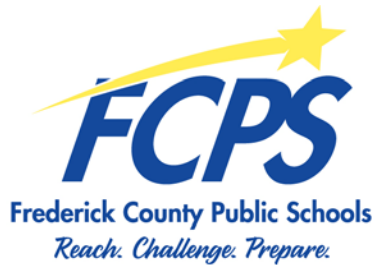


Purchasing Office
191 South East St
Frederick, Maryland 21701
301-644-5208 phone
301-644-5213 fax



Kerrie Koopman CPPB, CPPO,
Purchasing Manager
**Kim Miskell, CSBO, Assistant Purchasing
Manager**
Bill Meekins CPPB, CSBO, CPCP,
Purchasing Agent
Shane Ryberg, Purchasing Agent

BID NUMBER/BID NAME: 20C4, Veneer Repairs to Thurmont Primary School

BID ISSUE DATE: November 1, 2019

BID CONTRACT MANAGER: Kim Miskell, CSBO, Assistant Purchasing Manager, kim.miskell@fcps.org

BID CONTRACT ADMINISTRATOR: Vernon Beals, Project Manager III, Construction Management, vernon.beals@fcps.org

QUESTIONS: Questions due no later than 4:00 P.M., local time, on November 26, 2019. Submit questions in writing to the Contract Manager listed above with a copy to the Contract Administrator.

PRE-BID DATE: 10:00 a.m., local time, on November 12, 2019
(Attendance is encouraged, but not mandatory.)

PRE-BID LOCATION: Thurmont Primary School
7989 Rocky Ridge Road
Thurmont, MD 21788

OBTAINING BID DOCUMENTS: To view and/or download this solicitation package please visit our webpage at: www.fcps.org/bidlist. If you have problems downloading this bid or applicable addenda, contact: amy.beall@fcps.org

BONDS REQUIRED: YES

MBE REQUIREMENTS: YES

BID DUE: 2:00 P.M., local time, on December 9, 2019
Faxed or emailed bids are not acceptable.

SEALED BID DELIVERED TO: Frederick County Public Schools
Attn: Purchasing Department
191 South East Street
Frederick, MD 21701
(Parking is available at Deck #5 on All Saints Street. Recent security upgrades at the FCPS Central Office Building will require visitors to request entry utilizing the phone buzzer/button system. Please allow enough time to ensure access to the building prior to the bid due time.)

Bid proposal must be properly marked with vendor's business name, address, bid name and number on the envelope or package. Do not return the following pages: cover page, table of contents, map, calendar, directory or terms and conditions.

TENTATIVE AWARD DATE: BOE Work Session, scheduled on: January 8, 2020

ELIGIBILITY TO BID: All Frederick County Public School vendors and or contractors interested in bidding on FCPS projects must register at eMaryland Marketplace Advantage www.procurement.maryland.gov. FCPS will no longer accept bidder's applications.

FREDERICK COUNTY PUBLIC SCHOOLS

BID 20C4, VENEER REPAIRS TO THURMONT PRIMARY SCHOOL

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Purchasing Office
191 South East Street
Frederick, Maryland 21701
301-644-5208 phone
301-644-5213 fax



Kerrie Koopman CPPB, CPPO,
Purchasing Manager
**Kim Miskell, CSBO, Assistant Purchasing
Manager**
Bill Meekins CPPB, CSBO, CPCP,
Purchasing Agent
Shane Ryberg, Purchasing Agent

INVITATION TO BID

November 1, 2019

Bid 20C4, Veneer Repairs to Thurmont Primary School

The Board of Education of Frederick County will receive sealed bids for Bid 20C4, Veneer Repairs to Thurmont Primary School. Bids will be received and time stamped in the main lobby of Frederick County Public Schools (FCPS) at 191 South East Street, Frederick, MD 21701, prior to and time stamped no later than 2:00 p.m., local time, on December 9, 2019. Bids received after this time will be returned unopened. Vendors will be escorted to the Purchasing Department Conference Room 2B, at which time and place bids will be publicly opened and read aloud.

A pre-bid meeting will be held at 10:00 a.m., local time, on November 12, 2019, on site at Thurmont Primary School, 7989 Rocky Ridge Road, Thurmont, MD 21788. Attendance at the pre-bid meeting is not mandatory; however, vendors are strongly encouraged to attend.

To view and/or download this solicitation package please visit our webpage at: <http://www.fcps.org/bidlist>.

All Frederick County Public School vendors and or contractors interested in bidding on FCPS projects must register at www.emarylandmarketplace.com, prior to contract award. FCPS will no longer accept bidder's applications.

Certified Minority Business Enterprises are encouraged to respond to this solicitation notice. The contractor or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the specific overall MBE goal of 8% established for this project. All prime contractors, including certified MBE firms, when submitting bids or proposals as general or prime contractors, are required to attempt to achieve this goal from certified MBE firms.

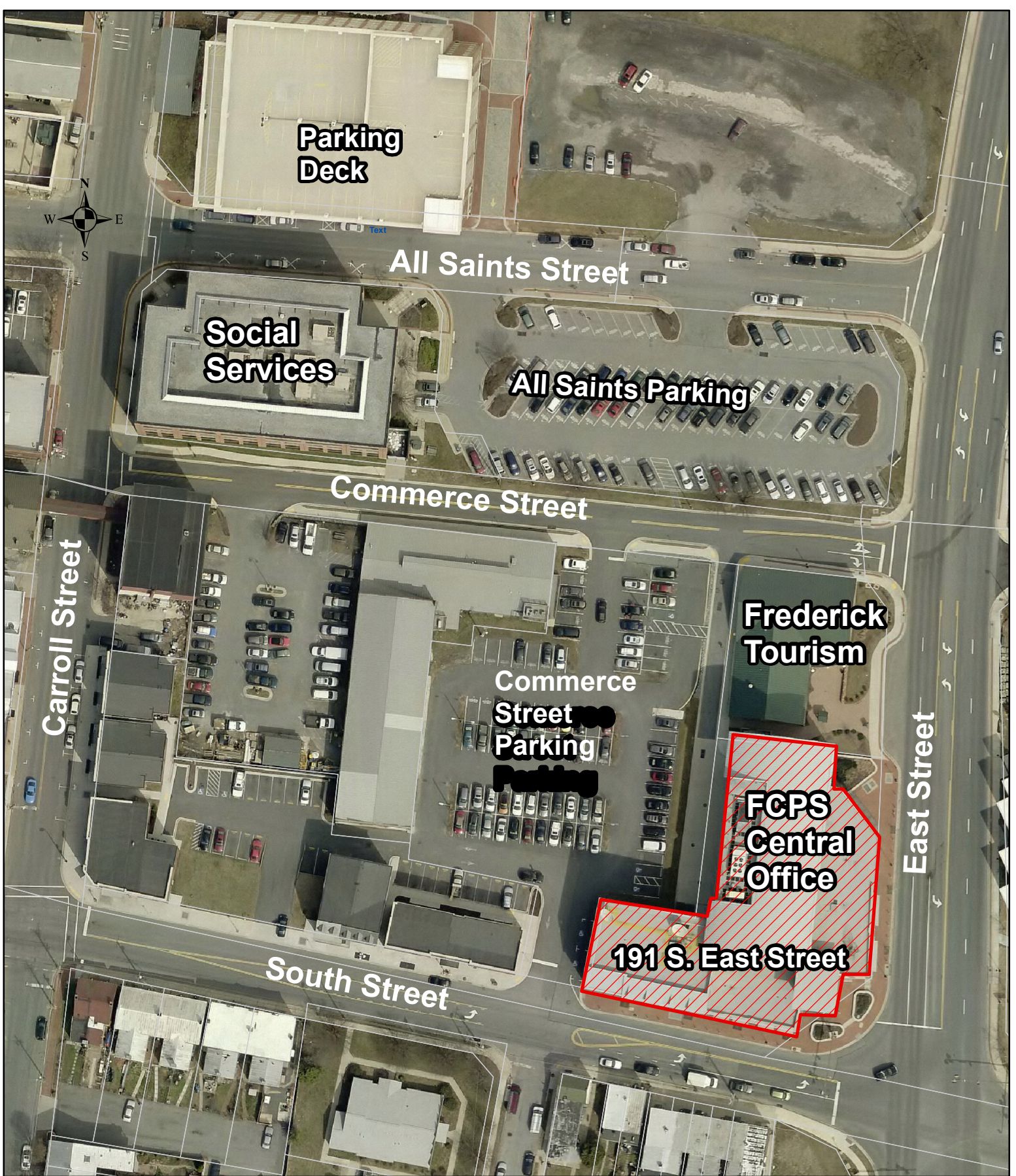
The bidder or offeror shall submit with its bid or proposal a completed "Certified MBE Utilization and Fair Solicitation Affidavit" (Attachment A) and "MBE Participation Schedule" (Attachment B), as described in the solicitation documents.

The Frederick County Public Schools System does not discriminate in admissions, access, treatment, or employment in its programs and activities on the basis of race, color, gender, age, national origin, religion, or disability. For more information, contact the Executive Director of Legal Services.

The Board of Education of Frederick County, Maryland, reserves the right to reject any and all bids and to waive any informalities or irregularities in bidding.

By order of the Board of Education of Frederick County, Maryland.

Purchasing Agent: Kim Miskell, CSBO, Assistant Purchasing Manager, kim.miskell@fcps.org



Frederick County Public Schools, MD, School Year 2019-2020 Calendar

August 2019

23, 26-30 Fri, Mon-Fri Teacher Work Days

September 2019

02 Mon FCPS Closed: Labor Day

03 Tue First Day of School for Students

20 Fri Schools Closed: Fair Day

October 2019

08 Tue 2-Hour Early Dismissal for Students: Teacher Mid-Term Work Session

09 Wed Schools Closed. Yom Kippur.

23 Wed Elementary and Middle Schools Open 4 Hours Late for Evening Parent-Teacher Conferences; High Schools Are Full Day

24 Thu Elementary and Middle Schools Open 4 Hours Late for Evening Parent-Teacher Conferences; High Schools Are Full Day

25 Fri Elementary and Middle Students Dismissed 3.5 Hours Early for Afternoon Parent-Teacher Conferences; High Schools Are Full Day

November 2019

07 Thu End of Term 1

08 Fri Schools Closed for Students: Teacher Work Day

11 Mon Term 2 Begins

27, 28*, 29* Wed-Fri Schools Closed: Thanksgiving Break

December 2019

20 Fri 2-Hour Early Dismissal for Students: Teacher Mid-Term Work Session

23, 24*-31* Mon-Tue Schools Closed: Winter Break

January 2020

01* Wed Schools Closed: New Year's Day

20* Mon Schools Closed: Dr. Martin Luther King Jr. Day

28 Tue End of Term 2

29 Wed Schools Closed for Students: Teacher Work Day

30 Thu Second Semester and Term 3 Begin

February 2020

14 Fri 2-Hour Early Dismissal for Students: Teacher Work Session

17* Mon Schools Closed: Presidents' Day

March 2020

04 Wed 2-Hour Early Dismissal for Students: Teacher Mid-Term Work Session

April 2020

08 Wed 2-Hour Early Dismissal for Students: Teacher Work Session; End of Term 3

09 Thu Schools Closed for Students: Teacher Work Day

10*, 13* Fri-Mon Schools Closed: Spring Break

14 Tue Term 4 Begins

28* Tue Schools Closed: Primary Election Day

May 2020

25* Mon Schools Closed: Memorial Day

June 2020

22** Mon Last Day of School for Students /2-Hour Early Dismissal: Teacher Work Session. End of Term 4

23** Tue Last Day of School for Teachers

*State-Mandated Public Schools Holiday

**This calendar includes 8 days for snow or other emergency closings. If there are no days needed for emergency closings, the last day for students will be June 10. Subject to BOE revision, FCPS will make up emergency-closing days in the following sequence: June 11, 12, 15, 16, 17, 18, 19 and 22. The June two-hour early dismissal will occur on the last day of school for students.

DIRECTORY OF SCHOOLS

ELEMENTARY

1. **Ballenger Creek** ♦ 240-236-2500
Ms. Kristen Canning, Principal
5250 Kingsbrook Drive
Frederick, MD 21703
Fax 240-236-2501
2. **Brunswick** ♦♦ 240-236-2900
Mr. Justin McConaughy, Principal
400 Central Avenue
Brunswick, MD 21716
Fax 240-236-2901
3. **Butterfly Ridge** ♦♦♦♦ 240-566-0300
Dr. Patricia Hosfelt, Principal
601 Contender Way
Frederick, MD 21703
Fax 240-566-0301
4. **Carroll Manor** ♦♦ 240-236-3800
Ms. Kimberly Robertson, Principal
5624 Adamstown Road
Adamstown, MD 21710
Fax 240-236-3801
5. **Centerville** 240-566-0100
Ms. Karen Hopson, Principal
3601 Carriage Hill Drive
Frederick, MD 21704
Fax 240-566-0101
6. **Deer Crossing** 240-236-5900
Ms. Amy Routzahn, Principal
10601 Finn Drive
New Market, MD 21774
Fax 240-236-5901
7. **Emmitsburg** ● 240-236-1750
Ms. Mary Ann Wiles, Principal
300 South Seton Avenue
Emmitsburg, MD 21727
Fax 240-236-1751
8. **Glade** ♦♦ 240-236-2100
Mr. Lorán ÓEithir, Principal
9525 Glade Road
Walkersville, MD 21793
Fax 240-236-2101
9. **Green Valley** 240-236-3400
Dr. Giuseppe Di Monte, Principal
11501 Fingerboard Road
Monrovia, MD 21770
Fax 240-236-3401
10. **Hillcrest** ♦♦♦♦ 240-236-3200
Mr. Karl Williams, Principal
1285 Hillcrest Drive
Frederick, MD 21703
Fax 240-236-3201
11. **Kemptown** 240-236-3500
Ms. Kathryn Golightly, Principal
3456 Kemptown Church Road
Monrovia, MD 21770
Fax 240-236-3501
12. **Lewistown** ♦ 240-236-3750
Ms. Dana Austin, Principal
11119 Hessong Bridge Road
Thurmont, MD 21788
Fax 240-236-3751
13. **Liberty** 240-236-1800
Ms. Jana Strohmer, Principal
11820 Liberty Road
Frederick, MD 21701
Fax 240-236-1801
14. **Lincoln** ♦♦♦♦ 240-236-2650
Mr. Eric Rhodes, Principal
200 Madison Street
Frederick, MD 21701
Fax 240-236-2651
15. **Middletown** 240-236-1100
Grades 3-5
Ms. Jan Hollenbeck, Principal
201 East Green Street
Middletown, MD 21769
Fax 240-236-1150
16. **Middletown Primary** ♦♦ 240-566-0200
Grades Pre-K-2
Ms. Sandra Fox, Principal
403 Franklin Street
Middletown, MD 21769
Fax 240-566-0201
17. **Monocacy** ♦♦♦ 240-236-1400
Mr. Troy Barnes, Principal
7421 Hayward Road
Frederick, MD 21702
Fax 240-236-1401
18. **Myersville** 240-236-1900
Ms. Kathy Swire, Principal
429 Main Street
Myersville, MD 21773
Fax 240-236-1901
19. **New Market** ♦ 240-236-1300
Mr. Jason Bowser, Principal
93 West Main Street
New Market, MD 21774
Fax 240-236-1301
20. **New Midway-Woodsboro**
Ms. Kimberly Clifford, Principal
A) **New Midway** 240-236-1500
Grades 3-5
12226 Woodsboro Pike
Keymar, MD 21757
Fax 240-236-1501
B) **Woodsboro** ♦ 240-236-3700
Grades Pre-K-2
101 Liberty Road
Woodsboro, MD 21798
Fax 240-236-3701
21. **North Frederick** ♦♦♦♦ 240-236-2000
Ms. Kimberly Seiss, Principal
1010 Fairview Avenue
Frederick, MD 21701
Fax 240-236-2001
22. **Oakdale** 240-236-3300
Ms. Leigh Warren, Principal
5830 Oakdale School Road
Ijamsville, MD 21754
Fax 240-236-3301
23. **Orchard Grove** ♦♦ 240-236-2400
Mr. Jay Corrigan, Principal
5898 Hannover Drive
Frederick, MD 21703
Fax 240-236-2401
24. **Parkway** 240-236-2600
Ms. Stephanie Brown, Principal
300 Carroll Parkway
Frederick, MD 21701
Fax 240-236-2601
25. **Sabillasville** 240-236-6000
Ms. Kate Krietz, Principal
16210-B Sabillasville Road
Sabillasville, MD 21780
Fax 240-236-6001
26. **Spring Ridge** ♦♦ 240-236-1600
Ms. DeVeda Coley, Principal
9051 Ridgefield Drive
Frederick, MD 21701
Fax 240-236-1601
27. **Thurmont** 240-236-0900
Grades 3-5
Ms. Debra O'Donnell, Principal
805 East Main Street
Thurmont, MD 21788
Fax 240-236-0901
28. **Thurmont Primary** ♦ 240-236-2800
Grades Pre-K-2
Dr. Michele Baisey, Principal
7989 Rocky Ridge Road
Thurmont, MD 21788
Fax 240-236-2801

29. **Tuscarora** ● 240-566-0000
Dr. Kimberly Mazaleski, Principal
6321 Lambert Drive
Frederick, MD 21703
Fax 240-566-0001

30. **Twin Ridge** ♦ 240-236-2300
Ms. Heather Hobbs Michael, Principal
1106 Leafy Hollow Circle
Mt. Airy, MD 21771
Fax 240-236-2301

31. **Urbana at Sugarloaf** ♦ 240-566-0500
Ms. Tess Blumenthal, Principal
3400 Stone Barn Drive
Frederick, MD 21704
Fax 240-566-0501

32. **Valley** ♦ 240-236-3000
Ms. Tracy Poquette, Principal
3519 Jefferson Pike
Jefferson, MD 21755
Fax 240-236-3001

33. **Walkersville** ♦ 240-236-1000
Ms. Christina McKeever, Principal
83 West Frederick Street
Walkersville, MD 21793
Fax 240-236-1050

34. **Waverley** ♦♦♦♦ 240-236-3900
Dr. Allie Watkins, Principal
201 Waverley Drive
Frederick, MD 21702
Fax 240-236-3901

35. **Whittier** ♦♦ 240-236-3100
Ms. Amy Schwiagerath, Principal
2400 Whittier Drive
Frederick, MD 21702
Fax 240-236-3101

36. **Wolfsville** 240-236-2250
Ms. Megan Stein, Principal
12520 Wolfsville Road
Myersville, MD 21773
Fax 240-236-2251

37. **Yellow Springs** 240-236-1700
Ms. Sue Gullo, Principal
8717 Yellow Springs Road
Frederick, MD 21702
Fax 240-236-1701

MIDDLE

38. **Ballenger Creek** 240-236-5700
Mr. Jay Schill, Principal
5525 Ballenger Creek Pike
Frederick, MD 21703
Fax 240-236-5701

39. **Brunswick** 240-236-5400
Mr. Everett Warren, Principal
301 Cummings Drive
Brunswick, MD 21716
Fax 240-236-5401

HIGH

51. **Brunswick** 240-236-8600
Mr. Michael Dillman, Principal
101 Cummings Drive
Brunswick, MD 21716
Fax 240-236-8601

52. **Catoctin** 240-236-8100
Ms. Jennifer Clements, Principal
14745 Sabillasville Road
Thurmont, MD 21788
Fax 240-236-8101

53. **Frederick** 240-236-7000
Dr. David Franceschina, Principal
650 Carroll Parkway
Frederick, MD 21701
Fax 240-236-7015

54. **Governor Thomas Johnson** 240-236-8200
Dr. Dan Lippy, Principal
1501 North Market Street
Frederick, MD 21701
Fax 240-236-8201

55. **Linganore** 240-566-9700
Ms. Nancy Doll, Principal
12013 Old Annapolis Road
Frederick, MD 21701
Fax 240-566-9701

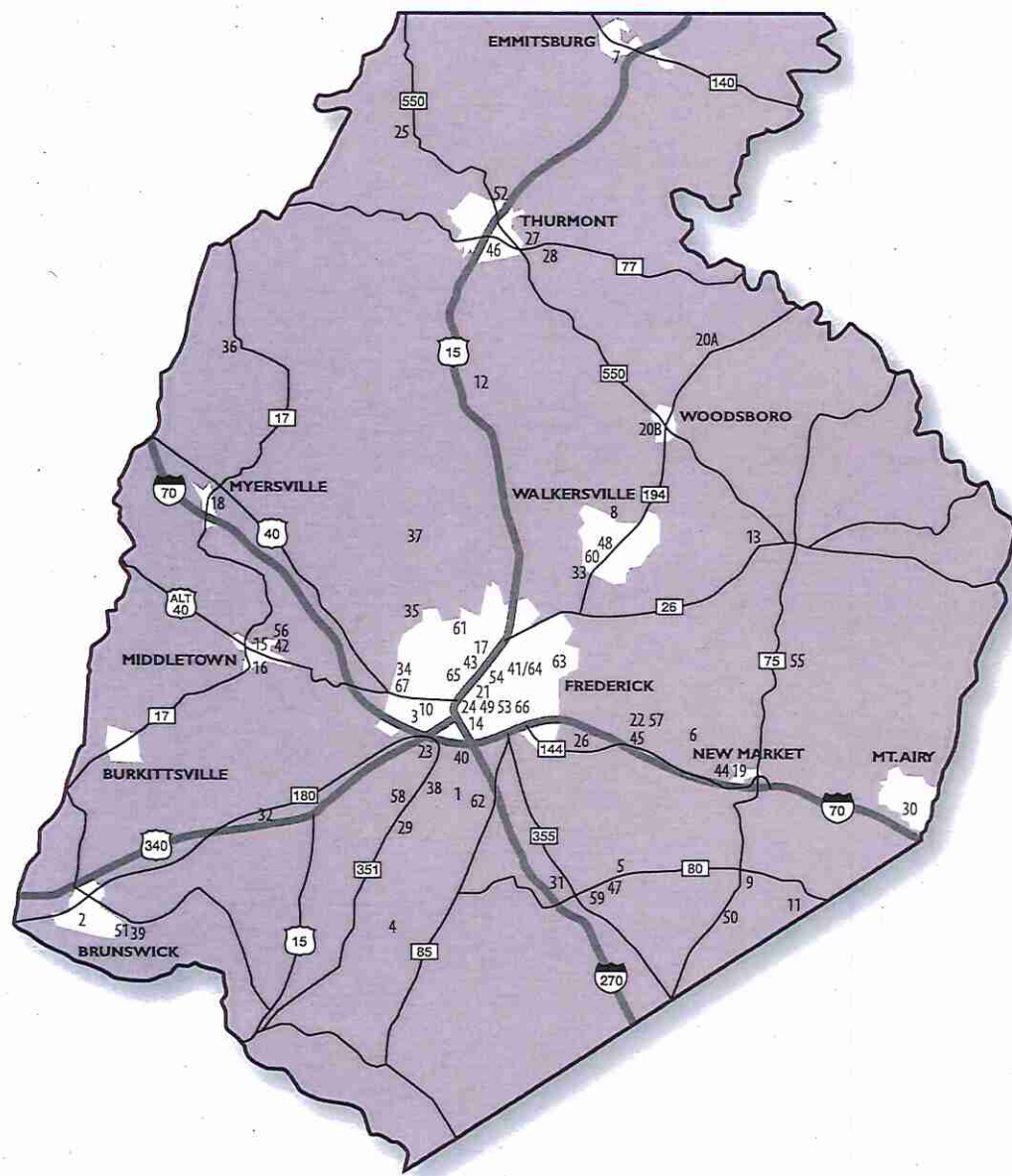
56. **Middletown** 240-236-7400
Mr. Bernard Quesada, Principal
200 Schoolhouse Drive
Middletown, MD 21769
Fax 240-236-7450

57. **Oakdale** 240-566-9400
Ms. Lisa Smith, Principal
5850 Eaglehead Drive
Ijamsville, MD 21754
Fax 240-566-9401

58. **Tuscarora** 240-236-6400
Mr. Christopher Berry, Principal
5312 Ballenger Creek Pike
Frederick, MD 21703
Fax 240-236-6401

59. **Urbana** 240-236-7600
Mr. David Kehne, Principal
3471 Campus Drive
Ijamsville, MD 21754
Fax 240-236-7601

60. **Walkersville** 240-236-7200
Ms. Tracey K. Kibler, Principal
81 West Frederick Street
Walkersville, MD 21793
Fax 240-236-7250



KEY

- ▷ Half-day pre-kindergarten program available
- Full-day pre-kindergarten program available
- ◆ Special education pre-kindergarten available
- ★ STAR (Title I) Schools

FINDOUTFIRST EMAIL AND TEXTING: WWW.FCPS.ORG/FOF

Middle (continued)

40. **Crestwood** 240-566-9000
Mr. Neal Case, Principal
7100 Foxcroft Drive
Frederick, MD 21703
Fax 240-566-9001
41. **Governor Thomas Johnson** 240-236-4900
Ms. Maggie Gilgallon, Principal
1799 Schifferstadt Boulevard
Frederick, MD 21701
Fax 240-236-4901
42. **Middletown** 240-236-4200
Mr. Paul Fer, Principal
100 Martha Mason Street
Middletown, MD 21769
Fax 240-236-4250
43. **Monocacy** 240-236-4700
Dr. Stephanie Ware, Principal
8009 Opossumtown Pike
Frederick, MD 21702
Fax 240-236-4701
44. **New Market** 240-236-4600
Ms. T.C. Suter, Principal
125 West Main Street
New Market, MD 21774
Fax 240-236-4650
45. **Oakdale** 240-236-5500
Ms. Mita Badshah, Principal
5810 Oakdale School Road
Ijamsville, MD 21754
Fax 240-236-5501
46. **Thurmont** 240-236-5100
Mr. Daniel Enck, Principal
408 East Main Street
Thurmont, MD 21788
Fax 240-236-5101
47. **Urbana** 240-566-9200
Ms. Stacey Hiltner, Principal
3511 Pontius Court
Ijamsville, MD 21754
Fax 240-566-9201
48. **Walkersville** 240-236-4400
Mr. Frank Vetter, Principal
55 West Frederick Street
Walkersville, MD 21793
Fax 240-236-4401
49. **West Frederick** 240-236-4000
Ms. Pattie Barnes, Principal
515 West Patrick Street
Frederick, MD 21701
Fax 240-236-4050
50. **Windsor Knolls** 240-236-5000
Mr. Brian Vasquez, Principal
11150 Windsor Road
Ijamsville, MD 21754
Fax 240-236-5001

OTHER

61. **Career and Technology Center** 240-236-8500
Mr. Michael Concepcion, Principal
7922 Opossumtown Pike
Frederick, MD 21702
Fax 240-236-8501
62. **Carroll Creek Montessori Public Charter School *** 240-566-0600
Ms. Marilyn Horan, Principal
7215 Corporate Court
Frederick, MD 21703
Fax 240-566-0601
63. **Frederick Classical Charter School** 240-236-1200
Dr. Camille S. Bell, Principal
8445 Spires Way, Suite CC
Frederick, MD 21701
Fax 240-236-1201
64. **Frederick County Virtual School** 240-236-8450
(includes Flexible Evening High School)
Dr. Stacey Adamick, Principal
c/o GTJMS
1799 Schifferstadt Boulevard
Room 116
Frederick, MD 21701
Fax 240-236-8451
65. **Heather Ridge** 240-236-8000
Ms. Elizabeth Stiffler, Principal
1445 Taney Avenue
Frederick, MD 21702
Fax 240-236-8001
66. **Monocacy Valley Montessori Public Charter School *** 240-236-6100
TBD, Principal
217 Dill Avenue
Frederick, MD 21701
Fax 240-236-6101
67. **Rock Creek School** 240-236-8700
Ms. Katie Buckley, Principal
191 Waverley Drive
Frederick, MD 21702
Fax 240-236-8701

**For other useful numbers,
see next page**



AIA[®] Document A701[™] – 1997

Instructions to Bidders

for the following PROJECT:

(Name and location or address):

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

THE OWNER:

(Name and address):

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

THE ARCHITECT:

(Name and address):

Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850

TABLE OF ARTICLES

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| 2 | BIDDER'S REPRESENTATIONS |
| 3 | BIDDING DOCUMENTS |
| 4 | BIDDING PROCEDURES |
| 5 | CONSIDERATION OF BIDS |
| 6 | POST-BID INFORMATION |
| 7 | PERFORMANCE BOND AND PAYMENT BOND |
| 8 | FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR |

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, or in other Contract Documents are applicable to the Bidding Documents.

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

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

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

ARTICLE 3 BIDDING DOCUMENTS

§ 3.1 COPIES

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid.

§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders in complete bid sets only.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

§ 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

§ 3.3 SUBSTITUTIONS

§ 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall 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, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.3 If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

§ 3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 ADDENDA

§ 3.4.1 Addenda will be available to all who are known by the issuing office to have received a complete set of Bidding Documents at no charge, unless the addenda is informational and does not affect in any way the fit, form or function of any technical and design of this project. In that case, the potential contractor will be responsible for any printing costs.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

ARTICLE 4 BIDDING PROCEDURES

§ 4.1 PREPARATION OF BIDS

§ 4.1.1 Bids shall be submitted on the forms included with the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

§ 4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

§ 4.2 BID SECURITY

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

§ 4.2.2 If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

§ 4.2.3 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been 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 All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

§ 4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

§ 4.4 MODIFICATION OR WITHDRAWAL OF BID

§ 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

§ 4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

§ 4.4.3 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

§ 4.4.4 Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 OPENING OF BIDS

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

§ 5.2 REJECTION OF BIDS

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

§ 5.3 ACCEPTANCE OF BID (AWARD)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

§ 5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 CONTRACTOR'S QUALIFICATION STATEMENT

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

§ 6.2 OWNER'S FINANCIAL CAPABILITY

The Owner shall, at the request of the Bidder to whom award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Bids, furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

§ 6.3 SUBMITTALS

§ 6.3.1 The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

§ 7.1 BOND REQUIREMENTS

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Bonds may be secured through the Bidder's usual sources.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents.

§ 7.2 TIME OF DELIVERY AND FORM OF BONDS

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on COMAR Document 21.07.02.10, Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment Is a Stipulated Sum.

Additions and Deletions Report for AIA® Document A701™ – 1997

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 13:49:22 ET on 10/23/2019.

PAGE 1

~~(Name and location or address)~~address):
Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

...

~~(Name, legal status and address)~~(Name and address):
The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

...

~~(Name, legal status and address)~~(Name and address):
Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850

~~TABLE OF ARTICLES~~TABLE OF ARTICLES PAGE 2

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid ~~in the number and for the deposit sum, if any, stated therein.~~ The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.Bid.

§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders ~~unless specifically offered in the Advertisement or Invitation to Bid, or in supplementary instructions to bidders in complete bid sets only.~~

PAGE 3

§ 3.4.1 Addenda will be ~~transmitted~~ available to all who are known by the issuing office to have received a complete set of Bidding Documents. ~~Documents at no charge, unless the addenda is informational and does not affect in any way the fit, form or function of any technical and design of this project. In that case, the potential contractor will be responsible for any printing costs.~~

PAGE 6

§ 7.2.2 Unless otherwise provided, the bonds shall be written on ~~AIA Document A312, COMAR Document 21.07.02.10,~~ Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 13:49:22 ET on 10/23/2019 under Order No. 4323301581 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A701™ – 1997, Instructions to Bidders, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

**BID 20C4, VENEER REPAIRS TO THURMONT PRIMARY SCHOOL
FREDERICK COUNTY PUBLIC SCHOOLS (FCPS)
SUPPLEMENTAL INSTRUCTIONS TO AIA DOCUMENT A701**

1. BIDDER REGISTRATION

All Frederick County Public School vendors and or contractors interested in bidding on FCPS projects must register with eMaryland Marketplace Advantage www.procurement.maryland.gov. FCPS will no longer accept bidder's applications.

2. PRE-BID MEETING

- a. A Pre-Bid Meeting will be held at the date and time indicated on the cover page of this solicitation package.
- b. Attendance at the Pre-Bid Meeting is not mandatory; however, all vendors are strongly encouraged to attend.
- c. The agenda for this Pre-Bid Meeting will include the following: introduction of staff; description of scope of work; timeline/scheduling; budget priorities/concerns; and procurement responsibilities.
- d. Questions shall be submitted, via email, to the person(s) indicated on the cover page of this solicitation package. Due to possible changes and/or additions to the specifications, bids should not be submitted prior to the Pre-Bid meeting. Questions received after said date will not be considered. Neither the Owner nor its employees, agents nor representative shall be responsible for oral instructions.
- e. If FCPS offices are closed, or operating on a modified schedule, due to inclement weather on the day a Pre-Bid is scheduled, the Pre-Bid is cancelled and will not be rescheduled unless an addendum is issued. Bidders are advised that they are to email questions to the identified Contract Manager by the date and time required within this solicitation. For the fastest, most reliable information, regarding closures and/or delays check the following:
 - www.fcps.org
 - Social Media: FCPS on Twitter and FCPS on Facebook
 - Email/Text Messages: Sign up for FindOutFirst email and emergency-only text messages
 - FCPS TV: Comcast Channel 18 (Frederick area)
 - Local radio and tv stations

3. RECEIPT OF BIDS

- a. Bids received prior to the time of opening will be time stamped and securely kept unopened. No bid received thereafter will be considered. FCPS will not be responsible for the premature opening of bids received that are not properly addressed or identified. Any bid may be withdrawn before the scheduled time for opening bids.
- b. All inner and outer envelopes and packaging, used by Fed Ex, UPS and etc., are to be labeled with the following:
 - Bidder Name
 - Bid Number and Name
 - Due Date and Time
- c. Bids received after the designated date and/or time will not be accepted, regardless of when they were mailed or given to a delivery carrier.
- d. Bids not received by the date, time, and location designated on the solicitation cover sheet, due to improper labeling, may be considered non-responsive.
- e. In the event of inclement weather on the date when bids are scheduled to be opened and the FCPS offices are closed, or operating under a modified schedule, bids will be opened on the next business day at the same time as previously scheduled. Bids will be accepted until the scheduled time of opening on

the next business day. (Often when schools are closed due to inclement weather, administrative offices remain open. When in doubt, call the Purchasing Department.)

4. ADDENDA

- a. All changes to the bid solicitation will be made through appropriate addenda issued from the Purchasing Department.
- b. Addenda will be available on the FCPS Purchasing Department webpage. All vendors who are known by the Purchasing Department to have downloaded the bid documents will receive an email notification.
- c. Addenda will be issued a minimum of four (4) days prior to the bid opening date, unless the addenda issued extends the due date.
- d. Each bidder shall ascertain, prior to submitting a bid that they have received all Addenda issued and the bidder shall acknowledge receipt on the Signature Acknowledgement Form. Failure of any bidder to acknowledge the receipt of addenda will not relieve that bidder from any obligations under this solicitation as amended by addenda. All addenda so issued will become a part of the award and contract documents.

5. PREPARATION OF BID

- a. The attention of all contractors, subcontractors and material supply bidders is directed to the Invitation to Bid, Proposal Form(s), AIA documents A701, A101 and A201, and Supplemental Instructions to Bidders to AIA A701 for information pertinent to the bidding process.
- b. Should any bidder be in doubt as to the meaning of the specifications, or should they find any discrepancy or omission, they shall notify the Contract Manager listed on the solicitation cover sheet. If required, bidders will be notified of clarifications and/or additional information by means of addenda.
- c. Bidder must submit one (1) original proposal, with original signatures, unless otherwise specified. Bids must be prepared on the proposal form(s) provided.
- d. Each bid will be sealed, show the full business address and contact information of the bidder and be signed by the person(s) legally authorized to sign contracts. All correspondence concerning the bid and contract, including notice of award, copy of contract, and purchase order, will be emailed, or mailed, to the address shown on the bid in the absence of written instructions from the bidder to the contrary.
- e. The following items must be included in submission (if applicable):
 - i. Proposal pages completely and accurately filled out.
 - ii. Minority Business Enterprise Attachment "A" Form completed and signed.
 - iii. Minority Business Enterprise Attachment "B" Form completed and signed.
 - iv. Statutory Affidavit and Non-Collusion Certification form completed and signed.
 - v. Certificate of Compliance form completed and signed.
 - vi. Vendor Conflict of Interest Disclosure Form completed and signed
 - vii. AIA A310 Bid Bond (for 5% of the total bid amount).
- f. Bidders shall be required under Article 56, Section 270(4), Annotated Code of Maryland, to provide proof of Certificate of Registry and must be licensed to do business in the State of Maryland and must provide a copy of their tax certification number. Visit the following website to ensure compliance: <https://certificate.dat.maryland.gov/Pages/default.aspx>
- g. Bids by partnerships must be signed with the partnership name, followed by the signature and designation of the person having authority to sign. When requested, satisfactory evidence of authority of the person signing will be furnished. Anyone signing the bid as an agent shall file satisfactory evidence of their authority to do so, if requested.

