wrinkles, fishmouths, or bridging. Apply pressure from top of cant working down across face of cant and toward field of roof in similar manner until entire flashing sheet is solidly adhered.
 4. Allow 3-inch laps onto adjacent sheets and nail top edge of flashing sheets at 6-inches on center with specified fastener. Inspect other laps of completed flashing sheet installation and repair defects with adhesive.
 5. Apply 6-inch wide asphalt saturated fabric set in flashing cement over vertical laps. Coat fabric and cement with aluminum coating.
- E. Repair flashing and stripping plies that exhibit voids, bridging, lack of adhesion, or other defects.

3.7 LIQUID APPLIED POLYURETHANE FLASHING

- A. Seal all gaps, joints or seams in substrates with polyurethane sealant and allow to cure before applying flashings.
- B. Apply an even layer of liquid polyurethane flashing at a rate of 2 - 2.5 gal/100 square feet minimum roller or flat edge spatula.
- C. Embed reinforcing scrim at all transition changes, remove wrinkles and trapped air.
- D. Apply another layer of liquid polyurethane flashing as indicated above, wet on wet to insure full saturation of reinforcing scrim. Allow to cure for minimum 4-hours before subsequent coats.
- E. Apply finish coat of liquid polyurethane flashing at a rate of 2 gal/100 square feet. Broadcast excessive amount of ceramic granules into finish coat prior to final cure. After minimum 4 hours, remove excess granules which are not adhered.

3.8 ROOF CURB REPAIR

- A. Reattach loose or poorly secured rooftop units and covers to existing curbs with specified fasteners at a rate of 12-inches on center maximum. Secure with minimum 2 fasteners per side of curb.
- B. Extend existing curbs that are less than 10-inches. Extend curb to minimum 18-inches above finished roof system.

3.9 MODIFIED CAP SHEET INSTALLATION (REPAIRS AND OVERLAY)

- A. Verify that all repairs have been made to the field membrane and reinforcing plies have been properly installed. Surfaces should be free of sawdust, dirt, insulation debris, and other contaminants prior to starting installation.

- B. Capsheets shall be laid perpendicular to the flow of water starting at the low point of the area and working to the high point. Unroll dry membrane and allow it to relax. Provide 3-inch side laps and 6-inch end laps, stagger end laps of adjacent capsheets by 24-inches. Align the granulated side of the sheet over the selvage side of the adjacent sheet. While maintaining alignment, reroll approximately one-half of the dry membrane sheet.
- C. Apply adhesive at the rate recommended by the manufacturer. Apply the adhesive so that the substrate is coated in a pattern slightly larger than the first sheet being applied. End and side laps must be coated with adhesive so visible bleed out appears. Roll all laps with steel roller.
- D. Allow for solvents to evaporate from the adhesive before embedding any sheets. Brooming may be necessary to ensure full adhesion.

3.10 DRAIN FLASHING

- A. Install temporary plug in drain line to prevent debris and asphalt accumulation in the line.
- B. Ensure that membrane repairs are completed in the drain sump area.
- C. Prime surfaces at rate recommended by membrane manufacturer.
- D. Install granular flashing sheet. Position full width target sheet centered on drain and cut approximately 6-feet long. Provide additional ply of capsheet on both sides of the target sheet. Provide 6-inch laps. Flashing sheet at drain sumps shall be approximately 6-feet by 6-feet.

3.11 TEMPORARY PROTECTION

- A. Unfinished perimeter and penetration components: Provide temporary waterstops adequate to prevent moisture intrusion into newly installed work around exposed edges and incomplete flashing locations. Remove temporary materials completely prior to continuing with subsequent work.
- B. Tie-ins: Provide temporary waterstops at deck and tie-ins between newly installed 4-ply and existing membrane as detailed. Inspect tie-ins thoroughly and repair as needed to provide watertight assembly prior to leaving site.

3.12 FIELD QUALITY CONTROL

- A. Inspect and repair each completed section of built-up roofing plies prior to application of membrane surfacing. Mark deficiencies such as fishmouths, dry laps, voids, and excessive asphalt with keel or paint for repairs.
- B. Areas of finished roof membrane with numerous deficiencies due to failure to broom-in felts or restrict traffic on newly installed felts will require additional overlay of two plies, at discretion of Owner.

- C. Ensure by inspection that visible bleed-through of asphalt is present over entire surface of each ply of felt, and that there is visible but not excessive bleedout at edge of each ply. Bare spots, dry laps, voids in interply moppings, fishmouths, and wrinkles shall be repaired with two additional plies. Cut and reset fishmouths and wrinkles prior to application of subsequent plies. Extend each ply minimum of 9-inches in each direction beyond extent of defect area.
- D. Prior to application of surfacing, notify Owner in writing that roof membrane installation, quality control inspection, and repair work are complete.

END OF SECTION 070150

SECTION 072200 - ROOF AND DECK INSULATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This section specifies requirements for the following Scope of Work:
 - 1. Provide tapered and flat thermal insulation and cover board.
 - 2. Provide insulation crickets, fillers, and cants.
 - 3. Provide insulation and EPDM waterproofing on rooftop HVAC ductwork.

1.2 SYSTEM DESCRIPTION

- A. Insulation System:
 - 1. Provide minimum insulation thickness as specified.
 - 2. The maximum thickness for any given insulation board or layer shall be 3-inches.
 - 3. Provide minimum average aged R-Value of 30 throughout roof areas.
 - 4. Maintain constant perimeter height at edges of each roof section.
 - 5. Utilize existing and augmenting drain locations as indicated on Drawings.
 - 6. Provide crickets and saddles between interior drainage points. Cricket width shall be as required to provide positive slope to drain but in no case less than 8-foot wide unless specifically indicated otherwise.
 - 7. Provide 8-foot by 8-foot sumps at each drain location unless specifically indicated otherwise.

1.3 SUBMITTALS

- A. Product Data: For each product indicated in Part 2 of this Section.
- B. Manufacturer's full size tapered insulation/cricket drawing with the following:
 - 1. Outline of roof area with drain and major penetration locations.
 - 2. Profile of tapered sections to include crickets.
 - 3. Average R-value of system.
- C. Certifications: Provide documentation for requirements described in Paragraph 1.4, Quality Assurance.
- D. Insulation attachment pattern: Provide a drawing showing typical fastener pattern and frequency at field, corners, and edges.

1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide insulation and related materials with fire-test-response characteristics indicated, as determined by testing identical products per ASTM E 84 for surface-burning characteristics, by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
- B. Securement: Fasten or secure components of system to meet or exceed requirements of FMG Data Sheets 1-28 and 1-29. Comply with requirements to achieve wind uplift rating of 1-90.
- C. Insulation products incorporated into roof system shall be included in roof membrane manufacturer's system warranty. Provide documentation from membrane manufacturer that proposed insulation will be included in required warranty.
- D. Tapered insulation plan in Drawings is a conceptual configuration showing basic design intent. Do not interpret Drawings as approved tapered insulation layout plan.

PART 2 - PRODUCTS

2.1 INSULATION BOARDS

- A. Roof insulation system materials shall be manufactured by or acceptable to roof membrane manufacturer for inclusion in full system warranty to be issued by manufacturer.
- B. Polyisocyanurate: ASTM C 1289, Type II; Class I, Grade 2.
 - 1. Flat Board Stock: Minimum thickness 1.5-inches.
 - 2. Tapered System: 1/8-inch per foot slope, to provide consistent slope; minimum thickness of tapered isocyanurate shall be 1/2-inch.
 - 3. Crickets: 1/2 -inch per foot, minimum, slope.
 - 4. Duct Insulation: 1-1/2-inches.
 - 5. Board size, maximum:
 - a. For Adhered Installation: 4-feet by 4-feet.
 - b. For Mechanically Attached Insulation: 4-feet by 8-feet.
- C. Cover Board: Fiberglass faced, gypsum board with moisture resistant core; ASTM C 1177.
 - 1. Thickness: 1/2-inch.
 - 2. DensDeck Prime by Georgia Pacific, or approved substitute.

2.2 MECHANICAL INSULATION

- A. Insulation for drain bowls and leader piping: fibrous glass batt type with premolded polyvinyl chloride jackets. Seaming tape for jacket seams shall be as supplied by insulation jacket manufacturer. Minimum thickness 1-inch.

- B. Fiberglass batt insulation for use at locations other than hot pipes: Conforming to ASTM C 665, Type II, Class C and E84, I, 3-inches thick.