- h. Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the person having authority to sign. When requested, satisfactory evidence of authority of the person signing will be furnished. Anyone signing the bid as an agent shall file satisfactory evidence of their authority to do so, if requested.
- i. Failure to sign the bid document will result in rejection of the bid as non-responsive.
- j. FCPS will not be responsible for any costs incurred by a bidder in preparing and submitting a proposal in response to this solicitation.
- k. FCPS will accept all bid responses, however, only companies approved by FCPS' Purchasing Department will be considered for contract award.

6. MBE REQUIREMENTS (if applicable)

- a. The contract or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the result that a minimum of 8% percent of the total contract value is with certified Minority Business Enterprises, with a minimum of 0% percent from certified African American-owned businesses, a minimum of 0% percent from Asian American-owned businesses, and the balance from any certified Minority Business Enterprises. All contractors, including certified MBE firms, when submitting bids or proposals as prime contractors, are required to attempt to achieve the MBE goal and subgoals from certified MBEs.
- b. Effective May 13, 2013, all contracts containing certified MBE participation goals shall contain a liquidated damages provision that applies if the contractor fails to comply in good faith with the provisions of State MBE laws or the pertinent terms of the procurement contract. (Code of Maryland Regulations (COMAR) 21.11.03.10(E)).

c. Liquidated Damages Provision

This contract requires the contractor to make good faith efforts to comply with the Minority Business Enterprise (MBE) Program and contract provisions. The State and the Contractor acknowledge and agree that the State will incur damages, including but not limited to loss of goodwill, detrimental impact on economic development, and diversion of internal staff resources, if the Contractor does not make good faith efforts to comply with the requirements of the MBE Program and MBE contract provisions. The parties further acknowledge and agree that the damages the State might reasonably be anticipated to accrue as a result of such lack of compliance are difficult to ascertain with precision.

Therefore, upon a determination by the State that the Contractor failed to make good faith efforts to comply with one or more of the specified MBE Program requirements or contract provisions, the Contractor agrees to pay liquidated damages to the State at the rates set forth below. The Contractor expressly agrees that the State may withhold payment on any invoices as a set-off against liquidated damages owed. The Contractor further agrees that for each specified violation, the agreed upon liquidated damages are reasonably proximate to the loss the State is anticipated to incur as a result of such violation.

- i. Failure to submit each monthly payment report in full compliance with COMAR 21.11.03.13B (3): \$211.40 per day until the monthly report is submitted as required.
- ii. Failure to include in its agreements with MBE subcontractors a provision requiring submission of payment reports in full compliance with COMAR 21.11.03.13B (4): \$105.70 per MBE subcontractor.
- iii. Failure to comply with COMAR 21.11.03.12 in terminating, canceling, or changing the scope of work/value of a contract with an MBE subcontractor and/or amendment of the MBE participation schedule: the difference between the dollar value of the MBE participation commitment on the MBE participation schedule for that specific MBE firm and the dollar value of the work performed by the MBE firm for the contract.

- iv. Failure to meet the Contractor's total MBE participation goal and subgoal commitments: the difference between the dollar value of the total MBE participation commitment on the MBE participation schedule and the MBE participation actually achieved.
- v. [Do Not Include In Contracts That Are Subject To Section 15-226 Of The State Finance And Procurement Article – Construction Contracts – Prompt Payment Of Subcontractors]. Failure to promptly pay all undisputed amounts to an MBE subcontractor in full compliance with the prompt payment provisions of this contract: not to exceed \$100.00 per day until the undisputed amount due to the MBE subcontractor is paid.

Notwithstanding the use of liquidated damages, the State reserves the right to terminate the contract and exercise all other rights and remedies provided in the contract or by law.

7. PREVAILING WAGE RATES (NOT APPLICABLE)

When applicable, the vendor will comply with Section 17-201 through 17-226 of the State Finance and Procurement Article of the Annotated Code of Maryland, as amended, which requires payment of prevailing wages as determined by the Commissioner of Labor on public works projects.

8. BID BOND

- a. Each bidder shall submit with their bid a certified check, cashier's check or bid bond acceptable to the FCPS, for at least five percent (5%) of the amount of TOTAL BID. Each bidder agrees that they will, if awarded the contract, at the time of entering into agreement, furnish to FCPS proper payment and performance bonds naming the Board of Education of Frederick County for the full amount of the contract guaranteeing the faithful performance of all conditions thereof, and the payment in full to all parties furnishing labor and materials or other services on its account.
- b. Failure to furnish the required documentation within ten (10) calendar days after receipt of the Notice of Award letter may result in the forfeiture of the submitted surety unless FCPS is responsible for the delay.
- c. Certified checks, or cashier's checks, submitted as bid surety will be returned to the awarded vendor upon receipt of required documentation.

9. PRODUCT SUBSTITUTIONS

Bidders are referred to paragraphs contained within the General Requirements and the Technical Specifications for information concerning product substitution.

10. TAXES

- a. No charge will be allowed for federal excise, state, and/or municipal sales and use taxes, from which the Board of Education of Frederick County is exempt.
- b. A contractor is not eligible, per the Maryland Comptroller's Office, to utilize the tax exemption certificate for governmental agencies.

11. BID OPENING

- a. Sealed bids will be opened at the location, date, and time indicated on the solicitation cover sheet.
- b. All bids received must include original signatures; no photo copies will be accepted. Unless specifically authorized, facsimile or emailed bids will not be considered. No bids will be accepted via telephone.
- c. Complete evaluation of the proposals will not take place at the bid opening and no indication of award will be made. A final recommendation(s) shall be prepared for review and approval by the Board of Education of Frederick County.
- d. The recommended award will be posted to the FCPS BoardDocs website a minimum of five days prior to the Board of Education meeting in which it will be presented.

- e. Final award recommendation, and the bid tabulation, will be posted on the FCPS webpage, www.fcps.org/bidlist, after the Board of Education of Frederick County approval.

12. ERRORS IN BID SUBMISSIONS

- a. Bidders, or their authorized representatives, are expected to fully inform themselves as to the conditions and requirements of the specifications before submitting bids. Failure to do so will be at the bidder's own risk.
- b. If the bidder has made an error, the bidder may request, in writing, to have their bid withdrawn. The request must be received in the Purchasing Department within one business day after the time established for the bid opening and include written documentation substantiating the error. Approval of a bidder's request is not automatic and may be given only by the Purchasing Manager. Requests for withdrawal are usually denied, unless the bidder proves to the satisfaction of the Purchasing Manager that the mistake was either a scrivener's error or another type of clearly unintentional error so departing from customary and reasonable business practices as to be obvious and to legitimately and substantially impair the vendor's business.
- c. Neither law nor regulations make allowance for errors either of omission or commission on the part of the bidders. In case of error in multiplication of unit price when arriving at total price per line item, the unit price shall govern. If there is a discrepancy between the price written in numbers and the price written in words, the words will govern.

13. AWARDS OR REJECTION OF BIDS

- a. The basis of award shall be the lowest responsible bidder submitting a responsive bid that conforms to the specifications established in the solicitation with consideration given to the quantities involved, time required for delivery, purpose for which required, competency and responsibility of bidder, the ability of the bidder to perform satisfactory service, and the plan for utilization of minority contractors, if applicable.
- b. FCPS reserves the right to determine completeness and/or timeliness of bids, to reject any or all bids in whole or in part, to make partial awards, to waive any informality in any quotation, to increase or decrease quantities if quantities are listed in the bid, to reject any bid that shows any omissions, alterations of form, additions not called for, conditions, or alternate proposals, and to make any such award as is deemed to be in its best interest.
- c. Bidders may be required, before the awarding of a contract, to show to the complete satisfaction of FCPS, that they have the necessary facilities, ability and financial resources to execute the contract in a satisfactory manner, and within the time specified. Bidders may be required to demonstrate they have the necessary experience, history and references to assure FCPS of their qualifications.
- d. The Board of Education of Frederick County reserves the right to award the bid within 90 days from the date of the bid opening unless a different time period is stated in the bid document.
- e. In the event of a tie, where all other factors, such as past performance, are considered comparable, the award shall be made to the Frederick County based bidder; the closest Maryland out-of-county based bidder; and the closest out-of-state based bidder, in that order of preference.
- f. FCPS does not have local, state or federal preference requirements except when mandated by a targeted funding source.
- g. If, after competitive sealed bids have been opened, the Purchasing Manager determines that only one responsible bidder has submitted a responsive bid, the procurement contract may be negotiated with that one bidder as sole source procurement.
- h. A recommendation for the award of a contract will be presented to the Board of Education of Frederick

County for approval. Upon approval of the award of contract, the bidder(s) shall be notified of their award(s). If applicable, an FCPS contract document shall also be issued.

- i. The Board of Education of Frederick County reserves the right to reject the bid of a bidder who has, in the opinion of FCPS, failed to properly perform under previous contracts, or, who investigation shows, is not in a position to perform the contract.
- j. The Board of Education of Frederick County retains the right to reject any and all bids, if it is deemed in the best interest of FCPS to do so.
- k. If, during the life of the contract, a product or service does not meet the solicitation terms and conditions, FCPS retains the right to cancel the awarded item(s) and award to a new bidder, as long as that bidder mutually agrees to the award.

14. CONTRACT FORMATION

- a. Notification of the contract award will be made by letter after approval by the Board of Education of Frederick County.
- b. The form of contract between the owner and the awarded bidder shall be AIA Document A101, Standard Form of Agreement Between Owner and Contractor (2007 edition) including the AIA A201 General Conditions of the Contract for Construction (2007 edition), together with any Frederick County Public Schools' agreed upon schedules, addenda, shop drawings, and documents associated with the bid solicitation/submission/award.
- c. No amendment, modification or change to the contract shall be effective unless such change is in writing and mutually agreed upon by authorized representatives of FCPS and the awarded vendor(s). Changes may not significantly alter the original scope of the agreement.

15. PERFORMANCE AND PAYMENT BONDS

- a. If applicable, the awarded vendor(s) may be required to submit either one or both of the following two bonds to the Purchasing Department ten (10) calendar days after receipt of the Notice of Award and in accordance with the terms stated below:
 - i. **Performance Bond** in the amount of 100% of the contract value covering faithful performance of the contract; and
 - ii. **Payment Bond** in the amount of 100% of the contract value as security for the payment of all persons performing labor and furnishing materials in connection therewith.
- b. The cost of the performance bond and payment bonds will be borne by the bidder(s) in all instances.
- c. Certified checks in the amounts stated above will be accepted in lieu of the performance bond and payment bond only upon prior approval of the Purchasing Manager. If checks are approved for acceptance in lieu of either bond, they should be in the same amount as these bonds; be separate checks; and should clearly designate the purpose - i.e., performance or payment.
- d. Certified checks, if submitted, will be deposited in an FCPS bank account(s). Upon successful completion of the contract, check(s) will be drawn upon the FCPS bank account(s) for the full amounts of both certified checks.
- e. Bonds must be approved by surety companies which are named in the most current Circular 570 "Surety Companies Acceptable on Federal Bonds" as issued by the U.S. Treasury, Bureau of Government Finance Operations, Division of Banking and Cash Management, Washington, D.C. 20111. Maryland Code 21-102 – A certificate of authority, or certified copy of a certificate of authority, issued by the Commissioner to a surety insurer shall be accepted as evidence of qualification to become sole surety on a bond, undertaking, recognizance, or other obligation required or allowed by law, or in the charter, ordinances, rules, or regulations of a municipal corporation, board, organization,

court, judge, or public officer, without further proof or qualification regarding solvency, credit, or financial sufficiency to act as a surety or bidders must use bonding companies rated by A.M. Best Company of at least A-/VIII.

- f. If a bonding company is used that is not on the most current Circular 570, the vendor will be contacted to obtain a bond from an approved surety company and re-submit it to the Purchasing Department within ten (10) calendar days after notification.
- g. Upon receipt and approval of the performance bond and payment bond, or the certified check(s), an official purchase order will be issued.
- h. The awarded vendor's security will be retained until they have signed the Owner-Contractor Agreement and Addendum and furnished the required Payment Bond and Performance Bond, guaranteeing payment of damages in the event of failure to perform as agreed, including the prevailing wage rate clause. The Owner reserves the right to retain the security of all bidding contractors until the selected bidder enters into contract, or until ninety (90) calendar days after the bid opening, whichever is shorter. If any bidder refuses to enter into a contract, the Owner may retain his bid security as liquidated damages, but not as a penalty.
- i. If bonds are required, and the awarded vendor fails to perform according to the terms of the contract, the bonding company will be notified in writing with a copy sent to the vendor.

16. INSURANCE REQUIREMENTS

Reference AIA Document A101-2007 Article 10, Insurance and Bonds for insurance requirement types and limits.

17. DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

- a. It is anticipated that construction will commence on or around April , 2020.
- b. Substantial completion shall be achieved by August, 2020.

18. PROTESTS

- a. The Purchasing Manager or designee (when the Purchasing Manager administers the bid being protested) shall attempt to resolve, informally, all protests of bid award recommendations. Bidders are encouraged to present their concerns promptly to the Contract Manager for consideration.
 - i. The bidder must submit their concern, in writing, addressed to the Purchasing Manager. It should include the following:
 - Name, address, contact information of the protestor;
 - Statement of reasons for the protest;
 - Supporting documentation to substantiate the claim;
 - The remedy sought.
 - ii. The protest must be received by the Purchasing Manager at least two calendar days prior to the date of the Board of Education meeting at which the recommendation will be presented. It is the vendor's responsibility to ascertain the date and time of award.
 - iii. A bidder who does not file a timely protest before the contract is awarded by the Board of Education of Frederick County is deemed to have waived any objection.
- 1. The Purchasing Manager shall inform the Chief Financial Officer and/or general counsel upon receipt of the protest, and shall confer with them prior to the issuance of a decision regarding disputes of contracts or awards valued at \$25,000 or above.
- 2. The Purchasing Manager shall issue a decision in writing.

3. Should the protestor disapprove of the Purchasing Manager's decision, they have the right to address the Board of Education of Frederick County during the public comment section of the same Board meeting where the award recommendation is scheduled for award.
4. The Board of Education of Frederick County's decision is deemed the final action at the local level.
5. A bidder may appeal a decision of the Board directly to the Maryland State Board of Education in accordance with Board Policy 105.11 and Maryland law.

19. MULTI-YEAR CONTRACT

- a. Contracts that require funding appropriation for more than one fiscal year automatically terminate if money sufficient for the continued performance is not appropriated for any fiscal year. The date of termination is the last day of the fiscal year for which money was last appropriated, or the date provided in the termination clause of the procurement contract, whichever is earlier.
- b. If the multi-year contract is terminated due to lack of funding, FCPS shall reimburse the vendor for the reasonable value of any nonrecurring costs that were incurred as a result of the multi-year contract, but not amortized in the price of the supplies or services delivered under the multi-year contract. The reasonable value will be negotiated, and mutually agreed upon, by FCPS and the vendor.
- c. The cost of termination may be paid from any appropriation available for that purpose.

20. TERMINATION FOR DEFAULT

- a. When an awarded vendor has not performed or has unsatisfactorily performed the contract, payment shall be withheld at the discretion of FCPS. FCPS may, by written notice of default to the vendor, terminate the whole or any part of the contract in any of the following circumstances:
 - i. If the vendor fails to perform the services or provide the products within the time and manner specific herein or any extension thereof, or:
 - ii. If the vendor fails to perform any of the provisions of this contract, or fails to make progress as to endanger performance of this contract, in accordance with its terms and in either of these two circumstances does not cure such failure within a period of ten calendar days (or longer as authorized by the Purchasing Manager) after receipt of written notice from the Purchasing Manager of such failure, or:
 - iii. If the vendor willfully attempts to perform the services other than specified as to coverage, limits, protections, and quality or otherwise, without specified authorization in the form of contract amendment, or:
 - iv. If a determination is made by FCPS that the obtaining of the contract was influenced by an employee FCPS having received a gratuity, or a promise therefore, in any way or form.
- b. In the event FCPS terminates the contract in whole or in part, FCPS may procure such products and services, in a manner the Purchasing Manager deems appropriate, and the vendor shall be liable to FCPS for any additional cost(s) incurred.
- c. If, after notice of termination of this contract under provisions of this clause, it is determined for any reason that the vendor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to a termination for convenience.

21. TERMINATION FOR CONVENIENCE

The contract may be terminated by FCPS in accordance with this clause in whole, or in part, whenever FCPS determines that such a termination is in the best interest of FCPS. Written notice shall be given a minimum of 30 days in advance. FCPS will pay for all services, in accordance with contract pricing, up to the date of the termination. However, the awarded vendor(s) shall not be reimbursed for any anticipatory

profits that have not been earned up to the date of termination. Under this contract, the awarded vendor does not have a right to unilateral termination for convenience.

22. HOLD HARMLESS

It is understood that the awarded vendor(s) shall defend and hold harmless the Board of Education of Frederick County, and its representatives, from all suits, actions, or claims of any kind brought about as a result of any injuries or damages sustained by person(s) or property during the performance of this contract.

23. CONTRACT DISPUTES

- a. Any dispute arising under this contract shall be decided by the Contract Administrator, the Contract Manager and the Purchasing Manager, who will communicate their decision to writing and furnish a copy to the vendor. This decision shall be final and conclusive unless, within 30 days, the vendor furnishes a written appeal addressed to the Board of Education of Frederick County. The local Board of Education has the right to hear appeals as provided by Maryland law.
- b. The Board of Education of Frederick County, or its duly authorized representative, will review the appeal for the determination of such appeal and their finding shall be final and conclusive. In connection with any appeal preceding under this clause, the vendor will be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute, the vendor shall proceed diligently with the performance of the contract and in strict accordance with the FCPS staff's decision. Exceptions are decisions determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary, or so grossly erroneous as to imply bad faith, or not supported by evidence.
- c. This clause does not preclude consideration of laws questioned in connection with the decision provided for above.

24. LIQUIDATED DAMAGES

- a. AIA Document A101, Article 3.3.2 clarification:

In the event that the Contractor does not achieve Substantial Completion as stipulated, including approved extensions, the Contractor and the Contractor's surety shall be liable for and shall pay liquidated damages to the Owner.

The liquidated damages sum of \$1.00 per student based on the expected enrollment of **337** students for total liquidated damages in the amount of **\$337.00** per day.

25. PROVISION OF PORTABLE SANITATION AND REMOVAL OF DEBRIS

- a. Vendors are responsible for removal of trash and debris and will confine their apparatus, materials, supplies, and equipment in such orderly fashion at the work site so that it will not unduly interfere with the progress of the work of any other vendor.
- b. It will be the vendor's responsibility to provide portable sanitation facilities on the work site and secure Health Department or local subdivision approval, when required.
- c. They will not interfere with FCPS personnel or students in the performance of this contract. FCPS reserves first right of salvage on all materials removed from FCPS facilities and no salvage values should be assumed in bidding on the project unless so stated in the specifications. Vendors will pay all disposal fees and can recuperate them only by including them in their bid pricing.
- d. At the completion of the work, and before final payment is made, vendors will remove all rubbish and debris and will leave the work site clean, including site restoration. Vendors will remove all tools, scaffolding and surplus materials from and about the building. In case of dispute, FCPS may remove the rubbish and/or repair property and charge such costs to the vendor.

26. PROTECTION OF WORK AND PROPERTY

- a. The vendor will be solely responsible for initiating, maintaining and supervising all safety precautions

and programs in the performance of this contract and will be responsible for observing the safety regulations of MOSHA, OSHA, and local life safety agencies.

- b. The vendor will erect and maintain, as required by conditions and progress of the work, all necessary safeguards for safety and protection, including fences, railing, barricades, lighting, posting of danger signs and other warnings against hazards.
- c. The vendor will comply with applicable laws, ordinances, regulations and orders of governing authorities having jurisdiction for the safety of persons and property to protect them from damage, injury or loss. Any damage, loss or injury resulting from the failure of the vendor to safe guard their work and FCPS property will be borne by the vendor.
- d. In the case of inclement weather, or an emergency that threatens the loss or damage of property or life safety, the vendor will be allowed to act in a diligent manner without instructions from FCPS. The vendor will notify the Contract Administrator of their actions as soon as possible. Any claim for compensation by the vendor due to such extra work will be submitted promptly to FCPS for approval

27. LAWS AND REGULATIONS

- a. The vendor will comply with all Federal, State, and local laws, ordinances and regulations pertaining to work under their charge. If the vendor performs any work which it knows or should know to be contrary to such laws, ordinance, and regulations and without such notices to FCPS they shall bear all costs arising therefrom.
- b. All vendors and subcontractors must abide by the Board of Education of Frederick County policies and FCPS regulations while working on school property.
- c. The vendor certifies that their firm adheres to or follows non-discriminatory practices with respect to the employment and promotion of personnel without regard to color, creed, race, sex, or national origin.

28. AMERICAN STEEL ACT

The vendor will comply with the provisions of Sections 17-301 through 17-306 of the State Finance and Procurement Article of the Annotated Code of Maryland, as amended entitled "Steel Procurement for Public Works." The vendor's affidavit of compliance with these provisions may be required before payment can be made.

29. EMPLOYMENT OF CHILD SEX OFFENDERS AND PERSONS WITH UNCONTROLLED ACCESS TO STUDENTS

- a. Be advised that individuals who are registered sex offenders are not eligible to work on any FCPS' project. The awarded vendor(s) must initially check the Maryland Department of Public Safety & Correctional Services' Maryland Sex Offender Registry and search for the name of any employee to be assigned to work on this project. This applies to subcontractors and material/equipment suppliers as well. For projects lasting more than a few months, the vendor will periodically re-check the names of workers against the registry to ensure ongoing compliance. In the event that a registered sex offender is discovered to be working on a FCPS project, whether through employment by the vendor, subcontractor or equipment or material supplier, FCPS will notify the site superintendent to immediately remove the individual from the premises and permanently terminate his work assignment. FCPS may terminate this contract at no additional costs, as a result if the vendor is unable to demonstrate they have exercised care and diligence in the past in checking the Maryland registry.
- b. Contracted service providers who have regular, direct and unsupervised access to children cannot begin service without undergoing the same process as new employees per FCPS Regulation 300-33. If required, an awarded vendor(s) is responsible for payment of the full cost of the criminal background check. Additional information regarding this requirement will be found in Section II.
- c. The awarded vendor(s), or subcontractor(s), may not knowingly assign an employee to work on FCPS

school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of a crime identified as a crime of violence.

- d. The awarded vendor(s) will not assign employees who has been convicted of an offense under § 3-307 or § 3-308 of the Criminal Law Article or an offense under the laws of another state that would constitute a violation of § 3-307 or § 3-308 of the Criminal Law Article if committed in the state.
- e. An awarded vendor will not assign employee who has been convicted of a crime of violence as defined in § 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of § 14-101 of the Criminal Law Article if committed in this state.

30. DRUG, ALCOHOL, AND TOBACCO-FREE WORKPLACE

- a. All awarded vendors and subcontractors must abide by Board Policy 112 while working on any FCPS property at all times.
- b. The Board of Education of Frederick County endorses the provisions of Public Law 100-690, Title V, Subtitle D (Drug-Free Workplace Act of 1988) and Public Law 101-226 (The Drug-Free Schools and Communities Act of 1989) and regulations promulgated there under and establishes a drug-free and alcohol-free workplace and school system.
- c. Maryland State Law (COMAR 13A.02.04) provides that each local school system is required to maintain a tobacco-free school environment.

31. WEAPON POSSESSION ON SCHOOL PROPERTY

- a. The criminal code of Maryland makes it illegal to possess a weapon on school property.
- b. No person shall carry or possess any rifle, gun, knife, or deadly weapon of any kind on FCPS property.
- c. Any awarded vendor(s) whose employees violate this clause may be subject to the termination of the contract for cause.

32. ILLEGAL IMMIGRANT LABOR

The use of illegal immigrant labor to fulfill contracts solicited by FCPS is in violation of the law and is strictly prohibited. Awarded vendor(s) and subcontractors must verify employment eligibility of workers in order to assure that they are not violating federal/state/local laws regarding illegal immigration. A compliance audit may be conducted.

33. STUDENT/STAFF CONFIDENTIALITY

Under no circumstances may any vendor/contractor/provider/consultant release, disclose, sell or otherwise use names, addresses, or any other information related to students, or staff, of FCPS and may only use this information for purposes required under any contract/agreement or memorandum of understanding.

34. PUBLIC INFORMATION ACT NOTICE

- a. Bidders should identify those portions of their solicitation, which they deem to be confidential, or to contain proprietary commercial information or trade secrets. Bidders should provide justification why such material, upon request, should not be disclosed by FCPS under the Public Information Act, Title 4, General Provisions Article, Annotated Code of Maryland.
- b. Unless portions of a solicitation are identified as confidential, all records are considered public. A person or governmental unit that wishes to inspect a public record, or receive copies of a public record, shall submit a written or electronic request and direct it to the Office of Legal Services per FCPS Regulation 200-42.

35. FORCE MAJEURE

Force Majeure is defined as an occurrence beyond the control of the affected party and not avoidable by reason of diligence. It includes the acts of nature, war, riots, strikes, fire, floods, epidemics, terrorism, or

other similar occurrences. If either party is delayed by Force Majeure, said party shall provide written notification to the other within 48 hours. Delays shall cease as soon as practicable and written notification of same provided. The time of contract completion may be extended by contract modification, for a period of time equal to that delay caused under this condition. FCPS may also consider requests for price increase for raw materials that are directly attributable to the cause of delay. FCPS reserves the right to cancel the contract and/or purchase materials, equipment or services from the best available source during the time of Force Majeure, and the vendor shall have no recourse against FCPS. Further, except for payment of sums due, neither party shall be liable to the other or deemed in default under this contract, if and to the extent that such party's performance of this contract is prevented by reason of Force Majeure as defined herein.

36. ETHICS POLICY

- a. The Board of Education of Frederick County has an Ethics Policy, which covers conflict of interest, financial disclosure and lobbying. All bidders are expected to comply with any and all Ethics Policies that may apply to them individually or as a business entity.
- b. All bidders should carefully review Board Policy 109, Ethics, which prohibits FCPS employees from benefiting from business with the school system.

37. NON-COLLUSION

- a. Bidder represents and certifies that prices for these services have been arrived at independently without consultation, communication, or agreement for the purpose of restricting competition or any matter related to such prices with any competitor or other bidder. Prices quoted in this bid have not been knowingly disclosed directly or indirectly to any competitor or other vendor prior to the opening of this bid.
- b. Bidder represents and certifies that it has not employed or retained any other company or person (other than a full-time bona fide employee working exclusively for the bidder) with the primary intent to solicit or secure the contract.

38. CONFLICT OF INTEREST

The bidder will advise FCPS in writing as soon as possible, but not later than the date of award of the contract, of any known relationships with a third party, or FCPS employee or representative, which would present a significant advantage to one bidder over another bidder or present a conflict of interest with the rendering of products and services under this agreement.

39. eMARYLAND MARKETPLACE ADVANTAGE REGISTRATION

Contractors are required to register with eMaryland Marketplace Advantage www.procurement.maryland.gov within five days following notice of award. Maryland law requires local and state agencies to post award notices on eMaryland Marketplace Advantage. This cannot be done without the contractor's self-registration in the system. Registration is free. Failure to comply with this requirement may be considered grounds for default. It is recommended that any interested bidder register with eMaryland Marketplace Advantage regardless of the award outcome for this procurement as it is a valuable resource for bid notification for municipalities through Maryland

FREDERICK COUNTY PUBLIC SCHOOLS

PURCHASING DEPARTMENT

191 SOUTH EAST STREET

FREDERICK, MARYLAND 21701

Telephone #301-644-5208

20C4, VENEER REPAIRS TO THURMONT PRIMARY
FORM OF PROPOSAL

In compliance with the Invitation to Bid and Bid Documents, the undersigned proposes to furnish all labor, specified materials, and specified equipment and incidentals in accordance with the plans and specifications by Sheladia and Associates Architects for the following Lump Sum amounts:

- I. Base Bid – Repairs to the defective veneer sections forming the exterior walls for classrooms 501,503,505 & 507 per specs/plans dated 6-18-2019 & as described elsewhere by project document

(\$ _____) _____
Numeric Written in Words

- II. Alternates: You are required to bid on all alternates listed below. If selection of the alternate does not add cost, enter “(zero)” \$0 on the lines. “Not applicable”, “N/A”, “No Cost”, “NC”, shall not be used. Lines left blank or inappropriate notation shall be interpreted as zero dollars.

- III. Prices for each alternate must include the cost of performance and payment bonds for said alternate.

1. Alternate No. 1 to the Base Bid- Performance & Payment bond cost if required by value of the project estimate

(\$ _____) _____
Numeric Written in Words

- III. I/We certify that this bid/proposal is made without previous understanding, agreement, or connection with any person, firm, or corporation submitting a bid/proposal for the same goods/services and is, in all respects fair and without collusion or fraud; that none of this company's officers, directors, partners or its employees have been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or federal government; and that no member of the Board of Education of Frederick County, Administrative or Supervisory Personnel or other employees of the Frederick County Public Schools, has any interest in the bidding company except as follows:

COMPANY: _____

dba: _____

REGISTERED MARYLAND CONTRACTOR NUMBER: _____

FEDERAL IDENTIFICATION: _____ DATE: _____

The undersigned has familiarized themselves with the conditions affecting the work, the specifications, and is legally authorized to make this proposal on behalf of the Contractor listed above.

NAME (please print): _____

SIGNATURE OF ABOVE: _____

TITLE: _____

ADDRESS: _____

TELEPHONE # _____ FAX # _____

E-MAIL ADDRESS (for correspondence): _____

E-MAIL ADDRESS (for receiving Purchase Orders): _____

(DO NOT COMPLETE THIS AREA IF YOUR COMPANY IS UNABLE TO RECEIVE PURCHASE ORDERS ELECTRONICALLY)

.....

ACKNOWLEDGMENT OF ADDENDA (if applicable)

The above-signed company/firm acknowledges the receipt of the following addenda for the above-referenced solicitation.

Date Received by Proposer/Bidder:

Addendum #1 _____

Addendum #2 _____

Addendum #3 _____

Addendum #4 _____

Addendum #5 _____

Addendum #6 _____

END OF PROPOSAL FORM



AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

BOND AMOUNT: \$**PROJECT:**

(Name, location or address, and Project number, if any)

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner 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. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so

Init.

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User Notes:

(1951821935)

Page 30

furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this day of ,

(Witness)

(Witness)

(Contractor as Principal)

(Seal)

(Title)

(Surety)

(Seal)

(Title)

Init.

/

Additions and Deletions Report for

AIA® Document A310™ – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 13:46:37 ET on 10/23/2019.

PAGE 1

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

...

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 13:46:37 ET on 10/23/2019 under Order No. 4323301581 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A310™ – 2010, Bid Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

Attachment A

**CERTIFIED MINORITY BUSINESS ENTERPRISE
UTILIZATION AND FAIR SOLICITATION AFFIDAVIT**

NOTE: You must include this document with your bid or offer. If you do not submit the form with your bid or offer, the procurement officer shall deem your bid non-responsive or your offer not reasonably susceptible of being selected for award.

* * * * *

Part I.

I acknowledge the:

- Overall certified MBE subcontract participation goal of 8 %. and
- The subgoals, if applicable, of:
 - 0 % for certified African American-owned businesses and
 - 0 % for certified Asian American-owned businesses.

I have made a good-faith effort to achieve this goal. If awarded the contract, I will continue to attempt to increase MBE participation during the project.

Part II.

Check ONE Box

NOTE: FAILURE TO CHECK ONE OF BOXES 1, 2, or 3 BELOW WILL RENDER A BID NON-RESPONSIVE OR AN OFFER NOT REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD

NOTE: INCONSISTENCY BETWEEN THE ASSERTIONS ON THIS FORM AND THE INFORMATION PROVIDED ON THE *MBE PARTICIPATION SCHEDULE* (ATTACHMENT B) MAY RENDER A BID NON-RESPONSIVE OR AN OFFER NOT REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD

- 1 ☐ I have met the overall MBE goal and MBE subgoals for this project. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B], which details how I will reach that goal.
- or**
- 2 ☐ After having made a good-faith effort to achieve the overall MBE goal and MBE subgoals for this project, I can achieve partial success only. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B], which details the MBE participation I have achieved.

I request a partial waiver as follows:

- Waiver of overall MBE subcontract participation goal: ____ %
- Waiver of MBE subcontract participation subgoals, if applicable:
 - ____ % for certified African American-owned businesses and
 - ____ % for certified Asian American-owned businesses.

Within 10 days of being informed that I am the apparent awardee, I will submit *MBE Waiver Documentation* [Attachment F] (with supporting documentation).

or

- 3 ☐ After having made a good faith effort to achieve the overall MBE goal and MBE subgoals for this project, I am unable to achieve any portion of the goal or subgoals. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B].

I request a full waiver.

Within 10 days of being informed that I am the apparent awardee, I will submit *MBE Waiver Documentation* [Attachment F] (with supporting documentation).

Part III.

I understand that if I am the apparent awardee or conditional awardee, I must submit **within 10 working days** after receiving notice of the potential award or within 10 days after the date of conditional award – whichever is earlier – the:

- *Outreach Efforts Compliance Statement* (Attachment C)
- *Subcontractor Project Participation Statement* (Attachment D)
- *Minority Subcontractors Unavailability Certificate* (Attachment E) (if applicable)
- Any other documentation the Procurement Officer requires to ascertain my responsibility in connection with the MBE participation goal and subgoals

I acknowledge that if I fail to timely return complete documents, the Procurement Officer may determine that I am not responsible and therefore not eligible for contract award. If the contract has been awarded, the award is voidable.

I acknowledge that the MBE subcontractors/suppliers listed in the *MBE Participation Schedule* and any additional MBE subcontractor/suppliers identified in the *Subcontractor Project Participation Statement* will be used to accomplish the percentage of MBE participation that I intend to achieve.

In the solicitation of subcontract quotations or offers, MBE subcontractors were provided the same information and amount of time to respond as were non-MBE subcontractors.

The solicitation process was conducted in such a manner so as to not place MBE subcontractors at a competitive disadvantage to non-MBE subcontractors.

I solemnly affirm under the penalties of perjury that this Affidavit is true to the best of my knowledge, information, and belief.

Bidder/Offeror Name

Address

Address (continued)

Affiant Signature

Printed Name & Title

Date

October 2017

**ATTACHMENT B
MBE PARTICIPATION SCHEDULE**

REVISED

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the procurement officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

1. Prime Contractor's Name			2. Prime Contractor's Address/Telephone Number																															
3. Project/School Name 20C4, Veneer Repairs to Thurmont Primary School			4. Project/School Location 7989 Rocky Ridge Road, Thurmont, MD 21788																															
5. LEA Name: FCPS PSC Number: 10.064.20ASP			6. Base Bid Amount \$ _____ Acceptance Alternates \$ _____ Total \$ _____																															
7a. Minority Firm Name: _____ Minority Firm Address: _____ MDOT Firm Certification Number: _____ <input type="checkbox"/> African American <input type="checkbox"/> Asian American <input type="checkbox"/> Native American <input type="checkbox"/> Women <input type="checkbox"/> Hispanic <input type="checkbox"/> Disabled																																		
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8. MBE Total Amount			9. Total MBE Percent of Entire Contract																															
10. Form Prepared by: Name: _____ Title: _____ Date: _____			11. Reviewed and Accepted by Board of Edu. MBE Liaison Name: _____ Title: _____ Date: _____																															

Total MBE Participation:	\$ _____	_____ %	
Total African-American Participation:	\$ _____	_____ %	
Total Asian-American MBE Participation:	\$ _____	_____ %	
Total Other Participation:	\$ _____	_____ %	



AIA® Document A101™ – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

The Architect:
(Name, legal status, address and other information)

Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850
Phone: 301-590-3939
Fax: 301-948-7174

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101™–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201™–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

TABLE OF ARTICLES

1	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

§ 2.1 The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. In addition to performing the Work as described in the Contract Documents, the Contractor shall perform the Work in accordance with all applicable ordinances, building codes, statutes, regulations and guidelines of all federal, state and local government authorities having jurisdiction over the Project.

§ 2.2 The Architect will schedule and the Contractor shall attend the Pre-Construction Meeting and Progress Meetings. The Contractor shall require the attendance of Subcontractors at the meetings as needed or as required by the Architect or Owner. The Contractor shall provide to the Architect and Owner either prior to or during each progress meeting such reports and documentation requested by the Architect and Owner regarding the progress and performance of the Work and the percentage of completion of Contract and all Subcontracts.

§ 2.3 In addition to progress and review meetings, the Contractor shall attend additional meetings with the Owner as needed and at the Owner's sole discretion. The Owner may designate the location and time of such meetings.

§ 2.4 Within (14) days after the Owner issues the notice to proceed the Contractor shall submit a Preliminary Contractor Schedule, the Preliminary Contractor Schedule shall indicate task(s) (the work), duration(s) (start and completion) and be compliant with the dates indicated for Substantial Completion as required by the contract. Preliminary Contractor Schedule shall be in a Critical Path Method (CPM) and bar chart format, indicating sufficient detail, task(s) (the work) and durations(s) (start and completion) of each major item of the Work, the current status of each major item of Work indicating staffing and equipment to comply with the Schedule. The Contract Schedule must be submitted for the Owners review as a condition precedent to the Contractor submission of the first application for Payment. Contractor shall provide additional detail when requested by the Architect or Owner and update the Contractor Schedule to be compliant with the Substantial Completion date(s) including only owner approves time extensions. Within 7 days of a request by the Architect or Owner, the Contractor shall furnish to the Architect and Owner a Progress Schedule showing the current progress and completion stage of the Work as compared to the

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Contract Schedule. Progress Schedule shall clearly identify any item of Work, which is behind the Contract Schedule along with the Contractor's increase in manpower and equipment necessary to comply with the updated Contract Schedule.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- ☐ The date of this Agreement.
- ☒ A date set forth in a notice to proceed issued by the Owner.
- ☐ Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

- ☐ Not later than () calendar days from the date of commencement of the Work.
- ☒ By the following date:

§ 3.3.2 The Contractor acknowledges and agrees that time is of the essence in achieving Substantial Completion and that a delay in achieving Substantial Completion will result in increased costs to the Owner. In the event that the Contractor does not achieve Substantial Completion as stipulated in Article 3.3, including approved extensions, the Contractor and the Contractor's surety shall be liable for and shall pay liquidated damages to the Owner. For each calendar day required to achieve Substantial Completion beyond the Substantial Completion Date authorized by the Contract, the Contractor shall pay to the Owner all direct costs charged to the Owner plus liquidated damages on account of Owner's staff expense and on account of student inconvenience, disruption, and dislocation the sum of \$1.00 per student based upon an expected enrollment of 337 students for total liquidated damages in the amount of \$337.00 per day.

(Table deleted)

§ 3.3.3 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work

Substantial Completion Date

, subject to adjustments of this Contract Time as provided in the Contract Documents.

(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

§ 3.4 The Contractor shall not be entitled to any form of damages for being able to achieve Substantial Completion earlier than the date set forth in Paragraph 3.3. Additionally, a Contractor shall not be entitled to any form of damages or other compensation from Owner by reason of delay or interruptions of its work caused by other contractors or utilities working on the project. Contractor shall indemnify Owner against any and all loss, cost, and damages that the

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Owner may be caused to sustain by reason of claims from any other contractor working on the Project caused in whole or in part by the acts of the Contractor or those for whom it is responsible

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
------	-------

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
------	-------	---------------------------

§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price
------	-------

§ 4.4 Unit prices, if any:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
------	-----------------------	-------------------------

§ 4.5 Liquidated damages, if any:
(Insert terms and conditions for liquidated damages, if any.)

See paragraph 3.3.2

§ 4.6 Other:
(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

The billing period shall be as required herein and as indicated by the specifications. Contractor is required to submit estimated billing by the 28th of each month for the current month. The Contractor must provide a pencil copy for the Architect and Owners review. Contractors' failure to provide estimate billing may delay processing the Application for Payment. Frederick County Public Schools requires overall estimates in compliance with Frederick County Government's funding requirements and in order to obtain funds for Contractor Applications for Payment.

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§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the first day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the Twenty Fifth (25th) day of the same month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than thirty (30) days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of five percent (5 %). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201™–2007, General Conditions of the Contract for Construction;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5 %);
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201–2007 and,
- .5 The requirements of 5.1.8 Reduction or limitation of retainage.

(Paragraphs deleted)

§ 5.1.7 Retainage The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
(Section 9.8.5 of AIA Document A201–2007 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201–2007.

(Paragraphs deleted)

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

Five percent (5%) retainage shall be held from progress payments. After issuance of a Certificate of Substantial Completion for the Contract Work, retainage may be reduced at the Owner's sole and discretion. When the Owner and Architect agree that the work, including all Punch List items, has been satisfactorily completed, the retainage may be reduced at the Owner's sole option to one percent (1%). Any retainage reduction must be approved by the Architect, Owner and Surety prior to submitting an Application for Payment reflecting such reductions and shall include an executed AIA G707A Consent of Surety to reduction in or Partial Release of Retainage or AIA G707 Consent of Surety to Final Payment.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than Thirty (30) days after the issuance of the Architect's final Certificate for Payment, or as follows:

The Contractor shall deliver to the Owner:

- a. Final Releases of Liens and Waiver of Claims from the Contractor; and
- b. "As-built or Record Drawings" Plans and Specifications showing all changes, locations and installation shall be submitted to the architect for approval and forwarded to the Owner for his approval and acceptance, "As-built or Record Drawings" shall be provided on a drawing set sealed with the Architect's stamp; and
- c. Three (3) complete sets of warranties and guarantees in three-ring binders, indexed with a table of contents approved by the Architect; and
- d. A statement from the Contractor that there exist no pending or threatened claims against the Owner relating to the Work or for which the Owner may be liable which are unresolved or a statement of any unresolved issues; and
- e. All punch list items shall be satisfactorily completed, each punch list item signed and dated indicating when the correction was completed and inspected by the Owner, Architect and Engineer; and
- f. The Contractor shall deliver to the Owner attesting that various items of Work have been satisfactory completed in accordance with the requirements of the Contract Documents and in accordance with industry standards of workmanship.

(Paragraphs deleted)

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

☐ Arbitration pursuant to Section 15.4 of AIA Document A201–2017

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☒ [X] Litigation in a court of competent jurisdiction

☐ [] Other (*Specify*)

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
(Insert rate of interest agreed upon, if any.)

0.0 % zero percentage

(Paragraphs deleted)

§ 8.23 The Owner’s representative:

(Name, address, email address, and other information)

§ 8.4 The Contractor’s representative:

(Name, address, email address, and other information)

(Paragraphs deleted)

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§ 8.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.6

(Paragraphs deleted)

Other provisions:

§ 8.6.1 The cost of reproducing copies of any additional Construction Documents required for construction shall be at the sole cost of the Contractor.

§ 8.6.2 The Contractor, Subcontractors and all employees shall conform to all Board of Education policies when on Board of Education property, including but not limited to no smoking and the possession of deadly weapons.

§ 8.6.3 The Contractor shall appoint a safety officer who shall be available to the Owner. On a regular basis such safety officer shall inspect the job site for compliance to OSHA and MOSHA requirements. In the event of any job site violations of OSHA or MOSHA, the Contractor shall immediately rectify the situation and bring the job site into compliance.

§ 8.6.4 The Owner may issue a Notice to Contractor for failure to comply with the Contract requirements and/or the Contract Documents. Contractor must respond to such notice as practical, and Owner must receive a written response within two (2) business days of the Contractor's receipt of such notice. Inspections by Owner or the Owner's failure to issue such Notices shall not relieve the Contractor from full compliance with the Contract Documents.

§ 8.6.5 When Work is to be completed during operation of and use of the building Contractor shall ensure all building systems and egress/ingress remain operable and effective during the hours that the school is in use as determined by the Principal. Dividing walls or partitions shall be erected to separate construction and demolition activities from building activities and egress/ingress shall be maintained as stipulated by the relevant Government authorities, including the Fire Marshal.

§ 8.6.6 The Contractor and its Subcontractors shall staff the project with competent and experienced superintendents, foreman, and journeyman. The Electrical contractor must provide a Master Electrician and the Plumbing contractor must provide a Master Plumber to work on the Project. The number of apprentices working on the Project shall not exceed the ratio of two apprentices for every journeyman. If requested, the Contractor shall, within twenty-four (24) hours, provide documentation outlining specific experience for a journeyman, foreman or superintendent.

§ 8.6.7 It is Contractor's sole responsibility to provide utilities, including but not limited to electricity, water, telephone, sewer and gas at the job site during the construction period, notwithstanding the indication of any utilities noted as existing in the Contract Documents.

§ 8.6.8 The Contractor shall promptly make available to the Owner complete copies of all executed Subcontracts and any changes, modifications or exclusions thereto, upon the Owner's request.

§ 8.6.9 The Architect or Engineer's approved shop drawings and or samples must be on site before work can begin on the applicable item of Work detailed on the shop drawings or stipulated in the specifications. The Contractor shall make the approved shop drawing available to the Owner's representative as needed to review the installation(s).

§ 8.6.10 All existing areas, interior and exterior, damaged during construction or renovation, are to be refurbished to their original condition.

§ 8.6.11 Any soil or excess excavation, including but not limited to rock, which is not required for the finished Work, shall be removed from the site as part of the Contract Sum.

§ 8.6.12 Notwithstanding any other contract provisions to the contrary, the mechanical system and plumbing system must be completely balanced and such balance must be accepted by the Engineer, before the warranty/guarantee period will begin.

§ 8.6.13 The Contractor shall provide not less than a 2 year warranty for the project, the 2 year warranty shall not diminish any extended warranty provided by equipment manufacturer's not limited to and including all HVAC equipment and Compressors.

§ 8.6.14 The Contractor and Subcontractors shall conform to all requirements of the following Maryland General Assembly Policies:

- .1 Maryland General Assembly House Bill 642 – Children – Child Care Facilities, Public Schools and Nonpublic Schools – Contractors and Subcontractors.
- .2 Maryland General Assembly Senate Bill 508 – Children Care Facilities, Public Schools and Nonpublic Schools – Contractors and Subcontractors.
- .3 The Contractor and Subcontractors shall not knowingly hire or retain any individual who has been convicted of a crime involving:
 1. An offense under 3-307 of the Criminal Law Article;
 2. Child sexual abuse under 3-602 of the Criminal Law Article, or an offense under the laws of another state that would constitute child sexual abuse under 3-602 of the Criminal Law Article if committed in the State; or
 3. A crime of violence as defined in 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of 14-101 of the Criminal Law Article if committed in this State.

§ 8.7 Insurance and Bonds

§ 8.7.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents. **§ 8.7** Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below: *(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)*

§ 8.8 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .3 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if required, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

- .5 Drawings

Number	Title	Date
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- .6 Specifications

Section	Title	Date	Pages
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.7 Addenda, if any:

Number	Date	Pages
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Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

(Paragraphs deleted)

(Paragraphs deleted).9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

Frederick County Public Schools Bid Documents for this projects Bid.

ARTICLE 10 INSURANCE AND BONDS

10.1 The Contractor shall purchase and maintain insurance and provide bonds as set forth in Article 11 of AIA Document A201-2007.

(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201-2007.)

10.2 Maryland Code 21-102 - A certificate of authority, or certified copy of a certificate of authority, issued by the Commissioner to a surety insurer shall be accepted as evidence of qualification to become sole surety on a bond, undertaking, recognizance, or other obligation required or allowed by law, or in the charter, ordinances, rules, or regulations of a municipal corporation, board, organization, court, judge, or public officer, without further proof or qualification regarding solvency, credit, or financial sufficiency to act as a surety or bidders may use bonding companies from Treasury approved sureties with an AM Best rating of A- or better rating.

10.3 The Contractor shall provide a Performance Bond with a Penal Sum equal to the Contract Sum. The Contractor shall provide a Payment Bond with a Penal Sum equal to the Contract Sum. All bonds shall be written on MD COMAR 21 07 02 10 Bond and will be from a surety company acceptable to the Owner.

10.4 The Contractor shall comply with the additional insurance requirements set forth below:

(a) The Board of Education of Frederick County, Frederick County Council, the State of Maryland and the other entities stipulated by the Owner shall be named as an additional insured on the Contractor policies other than Worker's Compensation.

(b) All policies shall stipulate the Owner is to receive written notice thirty (30) days before cancellation.

(c) The Owner is to receive insurance certificates evidencing the compliance of insurance requirements at least (10) ten days before Work commences.

(d) Insurance policies shall contain a Waiver of Subrogation in favor of the Owner.

(e) General Liability and Umbrella Insurance policies are to be in "Occurrence Form".

(f) Insurance policies shall provide primary coverage to The Board of Education of Frederick County and The Board of Commissioners of Frederick County and the State of Maryland as additional insureds for loss, injury and damage arising out of or associated with the Work under this agreement as opposed to pro-rate with, concurrent with excess to any other insurance coverages by the Owner other than insurance Worker's Compensation Insurance.

(g) The Contractor shall purchase and maintain all insurance from an insurer acceptable to the Owner and lawfully authorized to do business in Maryland.

10.5 The Owner shall provide and maintain Builder's Risk Protection throughout the project. The Contractor shall pay the cost of any deductible(s) required by the Builders Risk Protection as provided by the Owner. This provision shall

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not release the contractor of the obligation to complete the work according to plans and specifications required by the contract and shall be obligated to full performance of the contract's undertaking.

10.6 The Contractor shall provide insurance pursuant to the requirements set forth below:

Type of insurance or bond	Limit of liability or bond amount (\$0.00)
Part 1 Worker's Compensation Insurance	as required by statute
Part 2 Employers Liability:	
Bodily Injury by Accident	\$ 500,000.00 each accident
Bodily Injury by Disease	\$ 500,000.00 policy limits
Bodily Injury by Disease	\$ 500,000.00 each employee
Commercial General Liability Insurance, to include, premises, products, completed operations, personal injury and contractual: Aggregate to apply Per Project./Per Location, Occurrence	\$1,000,000.00
Each Occurrence	\$2,000,000.00
General aggregate Limit (Per Site)	\$2,000,000.00 aggregate limit
Products and complete operation	\$1,000,000.00 each occurrence Limit
Personal & advertising injury	\$1,000,000.00
Fire damage	\$ 50,000.00
Medical Expense (Any One Person)	\$ 10,000.00 each occurrence
General Liability insurance shall provide coverage for:	
Completed Operations to meet the Statute of Repose & Statute of Limitations;	
Independent Contractors	
Contractual Liability	
Broad From Property Damage	
Liability arising from Explosion, Collapse and Underground Damage (X, C, U)	
Additional insured Endorsement (GL2010 11/85)	
Terrorism-Certified & Non Certified	
Option (b1)	
Automobile Liability Insurance, including owned, non-owned and hired vehicles	
Bodily injury liability	\$1,000,000.00 each person
Property damage liability	\$1,000,000.00 each occurrence
Option (b2)	
Combined single limit Bodily injury or property damage liability	\$1,000,000.00 each person \$1,000,000.00 each accident
Umbrella Excess Liability (true following form)	\$5,000,000.00 per Occurrence \$5,000,000.00 General Aggregate \$5,000,000.00 Products & Completed Operations
Any construction contractor providing Mass Grading, Masonry, Structural Steel, Superstructure or foundation concrete, Mechanical or Electrical contractors shall be required to carry the following Umbrella Excess Liability (true following form) minimum limits:	\$8,000,000.00 Each Occurrence \$8,000,000.00 General Aggregate \$8,000,000.00 Products & Completed Operations
Contractors Pollution Liability for contractors engaged in testing for, monitoring, clean-up, removal, containing, detoxifying, neutralizing, transporting, handling, storage treatment, or disposing of or processing any waste pollutants.	\$1,000,000.00 per Occurrence \$1,000,000.00 Aggregate

This Agreement entered into as of the day and year first written above.

OWNER *(Signature)*

| Theresa R. Alban, Ph.D., Superintendent of Schools

(Printed name and title)

CONTRACTOR *(Signature)*

(Printed name and title)



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Additions and Deletions Report for AIA® Document A101™ – 2017

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 13:52:36 ET on 10/23/2019.

PAGE 1

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

...

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

...

Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850
Phone: 301-590-3939
Fax: 301-948-7174

PAGE 2

~~The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.~~ § 2.1 The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. In addition to performing the Work as described in the Contract Documents, the Contractor shall perform the Work in accordance with all applicable ordinances, building codes, statutes, regulations and guidelines of all federal, state and local government authorities having jurisdiction over the Project.

§ 2.2 The Architect will schedule and the Contractor shall attend the Pre-Construction Meeting and Progress Meetings. The Contractor shall require the attendance of Subcontractors at the meetings as needed or as required by the Architect or Owner. The Contractor shall provide to the Architect and Owner either prior to or during each progress meeting such reports and documentation requested by the Architect and Owner regarding the progress and performance of the Work and the percentage of completion of Contract and all Subcontracts.

§ 2.3 In addition to progress and review meetings, the Contractor shall attend additional meetings with the Owner as needed and at the Owner's sole discretion. The Owner may designate the location and time of such meetings.

§ 2.4 Within (14) days after the Owner issues the notice to proceed the Contractor shall submit a Preliminary Contractor Schedule, the Preliminary Contractor Schedule shall indicate task(s) (the work), duration(s) (start and completion) and be compliant with the dates indicated for Substantial Completion as required by the contract. Preliminary Contractor Schedule shall be in a Critical Path Method (CPM) and bar chart format, indicating sufficient detail, task(s) (the work) and durations(s) (start and completion) of each major item of the Work, the current status of each major item of Work indicating staffing and equipment to comply with the Schedule. The Contract Schedule must

be submitted for the Owners review as a condition precedent to the Contractor submission of the first application for Payment. Contractor shall provide additional detail when requested by the Architect or Owner and update the Contractor Schedule to be compliant with the Substantial Completion date(s) including only owner approves time extensions. Within 7 days of a request by the Architect or Owner, the Contractor shall furnish to the Architect and Owner a Progress Schedule showing the current progress and completion stage of the Work as compared to the Contract Schedule. Progress Schedule shall clearly identify any item of Work, which is behind the Contract Schedule along with the Contractor's increase in manpower and equipment necessary to comply with the updated Contract Schedule.

PAGE 3

☒ A date set forth in a notice to proceed issued by the Owner.

...

☒ By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates: The Contractor acknowledges and agrees that time is of the essence in achieving Substantial Completion and that a delay in achieving Substantial Completion will result in increased costs to the Owner. In the event that the Contractor does not achieve Substantial Completion as stipulated in Article 3.3, including approved extensions, the Contractor and the Contractor's surety shall be liable for and shall pay liquidated damages to the Owner. For each calendar day required to achieve Substantial Completion beyond the Substantial Completion Date authorized by the Contract, the Contractor shall pay to the Owner all direct costs charged to the Owner plus liquidated damages on account of Owner's staff expense and on account of student inconvenience, disruption, and dislocation the sum of \$1.00 per student based upon an expected enrollment of 337 students for total liquidated damages in the amount of \$337.00 per day.

Portion of Work

Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5. Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work

Substantial Completion Date

, subject to adjustments of this Contract Time as provided in the Contract Documents.

(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

§ 3.4 The Contractor shall not be entitled to any form of damages for being able to achieve Substantial Completion earlier than the date set forth in Paragraph 3.3. Additionally, a Contractor shall not be entitled to any form of damages or other compensation from Owner by reason of delay or interruptions of its work caused by other contractors or utilities working on the project. Contractor shall indemnify Owner against any and all loss, cost, and damages that the Owner may be caused to sustain by reason of claims from any other contractor working on the Project caused in whole or in part by the acts of the Contractor or those for whom it is responsible

PAGE 4

See paragraph 3.3.2

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The billing period shall be as required herein and as indicated by the specifications. Contractor is required to submit estimated billing by the 28th of each month for the current month. The Contractor must provide a pencil copy for the

Architect and Owners review. Contractors' failure to provide estimate billing may delay processing the Application for Payment. Frederick County Public Schools requires overall estimates in compliance with Frederick County Government's funding requirements and in order to obtain funds for Contractor Applications for Payment.

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the first day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the Twenty Fifth (25th) day of the same month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than thirty (30) days after the Architect receives the Application for Payment.

PAGE 5

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of five percent (5 %). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201™-2007, General Conditions of the Contract for Construction;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5 %);
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-2007 and,
- .5 The requirements of 5.1.8 Reduction or limitation of retainage.

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201-2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201-2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
(Section 9.8.5 of AIA Document A201-2007 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201-2007.

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:
(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201-2017. Reduction or limitation of retainage, if any, shall be as follows:
(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

Five percent (5%) retainage shall be held from progress payments. After issuance of a Certificate of Substantial Completion for the Contract Work, retainage may be reduced at the Owner's sole and discretion. When the Owner and Architect agree that the work, including all Punch List items, has been satisfactorily completed, the retainage may be reduced at the Owner's sole option to one percent (1%). Any retainage reduction must be approved by the Architect, Owner and Surety prior to submitting an Application for Payment reflecting such reductions and shall include an executed AIA G707A Consent of Surety to reduction in or Partial Release of Retainage or AIA G707 Consent of Surety to Final Payment.

PAGE 6

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than ~~30~~ Thirty (30) days after the issuance of the Architect's final Certificate for Payment, or as follows:

The Contractor shall deliver to the Owner:

- a. Final Releases of Liens and Waiver of Claims from the Contractor; and
- b. "As-built or Record Drawings" Plans and Specifications showing all changes, locations and installation shall be submitted to the architect for approval and forwarded to the Owner for his approval and acceptance, "As-built or Record Drawings" shall be provided on a drawing set sealed with the Architect's stamp; and
- c. Three (3) complete sets of warranties and guarantees in three-ring binders, indexed with a table of contents approved by the Architect; and
- d. A statement from the Contractor that there exist no pending or threatened claims against the Owner relating to the Work or for which the Owner may be liable which are unresolved or a statement of any unresolved issues; and

- e. All punch list items shall be satisfactorily completed, each punch list item signed and dated indicating when the correction was completed and inspected by the Owner, Architect and Engineer; and
- f. The Contractor shall deliver to the Owner attesting that various items of Work have been satisfactory completed in accordance with the requirements of the Contract Documents and in accordance with industry standards of workmanship.

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

—%

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☒ [X] Litigation in a court of competent jurisdiction

...

§ 8.2 The Owner's representative:

(Name, address, email address, and other information) Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

0.0 % zero percentage

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

§ 8.23 The Owner's representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party. The Contractor's representative:

(Name, address, email address, and other information)

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™ 2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™ 2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™ 2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

Other provisions:

§ 8.6.1 The cost of reproducing copies of any additional Construction Documents required for construction shall be at the sole cost of the Contractor.

§ 8.6.2 The Contractor, Subcontractors and all employees shall conform to all Board of Education policies when on Board of Education property, including but not limited to no smoking and the possession of deadly weapons.

§ 8.6.3 The Contractor shall appoint a safety officer who shall be available to the Owner. On a regular basis such safety officer shall inspect the job site for compliance to OSHA and MOSHA requirements. In the event of any job site violations of OSHA or MOSHA, the Contractor shall immediately rectify the situation and bring the job site into compliance.

§ 8.6.4 The Owner may issue a Notice to Contractor for failure to comply with the Contract requirements and/or the Contract Documents. Contractor must respond to such notice as practical, and Owner must receive a written response within two (2) business days of the Contractor's receipt of such notice. Inspections by Owner or the Owner's failure to issue such Notices shall not relieve the Contractor from full compliance with the Contract Documents.

§ 8.6.5 When Work is to be completed during operation of and use of the building Contractor shall ensure all building systems and egress/ingress remain operable and effective during the hours that the school is in use as determined by the Principal. Dividing walls or partitions shall be erected to separate construction and demolition activities from building activities and egress/ingress shall be maintained as stipulated by the relevant Government authorities, including the Fire Marshal.

§ 8.6.6 The Contractor and its Subcontractors shall staff the project with competent and experienced superintendents, foreman, and journeyman. The Electrical contractor must provide a Master Electrician and the Plumbing contractor must provide a Master Plumber to work on the Project. The number of apprentices working on the Project shall not exceed the ratio of two apprentices for every journeyman. If requested, the Contractor shall, within twenty-four (24) hours, provide documentation outlining specific experience for a journeyman, foreman or superintendent.

§ 8.6.7 It is Contractor's sole responsibility to provide utilities, including but not limited to electricity, water, telephone, sewer and gas at the job site during the construction period, notwithstanding the indication of any utilities noted as existing in the Contract Documents.

§ 8.6.8 The Contractor shall promptly make available to the Owner complete copies of all executed Subcontracts and any changes, modifications or exclusions thereto, upon the Owner's request.

§ 8.6.9 The Architect or Engineer's approved shop drawings and or samples must be on site before work can begin on the applicable item of Work detailed on the shop drawings or stipulated in the specifications. The Contractor shall make the approved shop drawing available to the Owner's representative as needed to review the installation(s).

§ 8.6.10 All existing areas, interior and exterior, damaged during construction or renovation, are to be refurbished to their original condition.

§ 8.6.11 Any soil or excess excavation, including but not limited to rock, which is not required for the finished Work, shall be removed from the site as part of the Contract Sum.

§ 8.6.12 Notwithstanding any other contract provisions to the contrary, the mechanical system and plumbing system must be completely balanced and such balance must be accepted by the Engineer, before the warranty/guarantee period will begin.

§ 8.6.13 The Contractor shall provide not less than a 2 year warranty for the project, the 2 year warranty shall not diminish any extended warranty provided by equipment manufacturer's not limited to and including all HVAC equipment and Compressors.

§ 8.6.14 The Contractor and Subcontractors shall conform to all requirements of the following Maryland General Assembly Policies:

.1 Maryland General Assembly House Bill 642 – Children – Child Care Facilities, Public Schools and Nonpublic Schools – Contractors and Subcontractors.

.2 Maryland General Assembly Senate Bill 508 – Children Care Facilities, Public Schools and Nonpublic Schools – Contractors and Subcontractors.

.3 The Contractor and Subcontractors shall not knowingly hire or retain any individual who has been convicted of a crime involving:

1. An offense under 3-307 of the Criminal Law Article;

2. Child sexual abuse under 3-602 of the Criminal Law Article, or an offense under the laws of another state that would constitute child sexual abuse under 3-602 of the Criminal Law Article if committed in the State; or

3. A crime of violence as defined in 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of 14-101 of the Criminal Law Article if committed in this State.

§ 8.7 Other provisions: Insurance and Bonds

§ 8.7.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents. § 8.7 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below: (If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.8 Other provisions:

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.2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds

.3 AIA Document A201™–2017, General Conditions of the Contract for Construction

.4 .3 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if required, dated as indicated below:

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.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

☐ AIA Document E204™ 2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204 2017 incorporated into this Agreement.)

☐ The Sustainability Plan:

Title	Date	Pages
-------	------	-------

☐ Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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- .9 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

Frederick County Public Schools Bid Documents for this projects Bid.

ARTICLE 10 INSURANCE AND BONDS

10.1 The Contractor shall purchase and maintain insurance and provide bonds as set forth in Article 11 of AIA Document A201-2007.

(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201-2007.)

10.2 Maryland Code 21-102 - A certificate of authority, or certified copy of a certificate of authority, issued by the Commissioner to a surety insurer shall be accepted as evidence of qualification to become sole surety on a bond, undertaking, recognizance, or other obligation required or allowed by law, or in the charter, ordinances, rules, or regulations of a municipal corporation, board, organization, court, judge, or public officer, without further proof or qualification regarding solvency, credit, or financial sufficiency to act as a surety or bidders may use bonding companies from Treasury approved sureties with an AM Best rating of A- or better rating.

10.3 The Contractor shall provide a Performance Bond with a Penal Sum equal to the Contract Sum. The Contractor shall provide a Payment Bond with a Penal Sum equal to the Contract Sum. All bonds shall be written on MD COMAR 21 07 02 10 Bond and will be from a surety company acceptable to the Owner.

10.4 The Contractor shall comply with the additional insurance requirements set forth below:

(a) The Board of Education of Frederick County, Frederick County Council, the State of Maryland and the other entities stipulated by the Owner shall be named as an additional insured on the Contractor policies other than Worker's Compensation.

(b) All policies shall stipulate the Owner is to receive written notice thirty (30) days before cancellation.

(c) The Owner is to receive insurance certificates evidencing the compliance of insurance requirements at least (10) ten days before Work commences.

(d) Insurance policies shall contain a Waiver of Subrogation in favor of the Owner.

(e) General Liability and Umbrella Insurance policies are to be in "Occurrence Form".

(f) Insurance policies shall provide primary coverage to The Board of Education of Frederick County and The Board of Commissioners of Frederick County and the State of Maryland as additional insureds for loss, injury and damage arising out of or associated with the Work under this agreement as opposed to pro-rate with,

concurrent with excess to any other insurance coverages by the Owner other than insurance Worker's Compensation Insurance.

(g) The Contractor shall purchase and maintain all insurance from an insurer acceptable to the Owner and lawfully authorized to do business in Maryland.

10.5 The Owner shall provide and maintain Builder's Risk Protection throughout the project. The Contractor shall pay the cost of any deductible(s) required by the Builders Risk Protection as provided by the Owner. This provision shall not release the contractor of the obligation to complete the work according to plans and specifications required by the contract and shall be obligated to full performance of the contract's undertaking.

10.6 The Contractor shall provide insurance pursuant to the requirements set forth below:

<u>Type of insurance or bond</u>	<u>Limit of liability or bond amount</u>
<u>Part 1 Worker's Compensation Insurance</u>	<u>(\$0.00)</u> <u>as required by statute</u>
<u>Part 2 Employers Liability:</u>	
<u>Bodily Injury by Accident</u>	<u>\$ 500,000.00 each accident</u>
<u>Bodily Injury by Disease</u>	<u>\$ 500,000.00 policy limits</u>
<u>Bodily Injury by Disease</u>	<u>\$ 500,000.00 each employee</u>
<u>Commercial General Liability Insurance, to include, premises, products, completed operations, personal injury and contractual: Aggregate to apply Per Project./Per Location, Occurrence</u>	<u>\$1,000,000.00</u>
<u>Each Occurrence</u>	<u>\$2,000,000.00</u>
<u>General aggregate Limit (Per Site)</u>	<u>\$2,000,000.00 aggregate limit</u>
<u>Products and complete operation</u>	<u>\$1,000,000.00 each occurrence Limit</u>
<u>Personal & advertising injury</u>	<u>\$1,000,000.00</u>
<u>Fire damage</u>	<u>\$ 50,000.00</u>
<u>Medical Expense (Any One Person)</u>	<u>\$ 10,000.00 each occurrence</u>
<u>General Liability insurance shall provide coverage for:</u>	
<u>Completed Operations to meet the Statute of Repose & Statute of Limitations;</u>	
<u>Independent Contractors</u>	
<u>Contractual Liability</u>	
<u>Broad From Property Damage</u>	
<u>Liability arising from Explosion, Collapse and Underground Damage (X, C, U)</u>	
<u>Additional insured Endorsement (GL2010 11/85)</u>	
<u>Terrorism-Certified & Non Certified</u>	
<u>Option (b1)</u>	
<u>Automobile Liability Insurance, including owned, non-owned and hired vehicles</u>	
<u>Bodily injury liability</u>	<u>\$1,000,000.00 each person</u>
<u>Property damage liability</u>	<u>\$1,000,000.00 each occurrence</u>
<u>Option (b2)</u>	
<u>Combined single limit Bodily injury or property damage liability</u>	<u>\$1,000,000.00 each person</u> <u>\$1,000,000.00 each accident</u>
<u>Umbrella Excess Liability (true following form)</u>	<u>\$5,000,000.00 per Occurrence</u> <u>\$5,000,000.00 General Aggregate</u> <u>\$5,000,000.00 Products & Completed Operations</u>
<u>Any construction contractor providing Mass Grading, Masonry, Structural Steel, Superstructure or foundation concrete, Mechanical or Electrical contractors shall be required to carry the following Umbrella Excess Liability (true following form) minimum limits:</u>	<u>\$8,000,000.00 Each Occurrence</u> <u>\$8,000,000.00 General Aggregate</u> <u>\$8,000,000.00 Products & Completed Operations</u>

Contractors Pollution Liability for contractors engaged in testing for,
monitoring, clean-up, removal, containing, detoxifying, neutralizing,
transporting, handling, storage treatment, or disposing of or processing any
waste pollutants.

\$1,000,000.00 per Occurrence
\$1,000,000.00 Aggregate

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Theresa R. Alban, Ph.D., Superintendent of Schools



Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 13:52:36 ET on 10/23/2019 under Order No. 4323301581 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A101™ – 2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

AIA[®] Document A201[™] – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

THE OWNER:

(Name, legal status and address)

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

THE ARCHITECT:

(Name, legal status and address)

Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850

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- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503[™], Guide for Supplementary Conditions.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. As specifically enumerated in the Agreement, the Contract Documents shall include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under the Architect respective professional services agreements with the Owner. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials. As the design progresses and payments to the Architect are made by the Owner the instruments of services become the property of The Board of Education of Frederick County, see 1.5.1 Ownership and Use of Drawings, Specifications and Other Instrument of Service.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 Correlation and Intent of the Contract Documents

(Paragraphs deleted)

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

1. The Agreement
2. Addenda with those or late date having precedence over those of earlier date
3. The Supplementary Conditions
4. The General Conditions of the Contract for Construction
5. The Contract Specifications
6. The Contract Drawings

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

(Paragraphs deleted)

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors of the respective Instruments of Service, including the Drawings and Specifications, and The Board of Education of Frederick County will own and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and materials or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and material and equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner.

§ 1.6 Notice

(Paragraphs deleted)

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to

whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if included in the AIA B101–2009 Standard Form of Agreement Between Owner and Architect, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, if included in AIA B101–2009 Standard Form of Agreement Between Owner and Architect, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

(Paragraphs deleted)

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. The Architect does not have authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization.

(Paragraphs deleted)

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

(Paragraphs deleted)

§ 2.1.3 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Fees for trade and specialty permits, including but not limited to, electrical, plumbing, elevator, fire review(s) and inspection, boiler, pressure vessel and fuel burning permits and all reinspections shall be paid by and at the Contractor's expense.

(Paragraphs deleted)

§ 2.1.4 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.1.5 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.1.6 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project which are known to the Owner, and a legal description of the site if requested by the Contractor. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner and shall exercise proper precautions relating to the safe performance of the Work.

§ 2.1.7 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.1.8 Unless otherwise provided in the Contract or Bidding Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.2 Owner's Right to Stop the Work

§ 2.2.1 If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.2.2 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a three-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to or waiver of other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

(Paragraphs deleted)

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner or the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

(Paragraphs deleted)

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents. The Contractor represents that it has received all information it needs concerning the conditions of the Project site. The Contractor represents that it has inspected the location of the Work and has satisfied itself as to the condition thereof or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents. Based upon the foregoing inspections, understandings, agreements and acknowledgements, the Contractor agrees and acknowledges that the Contract Sum is just and reasonable compensation for all the Work and that the Work shall not result in any lateral or vertical movement of any structure due to the Contractor's construction activities. The Contractor shall exercise special care in executing Subsurface Work in proximity of subsurface utilities, improvements and easements.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.1.6, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report in writing to the Architect and Owner any errors, inconsistencies or omissions discovered by or in the exercise of due diligence should have been discovered or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without providing written notice to the Owner and Architect, the Contractor shall assume appropriate responsibility for such performance and shall bear the costs for correction.

§ 3.2.3 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, but the Contractor shall promptly report to the Architect in writing any nonconformity discovered by or in the exercise of due diligence should have been discovered or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

(Paragraphs deleted)

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as state below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

(Paragraphs deleted)

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other

facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.4.4 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner or the Architect or of other Contractors during the performance of the Work or by Tests, inspections or approvals required or performed by persons other than the Contractor, including inspections or approvals performed by the Owner's personnel or by any public authority.

§ 3.5 Warranty

(Paragraphs deleted)

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

§ 3.5.2 The Minimum Warranty period will be two (2) years from the date of substantial completion of the project. The Warranty shall include extended warranty period(s) available from equipment manufacturers and/or extended warranties as required by project specification are required as if individually enumerated herein.