2.3 ACCESSORIES

- A. Asphalt: ASTM D 312, Type IV.
- B. Adhesive: One- or two-part; spray applied polyurethane foam approved by membrane manufacturer.
- C. Fasteners
 - 1. Insulation Fasteners: Number 12, self-drilling, self-tapping screws; sufficient length to penetrate top flange of steel decking by 1-inch minimum and 1-1/4-inches maximum; with fluorocarbon coating complying with FMG 4470.
 - 2. Stress Plates: Nominal 3-inch diameter, 26 gauge galvalume coated steel.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Ensure that surfaces to receive insulation are clean and dry. If necessary, provide equipment to dry surface prior to application. Do not dry with open flames.
- B. Remove dirt, debris, and dust from substrates by brooming or vacuuming. Clean dirt and debris from between steel deck ribs.
- C. Provide roof insulation boards free of defects, including, but not limited to, broken corners, improperly adhered skins, excessive moisture content (if insulation surface “foams” when hot bitumen is applied, excessive moisture is present), dimensional irregularities, or other defects that may adversely affect replacement roof system. Mark defective insulation boards permanently and remove from site.

3.2 ROOF INSULATION INSTALLATION (LOW SLOPE ROOF AREAS)

- A. Adhesive Attachment:
 - 1. Apply adhesive to substrate using full coverage method in accordance with manufacturer’s requirements and recommendations.
 - 2. Set boards in adhesive, butting edges tightly. Stagger joints of insulation and coverboard within each layer. Offset joints between layers 12-inches minimum. Fill gaps greater than 1/4-inch.
 - 3. Walk in boards to ensure adhesion and provide smooth top plane of insulation.
- B. Utilize tapered edge strips and filler boards at drain sump locations. Place taper from surrounding insulation system down to drain bowl locations, providing 8-foot by 8-foot minimum drain sumps.

3.3 PIPE INSULATION INSTALLATION

- A. Install insulation and jackets at drain bowls as indicated on Drawings, in accordance with manufacturer's printed instructions. Refer to Division 22, " Roof Drains" for additional information

END OF SECTION 072200

SECTION 074243 - COMPOSITE SOFFIT PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section specifies requirements for the following Scope of Work:
 - 1. Provide composite soffit panels with prefabricated extruded aluminum connections.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal-faced composite soffit panel assemblies capable of withstanding the effects of the following loads and stresses within limits and under conditions indicated, based on testing according to ASTM E 330:
 - 1. Wind Loads: Determine loads based on the following minimum design wind pressures:
 - a. Uniform pressure of 20 lbf/sq. ft., acting inward or outward.
 - 2. Deflection Limits: Metal-faced composite soffit panel assemblies shall withstand wind loads with horizontal deflections no greater than 1/175 of the span at the perimeter and 1/60 of the span anywhere in the panel of the span.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation layouts of metal-faced composite soffit panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details. Distinguish among factory, shop, and field-assembled work.
- C. Samples: For each type of exposed finish required.
- D. Product test reports.
- E. Maintenance data.
- F. Samples of special warranties.

1.4 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal-faced composite soffit panel assemblies that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal-faced composite soffit panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Finish Warranty Period: 20 years from date of Substantial Completion.

1.5 MANUFACTURER INSPECTIONS

- A. Inspections: Provide an initial project start-up visitation by the manufacturer. The visit shall be from a qualified representative of the panel manufacturer who will provide a 1 day minimum installation seminar for the proposed products.

PART 2 - PRODUCTS

2.1 TRIM MATERIALS

- A. Aluminum Sheet: ASTM B 209, Material shall be provided by the composite panel manufacturer.
 - 1. Surface: Flat finish.
 - 2. Exposed Coil-Coated Finishes:
 - a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat.
 - 3. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.
 - 4. Color: Color shall match the composite soffit panels.
- B. Panel Sealants: ASTM C 920.
- C. Extruded connections and terminations: extruded aluminum meeting ASTM B 221, as provided by the manufacturer. Color shall match the composite panels.
- D. Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Where necessary, provide exposed fasteners with heads matching color of metal-faced composite soffit panels by means of plastic caps or factory-applied coating. Provide EPDM or neoprene sealing washers where required.

2.2 METAL-FACED COMPOSITE SOFFIT PANELS

- A. General: Provide factory-formed and assembled, metal-faced composite soffit panels fabricated from two metal facings bonded, using no glues or adhesives, to solid, extruded thermoplastic core; formed into profile for installation method indicated. Include attachment system components and accessories required for weathertight system.
 - 1. Fire-Retardant Core: Noncombustible, with the following surface-burning characteristics as determined by testing identical products per ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:

- a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.
2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
- a. Laminators, Inc.
 - b. Alcan Composites

B. Aluminum-Faced Composite Soffit Panels:

1. Panel Facing: .032-inch aluminum, embossed.
2. Panel Backing: .01-inch aluminum, flat.
3. Core: Solid or corrugated thermoplastic material.
4. Exterior Finish: 2-coat fluoropolymer.
 - a. Color: As selected by Owner from manufacturer's full range.
5. Panel Size: 4ft x 8ft

2.3 ACCESSORIES

- A. Soffit Panel Accessories: Provide components required for a complete metal-faced composite soffit panel assembly including trim, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal-faced composite soffit panels unless otherwise indicated.
- B. Flashing and Trim: As provided by the manufacturer and as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fascia, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal-faced composite soffit panels.
- C. Attachment Subplates: Continuous 4-inch wide, 26 gauge, galvanized steel or as required by panel manufacturer.
- D. Panel Adhesive: Adhesive shall be VOC compliant, silicone glazing sealant such as 896 by Pecora or accepted substitute.
- E. Foam tape: 3/8-inch thick adhesive foam tape as provided by the panel manufacturer.

2.4 FABRICATION

- A. General: Fabricate and finish metal-faced composite soffit panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. Metal-Faced Composite Soffit Panels: Factory form panels in a batch process by laminating each sheet using glues or adhesives between dissimilar materials. Trim and square edges of sheets with no displacement of face sheets or protrusion of core material.

1. Form panel lines, breaks, and angles to be sharp and true, with surfaces free from warp and buckle.
 2. Fabricate panels with sharply cut edges, with no displacement of face sheets or protrusion of core material.
 3. Fabricate panels with panel stiffeners, as required to comply with deflection limits, attached to back of panels with structural silicone sealant or bond tape.
 4. Dimensional Tolerances:
 - a. Panel Bow: 0.8 percent maximum of panel length or width.
 - b. Squareness: 0.25-inch maximum.
- C. Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Miscellaneous Framing: Verify substrate is properly secured and meets the tolerances required. Ensure subplates, hat channels, base angles and other miscellaneous are properly installed in accordance with the specifications and the manufacturer's requirements.

3.2 METAL-FACED COMPOSITE SOFFIT PANEL INSTALLATION

- A. Layout and General Installation. Layout soffit panels to provide for butt joints spaced at not less than 8 ft on center. Where multiple rows of panels will be provided, align section joints from row to row. Layout panels to align symmetrically with building reveals and architectural features to the greatest extent possible. Layout panels to provide panels with a minimum length and width of 2-feet at end of vertical and horizontal runs.
- B. Subplates: Unless substrate is specifically approved for direct adhesion, provide continuous sheet metal subplates along the long dimension of the panels. Provide rows at top, bottom and center of the panels. Secure subplates with 2 rows of fasteners spaced at 16-inches on center. in a staggered pattern. Fasteners shall be as specified or recommended and provided by the panel manufacture. Provide prefabricated closures and clips. Secure closures and clips at 8-inches on center. with manufacturer's standard fasteners.
- C. Panel Installation: Install extruded "J" channel and inside and outside corners as required. Provide continuous, vertically oriented foam tape at 16-24-inches on center. Provide 3-inch diameter adhesive spots, on previously installed subplates where applicable, along the previously installed foam tape or at 16-24-inches on center. Provide extruded "H" channel clips at horizontal and vertical panel section joints. Provide full bed of butyl sealant within all extruded sections prior to installing composite panels

3.3 ACCESSORY INSTALLATION

- A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
 - 1. Install components required for a complete metal-faced composite soffit panel assembly including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
- B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

3.4 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align metal-faced composite soffit panel units within installed tolerance of 1/4-inch in 20-feet, non-accumulative, on level, plumb, and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.5 CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as metal-faced composite panels are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of metal-faced composite soffit panel installation, clean finished surfaces as recommended by panel manufacturer. Maintain in a clean condition during construction.

END OF SECTION 074243

SECTION 075323 – ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide fully adhered EPDM membrane on walls complete with flashings, strippings, and accessories at Roof Area C.
 - 2. Provide EPDM membrane on HVAC duct work.

1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Certifications: Provide documentation for requirements outlined in Paragraph 1.4, Quality Assurance.
- C. Sample roof membrane manufacturer's warranty.
- D. Contractor's letter certifying a minimum of 5-years commercial roofing experience to include 3 projects of similar size and scope to this project completed in the last 5-years. Provide a list of project references, including names and phone numbers.

PART 2 - PRODUCTS

2.1 EPDM MEMBRANE

- A. EPDM Membrane: ASTM D 4637, Type I, non-reinforced uniform, flexible sheet made from EPDM, and as follows:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the following manufacturers:
 - a. Carlisle SynTec Incorporated.
 - b. Firestone Building Products Company.
 - c. GenFlex Roofing Systems.
 - d. Versico Inc.
 - 2. Thickness: 60 mils, nominal.
 - 3. Exposed Face Color: White.

2.2 ACCESSORIES

- A. Sheet Flashing: 60 mils thick EPDM, partially cured or cured, according to application.
- B. Bonding Adhesive: Manufacturer's standard bonding adhesive.
- C. Seaming Material:
 - 1. Field splice: Manufacturer's standard synthetic-rubber polymer primer and 6-inch-wide minimum, butyl splice tape with release film.
 - 2. Flashing splice: Single-component splicing adhesive and splice cleaner.
- D. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.
- E. Miscellaneous Accessories:
 - 1. Lap Sealant
 - 2. Water Cutoff Mastic
 - 3. Metal Termination Bars
 - 4. Preformed Cone and Vent Sheet Flashings
 - 5. Preformed Inside and Outside Corner Sheet Flashings
 - 6. T-Joint Covers
 - 7. In-Seam Sealants
 - 8. Other items required for complete installation.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Install insulation substrate in accordance with Division 07 Section "Roof and Deck Insulation." Ensure that substrate is well supported and provides smooth surface without abrupt changes.
- B. Do not deliver to site or install material or system that has not been approved. Remove materials installed without prior approval upon Owner's request.
- C. Do not apply primer or adhesive during inclement weather, when temperature is below 40 degrees F, or when materials are above or below specified application temperatures.
- D. Do not place EPDM in contact with incompatible materials, such as asphalt roof cement, oil, creosote, or penta-based materials.

3.2 ADHERED MEMBRANE INSTALLATION

- A. Apply the bonding adhesive in accordance with the manufacturer's published instructions to both the sheet and the substrate. Apply the bonding adhesive evenly avoiding globs and puddles. Allow

the adhesive to dry until tacky; the adhesive must not string or stick to a dry-finger touch. Roll the coated membrane onto the adhesive coated substrate, being careful to avoid wrinkles. Brush down the bonded half of the sheet with a push broom to achieve maximum contact. No wrinkles shall be allowed in the completed application. Wrinkled sheets shall immediately be removed and replaced and not patched. Do not apply bonding adhesive in areas that are to be spliced to flashings or adjacent sheets.

- B. Splice adjacent EPDM sheets using 6-inch-wide butyl tape. Position tape to extend beyond splice edge 1/4-inch, but not more than 1/2-inch. Roll in splice using a hand roller. Strip-in all T-seams using 6-inch wide EPDM membrane.

3.3 MEMBRANE FLASHING

- A. Install flashing concurrently with roof membrane to maintain a weathertight installation as work progresses.
- B. Use approved elastomeric flashing membrane for inside and outside corners and membrane flashing details requiring moldable flashing. Use cured .060-inch EPDM membrane for stripping metal flanges and flashings on parapet walls wherever possible.
- C. Use bonding adhesive on substrates other than EPDM, and splicing cement on EPDM and metal mating surfaces. Extend membrane flashings at least 6-inches beyond flanges. Use 6-inch “rubber-to-rubber” splices.
- D. Use butyl tape seams and reinforced perimeter fastening details to the greatest extent possible to minimize adhesive splicing of seams. When splicing vertical seams, apply splicing cement to both mating surfaces for a width of 6-inches minimum. Roll in splice using a hand roller.
- E. Inside and outside corners and other changes in direction of flashing sheets shall not be butt-type splices at the point of direction change. Wrap flashing sheets 2-inches around change in direction. Form inside vertical corners using triangular fold techniques (pig ears). Do not cut the flashing sheet at the corner. Outside vertical corners, such as around curb units, shall extend a minimum of 2-inches around the corner for each flashing sheet.
- F. Apply lap sealant on edges of adhesive spliced seams membrane seams.

END OF SECTION 075323

SECTION 075420 -THERMOPLASTIC ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide adhered thermoplastic membrane roofing system.

1.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- C. FM Approvals Listing: Provide membrane roofing, base flashings, and component materials that comply with requirements in FM Approvals 4450 and FM Approvals 4470 as part of a membrane roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals markings.
 - 1. Fire/Windstorm Classification: Class 1A-90.
 - 2. Hail Resistance: MH.
- D. Solar Reflectance Index: Not less than 78 when calculated according to ASTM E 1980 based on testing identical products by a qualified testing agent.
- E. Energy Performance: Provide roofing system that is listed on the DOE's ENERGY STAR "Roof Products Qualified Product List".
- F. Provide roof edge and perimeter sheet metal components complying with ANSI/SPRI ES1 and acceptable to manufacturer for inclusion into roof system.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
- C. Certifications: Provide documentation for requirements outlined in Paragraph 1.4, Quality Assurance.

- D. Sample roof membrane manufacturer's warranty.
- E. Contractor's letter certifying a minimum of 5-years commercial roofing experience to include 3 projects of similar size and scope to this project completed in the last 5 years. Provide a list of project references, including names and phone numbers.
- F. Laboratory Test Reports for Credit IEQ 4: For adhesives and sealants used inside the weatherproofing system, documentation indicating that they comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is FM Approvals approved for membrane roofing system identical to that used for this project.
 - 1. Products used in this specified roof system will be produced by manufacturers regularly engaged in the manufacturing of these products with a minimum twenty (20) year history of successful production and product installation.
 - 2. Manufacturer that submits the specified roof system warranty will have been in business for at least twenty (20) years with successful production and product installation of the specific roof system.
- B. Roof Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.
 - 1. Installer will be previously and currently approved by the manufacturer of roof membrane products to be installed under this section.
 - 2. Verification of approved Installer status will be written manufacturer's certification as stated elsewhere and five (5) references from building owners of prior warranted installation of similar roof assembly.
 - 3. References will contain the following: Owner's Name, Owner's Complete Telephone Number, Building Name and Complete Address, Roof Size in Squares, Type of Roof System Installed, Copy of Warranty Issued.
 - 4. Installer will provide written documentation of at least five (5) years of experience in the successful application of the specified roof system.
 - 5. Installer will also provide written documentation of the successful application of a minimum of 100,000 square feet of the specified roof material.
 - 6. Installers will be thoroughly trained and experienced in the necessary crafts. Installers will be made familiar with any unique requirements specified for proper performance of the work in this section.
 - 7. The Installer will supply the resumes of each installer listing work experience with the specified roof system during the past ten (10) years (if requested by the Owner).
- C. Roofing Inspections: Cooperate and coordinate with inspectors, testing agencies and manufacturers, in order to facilitate inspection and installation, to include allowance of field sampling. Field sampling will only be performed if moisture intrusion is suspected.

- D. Fire-Test-Response Characteristics: Provide membrane roofing materials with fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction.
 - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.
- E. Source Limitations: Obtain components including roof insulation fasteners for membrane roofing system and other specified roofing products from same manufacturer as membrane roofing or approved by membrane roofing manufacturer

1.5 GUARANTEES AND WARRANTIES

- A. Provide complete roof system, including insulation, to be covered by roof membrane manufacturer's system warranty. Provide materials not included in Specifications where required by manufacturer to obtain requested warranty, without additional charge to Owner.
- B. Roof membrane manufacturer's system warranty meeting following minimum criteria:
 - 1. Coverage to repair damage to system components resulting from leaks due to failure of materials or workmanship.
 - 2. Non-prorated, non-penal sum (no dollar limit), 20-year warranty period.
 - 3. Coverage of cost of removal and replacement of wet or damaged insulation due to failure of materials or workmanship.
 - 4. No exclusion from coverage for damage to roof system from wind gusts less than 55 miles per hour.