§ 3.5.2 Notwithstanding any other contract provisions to the contrary, the mechanical system and plumbing system must be completely balanced and such balance reports must be reviewed and accepted by the Engineer before the warranty/guarantee period will begin.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

(Paragraphs deleted)

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections and reinspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. Fees for trade and a specialty permit including, but not limited to, electrical, plumbing, elevator, fire review(s), inspections and reinspections, boiler, pressure vessel and fuel burning permits, shall be paid by and at Contractor's expense.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. Compliance with local governing jurisdiction requirements shall be completed at no additional cost to the Owner.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such

Work and shall bear the costs attributable to correction. The provisions of this Agreement regarding compensation and damages, including delay damages, shall apply.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

(Paragraph deleted)

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

(Paragraphs deleted)

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent and Project Manager

(Paragraphs deleted)

§ 3.9.1 The Contractor shall employ a competent superintendent, project manager and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Communications shall be confirmed in writing. The Superintendent and necessary staff members shall be in attendance at the Project site during the performance of the Work including completion of all Punch List items.

§ 3.9.2 Prior to being assigned to the Project both the Project Manager and Superintendent shall be subject to the approval of the Owner. Once approved, the Superintendent and Project Manager will not be removed from the Project without the Owner's written consent. The Owner reserves and retains the right, as its sole and absolute discretion, to order the Contractor to replace any of the Contractor's employees. In the event the Owner requests Contractor

employee's removal, the Contractor shall promptly replace such employees with competent replacements satisfactory to the Owner. The Contractor shall not change the Superintendent or Project Manager without the Owner's consent.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

(Paragraphs deleted)

§ 3.10.1 The Contractor, promptly after being awarded the Contract and as a condition precedent to the first Application For Payment, shall prepare submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor shall prepare a preliminary construction and submittal schedule, within 14 days after being awarded the Contract and complete schedules before 60 contract days have elapsed. The Contractors shall update the schedules thereafter as necessary to maintain current construction and submittal schedules, and shall submit the schedules for the Architect's and Owner's review. The Architect's and Owner's review shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. Contractor's Construction Schedule shall be in a Critical Path Method (CPM) and bar chart format, indicating sufficient detail, task(s) (the work) and duration(s) (start and completion) of each major item of the Work, the current status of each major item of Work indicating staffing and equipment to comply with the Contract Substantial Completion Date and any Owner approved extensions. Contractor's shall provide additional detail when requested by the Architect or Owner and update their Proposed Contractor Schedule to be compliant with the Contract Substantial Date(s). Within 7 days of a request by the Architect or Owner, the Contractor shall furnish to the Owner and Architect a Progress Schedule showing the current progress and the completion stage of the Work as compared to the Original Contract Schedule. Project Schedules shall clearly identify any item of Work, which is behind Schedule along with the Contractor's increased manpower and equipment necessary to comply with the Contract Schedule including any time extensions approved by the Owner. Progress Schedule(s) shall be provided in a Critical Path Method (CPM), bar chart format and electronic as requested by the Owner. During the Owner's review, the Owner may choose to advise the Contractor of work that will be performed by the Owner's forces or the Owner's separate Contractor. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals. The Contractor shall provide the Owner and Architect updated schedules as a condition precedent to progress payments. The updated schedules shall be provided by the Contractor as the project progresses and as requested by the Owner or Architect.

§ 3.10.3 The Contractor shall perform the Work in accordance with the most recent schedules reviewed by the Owner and Architect without objections.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed. The Owner may request, and Contractor shall provide, at any time during the course of the Project, Asbuilt Drawings that reflect the then current stage of construction as actually built and submitted to the Owner for its review. If such drawings are not provided, the Owner may withhold progress payment, or at its discretion a portion thereof, until the requested drawings are up to date and provided for the Owner's review.

§ 3.12 Shop Drawings, Product Data and Samples

(Paragraphs deleted)

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§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

(Paragraph deleted)

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

(Paragraph deleted)

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

(Paragraph deleted)

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. The Contractor shall submit shop drawings to the Architect for all structural elements of the Work and all other portions of the work required by the Contract Documents. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, 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.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design

professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. Pursuant to the Section 3.12.10, the Architects will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.12.10.1 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

(Paragraphs deleted)

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

(Paragraphs deleted)

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or

manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

(Paragraphs deleted)

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder including but not limited to the contributing negligence of such party to be indemnified. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

(Paragraphs deleted)

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.1.4 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

(Paragraphs deleted)

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The duties of the Architect shall be governed by the Agreement between the Owner and the Architect, and will review the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents., except as provided in Section 3.3.1. Notwithstanding other provisions in this Agreement to the contrary, for the purpose of effectuating the Architect's duties in this section, the Architect shall be responsible for exercising reasonable care and diligence in observing ongoing Work. No inspection or approval or failure to inspect or approve by the Architect shall relieve the Contractor from complying in all respects with the requirements of the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will report to the Owner and copy the Contractor about the progress and quality of the portion of the Work completed reporting (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or

charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.3.1 Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect, for additional services which may be charges by the Architect for additional site visits made necessary by the fault or neglect of the Contractor.

§ 4.2.4 Communications

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

(Paragraphs deleted)

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of reviewing the adequacy of the structural elements of the building and checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other 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 as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences, or procedures. The Architect's review of a specific item shall not indicate approval of an assembly of which the item is a component. Should any local Government authorities require certification or correctness of any structural shop drawings by the Architect of record, the Architect will sign and certify the shop drawings only after the shop drawings have been signed and certified by both the structural engineer and other professional engineer registered in the State of Maryland on behalf of the manufacturer, fabricator, Subcontractor or Contractor. The cost for such additional engineering certification shall be borne by the Contractor.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive, review and forward to the Owner with comments, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10. Architect's inspection and issuance of a certificate for final payment and Owner's payment shall not relieve Contractor of responsibility for defects in the Work.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

(Paragraphs deleted)

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract or propose to contract with a proposed person, entity or subcontractor unless the Contractor is satisfied that such person, entity or Subcontractor is technically and financially qualified to perform the Work as a Subcontractor in accordance with the Contractor Documents. The Contractor shall not Contract with any entity or persons to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.2.5 The Contractor shall not enter into any Subcontract, Contract agreement, purchase order or other arrangement for the furnishing of any portion of the materials, services, equipment or Work with any party or entity as 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 after full disclosure in writing by the Contractor to the Owner of such affiliation or relationship and all details relating to the proposed arrangements.

§ 5.3 Subcontractual Relations

By appropriate written agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work which the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

(Paragraphs deleted)

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

(Paragraphs deleted)

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims a delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall be deemed to be subject to the same obligations and rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

(Paragraphs deleted)

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect and Owner apparent discrepancies or defects in such other construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

(Paragraphs deleted)

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. The Contractor agrees that it will incorporate the provisions of Article 7 in its entirety into all agreements with lower tier Contractors. It is further understood and agreed that these Change Order pricing provisions, apply to all types of Contracts, Subcontracts and purchases. The Owner and Owner's accountant shall be afforded access to Contractor's records, books, and correspondence, instructions, drawings, receipts, Subcontracts, purchase orders, vouchers and any other data relating

to the Project as necessary to verify the cost of any change, including wages and benefits paid, for which compensation is sought under this Agreement.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone. Verbal notification approving the Contractor to proceed with a change in the work shall be confirmed in a written format via, CCD, Change Order, progress minutes, e-mail or other written correspondence and should be made as soon as practical.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work. A Change Order or Construction Change Directive involving unit costs shall be equitably adjusted in accordance with 7.3.4

§ 7.2 Change Orders

(Paragraphs deleted)

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time; and
- .4 Comply with all requirements of 7.2.2 below and 7.3.4.

No Change Order shall exceed any of the limitations and requirements of the Contract Documents.

§ 7.2.2 The Contractor shall comply with the following regarding Changes:

(A) A Notice or Request for Change must comply with all of the following:

- .1 specifically and in detail describe the nature and cause of the Claim; and
- .2 specifically reference the detail(s) on the plans and the specification section(s) that are affected; and
- .3 contain an estimate of the increase or decrease in the cost to the Owner; and
- .4 include supporting documentation that satisfactorily justifies to the Owner overhead, profit, insurance, sales or payroll taxes and incorporate a detailed quantity survey of all Work added and deleted; and
- .5 be submitted in a format acceptable to the Owner.

(B) Additive Changes must comply with the following Mark-Up schedule for Overhead, profit and bond:

If the Cost of the proposed change is \$0.00 to \$4,999.99, the total combined overhead, profit and bond must not exceed 20%.

If the Cost of the proposed change is \$5,000.00 to \$14,999.99, the combined overhead, profit and bond must not exceed 15%.

If the Cost of the proposed change is \$15,000.00 to \$24,999.99, the combined overhead, profit and bond must not exceed 10%.

If the Cost of the proposed change is \$25,000.00 to \$49,999.99, the combined overhead, profit and bond must not exceed 7%.

If the Cost of the proposed change is over \$50,000.00, the combined overhead, profit and bond will be negotiated but will not exceed 5%, the cost of the bond shall be clearly indicated in the detailed proposal regardless of the proposed cost.

(C) The Contractors' markup of Subcontractor Work and supplier's material(s) shall not exceed 7% for changes up to \$24,999.99 and the markup shall be negotiated for changes over \$25,000.00 but shall not exceed 5% of the Subcontractor(s) cost of the Work.

(D) Overhead cost shall include all the general conditions, expenses, including but not limited to, all coordination, calculations, engineering, field and office supervision, field and office rent utilities, telephone and communications expenses, office supplies, clean-up, debris expenses, administration and preparation. When both additions and deletions are involved in any one change, the allowance for overhead, profit and bond shall be computed on the net increase, if any, with respect to the change.

(E) For decreases in the Work or credits, the Contract Amount shall be decreased 100% of the Scheduled Value of the deleted Work plus overhead, profit and bond. Contractor and Subcontractor(s) credits shall include credit for overhead, profit and Bond, in the same percentages allowed for additive changes in the above mark-up schedule:

(F) The Contractor's total charge to the Owner for the use of equipment owned in whole or in part by the Contractor, its Owners, directors, officers, shareholders, or affiliated or related persons or entities shall consider the rate agreed upon between the Contractor, Owner and Architect at the beginning of the project less operator and fuel. Reference materials such as "the AED Green Book" should be used to establish market rental rates for equipment. The following shall apply;

- .1 The appropriate duration of hourly rate shall be calculated based on the entire duration the piece of equipment is on the FCPS site (e.g. if the equipment item has been on the project for 30 days or more the hourly rate shall be the monthly rental divided by 176 hours; if on the project for one week the hourly rental shall be the weekly rental divided by 40; if on the project for a day the hourly rental shall be the daily rental divided by 8; if brought to the project for the specific operation the minimal rental period shall apply.) Minimal rental durations will be considered for equipment rented for specific project purposes,
- .2 The Contractor shall not invoice for delivery or removal of the equipment to or from the job site,
- .3 In no event shall the total payment paid by the Owner on any such piece of equipment exceed fifty percent (50%) of its purchase price.

(G) Subcontractor(s) shall comply with the requirements specified above for the Contractor regarding Changes.

§ 7.3 Construction Change Directives

(Paragraphs deleted)

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Wages for construction Workers, including supervisors directly employed to perform the construction of the Work at the site. Unless otherwise agreed by Addendum to this Contract, labor burden shall be limited to: social security, old age and employment, workmen's compensation, health and life insurance benefits, sick leave, holidays, military leave, vacation and pension and savings plan benefits; insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Additional costs of supervision and field office personnel directly attributable to the change, provided, however, the Contractor shall provide an itemized breakdown showing quantities, unit costs, hours and

rates of labor, and other costs and such detail as may be required to allow the reasonableness of cost to be established. Similar cost information covering Subcontractors' Work shall be included as part of the Contractor's Proposal. Minimum charges for "handling" will not be acceptable. The allowable overhead and profit mark-ups to be included in the total cost to Owner shall be based on paragraph 7.2 and:

.1 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of the costs including labor, materials, and Subcontractors. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a charge involving over \$500.00 be approved without such itemization.

.2 A Change Order must include each of the items listed in this Article 7. In the event that there is no change in the Contract time or Contract amount, it must be noted that no such change is intended. A Change Order is all-inclusive, that is, a Change Order, must indicate the change in Contract amount, including any overhead and profit. The Contractor cannot later request additional sums for a prior Change Order because it did not include overhead, profit, or similar items. If additional Contract time is indicated on the Change Order and the Contractor intends to claim any costs for time on any basis, the Change Order must include all additional costs, if any, associated with the additional time.

.3 Where both additions and credits are involved in any one Change Order the allowance of overhead and profit shall be figured on the basis of the net increase, if any.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect and the credit shall be as required by Article 7 mark-up schedule. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change per the mark-up schedule.

§ 7.3.9 Pending final determination of the actual cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such costs that remain in dispute, a Claim may be made in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order otherwise, if Contractor is directed to proceed by Owner, the matter shall be considered a Claim under Article 15. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect with the consent of the Owner has the authority to order minor changes in the work not involving adjustment in the Contract Sum or extension the Contract Time and not inconsistent with intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

ARTICLE 8 TIME

§ 8.1 Definitions

(Paragraphs deleted)

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement shall be fixed in a Notice to Proceed.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

(Paragraphs deleted)

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and the Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

(Paragraphs deleted)

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a Separate Contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation and with consent of the Owner; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine. Contractor waives any and all rights to any increased payments for delay damages, whether by Change Order or otherwise, to include overhead, extended overhead, extended general conditions, or for any other delay-based amounts of any kind or nature, for any delay by reason of the events referred to in the subparagraph or any other event of any kind or nature. Contractor's remedy is limited to an extension of time as set forth herein.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

(Paragraphs deleted)

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect and Owner, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by

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such data to substantiate its accuracy as the Architect or Owner may require. This schedule, unless objected to the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. The Schedule of Values shall be revised from time to time as may be necessary and due to the issuance of Change Orders or Construction Change Directives, the Contractor shall revised the Schedule of Values as requested by the Architect or Owner. The Owner reserves the right to request the Contractor to provide additional detail substantiating the Schedule of Values.

§ 9.2.2 The Contractor shall include a line item in the Schedule of Values for production of project record documents. The minimum value established for the record documents must not be less than 1/2 % of the total Contract value including accepted alternates.

§ 9.3 Applications for Payment

(Paragraphs deleted)

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect and Owner an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such applications shall be notarized and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage as provided for in the Contract Documents. Applications for Payment shall be based upon the Schedule of Values and shall be in a form and content satisfactory to the Owner. Each Application for Payment shall be accompanied by the following:

- .1 Contractor's application and Cost Certification Statement, AIA Forms 702, 703 and IAC PSCP Form No. 306.4, with attachment "G" Certified Minority Business Enterprise Participation Standard Monthly Contractor's Requisition for Payment" (current form), and;
- .2 A statement from the Contractor that all items of construction for which payment is sought have been incorporated into the Project where properly stored in accordance with the Contract Documents, and;
- .3 The Contractors and applicable Subcontractors Release of Liens and Waivers of Claim and such other documents that the Owner may require after discussion with the Contractor, and;
- .4 Such other documentation that the Owner, Construction Manager, Architect may reasonably require after discussion with contractor.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 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. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

(Paragraphs deleted)

§ 9.4.1 The Architect will, after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certifications in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. 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 correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

(Paragraphs deleted)

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When above reasons for withholding certifications are removed, certification will be made for amounts previously withheld after the Contractor revises and resubmits a current Application for Payment including such amounts that were previously withheld.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on its next Certificate for Payment.

§ 9.5.5 If the Contractor disputes any determination by the Architect or Owner with regard to any Applications for Payment, the Contractor shall nevertheless expeditiously continue to perform the Work and shall make claim as provided in Article 15.

§ 9.5.6 The Owner shall not be deemed to be in breach of this Contract by reason of the withholding of any payment pursuant to any provision of the Contract Documents provided the Architect has approved the Owner's action, or the Work for which payment is being withheld has been rejected by any governmental authority.

§ 9.6 Progress Payments

(Paragraphs deleted)

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

Subject to other provisions in the Contract Documents, if the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within thirty days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within thirty days after the date established in the Contract Documents, the amount certified by the Architect, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's substantiated direct

costs of shut-down. Article 9.7 shall not apply to Change Orders that have not received formal approval by the Board of Education of Frederick County, all such Change Orders shall not be included in Applications for Payment until the Contractor received formal notification from the Owner that the Change Order has received formal approval by the Board of Education of Frederick County and the Contractor has completed the Change Order work.

§ 9.8 Substantial Completion

(Paragraphs deleted)

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 The comprehensive list of items to be completed or corrected ("Contractor's Punch List") prepared by the Contractor shall be submitted to the Owner and the Architect and the Owner shall be notified of inspections and be entitled to have an Owner's representative present at such inspections. All items that are disclosed during inspections not complying with the Contract Documents shall be added to the Contractor's Punch List and a copy of the Amended Punch List shall be submitted to the Owner and the Contractor. Any Certificate of Substantial Completion shall then be submitted making reference to the Punch List item, as either being completed to the Architect's satisfaction or shall fix a time within which the Contractor shall complete any remaining items. In the event the Contractor's Punch List is not completed by the date set forth in the Certificate of Substantial Completion, Owner has the option of deducting from balances due the Contractor an amount sufficient to compensate Owner for the cost of completing the Punch List. The amount to be deducted shall be determined in the sole discretion of Owner. Alternatively, Owner at its sole discretion may proceed to engage another Contractor to complete the Punch List Work with the cost thereof to include Owner's administrative costs, which costs shall be calculated in the sole discretion of the Owner, to be deducted from the amount retained and if the amount retained is insufficient, the Contractor is responsible to reimburse Owner the full amount of the uncovered cost. To the extent that multiple inspections may be required to determine whether the Work, or a designated portion thereof has attained Substantial Completion, the Owner shall be entitled to deduct from the Contract Sum any amounts which it must pay to the Architect for additional services for such additional inspections.

§ 9.8.4 When the Work or designated portion thereof including Record Documents and Maintenance Manuals are substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work provided the Contractor has completed all other contractual requirement stipulated to begin the warranty period or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

(Paragraphs deleted)

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing

concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

(Paragraphs deleted)

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither retainage payments nor final payment shall become due until all documents required by the Contract Documents and Article 5 of AIA 101 Standard Form of Agreement Between Owner and Contractor including all (a) Maintenance Manuals, (b) Record Documents, (c) Instruction and Demonstrations have been provided and the Contractor submits to the Architect (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, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be cancelled or allowed to expire until at least 30 days, prior written notice has been given to 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, if any, to final payment and, (5) other data establishing payment or satisfaction of obligations such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .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 special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

(Paragraphs deleted)

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall give the Owner reasonable advance notice and exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.4.1 If the Contract Documents require the Contractor to handle materials or substances that under certain circumstances may be designated as hazardous, the Contractor shall handle such materials in an appropriate manner and shall defend, indemnify, and hold Owner and Architect harmless from and against all claims, liabilities, suits, losses and damages arising out of or relating to such materials.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

(Paragraphs deleted)

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

(Paragraphs deleted)

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 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 shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

(Paragraphs deleted)

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall

be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

(Paragraph deleted)

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

(Paragraphs deleted)

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

(Paragraphs deleted)

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

(Paragraphs deleted)

Init.

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs. The cost to repair nonconforming work shall be considered a latent defect and the contractor responsible for the work or as appropriate the damage to the work shall be responsible for the cost to make repairs to said work and return the uncovered work to the condition before the work was uncovered.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor and its surety shall have the right to remedy any defects in the Work on materials which shall appear within a period of two (2) year from the date of Substantial Completion. Upon written notice from the Owner, the Contractor and surety shall promptly provide said remedy after notice from the Owner. If said remedy is not promptly provided, the Owner shall have the right to correct said defects and charge the Contractor and its surety for the same.

§ 12.2.2 After Substantial Completion

(Paragraphs deleted)

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within two-years after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the two-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within five working days after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4. If the Contractor does not proceed with correction of such nonconforming Work within five working days fixed by written notice from the Architect the Owner may remove it and store the salvable materials or equipment at the Contractor's expense. If the Contractor does not pay costs of such removal and storage within three days after written notice, the Owner may upon ten additional days' written notice sell such materials and equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation for the Owner's and Architect's services and expenses made necessary thereby. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

§ 12.2.2.2 The two-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The two-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the two-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with 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 the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules.

§ 13.2 Successors and Assigns

(Paragraphs deleted)

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.3 Rights and Remedies

(Paragraphs deleted)

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

(Paragraphs deleted)

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or

approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.4.7 No tests or inspections or results thereof shall constitute an acceptance of any Work not conforming to the requirements of Contract Documents.

§ 13.5 Interest

§ 13.5.1 Interest payments will not be required for late payments under the terms of this Contract.

§ 13.6 TIME LIMITS ON CLAIMS

§ 13.6.1 Commencement of Statutory Limitations Period and Statute of Repose shall be in accordance with the laws of the State of Maryland.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

(Paragraphs deleted)

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 120 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, under direct or indirect contract with the Contractor, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment as set forth in the provisions of this Agreement regarding termination by the Owner for convenience.

§ 14.2 Termination by the Owner for Cause

(Paragraphs deleted)

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 refuses or fails to supply enough 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 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.2.5 In the event that is adjusted that the Owner's termination for cause is not justified, then the Termination shall be deemed to be a termination by the Owner for convenience and the Contractor shall be entitled to compensation as only set forth in the provisions of this Agreement regarding termination by Owner for Convenience.

§ 14.3 Suspension by the Owner for Convenience

(Paragraphs deleted)

§ 14.3.1 The Owner may, without cause, 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.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

(Paragraphs deleted)

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. At its option the Owner may terminate this Contract in whole or from time to time in part at any time by written notice thereof to the Contractor. Upon any such termination, Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof, and as the sole right and remedy of the Contractor, Owner shall pay Contractor in accordance with 14.4.2 below. The provisions of the Contract, which by their nature survive final acceptance of the Work, shall remain in full force and effect after such termination to include but not limited to warranties and obligations for the correction of Work not confirming to the Contract Documents. Upon receipt of the Termination Notice, Contractor shall, unless the Notice direct otherwise, immediately discontinue the Work and, to the extent specified in the Notice, place no further orders or subcontracts for materials, equipment, services, or facilities and shall promptly make every reasonable effort to procure cancellation of such orders or subcontracts upon terms satisfactory to the Owner and shall thereafter do only such Work and perform such services as may be directed by the Owner as necessary to preserve and protect Work already in progress and to protect materials, plans and

equipment on the Site or in transit thereto. Upon such termination, the obligations of the Contractor shall continue as to portions of the Work already performed and as to bona fide obligations assumed by the Contractor prior to the date of termination.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 Upon Termination for Convenience, the provisions of the Contract, which by their nature, survive any final acceptance of the Work, shall remain in full force and effect after such termination to include but not limited to warranties and obligations for the correction of Work not conforming to the Contract Documents. Upon receipt of the Termination Notice, Contractor shall, unless the Notice directs otherwise, immediately discontinue the Work and, to the extent specified in the Notice, place no future orders or Subcontracts for materials, equipment, services or facilities and shall promptly make every reasonable effort to procure cancellation of such orders or Subcontracts upon terms satisfactory to the Owner and shall thereafter do only such Work and perform such services as may be directed by the Owner as necessary to preserve and protect Work already in progress and to protect materials, plant and equipment on the site or in transit thereto. Upon termination, Contractor shall be entitled to be paid the full cost of all Work properly done by Contractor on account of the portion of Work Performed. If at the date of such termination, Contractor has properly prepared or fabricated off the site any goods for subsequent incorporation in the Work, and if Contractor delivers such goods to the Site or to such other place as the Owner shall reasonably direct, then Contractor shall be paid for such goods or materials. No other payment shall be made by reason of damages or otherwise, including but not limited to loss of anticipated profits, overhead, or any other claim or amount whatsoever.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

(Paragraphs deleted)

§ 15.1.3. Claims by the Contractor must be made by written notice to the Owner and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by Contractor must be made within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the Contractor first recognizes the condition giving rise to the Claim, whichever is later. Contractor claim(s) shall not be valid unless made in strict accordance with this subparagraph.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

(Paragraphs deleted)

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4. A Claim must be processed as defined herein, Article 15 and comply with all requirements of Article 7.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. No claim for delay damages of any kind or nature shall be valid and no such damages shall be paid by the Owner except upon Owner's written consent which consent is in the sole and absolute discretion of the Owner. No written consent by Owner to damages for one period of delay, entitle Contractor to damages for any other period of delay. A Claim for additional time must be for adverse weather conditions and the actual conditions must exceed the cumulative monthly adverse weather day totals indicated in 15.1.5.2.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, the time must exceed the time as defined in the schedule below, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, exceeded the schedule below and could not have been reasonably anticipated and had an adverse effect on the scheduled construction. The State of Maryland, Department of General Services, Special Provisions Section of Hagerstown, Maryland will be used in the calculation of the monthly anticipated adverse weather delays. The monthly-anticipated adverse weather delays are as follows, in workdays. The Contractor's schedule must reflect these anticipated adverse weather delay days in weather dependent activities:

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
8	7	7	8	8	7	5	6	4	6	5	5

In any event, Contractor's Claim(s) for delay in the performance of the Work due to adverse weather conditions is strictly limited to a Claim for additional for additional time only. In no event shall the Contractor be entitled to monetary damages or any other compensation as a result of a delay in the performance of the Work due to adverse weather conditions.

(Paragraphs deleted)

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

(Paragraphs deleted)

Init.

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be subject to mediation and, if the parties fail to resolve their dispute through mediation the claim shall be resolved by litigation.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue litigation with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

(Paragraphs deleted)

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The

request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings. **§ 15.3.3** Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

(Paragraphs deleted)

§ 15.4.1 All disputes and other matters in question between the parties to this Agreement which cannot be resolved by the parties in accordance with the terms of this Agreement shall be referred to legal counsel and resolved in the Circuit Court for Frederick County, Maryland and all parties hereto agree to submit themselves to the jurisdiction of that Court. During any legal proceedings or other dispute resolution proceedings which may be agreed to between the parties, Owner and Contractor shall comply with sub-paragraph 4.74.

Additions and Deletions Report for AIA® Document A201™ – 2017

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 13:50:24 ET on 10/23/2019.

PAGE 1

~~for the~~
for the following PROJECT:

...

Thurmont Primary School Veneer Repairs
7989 Rocky Ridge Road
Thurmont, Maryland 21788
FCPS Bid 20C4

...

The Board of Education of Frederick County
191 South East Street
Frederick, Maryland 21701-5918

...

Sheladia Associates, Inc.
15825 Shady Grove Road, Suite 100
Rockville, Maryland 20850

...

1 — ~~GENERAL 1~~ **GENERAL PROVISIONS**

2 — ~~OWNER2~~ **OWNER**

3 — ~~CONTRACTOR3~~ **CONTRACTOR**

4 — ~~ARCHITECT4~~ **ARCHITECT**

5 — ~~SUBCONTRACTORS5~~ **SUBCONTRACTORS**

6 — ~~CONSTRUCTION-6~~ **CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

7 — ~~CHANGES-7~~ **CHANGES IN THE WORK**

8 — ~~TIME8~~ **TIME**

9 — ~~PAYMENTS-9~~ **PAYMENTS AND COMPLETION**

10	PROTECTION 10 PROTECTION OF PERSONS AND PROPERTY
11	INSURANCE 11 INSURANCE AND BONDS
12	UNCOVERING 12 UNCOVERING AND CORRECTION OF WORK
13	MISCELLANEOUS 13 MISCELLANEOUS PROVISIONS
14	TERMINATION 14 TERMINATION OR SUSPENSION OF THE CONTRACT
15	CLAIMS 15 CLAIMS AND DISPUTES

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(Topics and numbers in bold are ~~Section headings.~~Section headings.)

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The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. ~~Unless As~~ specifically enumerated in the Agreement, the Contract Documents ~~do not shall~~ include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

...

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under ~~their the Architect~~ respective professional services ~~agreements agreements with the Owner.~~ Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials. As the design progresses and payments to the Architect are made by the Owner the instruments of services become the property of The Board of Education of Frederick County, see 1.5.1 Ownership and Use of Drawings, Specifications and Other Instrument of Service.

...

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with ~~Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.~~Section 15.2 and certify termination of the Agreement under Section 14.2.2.

...

§ 1.2.1 ~~The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.~~

§ 1.2.1.1 ~~The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.~~

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

1. The Agreement
2. Addenda with those or late date having precedence over those of earlier date
3. The Supplementary Conditions
4. The General Conditions of the Contract for Construction
5. The Contract Specifications
6. The Contract Drawings

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

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§ 1.5 Ownership and Use of Drawings, Specifications, and Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors of the respective Instruments of Service, including the Drawings and Specifications, and The Board of Education of Frederick County will own and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and materials or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and material and equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner.

~~§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.~~

~~§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.~~

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if included in the AIA B101-2009 Standard Form of Agreement Between Owner and Architect, to establish the protocols for the development, use, transmission, and exchange of digital data.

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Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, if included in AIA B101-2009 Standard Form of Agreement Between Owner and Architect, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

...

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations

under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. The Architect does not have authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and

relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.1.3 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Fees for trade and specialty permits, including but not limited to, electrical, plumbing, elevator, fire review(s) and inspection, boiler, pressure vessel and fuel burning permits and all reinspections shall be paid by and at the Contractor's expense.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

§ 2.1.4 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.1.5 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.1.6 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project which are known to the Owner, and a legal description of the site if requested by the Contractor. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner and shall exercise proper precautions relating to the safe performance of the Work.

§ 2.1.7 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.1.8 Unless otherwise provided in the Contract or Bidding Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.2 Owner's Right to Stop the Work

§ 2.2.1 If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such

order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.2.2 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a three-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to or waiver of other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

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§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner or the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 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, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents. The Contractor represents that it has received all information it needs concerning the conditions of the Project site. The Contractor represents that it has inspected the location of the Work and has satisfied itself as to the condition thereof or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents. Based upon the foregoing inspections, understandings, agreements and acknowledgements, the Contractor agrees and acknowledges that the Contract Sum is just and reasonable compensation for all the Work and that the Work shall not result in any lateral or vertical movement of any structure due to the Contractor's construction activities. The Contractor shall exercise special care in executing Subsurface Work in proximity of subsurface utilities, improvements and easements.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.1.6, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report in writing to the Architect and Owner any errors, inconsistencies or omissions discovered by or in the exercise of due diligence should have been discovered or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without providing written notice to the Owner and Architect, the Contractor shall assume appropriate responsibility for such performance and shall bear the costs for correction.

§ 3.2.3 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, but the Contractor shall promptly report to the Architect in writing any nonconformity discovered by or in the exercise of due diligence should have been discovered or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as state below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.4.4 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner or the Architect or of other Contractors during the performance of the Work or by Tests, inspections or approvals required or performed by persons other than the Contractor, including inspections or approvals performed by the Owner's personnel or by any public authority.

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

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

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

§ 3.5.2 The Minimum Warranty period will be two (2) years from the date of substantial completion of the project. The Warranty shall include extended warranty period(s) available from equipment manufacturers and/or extended warranties as required by project specification are required as if individually enumerated herein.

§ 3.5.2 Notwithstanding any other contract provisions to the contrary, the mechanical system and plumbing system must be completely balanced and such balance reports must be reviewed and accepted by the Engineer before the warranty/guarantee period will begin.

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§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections and reinspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. Fees for trade and a specialty permit including, but not limited to, electrical, plumbing, elevator, fire review(s), inspections and reinspections, boiler, pressure vessel and fuel burning permits, shall be paid by and at Contractor's expense.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. Compliance with local governing jurisdiction requirements shall be completed at no additional cost to the Owner.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction. The provisions of this Agreement regarding compensation and damages, including delay damages, shall apply.

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, Contractor in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

~~§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.~~

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

~~§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.~~

~~§ 3.8.2 Unless otherwise provided in the Contract Documents,~~

- ~~.1 — allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;~~
- ~~.2 — Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and~~

- ~~3~~ whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- 1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- 2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- 3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent and Project Manager

~~§ 3.9.1~~ The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

~~§ 3.9.2~~ The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

~~§ 3.9.3~~ The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.9.1 The Contractor shall employ a competent superintendent, project manager and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Communications shall be confirmed in writing. The Superintendent and necessary staff members shall be in attendance at the Project site during the performance of the Work including completion of all Punch List items.

§ 3.9.2 Prior to being assigned to the Project both the Project Manager and Superintendent shall be subject to the approval of the Owner. Once approved, the Superintendent and Project Manager will not be removed from the Project without the Owner's written consent. The Owner reserves and retains the right, as its sole and absolute discretion, to order the Contractor to replace any of the Contractor's employees. In the event the Owner requests Contractor employee's removal, the Contractor shall promptly replace such employees with competent replacements satisfactory to the Owner. The Contractor shall not change the Superintendent or Project Manager without the Owner's consent.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of

Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.10.1 The Contractor, promptly after being awarded the Contract and as a condition precedent to the first Application For Payment, shall prepare submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor shall prepare a preliminary construction and submittal schedule, within 14 days after being awarded the Contract and complete schedules before 60 contract days have elapsed. The Contractors shall update the schedules thereafter as necessary to maintain current construction and submittal schedules, and shall submit the schedules for the Architect's and Owner's review. The Architect's and Owner's review shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. Contractor's Construction Schedule shall be in a Critical Path Method (CPM) and bar chart format, indicating sufficient detail, task(s) (the work) and duration(s) (start and completion) of each major item of the Work, the current status of each major item of Work indicating staffing and equipment to comply with the Contract Substantial Completion Date and any Owner approved extensions. Contractor's shall provide additional detail when requested by the Architect or Owner and update their Proposed Contractor Schedule to be compliant with the Contract Substantial Date(s). Within 7 days of a request by the Architect or Owner, the Contractor shall furnish to the Owner and Architect a Progress Schedule showing the current progress and the completion stage of the Work as compared to the Original Contract Schedule. Project Schedules shall clearly identify any item of Work, which is behind Schedule along with the Contractor's increased manpower and equipment necessary to comply with the Contract Schedule including any time extensions approved by the Owner. Progress Schedule(s) shall be provided in a Critical Path Method (CPM), bar chart format and electronic as requested by the Owner. During the Owner's review, the Owner may choose to advise the Contractor of work that will be performed by the Owner's forces or the Owner's separate Contractor. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals. The Contractor shall provide the Owner and Architect updated schedules as a condition precedent to progress payments. The updated schedules shall be provided by the Contractor as the project progresses and as requested by the Owner or Architect.

§ 3.10.3 The Contractor shall perform the Work in accordance with the most recent schedules reviewed by the Owner and Architect without objections.

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be ~~in electronic form or paper copy~~, available to the Architect and Owner, and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed. The Owner may request, and Contractor shall provide, at any time during the course of the Project,

Asbuilt Drawings that reflect the then current stage of construction as actually built and submitted to the Owner for its review. If such drawings are not provided, the Owner may withhold progress payment, or at its discretion a portion thereof, until the requested drawings are up to date and provided for the Owner's review.

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§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, 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.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities

for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. The Contractor shall submit shop drawings to the Architect for all structural elements of the Work and all other portions of the work required by the Contract Documents. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, 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.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued

authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. Pursuant to the Section 3.12.10, the Architects will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.12.10.1 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

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§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The

Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

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§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder including but not limited to the contributing negligence of such party to be indemnified. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

...

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.1.4 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The duties of the Architect shall be governed by the Agreement between the Owner and the Architect, and will review the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents., except as provided in Section 3.3.1. Notwithstanding other provisions in this Agreement to the contrary, for the purpose of effectuating the Architect's duties in this section, the Architect shall be responsible for exercising reasonable care and diligence in observing ongoing Work. No inspection or approval or failure to inspect or approve by the Architect shall relieve the Contractor from complying in all respects with the requirements of the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will report to the Owner and copy the Contractor about the progress and quality of the portion of the Work completed reporting (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or

charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.3.1 Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect, for additional services which may be charges by the Architect for additional site visits made necessary by the fault or neglect of the Contractor.