- 1.6 Contractor's Guarantee: Refer to Division 01 Section "Summary of Work," for Contractor's Guarantee.

PART 2 - PRODUCTS

2.1 PVC MEMBRANE ROOFING

- A. Fire resistance: Listed by Underwriters' Laboratories as Class A roof system.
- B. Wind uplift resistance: Meets attachment requirements for FM Global 1-90
- C. PVC Sheet: ASTM D 4434, Type III, glass fiber reinforced.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Sarnafil Inc.; Sarnafil G410, .080-inch thick.
 - b. Seaman Corporation: Fibertite EIP, .060-inch thick.
 - c. Duralast Roofing, Inc.: Duralast PVC, .080-inch thick.
 - 2. Exposed Face Color: Bright White.

2.2 AUXILIARY MEMBRANE ROOFING MATERIALS

- A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use, and compatible with membrane roofing.
- B. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, and color as sheet membrane. Flashing shall be .060 mil thick.
- C. Bonding Adhesive: Water based, Manufacturer's standard.
- D. Slip Sheet: Manufacturer's standard, of thickness required for application.
- E. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8-inch thick; with anchors.
- F. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.
- G. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.
- H. Liquid-Applied Reinforced Flashings: One component polyurethane coating with woven polyester reinforcing scrim with embedded granule coating. ALSAN flashing by Soprema, Inc. or approved equal.

2.3 ROOF INSULATION

- A. Refer to Division 07 Section "Roof and Deck Insulation."

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine substrates, areas, and conditions, for compliance with the following requirements and other conditions affecting performance of roofing system:
 - 1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation
- B. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

- C. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- D. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of each workday. Remove and discard temporary seals before beginning work on adjoining roofing.
- E. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- F. Ensure insulation boards have been properly installed and are free of defects including but not limited to, broken corners, excessive moisture, dimensional irregularities and the like. Defective insulation boards shall be marked and immediately removed and replaced.

3.2 ADHERED MEMBRANE ROOFING INSTALLATION

- A. Adhere membrane roofing over properly installed insulation and coverboard and install according to membrane roofing system manufacturer's written instructions.
 - 1. Install sheet according to ASTM D 5036.
- B. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- C. Bonding Adhesive: Apply to substrate and underside of membrane roofing at rate required by manufacturer and allow to partially dry before installing membrane roofing. Do not apply to splice area of membrane roofing.
- D. In addition to adhering, mechanically fasten membrane roofing securely at terminations, penetrations, and perimeter of roofing.
- E. Apply membrane roofing with side laps shingled with slope of roof deck where possible.
- F. Seams: Clean seam areas, overlap membrane roofing, and hot-air weld side and end laps of membrane roofing and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation. Manufacturer's hot air welding machine will be used for seams in excess of 10 feet.
 - 1. All seams to be hot air welded. Seam overlaps to be a minimum 2-inches wide, or as required by the membrane manufacturer. Welding equipment shall be provided or approved by the membrane manufacturer. All workers intending to use the equipment shall have completed a training course by the manufacturer's representative prior to initiating roof replacement operations. Certification of trained welders is required. Manufacturer to supply confirmation of welder training.
 - 2. Hand welded seams shall be completed in two stages. Warm up equipment for at least one minute prior to welding. Welded seams to be 2-inches wide.
 - a. Weld the back edge of the lap with a thin, continuous weld to prevent loss of the hot air during the final weld.

- b. Insert the hot air nozzle into the lap, keeping the welding equipment at a 45 degree angle to the side lap. Once the material starts to flow, apply the 2-inch wide hand roller at a right angle to the welding gun and press lightly. For straight laps, use the 1-1/2-inch wide nozzle. Correct weld speed will complete approximately 20-inch/minute. The hot air weld equipment shall have temperature adjustments to provide this proper speed and weld.
 - 3. All seams to be welded in accordance with manufacturer's instruction. Inspect all completed seams on a daily basis. Inspection shall include, but not limited to, the probing of all field welded seams with a blunted pointed instrument to assure quality of the application and ensure that any operator or equipment deficiencies are immediately resolved.
 - a. One (1) inch wide cross section samples of welded seams shall be taken at least four times daily.
 - b. Correct welds display failure from shearing of membrane prior to weld separation.
 - c. The Contractor shall patch each patch at no extra charge to Owner.
 - d. Each weld will be forwarded to the Owner's representative with approximate roof location and date labeled on each.
 - 4. Provide T-joint covers hot air welded at side and head lap junctures (T-joints).
 - 5. Apply lap sealant to seal cut edges of sheet membrane.
 - 6. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
- G. Spread continuous bed of water cut-off mastic over deck drain flange at roof drains and securely seal membrane roofing in place with clamping ring. Extend membrane 1/2-inch minimum beyond inside face of clamping ring.

3.3 BASE FLASHING INSTALLATION

- 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 and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified firm to perform 3rd party monitoring and inspections.

- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Owner.
- C. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.

END OF SECTION 075420

SECTION 076000 - FLASHING AND SHEET METAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide perimeter and penetration sheet metal flashings and components at locations indicated on the drawings and as required to properly terminate the roof system.

1.2 SUBMITTALS

- A. Product Data:
 - 1. For each item specified in Part 2 of this Section.
 - 2. Color charts for coated metals.
- B. Shop Drawings: Show layouts, profiles, shapes, seams, dimensions, and details for fastening, joining, supporting, and anchoring sheet metal flashing and trim.
- C. Samples: For each type of sheet metal; 2 samples, 6-inches by 6-inches.
- D. Certifications: Perimeter sheet metal assembly must be in compliance with IBC requirements, specifically ANSI/SPRI ES-1 protocol.

1.3 QUALITY ASSURANCE

- A. Installation procedures shall be in accordance with the industry standards and codes indicated in Division 01 Section "Summary of Work" and those indicated in this Section.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- C. Sheet Metal Standard: Comply with NRCA "Roofing and Waterproofing Manual, Fifth Edition." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

1.4 WARRANTY

- A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SHEET METALS

- A. Stainless-Steel Sheet: ASTM A 240, Type 304, No. 2D finish.
- B. Galvanized (Zinc-Coated) Steel Sheet: ASTM A 653, G90 coating designation; structural quality, mill phosphatized for field painting.
- C. Prepainted, Metallic-Coated Steel Sheet: Galvanized sheet steel (G90); prepainted by coil-coating process, ASTM A 755; provide with manufacturer's strippable plastic film. Exposed finishes:
 - 1. High-Performance Organic Finish: Two-coat thermocured system containing not less than 70 percent polyvinylidene fluoride (Kynar/Hylar) resin by weight; complying with AAMA 2604. Color as selected by Owner from standard colors.
- D. Aluminum Sheet: ASTM B 209, Alloy 3004, temper not less than H14; provide with manufacturer's strippable plastic film. Required finish:
 - 1. Color Anodic Finish: Class I, AA-M12C22A42, complying with AAMA 611.
 - a. Color: Finish to match curtain wall frame.

2.2 ACCESSORIES

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Self-Adhering Membrane: High temperature self-adhering, SBS modified bitumen membrane with poly-surface and release-paper backing, minimum 40-mil thickness, designed for a minimum melting temperature of 220 deg F such as Ice & Water Shield HT by W.R. Grace, Lastobond Shield HT by Soprema, Metshield by MetFab, or accepted substitute.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.
- D. Exposed elastomeric Sealant: ASTM C 920, Type S, Grade NS, Class 25, Use A. Use an elastomeric polyurethane polymer sealant.
- E. Concealed sealant for metal-to-metal connections: ASTM C 1085, single-component, butyl (polyisobutylene) rubber sealant, heavy bodied for hooked-type expansion joints with limited movement.
- F. Pourable Sealer Pocket Filler
 - 1. Two-part polyurethane pourable sealer for sealing roof penetrations: manufactured or approved by roof system manufacturer.
 - 2. Gypsum concrete: Mill-mixed; ASTM C 317, Class A, with minimum compressive strength of 500 psi; Pyrofil, as manufactured by U.S. Gypsum/Poteet Industries, or accepted substitute.