§ 4.2.4 Communications-Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. ~~Communications-Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications~~ by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 ~~Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.~~

§ 4.2.6 ~~The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.~~

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other 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 as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

~~§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.~~

~~§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.~~

~~§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.~~

~~§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.~~

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of reviewing the adequacy of the structural elements of the building and checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other 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 as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences, or procedures. The Architect's review of a specific item shall not indicate approval of an assembly of which the item is a component. Should any local Government authorities require certification or correctness of any structural shop drawings by the Architect of record, the Architect will sign and certify the shop drawings only after the shop drawings have been signed and certified by both the structural engineer and other professional engineer registered in the State of Maryland on behalf of the manufacturer, fabricator, Subcontractor or Contractor. The cost for such additional engineering certification shall be borne by the Contractor.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive, review and forward to the Owner with comments, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10. Architect's inspection and issuance of a certificate for final payment and Owner's payment shall not relieve Contractor of responsibility for defects in the Work.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

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§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number

and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract or propose to contract with a proposed person, entity or subcontractor unless the Contractor is satisfied that such person, entity or Subcontractor is technically and financially qualified to perform the Work as a Subcontractor in accordance with the Contractor Documents. The Contractor shall not Contract with any entity or persons to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.2.5 The Contractor shall not enter into any Subcontract, Contract agreement, purchase order or other arrangement for the furnishing of any portion of the materials, services, equipment or Work with any party or entity as 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 after full disclosure in writing by the Contractor to the Owner of such affiliation or relationship and all details relating to the proposed arrangements.

By appropriate written agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work ~~that~~ which the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

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§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- ~~.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and~~
- ~~.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.~~

~~When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.~~

~~§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.~~

~~§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.~~

~~§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that~~

- ~~.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and~~
- ~~.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.~~

~~When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.~~

~~§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.~~

~~§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.~~

...

~~§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.~~

~~§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.~~

~~§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.~~

~~§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors~~

shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims a delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall be deemed to be subject to the same obligations and rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect and Owner apparent discrepancies or defects in such other construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's

Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

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§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. The Contractor agrees that it will incorporate the provisions of Article 7 in its entirety into all agreements with lower tier Contractors. It is further understood and agreed that these Change Order pricing provisions, apply to all types of Contracts, Subcontracts and purchases. The Owner and Owner's accountant shall be afforded access to Contractor's records, books, and correspondence, instructions, drawings, receipts, Subcontracts, purchase orders, vouchers and any other data relating to the Project as necessary to verify the cost of any change, including wages and benefits paid, for which compensation is sought under this Agreement.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone. Verbal notification approving the Contractor to proceed with a change in the work shall be confirmed in a written format via, CCD, Change Order, progress minutes, e-mail or other written correspondence and should be made as soon as practical.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work. A Change Order or Construction Change Directive involving unit costs shall be equitably adjusted in accordance with 7.3.4

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time; and
- .4 Comply with all requirements of 7.2.2 below and 7.3.4.

No Change Order shall exceed any of the limitations and requirements of the Contract Documents.

§ 7.2.2 The Contractor shall comply with the following regarding Changes:

(A) A Notice or Request for Change must comply with all of the following:

- .1 specifically and in detail describe the nature and cause of the Claim; and
- .2 specifically reference the detail(s) on the plans and the specification section(s) that are affected; and
- .3 contain an estimate of the increase or decrease in the cost to the Owner; and
- .4 include supporting documentation that satisfactorily justifies to the Owner overhead, profit, insurance, sales or payroll taxes and incorporate a detailed quantity survey of all Work added and deleted; and
- .5 be submitted in a format acceptable to the Owner.

(B) Additive Changes must comply with the following Mark-Up schedule for Overhead, profit and bond:

If the Cost of the proposed change is \$0.00 to \$4,999.99, the total combined overhead, profit and bond must not exceed 20%.

If the Cost of the proposed change is \$5,000.00 to \$14,999.99, the combined overhead, profit and bond must not exceed 15%.

If the Cost of the proposed change is \$15,000.00 to \$24,999.99, the combined overhead, profit and bond must not exceed 10%.

If the Cost of the proposed change is \$25,000.00 to \$49,999.99, the combined overhead, profit and bond must not exceed 7%.

If the Cost of the proposed change is over \$50,000.00, the combined overhead, profit and bond will be negotiated but will not exceed 5%, the cost of the bond shall be clearly indicated in the detailed proposal regardless of the proposed cost.

(C) The Contractors' markup of Subcontractor Work and supplier's material(s) shall not exceed 7% for changes up to \$24,999.99 and the markup shall be negotiated for changes over \$25,000.00 but shall not exceed 5% of the Subcontractor(s) cost of the Work.

(D) Overhead cost shall include all the general conditions, expenses, including but not limited to, all coordination, calculations, engineering, field and office supervision, field and office rent utilities, telephone and communications expenses, office supplies, clean-up, debris expenses, administration and preparation. When both additions and deletions are involved in any one change, the allowance for overhead, profit and bond shall be computed on the net increase, if any, with respect to the change.

(E) For decreases in the Work or credits, the Contract Amount shall be decreased 100% of the Scheduled Value of the deleted Work plus overhead, profit and bond. Contractor and Subcontractor(s) credits shall include credit for overhead, profit and Bond, in the same percentages allowed for additive changes in the above mark-up schedule:

(F) The Contractor's total charge to the Owner for the use of equipment owned in whole or in part by the Contractor, its Owners, directors, officers, shareholders, or affiliated or related persons or entities shall consider the rate agreed upon between the Contractor, Owner and Architect at the beginning of the project less operator and fuel. Reference materials such as "the AED Green Book" should be used to establish market rental rates for equipment. The following shall apply:

- .1 The appropriate duration of hourly rate shall be calculated based on the entire duration the piece of equipment is on the FCPS site (e.g. if the equipment item has been on the project for 30 days or more the hourly rate shall be the monthly rental divided by 176 hours; if on the project for one week the hourly rental shall be the weekly rental divided by 40; if on the project for a day the hourly rental shall be the daily rental divided by 8; if brought to the project for the specific operation the minimal rental period shall apply.) Minimal rental durations will be considered for equipment rented for specific project purposes.
- .2 The Contractor shall not invoice for delivery or removal of the equipment to or from the job site,
- .3 In no event shall the total payment paid by the Owner on any such piece of equipment exceed fifty percent (50%) of its purchase price.

(G) Subcontractor(s) shall comply with the requirements specified above for the Contractor regarding Changes.

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1— Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2— Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3— Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4— As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1— Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2— Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3— Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4— Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5— Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be

reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Wages for construction Workers, including supervisors directly employed to perform the construction of the Work at the site. Unless otherwise agreed by Addendum to this Contract, labor burden shall be limited to: social security, old age and employment, workmen's compensation, health and life insurance benefits, sick leave, holidays, military leave, vacation and pension and savings plan benefits; insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Additional costs of supervision and field office personnel directly attributable to the change, provided, however, the Contractor shall provide an itemized breakdown showing quantities, unit costs, hours and rates of labor, and other costs and such detail as may be required to allow the reasonableness of cost to be established. Similar cost information covering Subcontractors' Work shall be included as part of the Contractor's Proposal. Minimum charges for "handling" will not be acceptable. The allowable overhead and profit mark-ups to be included in the total cost to Owner shall be based on paragraph 7.2 and:

.1 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of the costs including labor, materials, and Subcontractors. Labor and materials shall be itemized in the manner prescribed above. Where major costs items are Subcontracts, they shall be itemized also. In no case will a charge involving over \$500.00 be approved without such itemization.

.2 A Change Order must include each of the items listed in this Article 7. In the event that there is no change in the Contract time or Contract amount, it must be noted that no such change is intended. A Change Order is all-inclusive, that is, a Change Order, must indicate the change in Contract amount, including any overhead and profit. The Contractor cannot later request additional sums for a prior Change Order because it did not include overhead, profit, or similar items. If additional Contract time is indicated on the Change Order and the Contractor intends to claim any costs for time on any basis, the Change Order must include all additional costs, if any, associated with the additional time.

.3 Where both additions and credits are involved in any one Change Order the allowance of overhead and profit shall be figured on the basis of the net increase, if any.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect and the credit shall be as required by Article 7 mark-up schedule. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change per the mark-up schedule.

§ 7.3.9 Pending final determination of the actual cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such costs that remain in dispute, a Claim may be made in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order otherwise, if Contractor is directed to proceed by Owner, the matter shall be considered a Claim under Article 15. Change Orders may be issued for all or any part of a Construction Change Directive.

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time and not inconsistent with intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

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§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

~~§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.~~

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement shall be fixed in a Notice to Proceed.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

~~§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.~~

~~§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.~~

~~§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.~~

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and the Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a Separate Contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation and with consent of the Owner; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine. Contractor waives any and all rights to any increased payments for delay damages, whether by Change Order or otherwise, to include overhead, extended overhead, extended general conditions, or for any other delay-based amounts of any kind or nature, for any delay by

reason of the events referred to in the subparagraph or any other event of any kind or nature. Contractor's remedy is limited to an extension of time as set forth herein.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

...

~~§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.~~

~~§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.~~

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect and Owner, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect or Owner may require. This schedule, unless objected to the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment. The Schedule of Values shall be revised from time to time as may be necessary and due to the issuance of Change Orders or Construction Change Directives, the Contractor shall revised the Schedule of Values as requested by the Architect or Owner. The Owner reserves the right to request the Contractor to provide additional detail substantiating the Schedule of Values.

§ 9.2.2 The Contractor shall include a line item in the Schedule of Values for production of project record documents. The minimum value established for the record documents must not be less than 1/2 % of the total Contract value including accepted alternates.

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~~§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.~~

~~§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.~~

~~§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.~~

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 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. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect and Owner an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such applications shall be notarized and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage as provided for in the Contract Documents. Applications for Payment shall be based upon the Schedule of Values and shall be in a form and content satisfactory to the Owner. Each Application for Payment shall be accompanied by the following:

- .1 Contractor's application and Cost Certification Statement, AIA Forms 702, 703 and IAC PSCP Form No. 306.4, with attachment "G" Certified Minority Business Enterprise Participation Standard Monthly Contractor's Requisition for Payment" (current form), and;
- .2 A statement from the Contractor that all items of construction for which payment is sought have been incorporated into the Project where properly stored in accordance with the Contract Documents, and;
- .3 The Contractors and applicable Subcontractors Release of Liens and Waivers of Claim and such other documents that the Owner may require after discussion with the Contractor, and;
- .4 Such other documentation that the Owner, Construction Manager, Architect may reasonably require after discussion with contractor.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 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. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work.

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. 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 correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.4.1 The Architect will, after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certifications in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. 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 correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 — defective Work not remedied;
- .2 — third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 — failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 — reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 — damage to the Owner or a Separate Contractor;

- ~~.6 — reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or~~
- ~~.7 — repeated failure to carry out the Work in accordance with the Contract Documents.~~

~~§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.~~

~~§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.~~

~~§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.~~

~~§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of~~

- ~~.1 defective Work not remedied;~~
- ~~.2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;~~
- ~~.3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;~~
- ~~.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;~~
- ~~.5 damage to the Owner or a Separate Contractor;~~
- ~~.6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or~~
- ~~.7 repeated failure to carry out the Work in accordance with the Contract Documents.~~

~~§ 9.5.2 When above reasons for withholding certifications are removed, certification will be made for amounts previously withheld after the Contractor revises and resubmits a current Application for Payment including such amounts that were previously withheld.~~

~~§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.~~

~~§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on its next Certificate for Payment.~~

~~§ 9.5.5 If the Contractor disputes any determination by the Architect or Owner with regard to any Applications for Payment, the Contractor shall nevertheless expeditiously continue to perform the Work and shall make claim as provided in Article 15.~~

~~§ 9.5.6 The Owner shall not be deemed to be in breach of this Contract by reason of the withholding of any payment pursuant to any provision of the Contract Documents provided the Architect has approved the Owner's action, or the Work for which payment is being withheld has been rejected by any governmental authority.~~

~~§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.~~

~~§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.~~

~~§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.~~

~~§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.~~

~~§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.~~

~~§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.~~

~~§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.~~

~~§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.~~

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

If Subject to other provisions in the Contract Documents, if the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within ~~seven-thirty~~ days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within ~~seven-thirty~~ days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, Architect, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's ~~reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.~~ substantiated direct costs of shut-down. Article 9.7 shall not apply to Change Orders that have not received formal approval by the Board of Education of Frederick County, all such Change Orders shall not be included in Applications for Payment until the Contractor received formal notification from the Owner that the Change Order has received formal approval by the Board of Education of Frederick County and the Contractor has completed the Change Order work.

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§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the

Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 The comprehensive list of items to be completed or corrected ("Contractor's Punch List") prepared by the Contractor shall be submitted to the Owner and the Architect and the Owner shall be notified of inspections and be entitled to have an Owner's representative present at such inspections. All items that are disclosed during inspections not complying with the Contract Documents shall be added to the Contractor's Punch List and a copy of the Amended Punch List shall be submitted to the Owner and the Contractor. Any Certificate of Substantial Completion shall then be submitted making reference to the Punch List item, as either being completed to the Architect's satisfaction or shall fix a time within which the Contractor shall complete any remaining items. In the event the Contractor's Punch List is not completed by the date set forth in the Certificate of Substantial Completion, Owner has the option of deducting from balances due the Contractor an amount sufficient to compensate Owner for the cost of completing the Punch List. The amount to be deducted shall be determined in the sole discretion of Owner. Alternatively, Owner at its sole discretion may proceed to engage another Contractor to complete the Punch List Work with the cost thereof to include Owner's administrative costs, which costs shall be calculated in the sole discretion of the Owner, to be deducted from the amount retained and if the amount retained is insufficient, the Contractor is responsible to reimburse Owner the full amount of the uncovered cost. To the extent that multiple inspections may be required to determine whether the Work, or a designated portion thereof has attained Substantial Completion, the Owner shall be entitled to deduct from the Contract Sum any amounts which it must pay to the Architect for additional services for such additional inspections.

§ 9.8.4 When the Work or designated portion thereof including Record Documents and Maintenance Manuals are substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work provided the Contractor has completed all other contractual requirement stipulated to begin the warranty period or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a

portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (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, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and 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 designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract,

make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .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 special warranties required by the Contract Documents; or
- .4 — audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither retainage payments nor final payment shall become due until all documents required by the Contract Documents and Article 5 of AIA 101 Standard Form of Agreement Between Owner and Contractor including all (a) Maintenance Manuals, (b) Record Documents, (c) Instruction and Demonstrations have been provided and the Contractor submits to the Architect (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, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be cancelled or allowed to expire until at least 30 days, prior written notice has been given to 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, if any, to final payment and, (5) other data establishing payment or satisfaction of obligations such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .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 special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

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~~§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to~~

- ~~.1 employees on the Work and other persons who may be affected thereby;~~
- ~~.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and~~
- ~~.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.~~

~~§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.~~

~~§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.~~

~~§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.~~

~~§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.~~

~~§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.~~

~~§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.~~

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall give the Owner reasonable advance notice and exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.4.1 If the Contract Documents require the Contractor to handle materials or substances that under certain circumstances may be designated as hazardous, the Contractor shall handle such materials in an appropriate manner and shall defend, indemnify, and hold Owner and Architect harmless from and against all claims, liabilities, suits, losses and damages arising out of or relating to such materials.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

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§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the

Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property

(other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

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§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 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 shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

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§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or

maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of ~~Section 11.3.1~~ Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The

Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

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§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs. The cost to repair nonconforming work shall be considered a latent defect and the contractor responsible for the work or as appropriate the damage to the work shall be responsible for the cost to make repairs to said work and return the uncovered work to the condition before the work was uncovered.

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The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense, and its surety shall have the right to remedy any defects in the Work on materials which shall appear within a period of two (2) year from the date of Substantial Completion. Upon written notice from the Owner, the Contractor and surety shall promptly provide said remedy after notice from the Owner. If said remedy is not promptly provided, the Owner shall have the right to correct said defects and charge the Contractor and its surety for the same.

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§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with 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 the Work.

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within two-years after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the two-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within five working days after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4. If the Contractor does not proceed with correction of such nonconforming Work within five working days fixed by written notice from the Architect the Owner may remove it and store the salvable materials or equipment at the Contractor's expense. If the Contractor does not pay costs of such removal and storage within three days after written notice, the Owner may upon ten additional days' written notice sell such materials and equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation for the Owner's and Architect's services and expenses made necessary thereby. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

§ 12.2.2.2 The two-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The two-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the two-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with 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 the Work.

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The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. ~~If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.~~

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§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.4.7 No tests or inspections or results thereof shall constitute an acceptance of any Work not conforming to the requirements of Contract Documents.

§ 13.5 Interest

§ 13.5.1 Interest payments will not be required for late payments under the terms of this Contract.

§ 13.6 TIME LIMITS ON CLAIMS

§ 13.6.1 Commencement of Statutory Limitations Period and Statute of Repose shall be in accordance with the laws of the State of Maryland.

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§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 120 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, under direct or indirect contract with the Contractor, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment as set forth in the provisions of this Agreement regarding termination by the Owner for convenience.

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the

Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 refuses or fails to supply enough 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 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.2.5 In the event that is adjusted that the Owner's termination for cause is not justified, then the Termination shall be deemed to be a termination by the Owner for convenience and the Contractor shall be entitled to compensation as only set forth in the provisions of this Agreement regarding termination by Owner for Convenience.

§ 14.3.1 The Owner may, without cause, 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.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.3.1 The Owner may, without cause, 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.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. At its option the Owner may terminate this Contract in whole or from time to time in part at any time by written notice thereof to the Contractor. Upon any such termination, Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof, and as the sole right and remedy of the Contractor, Owner shall pay Contractor in accordance with 14.4.2 below. The provisions of the Contract, which by their nature survive final acceptance of the Work, shall remain in full force and effect after such termination to include but not limited to warranties and obligations for the correction of Work not confirming to the Contract Documents. Upon receipt of the Termination Notice, Contractor shall, unless the Notice direct otherwise, immediately discontinue the Work and, to the extent specified in the Notice, place no further orders or subcontracts for materials, equipment, services, or facilities and shall promptly make every reasonable effort to procure cancellation of such orders or subcontracts upon terms satisfactory to the Owner and shall thereafter do only such Work and perform such services as may be directed by the Owner as necessary to preserve and protect Work already in progress and to protect materials, plans and equipment on the Site or in transit thereto. Upon such termination, the obligations of the Contractor shall continue as to portions of the Work already performed and as to bona fide obligations assumed by the Contractor prior to the date of termination.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 Upon Termination for Convenience, the provisions of the Contract, which by their nature, survive any final acceptance of the Work, shall remain in full force and effect after such termination to include but not limited to

warranties and obligations for the correction of Work not conforming to the Contract Documents. Upon receipt of the Termination Notice, Contractor shall, unless the Notice directs otherwise, immediately discontinue the Work and, to the extent specified in the Notice, place no future orders or Subcontracts for materials, equipment, services or facilities and shall promptly make every reasonable effort to procure cancellation of such orders or Subcontracts upon terms satisfactory to the Owner and shall thereafter do only such Work and perform such services as may be directed by the Owner as necessary to preserve and protect Work already in progress and to protect materials, plant and equipment on the site or in transit thereto. Upon termination, Contractor shall be entitled to be paid the full cost of all Work properly done by Contractor on account of the portion of Work Performed. If at the date of such termination, Contractor has properly prepared or fabricated off the site any goods for subsequent incorporation in the Work, and if Contractor delivers such goods to the Site or to such other place as the Owner shall reasonably direct, then Contractor shall be paid for such goods or materials. No other payment shall be made by reason of damages or otherwise, including but not limited to loss of anticipated profits, overhead, or any other claim or amount whatsoever.

§ 15.1 Claims-Claims

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The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this ~~Section 15.1.2.~~Section 15.1.2.

...

~~§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.~~

~~§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.~~

§ 15.1.3. Claims by the Contractor must be made by written notice to the Owner and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by Contractor must be made within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the Contractor first recognizes the condition giving rise to the Claim, whichever is later. Contractor claim(s) shall not be valid unless made in strict accordance with this subparagraph.

~~§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.~~

~~§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.~~

~~§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.~~

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

If the Contractor wishes to make a Claim for an increase in the Contract Sum, ~~written notice as provided in Section 15.1.3 herein~~ shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under ~~Section 10.4.~~ Section 10.4. A Claim must be processed as defined herein, Article 15 and comply with all requirements of Article 7.

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§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. No claim for delay damages of any kind or nature shall be valid and no such damages shall be paid by the Owner except upon Owner's written consent which consent is in the sole and absolute discretion of the Owner. No written consent by Owner to damages for one period of delay, entitle Contractor to damages for any other period of delay. A Claim for additional time must be for adverse weather conditions and the actual conditions must exceed the cumulative monthly adverse weather day totals indicated in 15.1.5.2.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, the time must exceed the time as defined in the schedule below, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, exceeded the schedule below and could not have been reasonably anticipated and had an adverse effect on the scheduled construction. The State of Maryland, Department of General Services, Special Provisions Section of Hagerstown, Maryland will be used in the calculation of the monthly anticipated adverse weather delays. The monthly-anticipated adverse weather delays are as follows, in workdays. The Contractor's schedule must reflect these anticipated adverse weather delay days in weather dependent activities:

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
8	7	7	8	8	7	5	6	4	6	5	5

In any event, Contractor's Claim(s) for delay in the performance of the Work due to adverse weather conditions is strictly limited to a Claim for additional for additional time only. In no event shall the Contractor be entitled to monetary damages or any other compensation as a result of a delay in the performance of the Work due to adverse weather conditions.

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

...

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this ~~Section 15.1.7~~ Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

...

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless

otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data

from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be subject to mediation and, if the parties fail to resolve their dispute through mediation the claim shall be resolved by litigation.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue litigation with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

~~§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.~~

~~§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.~~

~~§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.~~

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings. § 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

~~§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.~~

§ 15.4.1 All disputes and other matters in question between the parties to this Agreement which cannot be resolved by the parties in accordance with the terms of this Agreement shall be referred to legal counsel and resolved in the Circuit Court for Frederick County, Maryland and all parties hereto agree to submit themselves to the jurisdiction of that Court. During any legal proceedings or other dispute resolution proceedings which may be agreed to between the parties, Owner and Contractor shall comply with sub-paragraph 4.74.

~~§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.~~

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 13:50:24 ET on 10/23/2019 under Order No. 4323301581 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A201™ – 2017, General Conditions of the Contract for Construction, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

BID 20C4, VENEER REPAIRS TO THURMONT PRIMARY SCHOOL
FREDERICK COUNTY PUBLIC SCHOOLS
STATUTORY AFFIDAVIT AND NON-COLLUSION CERTIFICATION

Special Instructions: An authorized representative of the bidder needs to complete the following affidavit and insert an answer to paragraphs 1 and 3.

BIDDERS: The submission of the following Affidavit at the time of the bid opening is:

☒ requested to be completed but not required to be notarized.

☐ required to be completed and notarized.

I, _____, being duly sworn, depose and state:

1. I am the _____ (officer) and duly authorized representative of the firm of
the organization named _____ whose address is
(Name of Corporation) _____ and that I
possess the authority to make this affidavit and certification on behalf of myself and the firm for which I am acting.
2. Except as described in paragraph 3 below, neither I, nor to the best of my knowledge, the above firm, nor any of its officers, directors, or partners, or any of its employees who are directly involved in obtaining or performing contracts with any public bodies has:
 - a. been convicted of bribery, attempted bribery, or conspiracy to bribe, under the laws of any state or of the federal government;
 - b. been convicted under the laws of the state, another state, or the United States of: a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract; or fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property;
 - c. been convicted of criminal violation of an antitrust statute of the State of Maryland, another state, or the United States;
 - d. been convicted of a violation of the Racketeer influenced and Corrupt Organization Act, or the Mail Fraud Act, for acts in connection with the submission of bids or proposals for a public or private contract;
 - e. been convicted of any felony offenses connected with obtaining, holding, or maintaining a minority business enterprise certification, as prohibited by Section 14-308 of the State Finance & Procurement Article;
 - f. been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction under any of the laws or statutes described in Paragraph (a) through (e) above; or
 - g. been found civilly liable under an antitrust statute of this State, another state, or the United States for acts or omissions in connection with the submission of bids or proposals for a public or private contract.
3. The only conviction, plea, or admission by any officer, director, partner, or employee of this firm to involvement in any of the conduct described in Paragraph 2 above is as follows:

If none, write "None" below. If involvement, list the date, count, or charge, official or administrative body, the individuals involved, their position with the firm, and the sentence or disposition of the charge.

(you may attach an explanation if necessary)

4. I affirm that this firm will not knowingly enter into a contract with a public body under which a person or business debarred or suspended under Maryland State Finance and Procurement Title 16, subtitle 3, Annotated Code of Maryland, as amended, will provide, directly or indirectly, supplies, services, architectural services, construction-related services, leases of real property, or construction.
5. I affirm that this proposal or bid to the Board of Education of Frederick County is genuine and not collusive or a sham; that said bidder has not colluded, conspired, connived and agreed, directly or indirectly, with any bidder or person to put in a sham bid or to refrain from bidding and is not in any manner, directly or indirectly, sought by agreement of collusion or communication or conference, with any person to fix the bid prices of the affidavit or any other bidder, or to fix any overhead, profit or cost element of said bid price, or that if any bidder, or to secure an advantage against the Board of Education of Frederick County or any other person interested in the proposed contract; and that all statements in the proposal or bid are true. I acknowledge that, if the representations set forth in this affidavit are not true and correct, the Board of Education of Frederick County may terminate any contract awarded and take any other appropriate action.

I DO SOLEMNLY DECLARE AND AFFIRM under the penalties of perjury that the contents of this affidavit are true and correct, that I am executing this Affidavit in compliance with Section 16-311 of the State Finance and Procurement Article, Annotated Code of Maryland, and in compliance with requirements of the Board of Education of Frederick County, and that I am executing and submitting this Proposal on behalf of and as authorized by the bidder named below.

(Legal Name of Company)

(dba)

(Address)

(City)

(State)

(Zip)

(Telephone)

(Fax)

(Print Name)

(Title)

(Date)

(Signature)

(Title)

(Date)

We are/I am licensed to do business in the State of Maryland as a:

() Corporation

() Partnership

() Individual

() Other

If required to be notarized:

(Witness)

(Title)

SUBSCRIBED AND SWORN to before me on this _____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires: _____

BID 20C4, VENEER REPAIRS TO THURMONT PRIMARY SCHOOL

FREDERICK COUNTY PUBLIC SCHOOLS

CERTIFICATION OF COMPLIANCE

1. All Contractors, subcontractors or vendors must abide by FCPS Board policies and regulations while working on FCPS property.
2. Maryland Law requires that any person who enters into a contract with a county board of education may not knowingly employ an individual to work at a school (or FCPS facility) if the individual is a registered sex offender. Please reference §11-113 of the Criminal Procedure Article of Maryland Code for penalty.
3. Be advised that individuals who are registered sex offenders are not eligible to work on any FCPS project. The Contractor must initially check the Maryland Department of Public Safety & Correctional Services' MARYLAND SEX OFFENDER REGISTRY and search for the name of any employee to be assigned to work on this project. This applies to subcontractors and material/equipment suppliers as well.
4. In the event that a registered sex offender is discovered to be working on a FCPS project, whether through employment by the prime Contractor, subcontractor or vendor, the site superintendent will immediately remove the individual from the premises and permanently terminate his work assignment. FCPS may terminate this contract as a result if the Contractor is unable to demonstrate he has exercised care and diligence in the past in checking the Maryland registry.
5. Effective July 1, 2015, amendments to §6-113 of the Education Article of the Maryland Code further require that a contractor or subcontractor or vendor for a local school system may not knowingly assign an employee to work on school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of, or pled guilty or nolo contendere to, a crime involving:
 - a. A sexual offense in the third or fourth degree under §3-307 or §3-308 of the Criminal Law Article of the Maryland Code.
 - b. Child sexual abuse under §3-602 of the Criminal Law Article of the Maryland Code or any other State; or
 - c. A crime of violence as defined in §14-101 of the Criminal Law Article of the Maryland Code or any other State
6. With the passing of Maryland Law MD. Code, Educ. 6-113.2, employers of all contracted staff must obtain background information relating to child sexual abuse or sexual misconduct. This means that all contracted staff having direct contact with students must meet all of the FCPS and Maryland State Department of Education (MSDE) requirements before doing business with FCPS. See: [Maryland State Department of Education Website](#); [House Bill 486 Child Sexual Abuse and Sexual Misconduct Prevention](#); [MSDE Guidelines For MD. Code, Educ. 6113.2](#); and [Employment History Review Form for Child Abuse and Sexual Misconduct](#) for additional information.

In addition, there has been no change to the current FCPS requirement, that all contracted staff who have contact with students are required to be fingerprinted in order to obtain a criminal background check. Fingerprints and background check are still an enforced FCPS requirement.

7. Under recent amendments to §5-561 of the Family Law Article of the Maryland Code, each contractor, subcontractor, or vendor shall certify by signing this affidavit that any individuals in its work-force including sub-contractors, have undergone a criminal background check, including fingerprinting, if the individuals will work in a FCPS school facility in circumstances where they have direct, unsupervised, and uncontrolled access to children.

By my signature below, I affirm under penalties of perjury that the contents of this Certification of Compliance are true to the best of my knowledge, information and belief.

Signature_____Date_____

Print name and title of
signatory_____

Print name of
company_____

Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with Frederick County Public Schools (FCPS) must complete and return the Vendor Conflict of Interest Disclosure Form, in order to be eligible to be awarded a contract with FCPS.

Please note that all vendors must comply with FCPS's conflict of interest certification, as stated below.

If a vendor has a relationship with a FCPS employee or an immediate family member (spouse, child (stepchild or adopted), parent, or sibling) of a FCPS employee, the vendor shall disclose the information required below.

Certification: I hereby certify, that to the best of my knowledge, there is no conflict of interest involving the vendor named below:

1. No FCPS employee or the employee's immediate family member has an ownership interest in the vendor's company, or is deriving personal financial gain from this contract.
2. No retired or separated FCPS employee who has been retired or separated from the organization for less than one (1) year has an ownership interest in the vendor's company.
3. No FCPS employee is contemporaneously employed or prospectively to be employed with the vendor.
4. The vendor did not provide any information or criteria in the drafting of the solicitation prior to it being advertised for competitive pricing.
5. Vendor hereby declares it has not, and will not provide gifts or hospitality of any dollar value, or any other gratuities to FCPS employee to maintain a contract.
6. Vendor hereby declares that in the process of preparing a quote/bid/proposal for FCPS, there have been no acts of bribery, extortion, trading, laundering of corrupt practices, and/or nepotism have transpired between FCPS employee and the vendor.
7. Please note any other exceptions below.

Vendor Name & Email	Vendor Address & Phone Number
Conflict of Interest Disclosure	
Name of FCPS employee or immediate family member with whom there may be a potential conflict of interest. <i>If no conflict of interest, write "N/A" and initial.</i>	Disclose the relationship to the employee or the immediate family member, their interest in the vendor's company, and any additional information

I certify that the information provided is true and correct by my signature below:

Signature of Vendor Authorized Representative/Date

Printed Name of Vendor Authorized Representative

MD COMAR 21.07.02.10 Performance and Payment Bond

Mandatory provision for all construction contracts exceeding \$100,000:

A. Performance Bond. The required performance bond shall be in the form specified as follows:

PERFORMANCE BOND

Principal

Business Address of Principal

Surety a corporation of the State of _____ and authorized to do business in the State of Maryland.

Bond Number _____ Penal Sum of Bond _____
(expressed in figures)

(expressed in words) Date Bond Executed _____, 20____

The Board of Education of Frederick County

191 South East Street, Frederick MD. 21701-5918

Obligee

Business Address of Obligee

Contract Description: Bid Number _____ Contract Date _____, 20____ Project Name: _____

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, are held and firmly bound unto the Obligee named above in the Penal Sum of this Performance Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents. However, where Surety is composed of corporations acting as co-sureties, we the co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with The Board of Education of Frederick County, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred as "the Contract."

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, during the original term of said Contract, during any extensions thereto that may be granted by The Board of Education of Frederick County, and during the guarantee and warranty period, if any, required under the Contract, unless otherwise stated therein, this Performance Bond shall remain in full force and effect unless and until the following terms and conditions are met:

- 1 Principal shall well and truly perform the Contract; and
- 2 Principal and Surety shall comply with the terms and conditions in this Performance Bond.

Whenever Principal shall be declared by The Board of Education of Frederick County to be in default under the Contract, the Surety may, within 15 days after notice of default from The Board of Education of Frederick County, notify The Board of Education of Frederick County of its election to either promptly proceed to remedy the default or promptly proceed to complete the contract in accordance with and subject to its terms and conditions. In the event the Surety does not elect to exercise either of the above stated options, then The Board of Education of Frederick County thereupon shall have the remaining contract work completed, Surety to remain liable hereunder for all expenses of completion up to but not exceeding the penal sum stated above.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or

MD COMAR 21.07.02.10 Performance and Payment Bond

PERFORMANCE BOND CONTINUED

to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Performance Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Performance Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Performance Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution of power of attorney authorizing such action, and each such duly authorized representative to sign below and set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

In Presence of:
Witness

Individual Principal

_____ as to _____ (SEAL)

In Presence of:
Witness

Co-Partnership Principal

_____ (SEAL)
(Name of Co-Partnership)

_____ as to By: _____(SEAL)

_____ as to _____(SEAL)

_____ as to _____(SEAL)

(Name of Corporation)

Attest:

Corporate Principal

_____ as to
(Corporate Secretary)

By: _____
(President)

AFFIX
CORPORATE
SEAL

MD COMAR 21.07.02.10 Performance and Payment Bond

PERFORMANCE BOND CONTINUED

(Individual or Corporate Surety)

Attest: _____ (SEAL) By: _____ (SEAL)

(Signature) Title _____

(Bonding Agent's Name) _____
(Name of Surety)

(Agent's Address) _____
(Business Address of Surety)

Approved as to legal form and sufficiency this _____ day of _____, 20____
(Asst. Attorney General)

B. Payments Bond. The required Payments bond shall be in the form specified as follows:

PAYMENT BOND

(Principal) _____
(Business Address of Principal)

Surety _____ a corporation of the State of _____ and authorized to
do business in the State of Maryland

OR
an individual surety qualified in accordance with State Finance and Procurement Article, § 13-207 or 17-104, Annotated Code
of Maryland.

Bond Number _____ Penal Sum of Bond _____
(expressed in figures)

(expressed in words) Date Bond Executed _____, 20____

The Board of Education of Frederick County 191 South East Street, Frederick MD 21701
(Obligee) (Business Address of Obligee)

Contract Description: Bid Number # _____ Contract Date _____, 20____ Project Name: _____

BY THESE PRESENTS, That we, the Principal named above and Surety named above, being authorized to do business in Maryland, and having business address as shown above, are held and firmly bound unto the Obligee named above, for the use and benefit of claimants as hereinafter defined, in the Penal Sum of this Payment Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

MD COMAR 21.07.02.10 Performance and Payment Bond

PAYMENT BOND CONTINUED

WHEREAS, Principal has entered into or will enter into a contract with The Board of Education of Frederick County, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as the "Contract".

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials furnished, supplied and reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject to the following conditions:

1. A claimant is defined to be any and all of those persons supplying labor and materials (including lessors of the equipment to the extent of the fair market value thereof) to the Principal or its subcontractors and subcontractors in the prosecution of the work provided for in the Contract, entitled to the protection provided by Section 17-101et. seq., State Finance and Procurement Article of the Annotated Code of Maryland, as from time to time amended.
2. The above named Principal and Surety hereby jointly and severally agree with the Obligees that every claimant as herein defined, who has not been in full pay, pursuant to and when in compliance with the provisions of the aforesaid Section 9-113, sue on this Bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant and have execution thereon. The Obligees shall not be liable for the payment of any costs or expenses of any such suit.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Payment Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Payment Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Payment Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution of power of attorney authorizing such action, and each such duly authorized representative to sign below and set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the date shown above and in the presence of:

MD COMAR 21.07.02.10 Performance and Payment Bond

PAYMENT BOND CONTINUED

Witness

(Individual Principal)

_____ as to

_____ (SEAL)

Witness

(Name of Co-Partnership)

_____ (SEAL)

(Co-Partnership Principal)

_____ as to

By: _____ (SEAL)

_____ as to

_____ (SEAL)

_____ as to

_____ (SEAL)

(Corporate Principal)

Attest:

(Name of Corporation)

_____ as to
(Corporate Secretary)

By: _____
(President)

AFFIX
CORPORATE
SEAL

(Individual or Corporate Surety)

Attest: _____ (SEAL)

By: _____ (SEAL)

Signature

Title _____

Bonding Agent's Name

(Business Address of Surety)

Agent's Address

(Business Address of Surety)

Approved as to legal form and sufficiency this _____ day of _____, 20____
(Asst. Attorney General)

FREDERICK COUNTY PUBLIC SCHOOLS	Reg. No. 200-08
Subject: MINORITY BUSINESS ENTERPRISE PROCEDURES	Issued: 6/7/85
Preparing Office: Office of the Superintendent	Amended: 12/22/17

I. Policy 202.5

II. Procedures

MBE PROCEDURES FOR STATE-FUNDED PUBLIC SCHOOL CONSTRUCTION PROJECTS

BACKGROUND

In 1978, the Maryland General Assembly passed legislation, which was signed into law to establish the State's Minority Business Enterprise Program. This new law set as a goal that at least 10 percent of each unit of State government's total dollar value of procurement contracts for purchases and/or contracts is awarded to minority business enterprises. This law was subsequently modified and the goal was increased to 14 percent. More recently, in 2001, the goal was increased to 25 percent with subcontracting sub-goals of 7 percent for certified African American-owned businesses and 10 percent for certified women-owned businesses.

In 1979, the Rules, Regulations, and Procedures for the Administration of the School Construction Program were revised by the Board of Public Works to require each local board of education to adopt procedures to attempt to include minority business enterprises in State funded school construction projects. The State law was revised and now states: "The Interagency Committee on School Construction (IAC) shall require each local board of education to adopt procedures consistent with this chapter before obtaining funds for public school construction projects".

In May 2007, the Rules, Regulations, and Procedures were replaced by formal state regulations. The regulations concerning project procurement (COMAR 23.03.03) indicate that the State's minority business enterprise goals and procedures apply to all State funded projects, irrespective of procurement method.

In July 2011, a Sub-Goal Directive was issued by the Governor's Office of Minority Affairs (GOMA). This Directive established the process for setting contract by contract sub-goals. Sub-goals consistent with demonstrated underrepresentation were pre-established within the Directive.

OVERVIEW

This Minority Business Enterprise (MBE) procedure document was originally developed in response to a requirement set forth in the Rules, Regulations, and Procedures for the Administration of the School Construction Program. The MBE requirement was initially established under House Bill (HB) 64, which was passed in the 1978 session of the Maryland General Assembly and signed into law as Chapter 575 of the Acts of 1978.

Since the Board adopted its original Minority Business Enterprise Procedures, there have been changes in State statutes, regulations adopted by the Board of Public Works, procedural requirements, project eligibility requirements and the sub-goals to be set for school construction projects. This revised procedure is consistent with current legislation and the changes to the Code of Maryland Regulations (COMAR) requirements.

The revised procedures issued by GOMA in July 2011 provide guidance for establishing overall goals that are contract-specific and reasonable, and for setting sub-goals only on contracts that actually have subcontracting opportunities. The procedures for setting overall MBE goals have not changed, however once the overall goal is decided by the Procurement Review Group (PRG), the sub-goal analysis must be completed for contracts that have a total potential MBE participation over a minimum threshold amount, as defined for specific Major Industry Categories.

All activities funded through the Public School Construction Program (PSCP) fall within Construction in the Major Industry Categories. In place of the original goals of 7 percent for African American-owned businesses and 10 percent for certified women-owned businesses, the sub-goals for construction are now 7 percent for African American-owned businesses and 4 percent for Asian American-owned businesses. Sub-goals are not to be set for other minority groups which may be represented in the overall contract goal.

1.0 PURPOSE

The purpose of these procedures is to fulfill the intent of the law and the guidelines issued by GOMA by setting appropriate goals for minority business enterprise participation in every contract that includes State funding through the PSCP. Local Educational Agencies (LEAs) shall attempt to achieve the result that a minimum of 25 percent of the total dollar value of all construction contracts is made directly or indirectly with certified minority business enterprises when State PSCP funds are utilized, with a minimum of 7 percent from certified African American-owned businesses, a minimum of 4 percent from certified Asian American-owned businesses, and the balance from any certified minority business enterprises. All general contractors, including certified MBE firms, when bidding as general or prime contractors are required to attempt to achieve the MBE subcontracting goals from certified MBE firms.

2.0 EFFECTIVE DATE

These procedures have been adopted for use in Frederick County and supersede previously utilized MBE procedures, in accordance with Title 14, §3, State Finance and Procurement Article.

Note: All current attachments required for MBE participation can be found on the Public School Construction website: <http://www.pscp.state.md.us/programs/mbe/mbeindex.cfm>

3.0 DEFINITIONS

1. **Certification** means the determination that a legal entity is a minority business enterprise consistent with the intent of Subtitle 3 of the State Finance and Procurement Article.
2. **Certified Minority Business Enterprise** means a minority business that holds a certification issued by the Maryland State Department of Transportation (MDOT).
3. **Corporation**, as defined by MDOT, is an artificial person or legal entity created by or under the authority of the laws of any state of the United States, the District of Columbia or a territory or commonwealth of the United States and formed for the purpose of transacting business in the widest sense of that term, including not only trade and commerce, but also manufacturing, mining, banking, insurance, transportation and other forms of commercial or industry activity where the purpose of the organization is profit. For eligibility for certification, disadvantaged and/or minority individuals must own at least 51 percent of the voting stock and at least 51 percent of the aggregate of all classes of stock that have been issued by the corporation. (Note: stock held in trust is not considered as stock held by the disadvantaged businesspersons when computing the business person(s) ownership.)
4. **Managerial Control**, as defined by MDOT, means that a disadvantaged or minority owner(s) has the demonstrable ability to make independent and unilateral business decisions needed to guide the future and destiny of a business. Control may be demonstrated in many ways. For a minority owner to demonstrate control, the following examples are put forth, but are not intended to be all inclusive:
 - a. Articles of Incorporation, Corporate Bylaws, Partnership Agreements and other agreements shall be free of restrictive language which would dilute the minority owner's control thereby preventing the minority owner from making those decisions which affect the destiny of a business;
 - b. The minority owner shall be able to show clearly through production of documents the areas of the disadvantaged business owner's control, such as, but not limited to:
 - 1) Authority to sign payroll checks and letters of credit;
 - 2) Authority to negotiate and sign for insurance and/or bonds;
 - 3) Authority to negotiate for banking services, such as establishing lines of credit; and

- 4) Authority to negotiate and sign for contracts.
- c. Agreements for support services that do not lessen the minority owner's control of the company are permitted as long as the disadvantaged or minority business owner's authority to manage the company is not restricted or impaired.
5. **Minority Business Enterprise (MBE)** means any legal entity, except a joint venture, that is (a) organized to engage in commercial transactions, and (b) at least 51 percent owned and controlled by one or more individuals who are socially and economically disadvantaged including: African Americans; American Indian/Native Americans; Asians; Hispanics; Physically or mentally disabled individuals; or, Women.
6. **Minority Business Enterprise Liaison** means the employee of the LEA designated to administer the Minority Business Enterprise Procedures for State funded public school construction projects.
7. **Operational Control, as defined by MDOT**, means that the disadvantaged or minority owner(s) must possess knowledge necessary to evaluate technical aspects of the business entity. The primary consideration in determining operational control and the extent to which the disadvantaged or minority owner(s) actually operates a business will rest upon the specialties of the industry of which the business is a part. The minority owner should have a working knowledge of the technical requirements needed to operate in his/her industry. Specifically, in the construction industry and especially among small (one to five person firms) contractors, it is reasonable to expect the disadvantaged or minority owner(s) to be knowledgeable of all aspects of the business. Accordingly, in order to clarify the level of operational involvement which a minority owner must have in a business for it to be considered eligible, the following examples are put forth, but are not intended to be all inclusive:
 - a. The minority owner should have experience in the industry for which certification is being sought; and
 - b. The minority owner should demonstrate that basic decisions pertaining to the daily operations of the business are independently made. This does not necessarily preclude the disadvantaged or minority owner(s) from seeking paid or unpaid advice and assistance. It does mean that the minority owner currently must possess the knowledge to weigh all advice given and to make an independent determination.
8. **Ownership**, as defined by MDOT, means that:
 - a. The minority owner(s) of the firm shall not be subject to any formal or informal restrictions, which limit the customary discretion of the owner(s). There shall be no restrictions through, for example, charter requirements, by-law provisions, partnership agreements, franchise or distributor agreements or any other agreements that prevent the minority owner(s), without the cooperation or vote of any non-minority, from making a business decision of the firm.
 - b. This means that the disadvantaged or minority persons, in order to acquire their ownership interests in the firm, have made real and substantial contributions of capital, expertise or other tangible personal assets derived from independently owned holdings without benefit of a transfer of assets, gift or inheritance from non-minority persons. Examples of insufficient contributions include a promise to contribute capital, a note payable to the firm or its owners who are not minority persons or the mere participation as an employee rather than as a manager. If the ownership interest held by a disadvantaged or minority person is subject to formal or informal restrictions, such as options, security interests, agreements, etc., held by a non-minority person or business entity, the options, security interests, agreements, etc., held by the non-minority person or business entity must not significantly impair the disadvantaged or minority person's ownership interest.
9. **Partnership** means an unincorporated association of two or more persons to carry on as co-owners of a business for profit. For a partnership to be deemed eligible for certification under the MDOT Program, the disadvantaged or minority person's interest must be at least 51 percent of the partnership capital.

10. **Disadvantaged Business Enterprise (DBE)** means a citizen or lawfully admitted permanent resident of the United States who is socially disadvantaged and economically disadvantaged. The law establishes the level of personal net worth at \$1,500,000, adjusted annually for inflation according to the Consumer Price Index (CPI); above this net personal worth figure, an individual may not be found to be socially and economically disadvantaged. The current personal net worth (PNW) figure can be found on the MDOT website at: <http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources%20Information>.
11. **Sole Proprietorship**, as defined by MDOT, is a for-profit business owned and operated by a disadvantaged or minority person in his or her individual capacity. For a sole proprietorship to be deemed eligible for certification under the DBE/MBE Program, the disadvantaged or minority person must be the sole proprietor.
12. **Days** mean business days unless otherwise specified. Business days are defined as Monday through and including Friday, with the exception of Nationally or State recognized holidays.
13. **Regular Dealer** is defined to be a firm that owns, operates, or maintains a store, warehouse, or any other establishment in which materials, supplies, articles, or equipment are of the general character described by the specifications required under the contract and are bought, kept in stock, or regularly sold or leased to the public in the usual course of business. A "regular dealer" does not include a packager, broker, manufacturer's representative, or any other person that arranges or expedites transactions.

4.0 MBE GOAL SETTING PROCEDURES

1. General
 - a. The overall MBE goal and the sub-goals, if appropriate, are established on a per-contract basis for the purposes of solicitation.
 - 1) Where a project consists of more than one contract, the individual contract goals and sub-goals, if appropriate, should reflect the overall project goal and sub-goals.
 - 2) The words "if appropriate" and "if applicable" throughout this document reflect the understanding that for some solicitations, no African American or Asian American sub-goals should be established.
 - b. The MBE program requires that all race-neutral measures be considered before making use of race-based measures. Using a combination of race-neutral and race-based measures for each specific school construction project will help ensure that certified MBE firms are afforded the opportunity to submit bids and be utilized to the greatest extent possible.
 - 1) *Race-neutral measures* include any action taken by the LEA to make it easier for all contractors, including MBEs, to compete successfully for public school construction project contracts. These might include widespread advertising of bidding opportunities, job fairs, and similar publicity events.
 - 2) *Race-based measures* include setting an overall MBE goal and MBE sub-goals, if appropriate, based upon race, gender, ethnicity, etc., for a specific contract.
2. General Considerations for Setting MBE Goal and Sub-goal. The overall MBE goal and the sub-goals, if appropriate, should be set for each specific project contract, considering but not limited to, the following factors:
 - a. The extent to which the work to be performed can reasonably be segmented to allow for MBEs to participate in the project contract;
 - b. A determination of the number of certified MBEs that potentially could perform the identified work;

- c. The geographic location of the project in relationship to the identified certified MBEs;
 - d. Information obtained from other state and local departments/agencies related to establishing a MBE goal and/or sub-goals for similar construction projects or work in the jurisdiction;
 - e. A State agency may apply only 60% of the cost of materials and supplies provided by a regular dealer that is a certified MBE toward achieving an MBE contract goal. For materials or supplies purchased from a certified MBE that is neither a manufacturer nor a regular dealer, only the fees, commissions, or transportation charges related to the purchase can be counted toward achieving the MBE contract goal, if the agency determines that they are reasonable and not excessive; the actual cost of materials and supplies cannot be counted toward the MBE contract goals.
 - f. Information obtained from other state and local departments/agencies related to MBE participation in similar construction projects or work in the jurisdiction; and
 - g. Any other activities or information that may be identified as useful and productive.
 - h. Procurement agencies may not use quotas.
 - i. Procurement agencies may not use any project goal-setting process that:
 - 1) Solely relies on the State's overall percentage goal, or any other jurisdiction's overall percentage goal; or
 - 2) Fails to incorporate an analysis of:
 - The potential subcontract opportunities available in the prime procurement contract;
 - The availability of certified MBEs to respond competitively to the potential subcontract opportunities;
 - Guidelines established by GOMA; and
 - Other factors that contribute to constitutional goal setting.
3. MBE Sub-goal Setting Procedure:
- a. Once an overall MBE participation goal is set for a project contract, each unit shall determine the appropriate contract sub-goals.
 - b. If the expected value of the procurement is not equal to or in excess of \$200,000, the Sub-goal process is discretionary.
 - c. All State funded public school construction is classified as Construction in the Major Industry Category schedule established by regulation.
 - 1) Accordingly, sub-goals for school construction projects receiving State funding participation apply to the following Subgroups:
 - African American: 7%
 - Asian American: 4%
 - 2) Dually certified firms are to be counted as being owned by a member of the relevant ethnic Subgroup, not as a woman-owned business.
 - d. Sub-goals shall only be set when the overall goal is greater than or equal to the sum of the sub-goals listed in subsection 3.c.1 of this section, plus two percent (2%), i.e., the overall goal must be at least 13%; otherwise, no sub-goals may be established for the contract.
 - e. A sub-goal may not be set if the number of certified firms in the Subgroup is less than three (3).

- f. If the Subgroup has three (3) or more certified firms available to perform the work, the Recommended Sub-goal should be set at the number specified above, unless a basis is provided in the Procurement Review Group documentation for not applying the specified sub-goal.
 - g. For each procurement that has an overall goal, the MBE Program Sub-goal Worksheet (Appendix I) shall be completed and signed by the LEA Procurement Officer and MBE Liaison.
4. The Superintendent or designee shall establish one or more procurement review groups (PRG). The PRG must include at a minimum the MBE liaison and the Procurement Officer (PO) or a representative from the procurement office. The PRG could also include a capital improvement project manager, the project architect, the cost estimator, the Construction Manager, and/or other individuals selected by the Superintendent or designee.
- a. The PRG should communicate and/or meet as needed to consider the subcontracting goal and sub-goals, if applicable, for individual projects or groups of projects.
 - b. The PRG should consider the factors cited in 4.0, subsection 2, when establishing the MBE goal and sub-goals, if applicable, for each project or segmented piece of a project that are reasonable and attainable.
 - c. The PRG must complete and submit a written analysis for each state funded school construction project with an estimated cost that is expected to exceed \$200,000.
 - 1) For state-funded projects that required review of construction documents, the written analysis and the MBE Program Worksheet (Appendix I) shall be submitted with the construction documents to the Department of General Services (DGS), and will be reviewed by the DGS for submission, appropriate signatures and correspondence between the goal and sub-goals, if applicable, indicated in the analysis and those of the procurement documents.
 - 2) For state-funded projects that do not require review of construction documents, the written analysis and the MBE Program Worksheet shall be submitted to the PSCP, and will be reviewed for submission and appropriate signatures.
 - 3) For locally funded projects that are anticipating to be requested for state approval of planning and funding, the written analysis and the MBE Program Worksheet shall be submitted with construction documents to the Maryland State Department of Education (MSDE), and will be reviewed for submission, appropriate signatures, and correspondence between the goal and sub-goals, if applicable, indicated in the analysis and those of the procurement documents. Submission of the documents is a pre-condition for recommendation for state approval of planning and funding when submitted in an annual CIP.
 - 4) If the project cost is estimated to exceed \$200,000 then a copy of the written analysis shall also be sent to GOMA at the same time that the written analysis is submitted to the DGS or the PSCP
 - d. For projects estimated to cost between \$50,000 and \$200,000 the same analysis form is to be completed and submitted. This could be a responsibility of the PRG, but could be performed by others as well.
 - 1) For state-funded projects that require review of construction documents, the written analysis and the MBE Program Worksheet shall be submitted with the construction documents to the DGS, and will be reviewed for submission, appropriate signatures, and correspondence between the goal and sub-goals, if applicable, indicated in the analysis and those of the procurement documents.
 - 2) For state-funded projects that do not require review of construction documents, the written analysis and the MBE Program Worksheet shall be submitted to the PSCP and will be reviewed for submission and appropriate signatures.
 - e. The PRG should consult with local counsel for the Board of Education as needed.

5. It is recognized that by utilizing the factors cited in Section 4.0, subsection 2, the MBE goal and/or sub-goals, if applicable, for a specific project or portion thereof may be significantly higher than the overall goals of the program (25% overall, with 7% from African American-owned businesses and 4% from Asian American-owned businesses). It is also recognized and possible that there will be MBE goals set that are lower than those stated above or even that no MBE goal and/or sub-goals will be set for a specific project or the segmented piece of the project.
6. Assistance in reviewing the factors cited above and setting a goal and/or sub-goals, if applicable, for specific projects or a segmented piece of a project can be obtained by contacting the PSCP and/or GOMA.

5.0 IMPLEMENTING PROCEDURES - \$50,000 OR LESS

For construction projects estimated to cost \$50,000 or less, the following procedures will be utilized:

1. A MBE goal and/or MBE sub-goals are not required to be set for contracts that are anticipated to be for \$50,000 or less.
2. All advertisements, solicitations, and solicitation documents shall include the following statement:
 - a. "Certified Minority Business Enterprises are encouraged to respond to this solicitation."
3. To encourage greater MBE participation, the staff of the LEA should send out notices of potential projects and a specific project to MBEs to solicit bids or proposals directly from minority business enterprise contractors that are certified.
4. A copy of the solicitation notice, preferably electronically, shall be sent to GOMA at the same time the advertisement for the solicitation is released.
5. When a pre-bid or pre-proposal conference or meeting is held, the MBE liaison or designated representative shall explain that all bidders or offerors are encouraged to utilize certified MBEs for this project or segments of the project.
6. FCPS provides current solicitation packages on the FCPS website: <http://www.fcps.org/bidlist>. Large solicitation packages that contain drawings are available thru a third party electronic plan room.
7. Minority Business Enterprise forms identified in Section 6.0 of this procedure for projects over \$50,000, are not required to be submitted for these projects (\$50,000 or less).
8. The names of prime contractors obtaining drawings and specifications will be shared with certified MBEs and MBE associations, upon request.
9. At the time of the contract award, the MBE Liaison or a designated person will record any anticipated certified minority business enterprise participation data made available from the successful contractor.
10. A business that presents itself as a minority business may participate in a project but may not be counted toward MBE participation until it is a certified minority business enterprise. If the MBE is not certified at the time of contract award, it may not be counted at that time. Only the funds paid after MDOT certification can be counted as MBE participation in the project. If a certified MBE fails to meet the standards specified in State Finance and Procurement Article 14-301 (F) and (J), Annotated Code of Maryland, the payments made to the MBE can be recorded and counted under a contract entered into when the MBE was eligible and certified. Ineligibility of an MBE to participate in the MBE program may not be the sole cause of the termination of the MBE contractual relationship for the remainder of the term of the contract.
11. The contractor will complete the Standard Monthly Contractor's Requisition for Payment (IAC/PSCP Form 306.4), specifically page 3 of 16, Minority Business Enterprise Participation, with each requisition submitted for payment. If certified MBE firms are known at the time of contract award, their names and other appropriate information should be entered on page 3 of the first and all subsequent requisitions for payment. Any MBEs identified during the life of the project should be added as soon as the contractor engages them after approval by the LEA.

12. Upon completion of the project, the contractor will provide a summary of the total of all funds paid to certified MBE firms. This should be within the contractor's final requisition for payment. The summary shall be forwarded to the PSCP with the close-out paperwork.

6.0 IMPLEMENTING PROCEDURES - Over \$50,000

For construction projects estimated to cost in excess of \$50,000, the following procedures will be utilized:

1. All advertisements, solicitations, and solicitation documents shall include the following statements:
 - a. "Certified Minority Business Enterprises are encouraged to respond to this solicitation notice."
 - b. "The contractor or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the specific overall MBE goal of ___ percent established for this project. All prime contractors, including certified MBE firms, when submitting bids or proposals as general or prime contractors, are required to attempt to achieve this goal from certified MBE firms."
 - c. If sub-goals have been established for this project then one of the following should be included:
 - 1) "The sub-goals established for this project are ___ percent from African American-owned businesses and ___ percent from Asian American-owned businesses."
 - 2) "The sub-goal established for this project is ___ percent from African American-owned businesses."
 - 3) "The sub-goal established for this project is ___ percent from Asian American-owned businesses."
 - d. "The bidder or offeror is required to submit with its bid or proposal a completed form "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" as described in the solicitation documents.
 - e. If there are no overall MBE goal or MBE sub-goals established for the project, then only 1.A. above is to be included.
2. Other Advertisement and Outreach Requirements:
 - a. To encourage greater MBE participation the staff of the LEA should send out notices of potential projects to MBEs or solicit bids or proposals directly from minority business enterprise contractors that are certified.
 - b. A copy of the solicitation notice, preferably electronically, shall be sent to GOMA at the same time the advertisement for the solicitation is released.
 - c. FCPS provides solicitation packages on the FCPS website: <http://www.fcps.org/bidlist>. Large solicitation packages that contain drawings are available thru a third party plan room.
 - d. When a pre-bid or pre-proposal conference is held, the MBE Liaison or designated representative shall explain the MBE goal and sub-goals, if applicable; the MBE provisions of the solicitation; the documentation required at the time of submission; its relationship to the responsiveness of the bidder or offeror; how to complete the required schedules, and additional information and supporting documentation that may be required after the bid or proposal opening. All contractors who attend the pre-bid or pre-proposal conference should receive a list or information explaining how to obtain a listing of certified MBE firms who could perform the work or have expressed an interest in performing the school construction work required for the specific project in the jurisdiction.
 - e. The names of prime contractors obtaining drawings and specifications will be shared with certified MBEs and MBE associations, upon request.

- f. The MBE liaison, in conjunction with the procurement officer or project staff, should respond to all applicable questions and concerns relating to the project's MBE requirements, completely and in a timely fashion, to ensure that all potential contractors and subcontractors can compete effectively.
3. All Solicitation Documents Shall Include the Following:
 - a. "Certified Minority Business Enterprises are encouraged to respond to this solicitation notice". "All contractors, including certified MBE firms, when submitting bids or proposals as prime contractors are required to attempt to achieve the MBE goal and sub-goals, if applicable, established for the project from certified MBEs".
 - b. "The contractor or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the result that a minimum of ___ percent of the total contract value is with certified Minority Business Enterprises, with a minimum of ___ percent from certified African American-owned businesses, a minimum of ___ percent from certified Asian American-owned businesses, and the balance from any certified Minority Business Enterprises. All contractors, including certified MBE firms, when submitting bids or proposals as prime contractors, are required to attempt to achieve the MBE goal and sub-goals, if applicable, from certified MBEs". Note: see 6.1.C. above for variations that may be required.
 - c. Each bid or offer submitted, including a submittal from a certified minority business enterprise in response to this solicitation, shall be accompanied by a completed "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" and a completed "MBE Participation Schedule". These two forms must be accurate and consistent with each other.
 - 1) The forms shall be submitted with the sealed bid price or proposal at a place, date, and time specified in the solicitation document.
 - 2) As an alternative, and at the discretion of the school system, the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" could be submitted with the sealed bid price or proposal at a place, date, and time specified in the solicitation document. The sealed bids or proposals received by the time specified could be held, unopened for a maximum of 30 minutes. Within that time (30 minutes) each bidder or offeror must submit the "MBE Participation Schedule" in a separate sealed envelope. The sealed price envelopes from each bidder or offeror who submits both the sealed bid or proposal and the envelope with "MBE Participation Schedule" will then be opened and reviewed and recorded as a viable submission. Any contractor that fails to submit the second envelope, with the "MBE Participation Schedule", prior to the specified time allowed (30 minutes) after the submittal of the sealed bid or proposal will be deemed non-responsive and the sealed bid or proposal will not be opened or considered.
 - d. The submittal of a completed and signed "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" and a completed and signed "MBE Participation Schedule" indicates the bidder's or offeror's recognition and commitment to attempt to achieve the MBE goal and/or MBE sub-goals, if applicable, for the specific project.
 - 1) The bidder or offeror recognizes that their efforts made to initiate contact, to solicit, and to include MBE firms in this project will be reviewed carefully and evaluated based upon the actions taken by them prior to and up to 10 business days before the bid or proposal opening. Follow-up actions taken by the bidder or offeror within the 10 business days prior to the bid opening will also be considered.
 - 2) Based upon this review and evaluation it will be determined, by the MBE liaison, procurement officer, or a designated person, if a good faith effort was made by the apparent low bidder or apparent successful offeror.

- e. The bidder or offeror must check one of the three boxes on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" which relates to the level of MBE participation achieved for the project. The bidder's or offeror's signature indicates that in the event that they did not meet the MBE goal or sub-goals, if applicable, that:
 - 1) They are therefore requesting a waiver, and
 - 2) Documentation of their good faith efforts will be provided to the school system staff within 10 business days of being notified that they are the apparent low bidder or apparent successful offeror.
 - f. The bidder or offeror must submit the "MBE Participation Schedule" (as and when described above), which lists and provides information related to each certified MBE firm that the bidder or offeror will utilize on this project. A completed and accurate "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" is required. All of the work specified to be performed by each MBE firm, MDOT certification number, minority type, and percentages must be correct.
 - g. The "MBE Participation Schedule" should be completed and submitted with all calculations utilizing the base bid or offer only. A revised "MBE Participation Schedule" should be submitted by the successful bidder or offeror once a determination is made as to the acceptance and/or rejection of any alternates.
 - h. If a request for a waiver has been made, the appropriate box on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" has been checked and the form signed, then the LEA should obtain and review the apparent low bidder's or successful offeror's supporting documentation of the good faith efforts to justify the granting of the waiver, prior to submitting the contract award for approval to the board of education.
 - i. The following documentation shall be considered as part of the contract, and shall be furnished by the apparent low bidder or successful offeror to the MBE Liaison or designated person, within ten (10) business days from notification that the firm is the apparent low bidder or successful offeror:
 - 1) A completed and signed "Outreach Efforts Compliance Statement" and "Minority Business Enterprise Subcontractor Project Participation Statement". One "Minority Business Enterprise Subcontractor Project Participation Statement" shall be completed and signed by the prime contractor and each MBE firm listed on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit".
 - 2) Notification for purposes of this procedure means the earliest of the following methods of communication: orally in person, orally by telephone, orally by a telephone message, a faxed communication, a letter by date received or an electronic communication.
 - 3) The ten (10) business days do not include the day the notification is received, weekends or holidays (State or Federal), but the material submitted must be received by the close of business on the tenth day.
 - 4) The requirement to submit the above-listed documentation within the time frame specified will be considered by the IAC in its review of the request for contract award for the project. Failure to submit the required documentation within the time frame specified may result in a delay of the approval of the award of the contract, or the materials being returned without the approval of the award of the contract.
4. Waiver Procedures:
- a. If the apparent low bidder or successful offeror has determined that they are unable to meet the overall MBE goal or sub-goals, if applicable, for the project at the time of submission of a bid or offer, they must check either of the three boxes on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit". The signature recognizes and acknowledges that a request for a waiver is being made. The apparent low bidder or successful offeror will therefore be required

to submit information and substantiating documentation that will be reviewed to justify the granting of a waiver.

- b. If the apparent low bidder or successful offeror is unable to achieve the overall MBE contract goal and/or the MBE sub-goals, if applicable, from certified African American-owned businesses and/or from certified Asian American-owned businesses, the apparent low bidder or successful offeror shall submit, within 10 working days from notification that the firm is the apparent low bidder or successful offeror, a completed "Outreach Efforts Compliance Statement", "Minority Subcontractors Unavailability Certificate" and "MBE Waiver Documentation" which shall include the following:
 - 1) A detailed statement of the efforts made by the bidder or offeror to identify and select portions of the work proposed to be performed by subcontractors in order to increase the likelihood of achieving the stated goal;
 - 2) A detailed statement of the efforts made by the bidder or offeror prior to and at least ten (10) days before the bid or proposal opening to solicit minority business enterprises through written notices that describe the categories of work for which subcontracting is being solicited, the type of work to be performed and specific instructions on how to submit a bid or proposal;
 - 3) Follow-up actions taken by the bidder or offeror within the 10 days prior to the bid or proposal opening will also be considered;
 - 4) A detailed statement of the contractor's efforts to make personal contact with MBE firms identified for item (2) above;
 - 5) A record of the name, address, telephone number and dates contacted for each MBE identified under items (2) and (3) above;
 - 6) A description of the information provided to MBEs regarding the drawings, specifications and the anticipated time schedule for portions of the work to be performed;
 - 7) Information on activities to assist minority business enterprises to fulfill bonding requirements or to obtain a waiver of these requirements;
 - 8) Information on activities to publicize contracting opportunities to minority business enterprises, attendance at pre-bid meetings or other meetings scheduled by the MBE Liaison or designated representative; and
 - 9) As to each MBE that placed a subcontract quotation or offer which the apparent low bidder or successful offeror considers not to be acceptable, a detailed statement of reasons for this conclusion.
- c. In addition, to any waiver documentation, the apparent low bidder or successful offeror shall submit one completed "Minority Business Enterprises Subcontractor Project Participation Statement" for each MBE firm that will participate in the project consistent with the information previously provided at the time of the submission of the "MBE Participation Schedule" or the revised "MBE Participation Schedule".
- d. A waiver of an MBE contract goal or sub-goal, if applicable, may be granted by the LEA only upon receipt of "Outreach Efforts Compliance Statement", "Minority Subcontractor Unavailability Certificate" and "MBE Waiver Documentation" as described above in 4. b. items 1 through 9.
 - 1) The MBE Liaison will review and accept or reject the minority business enterprise material that is submitted, and could obtain legal advice or assistance from their attorney.

- 2) The MBE waiver request may not be considered unless all of the documentation specified above has been submitted in a timely fashion by the apparent low bidder or successful offeror.
- 3) Assistance in the review of a request for a waiver (the documentation and justifications) may be requested from the Public School Construction Program and/or the Governor's Office of Minority Affairs.
- 4) If a determination is made that the apparent low bidder or successful offeror did make a good faith effort, based upon a review of the documentation submitted, then the waiver must be granted. The award of contract shall then be made. The material and information submitted including the LEA's review and analysis notes and conclusion shall be retained in the project file.
- 5) If a determination is made that the apparent low bidder or successful offeror did not make a good faith effort, based upon a review of the documentation submitted, then the waiver should not be granted. The material and information submitted including the LEA's review and analysis notes and conclusion shall be retained in the project file. The award of contract shall then be made to the next lowest bidder or offeror, who meets the contractual requirements, including the MBE requirements.
- 6) When a waiver is granted, a copy of "MBE Waiver Documentation" accepted and signed by a LEA representative and with the reasons for the determination, shall be forwarded to the Governor's Office of Minority Affairs and the Public School Construction Program within 10 days after approval of the contract award by the Board of Education. Failure to submit the required documentation within the time frame specified may result in delayed approval of the award of contract by the IAC.

5. All Contracts Shall Include The Following:

- a. *The contractor shall perform the contract in accordance with the representations made in the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" and the "MBE Participation Schedule" submitted as part of the bid or proposal.*
- b. *Failure to perform the contract as specified and presented in the bid or proposal submission without prior written consent of the owner shall constitute a violation of a material term of the contract.*
 - 1) The contractor shall structure his/her operations for the performance of the contract to attempt to achieve the MBE goals as stated in the solicitation document.
 - 2) The contractor agrees to use his/her best efforts to carry out these requirements consistent with the efficient and effective performance of the contract.
 - 3) The contractor must ensure that all certified MBEs shall have the maximum practical opportunity to compete for additional subcontract work under the contract, even after the award of the contract.
 - 4) The contractor shall submit monthly to the MBE Liaison or the s LEA's designated representative a report listing any unpaid invoices, over 30 days old, received from any certified MBE subcontractor, the amount of each invoice and the reason payment has not been made.
 - 5) The contractor shall include in its agreements with its certified MBE subcontractors, a requirement that those subcontractors submit monthly to the MBE Liaison or appropriate representative a report that identifies the prime contract and lists all payments received from the contractor in the preceding 30 days, as well as any outstanding invoices, and the amount of those invoices.

- 6) The contractor shall cooperate in any reviews of the contractor's procedures and practices with respect to minority business enterprises, which the MBE Liaison, the PSCP, and/or GOMA may, from time to time, conduct.
- 7) The contractor shall maintain such records as are necessary to confirm compliance with its MBE participation obligations. These records must indicate the identity of certified minority and non-minority subcontractors employed on the contract, the type of work performed by each, and the actual dollar value of work performed. Subcontract agreements documenting the work performed by all MBE participants must be retained by the contractor and furnished to the MBE Liaison and or appropriate representative on request.
- 8) All records concerning MBE participation must be retained by the contractor for a period of five years after final completion of the contract, and will be available for inspection by the MBE Liaison, representatives from the PSCP and/or other designated official entities.
- 9) At the option of the MBE Liaison, or appropriate agency representative, upon completion of the contract and before final payment and/or release of retainage, the contractor shall submit a final report in affidavit form and under penalty of perjury, of all payments made to, or withheld from MBE subcontractors.
- 10) If at any time after submission of a bid or proposal and before execution of a contract, the apparent successful bidder or offeror determines that a certified MBE listed on its "MBE Participation Schedule" has become or will become unavailable, then the apparent successful bidder or offeror shall immediately notify the procurement officer and provide such officer with a reason(s) why the change has occurred. Any desired change in the "MBE Participation Schedule" shall be approved in advance by the procurement officer and shall indicate the contractor's efforts to substitute another certified MBE subcontractor to perform the work. Desired changes occurring after the date of contract execution may occur only upon written approval by the agency head and subsequently by contract amendment.
- 11) A business that presents itself as a minority business may participate in a project but the contract value may not be counted toward the MBE goal or sub-goals, if applicable, until the business is certified by MDOT. If it is not certified at the time of contract award it may not be counted toward the goal or sub-goals, if applicable, at that time. Only the funds paid after MDOT certification can be counted toward meeting the MBE goal or sub-goals, if applicable. If a certified MBE fails to meet the standards specified in State Finance and Procurement Article.14-301.1, Annotated Code of Maryland, the payments made to the MBE can be recorded and counted under a contract entered into when the MBE was eligible and certified. Ineligibility of an MBE to participate in the MBE program may not be the sole cause of the termination of the MBE contractual relationship for the remainder of the term of the contract.
- 12) Contractors are encouraged to seek additional MBE participation in their contracts during the life of the project. Any additional MBE participation from certified MBEs should be reported to the MBE liaison prior to initiation and should be included in subsequent monthly requisitions for payment.
- 13) The contractor shall complete the Certified Minority Business Participation Standard Monthly Contractor's Requisition for Payment (IAC/PSCP Form 306.4), specifically page 3 of 16, Minority Business Enterprise Participation, with each requisition submitted for payment this submittal should accurately reflect the payments to be made that month to MBEs and the cumulative total for the period specified. Any and all MBE firms that are identified on the "MBE Participation Schedule" should be included on page 3 of the first and all subsequent requisitions for payment. Any MBEs identified during the life of the project should be added as soon as the contractor engages them.

- 14) At the completion of the project the contractor shall prepare a written summary of the final certified MBE participation in the contract as compared to the proposed participation at the time of contract award. This should include the name of each certified MBE, the percentage and amount that was anticipated to be paid at the time of contract award, the percentage and amount actually paid, and an explanation of any differences that have occurred. Special attention should be given to any situations where the final payments to any MBE were below the level of commitment at the time of contract award. The summary shall be forwarded to the LEA with the final requisition. The LEA shall include this documentation with the submittal of the close-out paperwork to the PSCP.

6. Projects Utilizing a Construction Manager Delivery Method

This section of the procedure has been prepared based upon the utilization of Construction Manager Agency method of delivery. If another alternative method of project delivery is being considered, then these procedures would need to be adapted in consultation with the PSCP before proceeding.