- G. Band Clamps: Stainless steel, including screw-adjustable clamps; 1/2-inch wide.
- H. Flux: muriatic acid based with zinc.
- I. Solder: ASTM B 32, 50% block tin and 50% pig lead; manufactured for use with stainless steel or copper.
- J. Splash Block: Precast concrete formed to divert water in one direction. Splash block shall be in smooth forms with bottom edges rounded or chamfered to prevent abrasion.
- K. Termination Bar: Manufacturer's standard, predrilled aluminum bars, approximately 1 by 1/8-inch thick with sealant edge. Holes shall be predrilled at 6-inches on center.

2.3 FASTENERS

- A. Sheet metal to wood blocking connections (concealed securement): No. 12 annular threaded Series 300 stainless steel nails minimum 1-1/2-inches long.
- B. Sheet metal to wood blocking connections and mechanical unit securement (exposed securement): Self-drilling, self-tapping, Number 10, stainless steel hex-washer-head screws, 1-1/2-inch long, with metal-capped EPDM washers.
- C. Sheet metal to masonry wall connections: 1/4-inch diameter, concrete/masonry screws of sufficient length to penetrate substrate 1-1/2-inch minimum. Provide metal capped EPDM washers at exposed locations.
- D. Sheet metal fascia to wood connections: 1-inch long, #10, Series 300 stainless steel pan head screws.

2.4 FABRICATION – GENERAL

- A. General: Fabricate sheet metal flashing and trim to comply with IBC and recommendations in SMACNA and NRCA that apply to design, dimensions, metal, and other characteristics of item indicated. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 1. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
 - 2. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- D. Expansion Provisions: Where lapped expansion provisions in Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.

- E. Provide concealed fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.
- F. Provide cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal, and in thickness not less than that of metal being secured.

2.5 FABRICATION SCHEDULE

- A. Stainless Steel (26 gauge)
 - 1. Sheet Metal Cap at Steel Support
 - 2. Reglet Counterflashing (Roof to Wall)
 - 3. Counterflashing / Receiver and clips
 - 4. Skirt Flashing/Clips
 - 5. Pourable Sealer Boxes
 - 6. Throughwall Counterflashing/Receiver and Clips
 - 7. Sill Flashing Receiver/Counterflashing and Clips

PART 3 - EXECUTION

3.1 PREPARATION

- A. Verify that substrate and anchorage materials to receive sheet metal flashings are properly secured and aligned, without gaps, lumps, or offsets that may distort metal.
- B. Install underlayment at roof edges, parapets, curbs, and similar transitions, and as shown on Drawings.

3.2 INSTALLATION, GENERAL

- A. Comply with these specifications and applicable industry standards to include the IBC, NRCA, and SMACNA, whichever is more stringent.
- B. General: Anchor sheet metal flashing and trim and other components of Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Torch cutting of sheet metal flashing and trim is not permitted.
- C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.
- D. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.

- E. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and butyl sealant.
- F. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
- G. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10-feet, with no joints allowed within 18-inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with butyl sealant concealed within joints.
- H. Fasteners: Use fasteners of sizes that will penetrate substrate not less than 1-1/4-inches for nails and not less than 3/4-inch for wood screws.
- I. Non-moving seams and joints on non-solderable metal shall be interlocked, filled with sealant, and riveted, unless otherwise indicated.
- J. Seal joints as required for watertight construction. Use elastomeric sealant for exposed conditions. Use butyl sealant for hidden conditions.
- K. Provide sheet metal closure components at transitions to rising walls and similar changes in plane for edge metal, parapet caps, expansion joint covers, and other termination flashings. Fully crimp and seal closures to continuous blind nailed cleats.
- L. Soldered Joints: Comply with SMACNA and CDA requirements. Use conduction soldering methods.
 1. Clean surfaces to be soldered, removing oils and foreign matter. Smooth irregularities and round edges. Prein edges of sheets to be soldered to width of 1-1/2-inches except where pretinned surface would show in finished Work.
 2. Apply flux to surfaces to receive solder. Remove oxides and other impurities from joint.
 3. Position and immobilize parts to be soldered. Heat parts above fluid temperature of solder. Draw solder into joint, creating 1-inch wide lap. Allow to cool before moving parts.
 4. Remove flux and acid by cleaning with neutralizing agent.
- M. Fabricate sheet metal components to the dimensions and shapes shown on the Drawings.

3.3 METAL COMPONENT INSTALLATION

- A. Securement Clips
 1. Securement clips shall be 6-inches long and 2-inches wide.
 2. Secure clips to substrate with specified fasteners. Space clips 12-inches on center.
 3. Bend clips minimum of 1-inch over bottom drip edge of counterflashing and crimp loosely.
- B. Counterflashing and Receiver
 1. Provide counterflashing and receiver with 3-inch minimum sealant-filled section laps. Insert counterflashing into receiver.

2. Secure receiver to wall with fasteners spaced at 16-inches on center maximum
3. Secure counterflashings into receivers with stainless steel screws spaced 12-inches on center, minimum 3 screws per length of counterflashing.
4. Secure counterflashings with clips.

C. Reglet Counterflashing

1. Sawcut reglet into brick masonry mortar joints to depth of 1-1/2-inches and width of 3/8-inch. Clean loose particles from reglet and fill reglet with butyl sealant.
2. Form horizontal flange of counterflashing with "V" bend up at 45 degree angle and not less than 3/4-inch long. Provide bend with spring action within reglet.
3. Insert counterflashing into reglet and secure with lead wedges spaced at 8-inches on center. Provide minimum of 3 wedges per length of counterflashing. Ensure that counterflashing and wedges are driven in sufficiently to provide proper sealant coverage. Install sealant above exterior edge of counterflashing.

D. Skirt Flashing

1. Insert skirt flashing beneath existing and new equipment covers. Lap skirt flashing sections 3-inches minimum.
2. Secure skirt flashing with sheet metal clips spaced 12-inches on center and minimum of 2 per side of curb.

E. Pourable Sealer Pockets

1. Provide pourable sealer pockets only where field fabricated pipe flashings cannot be installed.
2. Fabricate pourable sealer boxes 6-inches high, with minimum 2-inch wide clear space on each side around each penetration.
3. Prime flanges and set in bed of adhesive.
4. Secure deck flanges to substrate as specified.
5. Pour premixed gypsum concrete into box to depth 2-inches from top and allow to set.
6. Fill remaining 2-inches with pourable sealer to top of box and allow to set. Tool pourable sealer to shed water.
7. Provide fully soldered sheet metal cap set in sealant as indicated on Drawings.
8. Flash flanges in accordance with membrane requirements and Drawings.

3.4 CLEANING

- A. Remove scrap metal, burrs, fasteners, and related debris from roof daily. Take precautions to prevent damage to roof membrane and flashings.

END OF SECTION 076000

SECTION 079200 – JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide sealant and backer materials at exterior vertical joints as indicated on the Drawings.
 - 2. Remove and replace all perimeter sealants and glazing sealants at vestibule entrance sloped glazing.

1.2 SUBMITTALS

- A. Product Data: All items specified in Part 2 of this Section.

1.3 QUALITY ASSURANCE

- A. Utilize skilled and experienced specialty workers to install work. Experienced trade workers shall be utilized for each aspect of work.
- B. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to Project joint substrates according to the method in ASTM C 1193 that is appropriate for the types of Project joints.
- C. Mockups: Build mockups incorporating sealant joints, as follows, to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution:
 - 1. Install a minimum 20 linear feet of each color and type of sealant and sealant configuration at all new sealant joint locations referenced in scope of work. Sealant installation shall conform to Contract Documents and once accepted shall become standard for subsequent work on project. Trial areas shall be determined by Owner or Engineer. Areas shall be repeated until acceptable results are obtained. Installation of test items shall be in conformance with Contract Documents and shall use only submitted materials. Evidence of improper or unsatisfactory performance shall be ground for rejection of submitted materials.

1.4 WARRANTY

- A. Special Installer's Warranty: See Division 01 Section “Summary of Work.”
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not

comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SEALANTS

- A. Sealant for use at exterior joint locations (primary and secondary joints) and exterior perimeters of windows: Multi-component urethane sealant conforming to ASTM C 920, Type M, Grade NS, Class 50, Uses M and A, such as Dymeric 511 as manufactured by Tremco, Dynatrol II by Pecora, or NP-II by Sonneborne.
- B. Color(s) shall be selected by Owner from approved manufacturer's color chart. Colors shall be manufacturers available premium colors such as "Fast Pak" by Tremco or approved equal. Owner may require a minimum of two (2) sealant colors to be installed at each new sealant joint type. Contractor will include multiple colors in his/her Bid.
- C. Sealant for exposed masonry joints: single component urethane such as Dymonic by Tremco, Dynatrol I by Pecora, or NP-1 by Sonneborne conforming to ASTM C 920, Type S, Grade NS, Class 25, Use M and A.
- D. Sealant for concealed joints shall be one-part butyl sealant, conforming to ASTM C 1085.