- a. For projects that are being designed and solicited utilizing a Construction Manager Agency delivery method with multiple prime contracts, the LEA can structure its procedures to attain the overall MBE goal and sub-goals, if applicable, for the project as presented below:
- b. The MBE liaison and other LEA staff should work with the project's construction manager, cost estimator, and architect, along with any other individuals who could provide assistance, to determine the overall MBE utilization strategy for the work required, appropriate bid packages, and an appropriate overall MBE goal and sub-goals, if applicable, for each specific bid or proposal package.
- c. The overall MBE goal and sub-goals, if applicable, for the project shall represent the aggregate of the individual goals and sub-goals, if applicable, set for each bid or proposal package.
- d. In setting the specific goals and sub-goals, if applicable, for each solicitation package consideration should be given to the potential for MBE participation to the maximum extent possible. The information and procedures provided in section 4.0 MBE Goal Setting Procedures should be consulted and followed for these types of projects.
- e. Prior to submitting the construction documents for State review and authorization to solicit bids or proposals, the LEA's representative will prepare a complete list of the individual solicitation packages and indicate the MBE goal and sub-goals, if applicable, for each solicitation package. This would include the overall MBE goal and sub-goals, if applicable, established in the solicitation documents, the estimated cost for each solicitation package, and the estimated MBE dollar amounts for each solicitation package. A copy of this list should be submitted with the construction documents. The list should be retained as a record by the LEA for comparison to the actual contracts awarded with MBE participation, and the final actual MBE participation at the completion of the project.
- f. Contractors submitting bids or proposals for solicitation packages that do not include a MBE goal and sub-goals, if applicable, would not be required to submit any of the MBE schedules that are otherwise required nor would they be required to indicate that they are requesting a waiver. The LEA representative would, however, request information from the contractor at the completion of the project to determine if any certified MBE firms had participated in the contract.
- g. All other submittals of MBE materials and reporting requirements are applicable for the project, including the submittal of the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" and "MBE Participation Schedule" as described above in section 6.0. This includes the documentation for a request for a waiver, if applicable and appropriate.

7. Projects Utilizing an Indefinite Delivery/Indefinite Quantity (IDIQ) or Job Order Contracting (JOC) Method of Delivery:

- a. The solicitation should be prepared and the overall MBE goal and sub-goals, if applicable, established based upon the type of work that is anticipated to be specified or performed under the contract and the availability of certified MBEs. This could include an analysis of the percentages of the different types of work, the estimated dollar value in the entire contract, and the availability of MBEs.
 - b. If an overall goal and sub-goals, if applicable, are set the bidders or offerors would be required to submit "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" in which they could indicate their anticipated MBE participation based upon the entire contract amount and the types of work specified. The award of contract can be made based upon their estimate of MBE participation since there is no specific task order or description of work to be performed and subcontractors have not been identified or engaged through any type of commitment or subcontract.
 - c. Since MBE participation is only anticipated in a general sense as an objective and specific contracts to MBEs have not been signed, then the contract award would not be included in any reporting to the PSCP or subsequent reporting to GOMA.
 - d. However, as the contract proceeds and individual task orders and/or purchase orders are issued, the contractor should submit the "MBE Participation Schedule" for any and all projects or work where MBE subcontractors and/or suppliers might reasonably be utilized. Discussions between the contractor or offeror and the LEA as the task orders and/or purchase orders are being developed should address this aspect of the contract requirements.
 - e. Any MBE participation should be recorded by the MBE liaison and reported to the PSCP as the task orders and/or purchase orders are approved.
 - f. The contractor shall complete the Certified Minority Business Participation Standard Monthly Contractor's Requisition for Payment (IAC/PSCP FORM 306.4), specifically page 3 of 16, Minority Business Enterprise Participation, with each requisition submitted for payment. This submittal should accurately reflect the payments to be made that month to MBEs, and the cumulative total for the period specified. Any and all MBE firms that are identified on the "MBE Participation Schedule" should be included on page 3 of the first and all subsequent requisitions for payment. Any MBEs identified during the life of the project should be added as soon as the contractor engages them.
 - g. At the completion of the contract period or the full utilization of the contract's value a report should be prepared by the LEA MBE Liaison and submitted to the PSCP summarizing the MBE participation in each and all of the task orders or purchase orders issued under the contract. This should include the anticipated MBE participation prior to the issuance of the solicitation, the MBE participation anticipated at the time of contract award and the actual MBE participation at the completion of the contract. The summary shall be forwarded to the LEA with the final requisition. The LEA shall include this documentation with the submittal of the close-out paperwork to the PSCP.
8. Projects Utilizing the Design/Build Delivery Method:
- a. The solicitation is for both A/E services and the actual construction of a public school project. The solicitation should be prepared and the MBE goal and sub-goals, if applicable, established for the construction work that is anticipated for the project. The goal setting procedures described in Section 4.0 above should be utilized for these types of projects.
 - b. The bidders or offerors should be required to submit "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" on which they would indicate their anticipated MBE participation based upon the construction work anticipated and their understanding of the MBE goal and sub-goals, if applicable, the types of work involved, and the availability of certified MBEs for the project. Since there are no detailed plans or designs for the project and there are no contracts or subcontracts for the actual construction work there is no need to submit any other MBE schedules, at this time.

- c. If the bidder, or offeror, who is to be awarded this contract has indicated that they do not anticipate achieving the overall MBE participation goal and sub-goals, if applicable, for this project on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" then they are in effect requesting a waiver. They will be required to submit documentation at a later date to justify this request.
- d. As the project proceeds through the design phase and the project is nearing the completion of the construction documents for submission to the State to review, the Design/Build Team (team) in consultation with LEA representatives should discuss the opportunities and potential for certified MBEs to participate in the project.
- e. The team should begin to identify potential contractors and subcontractors, opportunities to segment the project, and MBEs that could participate in the project.
- f. At a point in time that is approximately 30 days prior to the anticipated construction document submission to the State; the team should complete and submit a revised "MBE Participation Schedule" to the LEA for their review and approval.
- g. If the team had indicated on the original "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" that they would meet the goals and the information on the "MBE Participation Schedule" indicates that they did meet the goals then the team should proceed with the construction of the project.
- h. If the team had indicated on the "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit" that they did not anticipate meeting the overall MBE goal and sub-goals, if applicable, or only a portion of the goal and sub-goals, if applicable, then the "MBE Participation Schedule" should be reviewed by the LEA. The team should, at this time, submit their documentation in support of the waiver requested.
- i. The proposed MBE participation should be reviewed and a determination made as to whether the team has made a good faith effort to meet the MBE goals and sub-goals, if applicable, established for the project and as stated on the revised "Certified Minority Business Enterprise Utilization and Fair Solicitation Affidavit".
- j. If a request for a waiver is made and approved, "MBE Waiver Documentation" should be signed by a LEA representative and submitted to the PSCP and GOMA.
- k. Since there was no MBE participation reported at the time of the award of the Design/Build contract, the LEA would submit the entire package of information, including all of the MBE related schedules to the PSCP within ten (10) days of the team being directed to proceed with the actual construction work.
- l. All other submittals of MBE materials and reporting requirements are applicable for the project, as described above in Section 5.0.

7.0 RECORDS AND REPORTS

1. The MBE Liaison shall maintain such records as are necessary to confirm compliance with its Minority Business Enterprise Procedures and activities. The records shall be maintained until the project is audited by the PSCP. These records shall include by project:
 - a. The contractor report submitted at the completion of the project;
 - b. The identity of the minority contractors employed on the project;
 - c. The type of work performed;
 - d. The actual dollar value of the work, services, supplies or equipment; and

- e. The MBE percentage of the total contract.
- 2. The MBE Liaison will maintain a record of all waivers approved for each project or solicitation package where the prime contractor was unable to achieve the established overall goal or sub-goals, if applicable. The MBE Liaison will, however, report to the PSCP all MBE participation by MDOT certified firms who are prime contractors, subcontractors, suppliers, or otherwise making an economically viable contribution to each project. This information shall be reported to PSCP within ten (10) days after approval of the award of the contract by the board of education.
- 3. The LEA shall submit the "Certified Minority Business Enterprise Participation Standard Monthly Contractor's Requisition for Payment" (IAC/PSCP Form 306.4 page 3 of 16, located in the Administrative Procedures Guide), to the PSCP Director of Fiscal Services as part of the regular monthly request for payment for the project.
- 4. The LEA shall submit the "Close-Out Cost Summary" (IAC/PSCP Form 306.6 located in the Administrative Procedures Guide), along with the "Certified Minority Business Enterprise Participation Standard Monthly Contractor's Requisition for Payment" (IAC/PSCP Form 306.4) to the PSCP Director of Fiscal Services within 180 days of completion of the project.
 - a. All final MBE payments should be verified by the LEA MBE Liaison before submission to the PSCP.
- 5. Each quarter and at the end of each fiscal year end, the LEA will submit to the, PSCP Fiscal Services a report "Payments Made to Contractors during The Fiscal Year" and maintain such records as are necessary to confirm compliance with its minority business enterprise procedures and activities.
- 6. Each fiscal year end, PSCP Fiscal Services will create a report "Projects Completed during the Fiscal Year" and maintain such records as are necessary to confirm compliance with its Minority Business Enterprise Procedures and activities. This report will compare the overall MBE goal and sub-goals, if applicable, for each specific project with the MBE participation anticipated at the time of contract award and the actual MBE participation at the completion of the project.

8.0 MONITORING

- 1. The LEA's procurement personnel or project staff shall verify that the certified MBE's listed in the MBE participation schedule are actually performing the work.
- 2. The LEA's procurement personnel or project staff shall ensure that MBE subcontractors are receiving compensation as set forth in the "MBE Participation Schedule" by ensuring that the contractor submits monthly reports, listing any unpaid invoices over 30 days old received from any certified MBE subcontractor, the amount of each invoice, and the reason payment has not been made.
- 3. PSCP Fiscal Services will:
 - a. Compile data on projects completed during the fiscal year;
 - b. Confirm that all MBE subcontractors listed in the "MBE Participation Schedule" have received payment; and
 - c. Maintain such records as are necessary to confirm compliance with its Minority Business Enterprise Procedures and activities.
- 4. The MBE Liaison and/or the PSCP will conduct reviews as deemed necessary to confirm compliance with the minority business enterprise participation requirements.
- 5. The MBE Liaison will maintain appropriate records, and shall assist the PSCP in on-site or post-audit reviews upon request.
- 6. Auditors from the PSCP will have access to and the ability to audit MBE participation for specific projects, information retained by the LEA, and/or submitted to the IAC in reports/forms filed by the LEA as referenced above.

9.0 MINORITY BUSINESS ENTERPRISE LIAISON

1. The Superintendent shall designate an individual to be identified as the MBE Liaison for the school system.
2. The MBE Liaison will be the contact person who will work with the PSCP and GOMA to implement the Minority Business Enterprise Program for the school system and the State of Maryland.
3. The Superintendent will immediately notify the PSCP if there is a change in the MBE Liaison for the school system.

10.0 PAYMENT/REIMBURSEMENT FOR ALL PSCP FUNDED PROGRAMS

1. Use IAC/PSCP Form 306.4 Page 3. ("Certified Minority Business Enterprise Participation Standard Monthly Contractor's Requisition for Payment")
2. The Prime Contractor must complete this Form and submit it with each Monthly Requisition/Invoice for Payment for each project in which they are seeking payment from either the Local Education Agency (LEA) or State of Maryland Public School Construction Program. If no MBE Sub-Contractors were utilized on a project (i.e., no MBE goals were set for the project and/or full waiver was granted), this Form must still be submitted by the Prime Contractor.
 - a. IAC/PSCP Form 306.4 Page 3 must be PROJECT specific – If one bid/contract covers multiple projects (either different schools or scopes of work), this Form must be calculated and submitted by the Prime Contractor on an individual project basis.
 - b. IAC/PSCP Form 306.4 Page 3 must be Prime Contractor/Trade Package specific – If the IAC recognized multiple Prime Contractors and/or Trade Packages, this Form must be completed by each Prime/Trade Contractor recognized by the IAC and submitted.
3. All ORIGINAL MBE Sub-Contractors must be listed on this Form with their full company name, MDOT Certification Number, MDOT Classification and ORIGINAL Contract Amount as stated on the "MBE Participation Schedule" and "Minority Business Enterprises Subcontractor Project Participation Statement". (ONLY MDOT Certified companies should be listed on this Form.)
4. Any additional MBE Sub-Contractors utilized on a project must be listed on this Form with their full company name, MDOT Certification Number, MDOT Classification and total contract amount. (ONLY MDOT Certified companies should be listed on this Form.)
5. The Prime Contractor should fill in the amount they intend to pay each MBE Sub-Contractor for the current requisition as well as all money paid to date. By signing this Form, the Prime Contractor is certifying their intent to pay the "Amount to be Paid This Requisition". They are also certifying the distribution of money listed under the "Total Paid to Date" column.
6. The LEA MBE Liaison shall verify each month with the MBE Sub-Contractors that all money listed under the "Total Paid to Date" column has been received from the Prime Contractor. By signing this Form, the LEA MBE Liaison is certifying all MBE Sub-Contractors have been paid all money due to them by the Prime Contractor.
7. The MBE Liaison should also be comparing the current Form with the prior month(s) to make sure information is not being duplicated and/or repeated. Payments to MBE Sub-Contractors should be progressive and recorded.
8. If for any reason, an amount the Prime Contractor listed on the Form as intending to pay the MBE Sub-Contractor was not made, or if the payment amount changed, the LEA MBE Liaison should be inquiring about the change in payment or non-payment to the MBE Sub-Contractor.

9. NO REQUESTS FOR PAYMENT/REIMBURSEMENT SHOULD BE SUBMITTED TO PSCP UNTIL THE PROCEDURES ABOVE HAVE BEEN COMPLETED.

11.0 CLOSE-OUT SUMMARY SUBMISSION

1. Use IAC/PSCP Form 306.6 ("Close Out Cost Summary").
2. The Prime Contractor must complete this Form and submit it with the FINAL Requisition (IAC/PSCP Form 306.4) to the LEA or upon LEA request. If no MBE Sub-Contractors were utilized on a project (i.e. no MBE goals were set for the project and/or a full waiver was granted), this Form must still be submitted by the Prime Contractor.
 - a. IAC/PSCP Form 306.4 Page 3 must be PROJECT specific – If one bid/contract covers multiple projects (either different schools or scopes of work), this Form must be calculated and submitted by the Prime Contractor on an individual project basis.
 - b. IAC/PSCP Form 306.4 Page 3 must be Prime Contractor/Trade Package specific – If the IAC recognized multiple Prime Contractors and/or Trade Packages, this Form must be completed by each Prime/Trade Contractor recognized by the IAC and submitted.
3. All ORIGINAL MBE Sub-Contractors must be listed on this Form with their full company name, MDOT Certification Number, MDOT Classification and ORIGINAL Contract Amount as stated on the "MBE Participation Schedule" and "Minority Business Enterprises Subcontractor Project Participation Statement" (ONLY MDOT Certified companies should be listed on this Form.)
4. Any additional MBE Sub-Contractors utilized on a project must be listed on this Form with their full company name, MDOT Certification Number, MDOT Classification and total contract amount. (ONLY MDOT Certified companies should be listed on this Form.)
5. The Final Form 306.4 should reflect ALL money paid to each MBE Sub-Contractor. There is a column on the Form to answer "Yes" or "No" for the MBE Sub-Contractor being paid in full. There is also a column on the Form for the Prime Contractor to state a brief reason if a MBE Sub-Contractor was paid less than the original contract amount stated on the "MBE Participation Schedule" and "Minority Business Enterprises Subcontractor Project Participation Statement". By signing this Form, the Prime Contractor is certifying the MBE Sub-Contractors have been paid in full for this project.
6. The LEA MBE Liaison shall verify with the MBE Sub-Contractors that all money listed under the "Total Paid to Date" column has been received and no additional money is owed to them by the Contractors have been paid in full by the Prime Contractor for this project.
7. NO CLOSE-OUT COST SUMMARY SHOULD BE SUBMITTED TO PSCP UNTIL THE ABOVE PROCEDURES HAVE BEEN COMPLETED.

Additional Submission Requirements Applicable to All State Funded Projects

1. If an ORIGINAL MBE Sub-Contractor listed on the "MBE Participation Schedule" and "Minority Business Enterprises Subcontractor Project Participation Statement" is not paid in full and/or not utilized on a project, the Prime Contractor shall submit in writing an explanation for either the reduction in contract amount/payment or why the MBE Sub-Contractor was not utilized.
2. It is the responsibility of the LEA MBE Liaison to contact the MBE Sub-Contractor to verify the explanation provided by the Prime Contractor. Any correspondence between the LEA MBE Liaison and both the Prime Contractor and MBE Sub-Contractors should be kept by the LEA and be made available to PSCP upon request or audit.
3. If an MBE Sub-Contractor originally listed on the "MBE Participation Schedule" and "Minority Business Enterprises Subcontractor Project Participation Statement" becomes unavailable and/or is not going to be utilized. This information should be communicated to the PSCP MBE Program Manager and the PSCP Finance Department by the LEA immediately.

4. If additional MBE Sub-Contractors are hired after the “MBE Participation Schedule” and “Minority Business Enterprises Subcontractor Project Participation Statement” have been submitted to PSCP, the LEA MBE Liaison must submit this information to the PSCP MBE Program Manager and the PSCP Finance Department immediately.

12.0 LIQUIDATED DAMAGES PROVISION FOR CONTRACTS CONTAINING MINORITY BUSINESS ENTERPRISE PARTICIPATION GOALS

Chapter 154, Laws of Maryland 2012 required the Board of Public Works (BPW) to promulgate a regulation that included a requirement that all contracts containing minority business enterprise participation goals contain a liquidated damages provision that applies in the event that the contractor fails to comply in good faith with the provisions of the Subtitle 11 of Title 21 or the pertinent terms of the applicable contract. See § 14-303(b) (5), State Finance and Procurement Article, Maryland Annotated Code (SFP).

The regulation promulgated by the BPW, effective May 13, 2013, states that: “All contracts containing certified MBE participation goals shall contain a liquidated damages provision that applies if the contractor fails to comply in good faith with the provisions of State MBE laws or the pertinent terms of the procurement contract.” Code of Maryland Regulations (COMAR) 21.11.03.10(E).

Approved:

original signed by

Theresa R. Alban
Superintendent of Schools

Outreach Efforts Compliance Statement

****Complete and submit this form within 10 business days of notification of apparent award ****

In conjunction with the bid or offer submitted in response to Frederick County Public Schools for the solicitation for _____ project, PSC# _____, I affirm the following:

1. Bidder/Offeror identified opportunities to subcontract in these specific work categories (extend list as needed):

a. _____	d. _____
b. _____	e. _____
c. _____	f. _____
2. Attached to this form are copies of written solicitations (with bidding instructions) used to solicit certified MBEs for these subcontract opportunities.
3. Bidder/Offeror made the following attempts to contact personally the solicited certified MBEs (extend list as needed):

a. _____
b. _____
c. _____
4. _____
Select ONE of the following:
 - a. ☐ This contract does not involve bonding requirements.**OR**
 - b. ☐ Bidder/Offeror assisted certified MBEs to fulfill or seek waiver of bonding requirements (*describe efforts*).
5. _____
Select ONE of the following:
 - a. ☐ Bidder/Offeror did/did not attend the pre-bid/proposal conference.**OR**
 - b. ☐ No pre-bid/proposal conference was held.

_____ Bidder/Offeror Printed Name	By: _____ Signature: _____ Title: _____ Date: _____ Address: _____ _____ _____
--------------------------------------	--

October 2017

MINORITY BUSINESS ENTERPRISES SUBCONTRACTOR PROJECT PARTICIPATION STATEMENT

PROJECT/ SCHOOL NAME: _____

PROJECT/ SCHOOL LOCATION: _____

LEA: _____

NAME OF PRIME CONTRACTOR: _____

NAME OF MBE SUBCONTRACTOR: _____

MDOT Certification Number

NAICS Code

1. Work/Services to be performed by MBE Subcontractor: _____

2. Subcontract Amount: \$ _____ Participation Amount \$ _____

3. Bonds - Amount and type required of Subcontractor if any: _____

4. MBE Anticipated or Actual Commencement Date: _____ Completion Date: _____

5. This MBE subcontract represents the following percentage of the total contract cost: _____

6. This is an African American Firm: Yes _____ No _____

7. This is an Asian American Firm: Yes _____ No _____

8. This is a Native American, Hispanic or Disabled Firm: Yes _____ No _____

(Circle One)

The undersigned subcontractor and prime contractor will enter into a contract for the work/service indicated above upon the prime contractor's execution of a contract for the above referenced project with the Board of Education. The undersigned subcontractor is a MDOT certified Minority Business Enterprise. The terms and conditions stated above are consistent with our agreements.

Signature of Subcontractor: _____

Date: _____

The term and conditions stated above are consistent with our agreements.

Signature of Prime Contractor: _____

Date: _____

MINORITY SUBCONTRACTOR UNAVAILABILITY CERTIFICATE

1. It is hereby certified that the firm of _____
(Name of Minority firm)
located at _____
(Number) (Street)

(City) (State) (Zip)
was offered an opportunity to bid on the _____ school project
in _____ County by _____
(Name of Prime Contractor's Firm)

2. _____ (Minority Firm), is either unavailable for the
work/service or unable to prepare a bid for this project for the following reason(s):

Signature of Minority Firm's MBE Representative

Title

Date

MDOT Certification #

Telephone #

3. To be completed by the prime contractor if Section 2 of this form is not completed by the minority firm.

To the best of my knowledge and belief, said Certified Minority Business Enterprise is either unavailable for the work/service for this project, is unable to prepare a bid, or did not respond to a request for a price proposal and has not completed the above portion of this submittal.

Signature of Prime Contractor

Title

Date

October 2017

Attachment F

MBE WAIVER DOCUMENTATION

Project Name: _____ **PSC No.** _____

Base Contract Amount \$ _____

Plus Accepted Alternates \$ _____

Equals Total Contract Amount \$ _____

I have previously requested that a waiver be granted to the overall MBE goal for this project of _____ percent, with a minimum of _____ percent from certified African American-owned businesses, a minimum of _____ percent from certified Asian American-owned businesses, and the balance from all certified minority business enterprises, if applicable. This would include the total dollar value of all materials, supplies, equipment, and services, including construction services directly or indirectly, from Minority Business Enterprises (MBE) which are currently certified by the Maryland Department of Transportation (MDOT).

I _____, hereby certify that my position is
(Name of Company Representative)

_____, and I am the duly authorized representative of
(Position Title)

_____.
(Company Name)

I further certify that I have submitted a *Schedule for Participation of Certified Minority Business Enterprises* which reflects the percentage and dollar value of certified Minority Business Enterprise participation which my company expects to achieve for this contract. Therefore, the request for the waiver is as follows:

Summary MBE Participation Schedule from Attachment B

Minority Group	MBE GOAL		Actual MBE Participation		Request For Waiver	
	Dollar Value of Total Contract*	Percent of Total Contract	Dollar Value	Percent of Total Contract	Dollar Value	Percent of Total Contract
a. Sub Goal African American						
b. Sub Goal Asian American						
c. Other * in Sub Goal group a/b above						
TOTALS						

* with accepted/rejected alternates

To support this request for a waiver, I include the following information as attachments which I certify to be true to the best of my knowledge.

1. A detailed statement of the efforts made by the contractor to identify and select portions of the work proposed to be performed by subcontractors in order to increase the likelihood of achieving the stated goal;
2. A detailed statement of the efforts made by the contractor prior to and up to 10 days before the bid opening to solicit minority business enterprises through written notices that describe the categories of work for which subcontracting is being solicited, the type of work to be performed, and specific instructions on how to submit a bid;
3. A detailed statement of the contractor's efforts to make personal contact with MBE firms identified for Item 2. above;
4. A record of the name, address, telephone number, and dates contacted for each MBE identified under items 2. and 3. above;
5. A description of the information provided to MBE's regarding the plans, specifications and the anticipated time schedule for portions of the work to be performed;
6. Information on activities to assist minority business enterprises to fulfill bonding requirements, or to obtain a waiver of these requirements;
7. Information on activities to publicize contracting opportunities to minority business enterprises, attendance at pre-bid meetings, or other meetings scheduled by the MBE Liaison or designated representative;
8. As to each MBE that placed a subcontract quotation or offer which the apparent low bidder or successful offeror considers not to be acceptable, a detailed statement of reasons for this conclusion; and
9. A list of minority subcontractors found to be unavailable. This shall be accompanied by a Minority Subcontractor Unavailability Certificate signed by the minority business enterprise or from the apparent low bidder or successful offeror indicating that the minority business did not provide the written certification.

Signature _____ Date _____
(Company Representative Name)

Sworn and subscribed before me this _____ day.

of _____ in the year _____ Notary Public _____

Reviewed and accepted by the _____ County Board of Education MBE
Liaison. (County Name)

Signature _____ Date _____
(County Representative Name)

LEA:

DATE: _____

FACILITY NAME:

PSC NO:

SCOPE OF WORK: _____

REQ NO: _____

MDOT Certification Number and Classification can be located at <http://mbe.state.md.us/directory/>

African American = AA
Hispanic American = H
Native American = N
Asian American = A
Women = W

African American/Women = AA
Hispanic American/Women = HW
Native American/Women = NW
Asian American/Women = AW

I certify that the figures and information presented above represent accurate and true statements that timely payments have been and will be, made to suppliers and subcontractors on the project, as requisitioned payments are received, and in accordance with our contracts.

Name of Contractor Firm

Authorized Contractor Signature/Date

Contractor Federal Tax ID#

Contractor MBE Classification # (if applicable)

Name of LEA MBE Liaison (Printed)

Signature of LEA MBE Liaison/Date

Attachment H

IAC/PSCP FORM 306.6

CLOSE-OUT COST SUMMARY

LEA: _____

DATE: _____

SCHOOL NAME: _____

PSC # : _____

	<u>Public School Construction</u>	<u>Local and Other</u>								
Allocation:	_____	_____								
Cash Disbursements:	_____	_____								
	Approved Contracts	Expenditures	Balance	Approved Contracts	Expenditures	Total Expenditures				
Construction			\$0			.				
A/E			\$0			\$0				
Related Costs			\$0			\$0				
Total	\$0	\$0	\$0	\$0	\$0	\$0				
<p>I hereby certify that the data shown hereon is correct and request this project be closed.</p> <p style="text-align: right; margin-top: 20px;">_____ Signature of LEA Representative</p>										
FOR STATE USE ONLY										
ADJUSTMENTS:										
Allocation:	_____	<table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">Initials</td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="padding: 5px;">Date</td> <td style="width: 50px; height: 30px;"></td> </tr> </table>				Initials		Date		
Initials										
Date										
Cash:	_____									
AUDIT COMMENTS:										
				<table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">Initials</td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="padding: 5px;">Date</td> <td style="width: 50px; height: 30px;"></td> </tr> </table>			Initials		Date	
Initials										
Date										
Revised 7/1/00										

MBE PROGRAM SUBGOAL WORKSHEET – Appendix I

This Worksheet must be completed for all procurements that have an overall goal. It requires the approval of the Procurement Officer and the MBE Liaison, who also must sign the Worksheet. Each unit must maintain a copy of the Worksheet as a part of the Procurement Review Group (PRG) documentation for the procurement.

Agency/Unit:	
Project Description:	Solicitation No.
<p>Approvals:</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 60%; text-align: center;"> <p>_____</p> <p>Signature of Procurement Officer</p> </div> <div style="width: 35%; text-align: center;"> <p>_____</p> <p>Date</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 60%; text-align: center;"> <p>_____</p> <p>Signature of MBE Liaison</p> </div> <div style="width: 35%; text-align: center;"> <p>_____</p> <p>Date</p> </div> </div>	
1. What is the expected value of the procurement (excluding options)?	\$ _____
2. Does the expected value of the procurement equal or exceed \$200,000?	() Yes () No
<p><input checked="" type="checkbox"/> If YES, completion of the rest of this Worksheet to determine the appropriate subgoals, if any, is mandatory.</p> <p><input checked="" type="checkbox"/> If NO, the unit may, at its discretion, determine that subgoals will not be set for the procurement. If, however, the unit determines that subgoals should be set, the rest of this Worksheet must be completed to determine the appropriate subgoals, if any.</p>	
3. Select, from Table 1 below, the Major Industry Category for the procurement based on the definitions in COMAR 21.01.02.01.	
4. What is the Combined Industry Category, from Table 1 below, based on the Major Industry Category selected for the procurement in Step 3?	
TABLE 1 – INDUSTRY CATEGORY CONVERSION CHART	
<p>Major <u>Industry Category</u></p> <p>Architectural & Engineering</p> <p>Construction</p> <p>Construction Related Services</p> <p>Human, Cultural, Social & Educational Services</p> <p>IT Services</p> <p>IT Supplies & Equipment</p> <p>Maintenance</p> <p>Services</p> <p>Supplies & Equipment</p>	<p>Combined <u>Industry Category</u></p> <p>AE-CRS</p> <p>Cons</p> <p>AE-CRS</p> <p>Serv</p> <p>IT IT</p> <p>Main</p> <p>Serv</p> <p>CSE</p>

5. Check the appropriate column for the Combined Industry Category in Table 2 below based on the answer to Step 4.								
6. What is the Subgoal Total Plus 2% Margin shown in the last line of Table 2 below for the Combined Industry Category?						%		
7. What is the overall MBE participation goal for the procurement?						%		
8. Does the overall MBE participation goal for the procurement equal or exceed the Subgoal Total Plus 2% Margin? (Compare Steps 6 and 7)						() Yes () No		
<input checked="" type="checkbox"/> If YES , proceed with the remaining steps in this Worksheet. <input checked="" type="checkbox"/> If NO , do not set any subgoals for the procurement.								
9. For Column 9 in Table 2, insert the number of certified firms available to perform the work of the procurement for each Subgroup that has a Recommended Subgoal. (NOTE: For purposes of determining the number of certified firms in a Subgroup, count dually certified firms as being owned by a member of the relevant racial or ethnic Subgroup, not as a woman-owned firm.)								
10. For column 10 in Table 2, insert a "Y" (for Yes) or "N" (for No) to indicate whether the number of certified firms in a Subgroup that has a Recommended Subgoal equals or exceeds 3 firms.								
TABLE 2 – RECOMMENDED SUBGOALS								
Combined Industry Category (Check appropriate column per Step 5.)			Cons	AE-CRS	Main	IT	Serv	CSE
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. # of Firms	10. ≥ 3 Y/N	Subgroups						
		African American	7%	6%	8%	7%	7%	6%
		Hispanic American	—	2%	3%	2%	—	—
		Asian American	4%	—	3%	—	4%	5%
		Women	—	9%	—	8%	12%	10%
Subgoal Total			11%	17%	14%	17%	23%	21%
*Subgoal Total Plus 2% Margin			13%	19%	16%	19%	25%	23%
*The Subgoal Total Plus 2% Margin is the sum of the Recommended Subgoals plus 2%.								
<input checked="" type="checkbox"/> Refer to Table 2 above. If there are 3 or more certified firms in a Subgroup for the work of the procurement (indicated by a "Y" in Column 10), the Recommended Subgoal for the Combined Industry Category in Table 2 should be set for that Subgroup unless an explanation is provided in Step 11. <input checked="" type="checkbox"/> A subgoal may not be set if the number of certified firms in that Subgroup is less than 3 (indicated by an "N" in Column 10).								
11. The following Recommended Subgoals have not been set because:								

FAÇADE REPLACEMENT PROJECT

FOR

THURMONT PRIMARY SCHOOL

Thurmont, Frederick County, Maryland

ARCHITECTURAL SPECIFICATIONS

CONSTRUCTION DOCUMENT - 100% SUBMISSION

ARCHITECT / STRUCTURAL ENGINEERS

SHELADIA Associates Inc.

15825 Shady Grove Road, Suite 100

Rockville, MD 20850 U.S.A.

Phone: +1 301 590 3939 FAX: +1 301 948 7174



SHELADIA Project No. 5530

JUNE 2019

DIVISION 02 - EXISTING CONDITIONS

FCPS PROJECT WORK SUMMARY NARRATIVE

02 4119 SELECTIVE DEMOLITION

DIVISION 03 - CONCRETE

03 3053 MISCELLANEOUS CAST-IN-PLACE CONCRETE

DIVISION 04 - MASONRY

04 2000 UNIT MASONRY

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 1416 COLD FLUID-APPLIED WATERPROOFING

07 2100 THERMAL INSULATION

07 2130 BATT INSULATION

07 2726 FLUID APPLIED WEATHER BARRIERS

07 6200 SHEET METAL FLASHING AND TRIM

07 9200 JOINT SEALANTS

07 9500 EXPANSION CONTROL

DIVISION 08 – OPENINGS

08 1213 HOLLOW METAL FRAMES

08 4113 ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

08 5113 ALUMINUM WINDOWS

08 8000 GLAZING

DIVISION 09 – FINISHES

09 2116 GYPSUM BOARD SYSTEMS

09 2900 GYPSUM BOARD

09 5113 ACOUSTICAL PANEL CEILINGS

09 6519 RESILIENT TILE FLOORING

09 9113 EXTERIOR PAINTING

09 9123 INTERIOR PAINTING

THURMONT PRIMARY SCHOOL

VENEER REPAIR PROJECT

SUMMARY NARRATIVE

This project will address past water infiltration thru the failing masonry assemblies adjacent to classrooms 501, 503, 505 & 507. Included in the work is demolition of the remaining exterior skin and cavity interstitial materials and replacement with new materials. There are 16 windows that will be demolished, and 15 openings that will receive new window treatments. Interior work will include restoration of the original classroom finishes above and below the ACT grid to the areas impacted by the envelope repairs. And repairs to adjoining classroom walls, ceiling assemblies, and some flooring work.

EXISTING CONDITIONS

Partial demo of the exterior wall has been previously performed. In classrooms 501 – 507, most of the interior wall materials have been removed and disposed of, leaving the rear cavity side of the original brick exposed. The ACT grid system has been selectively removed to facilitate above ceiling material removal. The case work has been removed and is being stored in the empty classrooms. The 16 classroom windows have been boarded up with ½ inch plywood.

An 80-mil sheet product (glued to veneer) has been installed on the exterior side of the veneer to temporarily stop water infiltration into the building. The original veneer, anchors, lintels and other masonry items remain in place.

The campus will remain occupied for the construction duration. The adjacent drive aisle is heavily used for parent drop off as is the neighboring canopy entrance. Occupant and driver safe access is an operational priority for the Contractor. The LOD cannot extend beyond the turf area adjacent to the exterior wall being removed without discussion with the owner.

ALTERNATE WORK SCOPES

1: Alternate 1 will be required for projects exceeding \$100K in value. A project State sign shall also be provided with this alternate meeting funding authority requirements.

PARTIAL DESCRIPTION OF PROJECT WORKSCOPES

2: The contractor shall complete the wall demo, interior and exterior faces, from foundation area to top of wall termination. Some unshown partial demo of neighboring construction may be necessary. Some demo components may have salvage value and could be reused for the repair effort. These should be set aside for further discussion as identified. Control Joints or

cover strips may be used to transition new repair to remaining construction transitions. All the interior window openings & ACT wall angle areas have drywall to be removed. The intent is for the contractor to repair, replace or otherwise return all damaged construction materials from infiltration events to their original contract condition.

3: The existing metal studs are to remain in place and be reused for the new repair wall. Any repairs to existing framing system are to be included with the project.

4: Temporary protection of the interior contents is to be provided by the contractor until permanent materials are in place. The project will require a 6-foot-tall construction fence fully enclosing the work area. The contractor may need to provide barriers for safe occupant usage.

5: The contractor shall begin new veneer installations to extend from the existing brick shelf to the current top of wall condition as defined by the existing metal parapet.

6: Contractor to install the exterior wall section as depicted on the attached details. Thru wall flashing and accessories to be per BIA and the manufacturers recommendations. Contractor to modify as necessary the existing top of wall construction details for a waterproof assembly. Contractor will provide 15 openings in the wall for the campus windows. All construction to meet BIA, ACI and manufacturers minimum assembly installations. The envelope & all assemblies must be constructed weathertight & installed per the manufacturer's recommendations.

7: Contractor to install control joints, backer rod & infill materials as originally scheduled and as needed to terminate new wall sections. Contractor will clean new masonry when complete. Contractor will install backfill to achieve flat finish grade/seed and straw included.

8: It is the project intent to reuse the existing casework, countertops, ACT grid items, & possibly other items. The contractor is to examine each item and advise if they are comfortable reusing it or if it appears unsuitable.