2.2 ACCESSORIES

- A. Primer shall be non-staining type as manufactured or recommended by sealant manufacturer for each substrate.
- B. Joint cleaner shall be non-corrosive and non-staining as recommended by sealant manufacturer. Cleaner shall be totally compatible with sealant for each substrate.
- C. Bond breaker tape shall be pressure-sensitive tape as recommended by sealant manufacturer.
- D. Backer rod shall be continuous length, closed-cell polyethylene foam, as recommended by sealant manufacturer. Backer rod shall be compressible, resilient, non-waxing, non-extruding, and non-staining. Backer rod shall be of sufficient size to be compressed 30% of maximum joint width and shall be totally compatible with sealant, primer, and substrates. Backers shall conform to requirements of ASTM C 962 - Type A, ASTM D 1622, ASTM D 1623, and ASTM D 5249 such as Green Rod by Nomaco, or approved equal.
- E. Masking material shall be commercially available masking tape of appropriate width or other material recommended by sealant manufacturer. Self-adhesive masking materials shall be of low tack and completely strippable, leaving no adhesive residue behind when removed.
- F. Expanding foam tape shall be compressible polyurethane foam, impregnated with a water resilient seal. One side shall be coated with release agent to act as bond breaker for sealant. Tape shall be

Willseal 600 as manufactured by Sealform, Ltd., Greyflex as manufactured by EMSeal Joint Systems, Ltd., or approved equal. Sealant manufacturer must approve use of expanding foam tape in writing.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
 - a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
- B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION – GENERAL

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability. Provide a 2:1 width to depth ratio unless otherwise indicated by the manufacturer.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Provide approximately 30% compression of backer materials.
- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.

2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
1. Remove excess sealant from surfaces adjacent to joints.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
- F. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping, taking care not to pull or stretch material, producing seal continuity at ends, turns, and intersections of joints. For applications at low ambient temperatures where expansion of sealant requires acceleration to produce seal, apply heat to sealant in compliance with sealant manufacturer's written instructions.
- G. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

END OF SECTION 079200

SECTION 099100 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for following the Scope of Work:
 - 1. Prepare, prime, and paint exterior surfaces of exposed steel framing.

1.2 SPECIAL JOB CONDITIONS

- A. Coating products shall not contain: asbestos, zinc chromate, strontium chromate, or lead.
- B. Building will be occupied and in use during construction. Contractor shall take all precautions necessary to protect persons and property. Scheduling of work shall be coordinated with Owner's representative.
- C. Provide all necessary temporary protection and barriers to segregate work area and prevent damage to adjacent areas.

1.3 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Paints shall be delivered in sealed containers that legibly show designated name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name of manufacturer.
- B. Paints and thinner shall be stored in accordance with manufacturer's written directions and as a minimum stored off ground, under cover, with sufficient ventilation to prevent build-up of flammable vapors and at temperatures between 40 and 95 degrees F.

1.4 ENVIRONMENTAL CONDITIONS

- A. Unless otherwise recommended by paint manufacturer, ambient temperature shall be between 45 and 95 degrees F when applying coatings.

1.5 SUBMITTALS

- A. Manufacturer's Instructions
 - 1. Paint application instructions
 - 2. Paint color charts for Owner's selection of color
 - 3. Material Safety Data Sheets (MSDS)

- B. Schedule for Paint application
- C. Applicators Qualifications consisting of evidence showing satisfactory application of proposed paint at a minimum of two sites. Give names and contacts at sites.

PART 2 - PRODUCTS

2.1 PAINT, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

2.2 PRIMER AND PAINT

- A. Primer for exterior steel MPI #107: Rust-inhibitive industrial enamel primer by Sherwin Williams or accepted substitute. Primer shall be lead and chromate-free.
- B. Paint for exterior steel MPI #8 (flat): Alkyd Gloss Enamel by Duron or accepted substitute.
- C. Colors shall be as selected by Owner from manufacturer's standard colors, as indicated. Color of undercoats shall vary slightly from color of next coat.
- D. Paints containing lead in excess of 0.06 percent by weight of total nonvolatile content (calculated as lead metal) shall not be used.
- E. Paints shall comply with applicable state and local laws enacted to insure compliance with Federal Clean Air Standards and shall conform to restrictions of local air pollution control authority.

2.3 ACCESSORIES

- A. Paint application shall be performed by brush or roller only. No spraying shall be permitted unless approved in advance by Owner.
- B. Masking tapes, sheets, and sealants shall be compatible with materials they are applied to and shall not leave stains on adjacent surfaces.

2.4 PAINT SCHEDULE

- A. Exterior doors and frames finishes:
 - 1. Primer

- a. Number of Coats: One, dry film thickness, 1.7 mils
- 2. Paint
 - a. Number of Coats: Two, dry film thickness, 1.3 mils per coat.

PART 3 - EXECUTION

3.1 GENERAL

- A. Prior to surface preparation and coating applications, remove mask or otherwise protect all adjacent surfaces. Repair or replace items damaged in course of painting to Owner's satisfaction.
- B. Before applying succeeding coats, undercoats shall be completely integral and shall perform function for which they are specified. Properly prepare and touch up all scratches, abrasions or other disfigurements and remove any foreign matter before proceeding with following coat. All spot-priming or painting shall be featheredged into adjacent areas to produce smooth monolithic appearance.
- C. Post "Wet Paint" signs as required.

3.2 PREPARATION

- A. Clean all surfaces to be painted as required to remove dust and dirt. Sand as necessary to properly prepare surfaces to receive primer and paint.
- B. Wipe off dust and grit from properly prepared surfaces prior to applying primer.
- C. Remove dirt, scale, loose coatings and particles, grease, oil, disintegrated coatings, and other substances deleterious to coating performance for component substrates in accordance with SSPC SP-1, Power Tool Cleaning, to remove rust and loose coatings as well as to remove glossy surfaces of existing paint films.
- D. Ferrous Surfaces: Ferrous surfaces including those that have been shop-coated, shall be solvent-cleaned. Surfaces that contain loose rust, loose mill scale, and other foreign substances shall be cleaned mechanically with hand tools according to SSPC SP 2, power tools according to SSPC SP 3. Shop-coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.
- E. Previously Painted Surfaces: Previously painted surfaces specified to be repainted or damaged during construction shall be thoroughly cleaned of all grease, dirt, dust or other foreign matter. Blistering, cracking, flaking and peeling or other deteriorated coatings shall be removed. Slick surfaces shall be roughened. Damaged areas such as, but not limited to, nail holes, cracks, chips, and spalls shall be repaired with suitable material to match adjacent undamaged areas. Edges of chipped paint shall be feather edged and sanded smooth. Rusty metal surfaces shall be cleaned as per SSPC requirements. Solvent, mechanical, or chemical cleaning methods shall be used to provide surfaces suitable for painting. New, proposed coatings shall be compatible with existing coatings. If existing surfaces are glossy, gloss shall be reduced.

3.3 APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Apply products in accordance with manufacturer's instructions. Rate of application of coating shall be as specified but shall not exceed that as recommended by paint manufacturer for purpose of surface involved.
- C. Allow sufficient drying time between coats as recommended by coating manufacturer.
- D. Lightly sand and dust between each coat to remove defects visible from 5-feet. Finish coats shall be smooth, free from brush marks, streaks, laps, sags, skips, holidays, etc.
- E. Do not apply additional coats until previously installed coat has been reviewed and accepted by Owner. Only accepted coats of paint will be considered in determining number of coats applied.
- F. Refinish entire sections if areas which have been previously repaired are rejected.

3.4 CLEANING

- A. Repair brush marks, scratches, abrasions, and minor surface defects in coatings finish in accordance with manufacturer's printed instructions. Finish of repaired surfaces shall be uniform and free from blemishes and variations in color and surface texture.

END OF SECTION 099100

SECTION 099653 - COATINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide roof coatings as specified on all existing built-up roof systems and on the capsheet overlay at Roof Area C.
 - 2. Provide roof coatings as specified on all existing concrete balcony roof areas.

1.2 PERFORMANCE REQUIREMENTS

- A. Provide coating systems with the following properties as determined by test methods indicated:
 - 1. Elongation: Not less than 100 percent with a tensile strength of 1.3 MPA and not less than 88 percent recovery after 1 hour and 90 percent recovery after 24 hours when tested according to ASTM D 2370 using parameters established by MPI 113.
 - 2. Accelerated Weathering: No cracking, peeling, blistering, chalking, or visual deterioration after 1000 hours when tested according to procedures in ASTM G 155.
 - 3. Low-Temperature Flexibility: No crack formation when tested according to ASTM D 1737.
 - 4. Wind-Driven Rain Resistance: No water penetration according to procedures in FS TT-C-555.

1.3 SUBMITTALS

- A. Product Data: For each coating system specified. Include crack fillers, block fillers, and primers.
 - 1. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference the specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - 2. Manufacturer's Information: Technical information including label analysis and instructions for handling, storing, and applying each coating material.
- B. Qualification Data: For Applicator.
- C. Material Certificates: For each coating material, signed by manufacturers.
- D. Product Test Reports: Based on evaluation of comprehensive tests by a qualified testing agency for each coating material indicating compliance of coatings with requirements based on comprehensive testing within the last two years of current product formulations.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: A firm or individual experienced in applying coating systems similar in material and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Source Limitations: Obtain crack fillers and other undercoat materials from same manufacturer as finish coats.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 7 deg C (45 deg F). Maintain storage containers in a clean condition, free of foreign materials and residue.

1.6 WARRANTY

- A. Coating Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace coatings that fail within specified warranty period. Failures include, but are not limited to, water penetration through the coating.
- B. Warranty Period for Coatings: Ten (10) years from date of Substantial Completion.

1.7 EXTRA MATERIALS

- A. Furnish extra coating materials from same production run as materials applied and in quantities described below. Package materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to Owner.
 - 1. Quantity: Furnish Owner with 2 gal. of each coating materials applied.

PART 2 - PRODUCTS

2.1 URETHANE COATINGS (BUILT-UP ROOF AREAS)

- A. Manufacturers: Subject to compliance with requirements, provide coating systems by one of the following:
 - 1. Soprema, Inc.; R Nova Plus
 - 2. The Garland Company, Inc.; White Knight Plus
 - 3. Tremco, Inc.; Geogard
 - 4. Approved Equal

2.2 ELASTOMERIC FINISH-COAT MATERIALS (BALCONY ROOF AREAS)

- A. Smooth Finish: Smooth, factory-formulated, 100 percent acrylic coating with a minimum of 50% solids by volume and a minimum SRI of 80 such as Eterna-Seal 8101 by Truco, Inc. or RCS 5000 by Lapollo Industries, Inc.

2.3 COATING MATERIALS, GENERAL

- A. Material Compatibility: Provide crack fillers, block fillers, primers, finish-coat materials, and related materials that are compatible with one another and substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. Material Quality: Provide manufacturer's best-quality coating materials that are factory formulated, comply with requirements in FS TT-C-555, and are recommended by manufacturer for the application indicated. Material containers not displaying manufacturer's product identification are not acceptable.
 - 1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance of proposed substitutions.
- C. Colors and Textures: Manufacturer's standard smooth texture. Color shall be white.
- D. Crack Fillers: Factory-formulated acrylic emulsion crack fillers compatible with substrate and finish-coat materials indicated.
- E. Retain crack fillers below for cracks up to 1/16-inch. Benjamin Moore, Tamms, and Tnemec do not make specific recommendations for crack fillers.
- F. Factory-formulated, alkali-resistant, acrylic-latex primer as recommended by coating manufacturer.
- G. Seam and/or Flashing Reinforcement: If required for warranty, provide manufacturer's standard reinforcement at seams and flashings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for coating application. Comply with procedures specified in PDCA P4.
 - 1. Proceed with coating application only after unsatisfactory conditions have been corrected and surfaces are thoroughly dry.
 - 2. Start of coating application will be construed as Applicator's acceptance of surface conditions.

- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, light fixtures, and similar items already installed that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.
 - 1. After completing coating operations, reinstall items removed, using workers skilled in trades involved.
- B. Cleaning: Before applying coatings or other surface treatments, clean substrates of substances that could impair bond of coating systems. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be coated according to manufacturer's written instructions for particular substrate conditions and as specified.
 - 1. Provide barrier coats over incompatible primers or remove and reprime.
 - 2. Cementitious Surfaces: Prepare brick, concrete, concrete unit masonry, stucco, and similar surfaces to receive coatings. Remove efflorescence, chalk, dust, dirt, release agents, grease, oils, and similar impediments to good adhesion by water blasting followed by a clear water rinse.
 - a. Remove mildew and neutralize surfaces according to manufacturer's written instructions before patching materials are applied.
 - b. Roughen as required to remove glaze. Use abrasive blast-cleaning methods if recommended by coating manufacturer.
 - c. If hardeners or sealers have been used to improve concrete curing, use mechanical methods for surface preparation.
 - d. Determine alkalinity and moisture content of surfaces to be coated by performing appropriate tests. If surfaces are sufficiently alkaline to cause finish paint to blister and burn, correct this condition before application. Do not apply coatings over surfaces where moisture content exceeds that permitted in manufacturer's written instructions.
 - 3. Crack Repair: Fill cracks according to manufacturer's written instructions before coating surfaces.
 - 4. Deep Hairline Cracks: Remove dust and dirt from around cracks. Remove mildew by sterilizing before filling. Apply manufacturer's recommended primer to cracks before patching. If shrinkage occurs after applying crack filler, apply additional filler material to cracks before initial application of coatings.
 - a. Cracks up to 1.5 mm (1/16-inch): Clean surface around cracks. Apply crack filler primer penetrating cracks as deeply as possible, overflowing crack 50 mm (2 inches) on each side. When crack filler primer is dry, apply manufacturer's recommended sealant, forced well into cracks using a brush, putty knife, or trowel. Smooth edges of primed area around cracks. Allow for sealant shrinkage when applying.

- b. Cracks up to 9 mm (3/8 Inch): Open cracks to 6 mm to 9 mm (1/4 to 3/8 inch) wide and 3 mm (1/8 inch) deep. Clean cracks and surrounding area removing dust, dirt, and other impurities. Apply crack filler primer recommended by manufacturer with a brush to obtain uniform coverage and spread approximately 50 mm (2 inches) on each side of cracks. Fill cracks with manufacturer's recommended crack filler applied with a putty knife or trowel, and allow for shrinkage. If excessive shrinkage occurs, reapply crack filler.
- D. Material Preparation: Mix and prepare materials according to coating manufacturer's written instructions.
- 1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
 - 2. Stir materials before application to produce a mixture of uniform density. Stir as required during application. If surface film forms, do not stir film into material. If necessary, remove film and strain coating material before using.
 - 3. If manufacturer permits thinning, use only thinners recommended by manufacturer, and only within recommended limits.

3.3 APPLICATION

- A. General: Apply coatings according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
- 1. Do not paint over conditions detrimental to formation of a durable coating film, such as dirt, rust, scale, grease, moisture, and scuffed surfaces.
 - 2. Provide finish coats compatible with primers used.
- B. Scheduling Coating: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
- 1. Number of coats and film thickness required are same regardless of application method. Do not apply succeeding coats until previous coat has cured as recommended by manufacturer.
 - 2. If undercoats or other conditions show through final coat, apply additional coats until coating film is of uniform finish, color, and appearance. Ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.
 - 3. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until coating has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat does not cause undercoat to lift or lose adhesion.
 - 4. Provide additional layers of coating materials at low areas to provide consistent white finished roof.
- C. Application Procedures: Apply coatings by brush, roller, or spray according to manufacturer's written instructions.
- 1. Brushes: Use brushes best suited for material being applied.

2. Rollers: Use professional-quality quick-release rollers of carpet, velvet back, or high-pile sheep's wool covers with a 25 mm to 31 mm (1- to 1-1/4-inch) nap as recommended by manufacturer for material and texture required.
 3. Spray Equipment: airless spray equipment shall not be used.
- D. Minimum Coating Thickness: Apply each material no thinner than manufacturer's recommended spreading rate. Provide total dry film thickness as recommended by manufacturer but in no case less than .3 mm (.012-inch).
 - E. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
 - F. Prime Coats: If recommended by manufacturer, apply a primer to material being coated before applying finish coats.
 - G. Brush Application: Brush out and work brush coats into surfaces in an even film. Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Neatly draw glass lines and color breaks.
 - H. Roller Application: Keep cover wet at all times; do not dry roll. Work in sections. Lay on required amount of material, working material into grooves and rough areas; then level material, working it into surface.
 - I. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work not complying with specified requirements.

3.4 CLEANING

- A. Cleanup: At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

3.5 PROTECTION

- A. Provide "Wet Paint" signs to protect newly coated finishes. Remove temporary protective wrappings provided by others to protect their work after completing coating operations.

3.6 COATING SCHEDULE

- A. Provide coating systems according to the following schedule:
 1. Built-Up Roof Surfaces:
 - a. Primer: 1 coat if required by the coating manufacturer.
 - b. Base Coat: 1 coat.
 - c. Fabric Reinforcement or Seam Sealer: As required by manufacturer.
 - d. Finish Coat: 1 coat.
 2. Concrete Balcony Surfaces:
 - a. Primer: 1 coat if required by the coating manufacturer.

- b. Fabric Reinforcement or Seam Sealer: As required by manufacturer.
- c. Finish Coat: 1 coat.

END OF SECTION 099653

SECTION 221426.13 – ROOF DRAINS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Provide drain bowls, strainers, clamping rings, underdeck clamps, and pipe joint connections at all existing roof drain locations on Areas E and F.
 - 2. Clear roof drain systems from roof level to the point where the leaders exit the building to achieve a free-flowing system.
 - 3. Refurbish existing drain assemblies on all other roof areas. New parts shall include strainers, clamping rings and stainless steel hardware.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.

1.3 PROJECT CONDITIONS

- A. Sections of the existing interior finish ceiling systems will require removal. These areas should be reviewed with Owner prior to removal. Work areas shall be clearly defined and closed-off from building occupants. Areas of ceiling removal shall be as small as possible to effectively install the work. Any adjacent ceilings damaged during installation shall be repaired or replaced by the Contractor at no cost to the Owner.
- B. Existing roof drain outlet diameters vary. Contractor shall confirm conditions prior to ordering materials.
- C. The plumbing work shall be coordinated with roof work in such a manner that drain bowl assemblies are installed concurrently with the roofing and that no interior portions of the building are left exposed to the elements at the end of a day's work. Install replacement and augmenting drain bowl assemblies before new roofing is in place.
- D. The Contractor shall provide all rooftop protection for new and existing roofs.
- E. All plumbing work shall be performed by a licensed plumber in accordance with the International Plumbing Code (IPC).
- F. The Contractor shall investigate the ceiling conditions. PVC piping shall not be used if the ceiling is used as a return air plenum.

PART 2 - PRODUCTS

2.1 ROOF DRAIN COMPONENTS

- A. Roof drain: Coated cast iron with bottom outlets, large-sump style, with wide roof flanges, such as "Series 21500" manufactured by Josam Company, or approved equal. Outlet diameters shall match the existing leader pipe diameters.
- B. Drain strainers: Coated cast iron of suitable size and configuration to be installed on the new drain bowl assemblies.
- C. Clamping rings: Non-puncturing type, with integral gravel stops, either coated cast iron or stainless steel, sized to match the drain bowls. Bolts, nuts, and washers required for securement of clamping rings to drain bowls shall be stainless steel.
- D. Underdeck clamps: Coated cast iron, provided by the drain bowl manufacturer for application beneath roof decks.

2.2 ACCESSORIES

- A. Leader pipe: Schedule 40 PVC pipe. Pipe and connections shall be sized to tie into existing leader piping.
- B. Drain bowl to leader pipe connections: 4 band, no hub, neoprene connections.
- C. Pipe Connections: Solvent welded connections.
- D. Hangers and fittings: Conforming to Manufacturer's Standardization Society of Valve and Fittings Industry (MCC) SP-58 and SP-59 guidelines. Hangers and strapping material shall be of approved material that will not promote galvanic reaction. Cast iron fittings shall conform to the American Society of Mechanical Engineers (ASME) B16.4 and B16.12.
- E. Fasteners for securing drain stiffening plates to cementitious wood fiber decks: 1/4-inch diameter toggle bolts, carbon steel with factory treated fluorocarbon coating or stainless steel.
- F. Steel plate for drain bowl locations shall be minimum 24 gauge hot dipped galvanized plate as provided by the drain bowl manufacturer. Plate shall be a minimum size of 16-inches x 16-inches with central hole of suitable size to receive new drain bowl.
- G. Insulation for drain bowls and leader piping: Fibrous glass batt type with premolded PVC jackets. Insulation shall be minimum 1-inch thick.

PART 3 - EXECUTION

3.1 PREPARATION

- A. The Owner shall be notified at least 72 hours prior to all underdeck work. All materials, equipment and daily clean-up shall be the responsibility of the Contractor.
- B. All flashing-in of the roof drains and membrane repairs as a result of the plumbing work shall be the responsibility of and provided for by the Contractor.
- C. The Contractor is cautioned to investigate all existing conditions and materials of construction. All replacement items must be completely compatible with and match the existing system.
- D. Comply with Division 1 GENERAL REQUIREMENTS for preparation, protection and clean-up of interior and exterior work areas.

3.2 CEILING REMOVAL

- A. Do not remove any ceiling areas without the prior approval of the Owner and Owner's Representative. The limits of ceiling removal to facilitate installation of the new plumbing work shall be clearly defined. All precautions shall be taken to protect the building interior and occupants during ceiling removal and replacement.
- B. Do not damage or cut any of the ceiling support system without the Owner's and Owner's Representative's approval. Should the support system be damaged or removed to facilitate plumbing work installation, it shall be replaced with a new support system equal to the existing, at no additional cost to the Owner.
- C. All floor and adjacent areas, both interior and exterior, damaged or stained by the installation of the plumbing work shall be cleaned of all dust, debris and any other materials to the Owner's satisfaction.

3.3 DRAIN BOWL ASSEMBLY INSTALLATION

- A. Install new roof drains such that the bowl flange with clamping ring and integral gravel stop are level (see Detail Drawings for assembly position).
- B. Provide manufacturer supplied, prefabricated, galvanized steel plate over opening. Mechanically attach plate to steel deck with specified fasteners, 2 per side.
- C. Make drain to leader connections watertight and of proper strength using no hub connections.
- D. Install drain bowl insulation and PVC jackets. Join sections with tape or other methods indicated by the manufacturer. Extend insulation to the first elbow or 2-feet.
- E. Drain components shall be completed and flashed in the same day's operation.

- F. Check all drain joints with a water test once the roofing and flashing are completed.

3.4 DRAIN ASSEMBLY REFURBISHMENT

- A. Remove existing hardware, drain bowl connections, strainers, and clamping ring.
- B. Refer to Division 07 Section “Maintenance of Membrane Roofing”, for installation procedure of drain strippings.
- C. Clean and tap existing holes in drain bowl.
- D. Install new hardware and clamping ring.
- E. Tighten/repack drain bowl connections. Replace drain clamps as necessary if unable to tighten.

3.5 CLEANING OF DRAINAGE SYSTEM

- A. Once the new roof system has been installed, clear all roof drain leader piping and underground leaders of debris and clogs such that the system is free-flowing.
- B. The Contractor shall clear the existing leader pipe with rooter-type equipment from the roof deck level to the point where the drain pipes exit the building.

3.6 WATER TESTS

- A. Perform water tests on roof drain assemblies, including leader piping, and on gutter assemblies and scuppers. Using 3/4-inch garden hose, run water into the drainage components for thirty minutes. Inspect all drainage components for leakage and repair as required. Inform Owner of test findings.

END OF SECTION 221426.13

SECTION 230510 - MECHANICAL/ELECTRICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
1. Mechanical disconnection, extension, shortening, and/or reconnection shall be performed in accordance with the International Mechanical Code.
 2. Electrical disconnection, extension, shortening, and/or reconnection shall be performed in accordance with the National Electrical Code.
 3. Plumbing work shall be performed in accordance with the International Plumbing Code.
 4. Details, not shown or specified but necessary for proper installation and operation shall be included within the work as though specified herein.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 GENERAL

- A. Mechanical, electrical, and associated work shall be performed by licensed tradesman and shall comply with the applicable code requirements.
- B. Wherever possible match the existing mechanical and electrical components; replace in kind when made necessary by roofing operations.
- C. Lengthening and installation of additional connections for ducts, conduits, control wiring, condensate pipes and similar mechanical and electrical work made necessary by roof replacement work shall be performed by the Contractor.
- D. Handle, store, and protect equipment and materials to prevent damage before and during installation.

END OF SECTION 230510