A Partial Listing of New interior work to include:

Complete demo of remaining wall/ceiling materials,

Provision of scheduled insulation material

Installation of 5/8 gyp board, a level 3 drywall finish, followed by a prime coat, and 2 finish coats of paint. Both above and below ceiling grid have work areas.

Misc. patching/replacement of ACT grid, tile and tees for a finished clean look.

Misc. patching – (or provision of new) of any carpet or vct to achieve a finished clean look

Installation of new cove base-quantity varies by room & re-installation of salvaged base

Reinstallation of device cover plates

Cleaning & reinstallation of original casework at former locations

Provision of new backsplashes & cover strips for the re-installed original countertops

Caulking/termination strip installations at intersections of dissimilar materials-

Preparation & Reinstallation of visual display boards-other furnishings that have been salvaged from the rooms

Project trim out

Installation of new window blinds

Room clean up

SPECIAL NOTES:

1: A new control/expansion joint will need to be established somewhere in the area of the entrance canopy for the new repair section to terminate into. The downspout, step flashings and adjacent canopy veneer may need modifications, depending on the proposed solution. There is a small amount of cavity and interstitial wall space behind the remaining veneer that will require work behind this area. Means and methods of resolution to be determined in the field once the area is available to be examined. This is a potentially challenging area to effectively make weather tight that the contractor shall be required to provide an adequate watertight solution after field examination, approx. 40 square foot in area.

4: The owner may hire the Architect to assist with administration of the contract, review submittals, and advise on construction efforts as appropriate. AIA documents shall be utilized to administer the construction contract.

5: The project start date shall be immediately upon receipt of the NTP

6: The project substantial completion date is July 24 2020

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.

- B. **Summary of Work**

- 1. **Demolish existing brick fascia wall, metal clamps, tie-back, sheathing, batt insulation, thru-wall flashings, and damaged interior gypsum board.**
 - 2. **Remove existing windows and window system including but not limited to: trims, shims, flashings, insulation, and anchors. Reuse the existing steel brick lintels if they are still serviceable.**
 - 3. **Retain parapet system and metal panels. All insulations, internal wall boards and sheathing to be removed and replaced with new.**
 - 4. **Reinstall casework & countertops in affected classrooms to their former positions. Provide new backsplashes and caulk. See drawings for detailed directions.**
 - 5. **Provide new vinyl base.**
 - 6. **Remove damaged ceiling tiles and replace to match existing. Replace affected ceiling system including ties, wall angles, and hangers.**
 - 7. **Remove and replace all damaged interior drywall partitions between the classrooms to the closest studs. Replacement drywall to be finished and painted to match existing classroom color.**
 - 8. **Replace 180 SF of carpet with vinyl tile in Classroom 501.**

1.3 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: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's, Building Manager's, and other tenants' on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- B. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
- C. Predemolition Photographs or Video: Submit before Work begins.
- D. Warranties: Documentation indicated that existing warranties are still in effect after completion of selective demolition.

1.7 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.
- B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.8 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
 - 1. Before selective demolition, Owner will remove the following items:
 - a. All items shown in drawings and as directed by Owner or Building Manager.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- 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.

1.9 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. Notify warrantor before proceeding.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. 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.
- E. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
 - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- F. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
 - 1. Comply with requirements specified in Section 013233 "Photographic Documentation."
 - 2. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
 - 3. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner or Building manager will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain adequate ventilation when using cutting torches.
 - 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 9. Dispose of demolished items and materials promptly.
- B. Reuse of Building Elements: Project has been designed to reuse selected building elements. Do not demolish building elements beyond what is indicated on Drawings without Architect's approval.
- C. Removed and Salvaged Items:
1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure, climate controlled area until delivery to Owner.
 4. Transport items to Owner's storage area as designated by Owner.
 5. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
 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.
- E. 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 cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least **3/4 inch (19 mm)** at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.
- B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, then remove concrete between saw cuts.
- C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and remove masonry between saw cuts.
- D. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings." Do not use methods requiring solvent-based adhesive strippers.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, 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.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 - 4.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 033053 - MISCELLANEOUS CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Summary of Work: New concrete knee wall with #5 vertical rebar anchored every 4 feet to existing brick shelf with chemical anchor.**
- B. Section includes cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes.
- C. Related Sections:
 - 1. Section 312000 "Earth Moving" for regarding along foundation.
 - 2. Section 334600 "Subdrainage" for drainage along foundation.

1.3 QUALITY ASSURANCE

- A. Comply with the following sections of **ACI 301 (ACI 301M)**, unless modified by requirements in the Contract Documents:
 - 1. "General Requirements."
 - 2. "Formwork and Formwork Accessories."
 - 3. "Reinforcement and Reinforcement Supports."
 - 4. "Concrete Mixtures."
 - 5. "Handling, Placing, and Constructing."
- B. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

PART 2 - PRODUCTS

2.1 FORMWORK

- A. Furnish formwork and formwork accessories according to **ACI 301 (ACI 301M)**.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Plain-Steel Wire: ASTM A 82/A 82M, as drawn.
- C. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.
- D. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:

2.4 RELATED MATERIALS

- A. Vapor Retarder: Plastic sheet, ASTM E 1745, Class A or B.
- B. Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 10 mils (0.25 mm) thick; or plastic sheet, ASTM E 1745, Class C.
- C. Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber, or ASTM D 1752, cork or self-expanding cork.

2.5 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.

2.6 CONCRETE MIXTURES

- A. Comply with ACI 301 (ACI 301M) requirements for concrete mixtures.
- B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301 (ACI 301M).

2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For mixer capacity of 1 cu. yd. (0.76 cu. m) or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
 - 2. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301 (ACI 301M).

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 VAPOR RETARDERS

- A. Install, protect, and repair vapor retarders according to ASTM E 1643; place sheets in position with longest dimension parallel with direction of pour.
 - 1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended adhesive or joint tape.

3.4 STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Locate and install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
- C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 - 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

3.6 CONCRETE PLACEMENT

- A. Comply with **ACI 301 (ACI 301M)** for placing concrete.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of **ACI 301 (ACI 301M)**.
- C. Consolidate concrete with mechanical vibrating equipment.
- D. Equipment Bases, Kneewalls, and Foundations:
 - 1. Coordinate sizes and locations of concrete kneewalls with actual equipment provided.
 - 2. Construct concrete kneewall 12 inches high unless otherwise indicated; and extend base not less than **6 inches (150 mm)** in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated or unless required for seismic anchor support.
 - 3. Minimum Compressive Strength: as required for project.
 - 4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on **18-inch (450-mm)** centers around the full perimeter of concrete base.
 - 5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base, and anchor into structural concrete substrate.
 - 6. Prior to pouring concrete, place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 7. Cast anchor-bolt insert into bases. Install anchor bolts to elevations required for proper attachment to supported equipment.

3.7 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched. Remove fins and other projections exceeding **1/2 inch (13 mm)**.

3.8 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with **ACI 301 (ACI 301M)** for hot-weather protection during curing.
- B. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- C. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with **12-inch (300-mm)** lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least **12 inches (300 mm)**, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - 4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Tests: Perform according to **ACI 301 (ACI 301M)**.

3.11 REPAIRS

- A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 033053

SECTION 042000 - UNIT MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Summary of Work: Provide new brick fascia that matches the size, color, and brick course of existing adjacent brick walls. Use galvanized masonry anchors at 16 inches on center horizontally and vertically.**
- B. Section Includes:
 - 1. Face brick.
 - 2. Mortar and grout.
 - 3. Steel reinforcing bars.
 - 4. Masonry joint reinforcement.
 - 5. Ties and anchors.
 - 6. Embedded flashing.
 - 7. Miscellaneous masonry accessories.
- C. Related Sections:
 - 1. Section 076200 "Sheet Metal Flashing and Trim" for exposed sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.
 - 2. Section 072726 "Factory Fluid Applied Membrane Air Barrier" for Tremco Securock Exoair 430, or equivalent.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For the following:
 - 1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
 - 2. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement."
 - 3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
- C. Samples for Initial Selection:
 - 1. Face brick.
 - 2. Colored mortar.
- D. Samples for Verification: For each type and color of the following:

1. Face brick.
2. Pigmented and colored-aggregate mortar. Make Samples using same sand and mortar ingredients to be used on Project.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of the following:

1. Masonry units.
 - a. Include data on material properties.
 - b. For brick, include size-variation data verifying that actual range of sizes falls within specified tolerances.
 - c. For exposed brick, include test report for efflorescence according to ASTM C 67.
2. Cementitious materials. Include brand, type, and name of manufacturer.
3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
4. Reinforcing bars.
5. Joint reinforcement.
6. Anchors, ties, and metal accessories.

B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

C. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1093 for testing indicated.

B. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

- D. If using preblended, dry mortar mix, deliver in moisture-resistant containers designed for use with dispensing silos. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.7 PROJECT CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
 - 1. Extend cover a minimum of **24 inches (600 mm)** down both sides of walls and hold cover securely in place.
 - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of **24 inches (600 mm)** down face next to unconstructed wythe and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
 - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
 - 2. Protect sills, ledges, and projections from mortar droppings.
 - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 - 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
 - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is **40 deg F (4 deg C)** and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.
- B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

2.2 BRICK

- A. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:
 - 1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
 - 2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.
 - 3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
 - 4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
- B. Face Brick: Facing brick complying with ASTM C 216 or hollow brick complying with ASTM C 652, Class H40V (void areas between 25 and 40 percent of gross cross-sectional area).
 - 1. Grade: MW or SW.
 - 2. Type: FBS or FBA.
 - 3. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
 - 4. Color and Texture: **Match Architect's samples of existing brick from other exterior walls.**

2.3 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

- D. Masonry Cement: ASTM C 91.
- E. Mortar Cement: ASTM C 1329.
- F. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979. Use only pigments with a record of satisfactory performance in masonry mortar.

2.4 REINFORCEMENT

- A. Masonry Joint Reinforcement, General: ASTM A 951/A 951M.
 - 1. Exterior Walls: Hot-dip galvanized, carbon steel.
 - 2. Wire Size for Side Rods: **[0.148-inch (3.77-mm)] [0.187-inch (4.76-mm)]** diameter.
 - 3. Wire Size for Cross Rods: **[0.148-inch (3.77-mm)] [0.187-inch (4.76-mm)]** diameter.
 - 4. Wire Size for Veneer Ties: **[0.148-inch (3.77-mm)] [0.187-inch (4.76-mm)]** diameter.
 - 5. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than **16 inches (407 mm)** o.c.
 - 6. Provide in lengths of not less than **10 feet (3 m)**, with prefabricated corner and tee units.
- B. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.

2.5 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.
 - 1. Mill-Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 641/A 641M, Class 1 coating.
 - 2. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 153/A 153M, Class B-2 coating.
- B. Wire Ties, General: Unless otherwise indicated, size wire ties to extend at least halfway through veneer but with at least **5/8-inch (16-mm)** cover on outside face. Outer ends of wires are bent 90 degrees and extend **2 inches (50 mm)** parallel to face of veneer.
- C. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
 - 1. Anchor Section for Welding to Steel Frame: Crimped **1/4-inch- (6.35-mm-)** diameter, hot-dip galvanized steel wire.
 - 2. Tie Section: Triangular-shaped wire tie, sized to extend within **1 inch (25 mm)** of masonry face, made from **0.187-inch- (4.76-mm-)** or **0.25-inch- (6.35-mm-)** diameter, hot-dip galvanized steel wire.
 - 3. Tie Section: Triangular-shaped wire tie, sized to extend within **1 inch (25 mm)** of masonry face, made from **0.187-inch- (4.76-mm-)** or **0.25-inch- (6.35-mm-)** diameter, hot-dip galvanized steel wire.

- D. Partition Top anchors: 0.105-inch- (2.66-mm-) thick metal plate with 3/8-inch- (9.5-mm-) diameter metal rod 6 inches (152 mm) long welded to plate and with closed-end plastic tube fitted over rod that allows rod to move in and out of tube. Fabricate from steel, hot-dip galvanized after fabrication.
- E. Rigid Anchors: Fabricate from steel bars [1-1/2 inches (38 mm) wide by 1/4 inch (6.35 mm) thick by 24 inches (610 mm) long, with ends turned up 2 inches (51 mm) or with cross pins unless otherwise indicated.
 - 1. Corrosion Protection: Hot-dip galvanized to comply with ASTM A 153/A 153M.

2.6 MISCELLANEOUS ANCHORS

- A. Unit Type Inserts in Concrete: Cast-iron or malleable-iron wedge-type inserts.
- B. Dovetail Slots in Concrete: Furnish dovetail slots with filler strips, of slot size indicated, fabricated from 0.034-inch (0.86-mm), galvanized steel sheet.
- C. Anchor Bolts: Headed or L-shaped steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153/A 153M, Class C; of dimensions indicated.
- D. Postinstalled Anchors: Chemical anchors.
 - 1. Load Capacity: Capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

2.7 EMBEDDED FLASHING MATERIALS

- A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and Section 076200 "Sheet Metal Flashing and Trim".
- B. Application: Unless otherwise indicated, use the following:
 - 1. Where flashing is indicated to receive counterflashing, use metal flashing.
 - 2. Where flashing is indicated to be turned down at or beyond the wall face, use metal flashing.
 - 3. Where flashing is partly exposed and is indicated to terminate at the wall face, use metal flashing with a drip edge, with a sealant stop, or flexible flashing with a metal drip edge or elastomeric thermoplastic flashing with drip edge or flexible flashing with a metal sealant stop.
 - 4. Where flashing is fully concealed, use metal flashing or flexible flashing.
- C. Solder and Sealants for Sheet Metal Flashings: As specified in Section 076200 "Sheet Metal Flashing and Trim."

- D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

2.8 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene, urethane or PVC.
- B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D 2000, Designation M2AA-805 or PVC, complying with ASTM D 2287, Type PVC-65406 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).
- D. Weep/Vent Products: Use one of the following unless otherwise indicated:
 - 1. Wicking Material: Absorbent rope, made from UV-resistant synthetic fiber, 1/4 to 3/8 inch (6 to 10 mm) in diameter, in length required to produce 2-inch (50-mm) exposure on exterior and 18 inches (450 mm) in cavity. Use only for weeps.
 - 2. Round Plastic Weep/Vent Tubing: Medium-density polyethylene, 3/8-inch (9-mm) OD by 4 inches (100 mm) long.
 - 3. Rectangular Plastic Weep/Vent Tubing: Clear butyrate, 3/8 by 1-1/2 by 3-1/2 inches (9 by 38 by 89 mm) long.
 - 4. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch (3 mm) less than depth of outer wythe, in color selected from manufacturer's standard.
 - 5. Mesh Weep/Vent: Free-draining mesh; made from polyethylene strands, full height and width of head joint and depth 1/8 inch (3 mm) less than depth of outer wythe; in color selected from manufacturer's standard.
 - 6. Aluminum Weep Hole/Vent: One-piece, L-shaped units made from sheet aluminum, designed to fit into a head joint and consisting of a vertical channel with louvers stamped in web and with a top flap to keep mortar out of the head joint; painted before installation to comply with Section 099113 "Exterior Painting" and Section 099123 "Interior Painting" in color selected by Architect.
 - 7. Vinyl Weep Hole/Vent: One-piece, offset, T-shaped units made from flexible PVC, designed to fit into a head joint and consisting of a louvered vertical leg, flexible wings to seal against ends of masonry units, and a top flap to keep mortar out of the head joint; in color selected by Architect.
- E. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and hold reinforcing bars in center of cells. Units are formed from 0.148-inch (3.77-mm) steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

2.9 CAVITY-WALL INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, closed-cell product extruded with an integral skin.
- B. Extruded-Polystyrene Board Insulation with Increased R-Value: ASTM C 578, Type IV, but with an aged thermal resistance (R-value) for 1-inch (25-mm) thickness of 5.6 deg F x h x sq. ft./Btu at 75 deg F (1.0 K x sq. m/W at 24 deg C) at 5 years; closed-cell product with a carbon-black filler and extruded with an integral skin.
- C. Molded-Polystyrene Board Insulation: ASTM C 578, Type I.
- D. Polyisocyanurate Board Insulation: ASTM C 1289, Type I (aluminum-foil-faced), Class 2 (glass-fiber-reinforced).
- E. Adhesive: Type recommended by insulation board manufacturer for application indicated.

2.10 MASONRY CLEANERS

- A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

2.11 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
 - 1. Do not use calcium chloride in mortar or grout.
 - 2. Use portland cement-lime, masonry cement or mortar cement mortar unless otherwise indicated.
 - 3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C 270.
- D. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.
- E. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
 - 2. Verify that foundations are within tolerances specified.
 - 3. Verify that reinforcing dowels are properly placed.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this and other Sections.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match the construction immediately adjacent to opening.
- D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.
 - 1. Mix units from several pallets or cubes as they are placed.
- F. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.
- G. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

3.3 TOLERANCES

- A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation do not vary by more than plus **1/2 inch (12 mm)** or minus **1/4 inch (6 mm)**.
2. For location of elements in plan do not vary from that indicated by more than plus or minus **1/2 inch (12 mm)**.
3. For location of elements in elevation do not vary from that indicated by more than plus or minus **1/4 inch (6 mm)** in a story height or **1/2 inch (12 mm)** total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than **1/4 inch in 10 feet (6 mm in 3 m)**, or **1/2 inch (12 mm)** maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
3. For vertical lines and surfaces do not vary from plumb by more than **1/4 inch in 10 feet (6 mm in 3 m)**, **3/8 inch in 20 feet (9 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
5. For lines and surfaces do not vary from straight by more than **1/4 inch in 10 feet (6 mm in 3 m)**, **3/8 inch in 20 feet (9 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than **1/4 inch in 10 feet (6 mm in 3 m)**, or **1/2 inch (12 mm)** maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than **1/16 inch (1.5 mm)** except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus **1/8 inch (3 mm)**, with a maximum thickness limited to **1/2 inch (12 mm)**.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than **1/8 inch (3 mm)**.
3. For head and collar joints, do not vary from thickness indicated by more than plus **3/8 inch (9 mm)** or minus **1/4 inch (6 mm)**.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus **1/8 inch (3 mm)**.
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than **1/16 inch (1.5 mm)** from one masonry unit to the next.

3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: **Unless otherwise indicated, lay exposed masonry to match bond pattern in adjacent brick work;** do not use units with less than nominal **4-inch (100-mm)** horizontal face dimensions at corners or jambs.

- C. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- D. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- E. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- F. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below and rod mortar or grout into core.

3.5 MORTAR BEDDING AND JOINTING

- A. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

3.6 CAVITY WALLS

- A. Bond wythes of cavity walls together using one of the following methods:
 - 1. Individual Metal Ties: Provide ties as shown installed in horizontal joints, but not less than one metal tie for [4.5 sq. ft. (0.42 sq. m)] [2.67 sq. ft. (0.25 sq. m)] [1.77 sq. ft. (0.16 sq. m)] of wall area spaced not to exceed [36 inches (914 mm)] [24 inches (610 mm)] [16 inches (406 mm)] o.c. horizontally and 16 inches (406 mm) o.c. vertically. Stagger ties in alternate courses. Provide additional ties within 12 inches (305 mm) of openings and space not more than 36 inches (915 mm) apart around perimeter of openings. At intersecting and abutting walls, provide ties at no more than 24 inches (610 mm) o.c. vertically.
 - a. Where bed joints of wythes do not align, use adjustable (two-piece) type ties.
 - b. Where one wythe is of clay masonry and the other of concrete masonry, use adjustable (two-piece) type ties to allow for differential movement regardless of whether bed joints align.
 - 2. Masonry Joint Reinforcement: Installed in horizontal mortar joints.
 - a. Where bed joints of both wythes align, use [ladder-type reinforcement extending across both wythes] [tab-type reinforcement].
 - b. Where bed joints of wythes do not align, use adjustable (two-piece) type reinforcement[with continuous horizontal wire in facing wythe attached to ties].
 - c. Where one wythe is of clay masonry and the other of concrete masonry, use adjustable (two-piece) type reinforcement[with continuous horizontal wire in

facing wythe attached to ties] to allow for differential movement regardless of whether bed joints align.

3. Header Bonding: Provide masonry unit headers extending not less than **3 inches (76 mm)** into each wythe. Space headers not over [**8 inches (203 mm)**] [**12 inches (305 mm)**] clear horizontally and **16 inches (406 mm)** clear vertically.
 4. Masonry Veneer Anchors: Comply with requirements for anchoring masonry veneers.
- B. Bond wythes of cavity walls together using bonding system indicated on Drawings.
- C. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.
- D. Parge cavity face of backup wythe in a single coat approximately **3/8 inch (10 mm)** thick. Trowel face of parge coat smooth.
- E. Coat cavity face of backup wythe to comply with Section 071113 "Bituminous Dampproofing."
- F. Apply air barrier to face of backup wythe to comply with Section 072726 "Fluid-Applied Membrane Air Barriers."
- G. Installing Cavity-Wall Insulation: Place small dabs of adhesive, spaced approximately **12 inches (300 mm)** o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.
1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

3.7 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of **5/8 inch (16 mm)** on exterior side of walls, **1/2 inch (13 mm)** elsewhere. Lap reinforcement a minimum of **6 inches (150 mm)**.
1. Space reinforcement not more than **16 inches (406 mm)** o.c.
 2. Space reinforcement not more than **8 inches (203 mm)** o.c. in foundation walls and parapet walls.
 3. Provide reinforcement not more than **8 inches (203 mm)** above and below wall openings and extending **12 inches (305 mm)** beyond openings in addition to continuous reinforcement.
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.

- E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

3.8 ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

- A. Anchor masonry to structural steel and concrete where masonry abuts or faces structural steel or concrete to comply with the following:
 - 1. Provide an open space not less than [1/2 inch (13 mm)] [1 inch (25 mm)] [2 inches (50 mm)] wide between masonry and structural steel or concrete unless otherwise indicated. Keep open space free of mortar and other rigid materials.
 - 2. Anchor masonry with anchors embedded in masonry joints and attached to structure.
 - 3. Space anchors as indicated, but not more than 24 inches (610 mm) o.c. vertically and 36 inches (915 mm) o.c. horizontally.

3.9 CONTROL AND EXPANSION JOINTS

- A. General: Install control and expansion joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement.
- B. Form control joints in concrete masonry using one of the following methods:
 - 1. Fit bond-breaker strips into hollow contour in ends of CMUs on one side of control joint. Fill resultant core with grout and rake out joints in exposed faces for application of sealant.
 - 2. Install preformed control-joint gaskets designed to fit standard sash block.
 - 3. Install interlocking units designed for control joints. Install bond-breaker strips at joint. Keep head joints free and clear of mortar or rake out joint for application of sealant.
 - 4. Install temporary foam-plastic filler in head joints and remove filler when unit masonry is complete for application of sealant.
- C. Form expansion joints in brick as follows:
 - 1. Build flanges of metal expansion strips into masonry. Lap each joint 4 inches (100 mm) in direction of water flow. Seal joints below grade and at junctures with horizontal expansion joints if any.
 - 2. Build flanges of factory-fabricated, expansion-joint units into masonry.
 - 3. Build in compressible joint fillers where indicated.
 - 4. Form open joint full depth of brick wythe and of width indicated, but not less than [3/8 inch (10 mm)] [1/2 inch (13 mm)] for installation of sealant and backer rod specified in Section 079200 "Joint Sealants."
- D. Provide horizontal, pressure-relieving joints by either leaving an air space or inserting a compressible filler of width required for installing sealant and backer rod specified in Section 079200 "Joint Sealants," but not less than 3/8 inch (10 mm).
 - 1. Locate horizontal, pressure-relieving joints beneath shelf angles supporting masonry.

3.10 LINTELS

- A. Install steel lintels where indicated.
- B. Provide minimum bearing of 8 inches (200 mm) at each jamb unless otherwise indicated.

3.11 FLASHING, WEEP HOLES, CAVITY DRAINAGE, AND VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
 - 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
 - 2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of [4 inches (100 mm)] [8 inches (200 mm)], and through inner wythe to within 1/2 inch (13 mm) of the interior face of wall in exposed masonry. Where interior face of wall is to receive furring or framing, carry flashing completely through inner wythe and turn flashing up approximately 2 inches (50 mm) on interior face.
 - 3. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of [4 inches (100 mm)] [8 inches (200 mm)], and 1-1/2 inches (38 mm) into the inner wythe.[Form 1/4-inch (6-mm) hook in edge of flashing embedded in inner wythe.]
 - 4. At masonry-veneer walls, extend flashing through veneer, across air space behind veneer, and up face of sheathing at least 8 inches (200 mm); with upper edge tucked under building paper or building wrap, lapping at least 4 inches (100 mm).
 - 5. At lintels and shelf angles, extend flashing a minimum of 6 inches (150 mm) into masonry at each end. At heads and sills, extend flashing 6 inches (150 mm) at ends and turn up not less than 2 inches (50 mm) to form end dams.
 - 6. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than 1-1/2 inches (38 mm) or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.
 - 7. Install metal drip edges and sealant stops with ribbed sheet metal flashing by interlocking hemmed edges to form hooked seam. Seal seam with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.
 - 8. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal drip edge.
 - 9. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal flashing termination.
 - 10. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.

- C. Install single-wythe CMU flashing system in bed joints of CMU walls where indicated to comply with manufacturer's written instructions. Install CMU cell pans with upturned edges located below face shells and webs of CMUs above and with weep spouts aligned with face of wall. Install CMU web covers so that they cover upturned edges of CMU cell pans at CMU webs and extend from face shell to face shell. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.
- D. Install weep holes in head joints in exterior wythes of first course of masonry immediately above embedded flashing and as follows:
 - 1. Use specified weep/vent products or open head joints to form weep holes.
 - 2. Use wicking material to form weep holes above flashing under brick sills. Turn wicking down at lip of sill to be as inconspicuous as possible.
 - 3. Space weep holes **24 inches (600 mm)** o.c. unless otherwise indicated.
 - 4. Space weep holes formed from plastic tubing or wicking material **16 inches (400 mm)** o.c.
 - 5. Cover cavity side of weep holes with plastic insect screening at cavities insulated with loose-fill insulation.
 - 6. Trim wicking material flush with outside face of wall after mortar has set.
- E. Place pea gravel in cavities as soon as practical to a height equal to height of first course above top of flashing, but not less than **2 inches (50 mm)**, to maintain drainage.
 - 1. Fill cavities full height by placing pea gravel in cavities as masonry is laid so that at any point masonry does not extend more than **24 inches (600 mm)** above top of pea gravel.
- F. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.
- G. Install vents in head joints in exterior wythes at spacing indicated. Use specified weep/vent products or open head joints to form vents.
 - 1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

3.12 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.
- B. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for mortar air content and compressive strength.
- C. Prism Test: For each type of construction provided, according to ASTM C 1314 at 7 days and at 28 days.

3.13 PARGING

- A. Parge exterior faces of below-grade masonry walls, where indicated, in 2 uniform coats to a total thickness of **3/4 inch (19 mm)**. Dampen wall before applying first coat and scarify first coat to ensure full bond to subsequent coat.
- B. Use a steel-trowel finish to produce a smooth, flat, dense surface with a maximum surface variation of **1/8 inch per foot (3 mm per 300 mm)**. Form a wash at top of parging and a cove at bottom.
- C. Damp-cure parging for at least 24 hours and protect parging until cured.

3.14 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.
- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
 - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
 - 5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
 - 6. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
 - 7. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.
 - 8. Clean stone trim to comply with stone supplier's written instructions.
 - 9. Clean limestone units to comply with recommendations in ILI's "Indiana Limestone Handbook."

3.15 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.
- B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
 - 1. Crush masonry waste to less than 4 inches (100 mm) in each dimension.
 - 2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Section 312000 "Earth Moving."
 - 3. Do not dispose of masonry waste as fill within 18 inches (450 mm) of finished grade.
- C. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042000

SECTION 071416 - COLD FLUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Summary of Work: Apply a spray polymer-enhanced, single component, fluid-applied, asphalt emulsion, below-grade waterproofing membrane to the new foundation kneewall.
- B. Section Includes:
 - 1. Polyurethane waterproofing.
- C. Related Requirements:
 - 1. Section 079500 "Expansion Control" for plaza or foundation-wall expansion-joint assemblies that interface with waterproofing.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review waterproofing requirements including, but not limited to, the following:
 - a. Surface preparation specified in other Sections.
 - b. Minimum curing period.
 - c. Forecasted weather conditions.
 - d. Special details and sheet flashings.
 - e. Repairs.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, and tested physical and performance properties of waterproofing.
 - 2. Include manufacturer's written instructions for evaluating, preparing, and treating substrate.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Field quality-control reports.
- C. Sample Warranties: For special warranties.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by waterproofing manufacturer.

1.7 FIELD CONDITIONS

- A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended in writing by waterproofing manufacturer.
 - 1. Do not apply waterproofing to a damp or wet substrate, when relative humidity exceeds 85 percent, or when temperatures are less than **5 deg F (3 deg C)** above dew point.
 - 2. Do not apply waterproofing in snow, rain, fog or mist, or when such weather conditions are imminent during application and curing period.
- B. Maintain adequate ventilation during application and curing of waterproofing materials.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

2.2 SINGLE-COMPONENT POLYURETHANE WATERPROOFING

- A. Single-Component, Modified Polyurethane Waterproofing: ASTM C 836.
 - 1. **Products:** Subject to compliance with requirements, **provide TREMCO TREMproof® 260 Waterproofing Membrane** or the following:
 - a. BASF Construction Chemicals, LLC, Building Systems; Sonoshield.

2.3 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials recommended in writing by waterproofing manufacturer for intended use and compatible with one another and with waterproofing.
 - 1. Furnish liquid-type auxiliary materials that comply with VOC limits of authorities having jurisdiction.

- B. Primer: Manufacturer's standard primer, sealer, or surface conditioner; factory-formulated acrylic latex, polyurethane, or epoxy.
- C. Sheet Flashing: 50-mil- (1.3-mm-) minimum, nonstaining, uncured sheet neoprene.
 - 1. Adhesive: Manufacturer's recommended contact adhesive.
- D. Membrane-Reinforcing Fabric: Manufacturer's recommended fiberglass mesh or polyester fabric, manufacturer's standard weight.
- E. Joint Reinforcing Strip: Manufacturer's recommended fiberglass mesh or polyester fabric.
- F. Joint Sealant: Multicomponent polyurethane sealant, compatible with waterproofing; ASTM C 920, Type M, Class 25 or greater; Grade NS for sloping and vertical applications and Grade P for deck applications; Use NT exposure; and as recommended by manufacturer for substrate and joint conditions.
 - 1. Backer Rod: Closed-cell polyethylene foam.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that concrete has cured and aged for minimum time period recommended in writing by waterproofing manufacturer.
 - 2. Verify that substrate is visibly dry and within the moisture limits recommended in writing by manufacturer. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for waterproofing application.
- B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.
- C. Close off deck drains and other deck penetrations to prevent spillage and migration of waterproofing fluids.
- D. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, acid residues, and other penetrating contaminants or film-forming coatings from concrete.

1. Abrasive blast clean concrete surfaces uniformly to expose top surface of fine aggregate according to ASTM D 4259 with a self-contained, recirculating, blast-cleaning apparatus. Remove material to provide a sound surface free of laitance, glaze, efflorescence, curing compounds, concrete hardeners, or form-release agents. Remove remaining loose material and clean surfaces according to ASTM D 4258.
- E. Remove fins, ridges, and other projections, and fill honeycomb, aggregate pockets, holes, and other voids.

3.3 PREPARATION AT TERMINATIONS, PENETRATIONS, AND CORNERS

- A. Prepare surfaces at terminations and penetrations through waterproofing and at expansion joints, drains, sleeves, and corners according to waterproofing manufacturer's written instructions and to recommendations in ASTM C 898/C 898M and ASTM C 1471.
- B. Apply waterproofing in two separate applications, and embed a joint reinforcing strip in the first preparation coat when recommended by waterproofing manufacturer.

3.4 JOINT AND CRACK TREATMENT

- A. Prepare, treat, rout, and fill joints and cracks in substrate according to waterproofing manufacturer's written instructions and to recommendations in ASTM C 898/C 898M and ASTM C 1471. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.
 1. Comply with ASTM C 1193 for joint-sealant installation.
 2. Apply bond breaker on sealant surface, beneath preparation strip.
 3. Prime substrate along each side of joint and apply a single thickness of preparation strip at least **6 inches (150 mm)** wide along each side of joint. Apply waterproofing in two separate applications and embed a joint reinforcing strip in the first preparation coat.
- B. Install sheet flashing and bond to deck and wall substrates where required according to waterproofing manufacturer's written instructions.
 1. Extend sheet flashings for **4 inches (100 mm)** onto perpendicular surfaces and items penetrating substrate.

3.5 WATERPROOFING APPLICATION

- A. Apply waterproofing according to manufacturer's written instructions and to recommendations in ASTM C 898/C 898M and ASTM C 1471.
- B. Start installing waterproofing in presence of manufacturer's technical representative.
- C. Apply primer over prepared substrate unless otherwise instructed in writing by waterproofing manufacturer.

- D. Unreinforced Waterproofing Applications: Mix materials and apply waterproofing by spray, roller, notched squeegee, trowel, or other application method suitable to slope of substrate.
 - 1. Apply one or more coats of waterproofing to obtain a seamless membrane free of entrapped gases and pinholes, with a dry film thickness of **90 mils (2.25 mm)**.
 - 2. Apply waterproofing to prepared wall terminations and vertical surfaces.
 - 3. Verify manufacturer's recommended wet film thickness of waterproofing every **100 sq. ft. (9.3 sq. m)**.
- E. Cure waterproofing, taking care to prevent contamination and damage during application and curing.

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections:
 - 1. Testing agency shall verify thickness of waterproofing during application for each **600 sq. ft. (56 sq. m)** of installed waterproofing or part thereof.
- B. If test results or inspections show waterproofing does not comply with requirements, remove and replace or repair the waterproofing as recommended in writing by manufacturer, and make further repairs after retesting and inspecting until waterproofing installation passes.
- C. Prepare test and inspection reports.

3.7 PROTECTION

- A. Protect waterproofing from damage and wear during remainder of construction period.
- B. Correct deficiencies in or remove waterproofing that does not comply with requirements; repair substrates, reapply waterproofing, and repair sheet flashings.
- C. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended in writing by manufacturer of affected construction.

END OF SECTION 071416

SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Spray polyurethane foam insulation.
 - 2. Radiant barriers.
 - 3. Vapor retarders.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each product.
- B. Research/Evaluation Reports: For foam-plastic insulation, from ICC-ES.

1.5 QUALITY ASSURANCE

- A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 SPRAY POLYURETHANE FOAM INSULATION

- A. Closed-Cell Polyurethane Foam Insulation: ASTM C 1029, Type II, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following or approved equal:
 - a. BASF Corporation.
 - b. Dow Chemical Company (The).
 2. Minimum density of **1.5 lb/cu. ft. (24 kg/cu. m)**, thermal resistivity of **6.2 deg F x h x sq. ft./Btu x in. at 75 deg F (43 K x m/W at 24 deg C)**.
- B. Open-Cell Polyurethane Foam Insulation: Spray-applied polyurethane foam using water as a blowing agent, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
1. Minimum density of **0.4 lb/cu. ft. (6.4 kg/cu. m)**, thermal resistivity of **3.4 deg F x h x sq. ft./Btu x in. at 75 deg F (24 K x m/W at 24 deg C)**.

2.2 RADIANT BARRIERS

- A. Sheet Radiant Barriers: ASTM C 1313 and as follows:
1. Sheet Construction: Foil on both sides of substrate.
 2. Surface-Burning Characteristics: Maximum flame-spread and smoke-developed indexes of 5 and 10, respectively.
 3. Puncture Resistance: 60 lbs/inch.
 4. Water-Vapor Transmission: 1 perm, maximum.
 5. Sheet Width: 4', 5', or 6'.
- B. Interior Radiation Control Coating System: Silver-colored, not thickness-dependent, low-emissivity, water-based coating; formulated for adherence to substrates indicated and with a surface emittance value of 0.25 or less as measured per ASTM C 1371.
1. Products: Subject to compliance with requirements, provide one of the following or approved equal:
 - a. SOLEC Corporation; LO/MIT-I.
 - b. SOLEC Corporation; LO/MIT-II.

2.3 VAPOR RETARDERS

- A. Polyethylene Vapor Retarders: ASTM D 4397, **10 mils (0.25 mm)** thick, with maximum permeance rating of **0.13 perm (7.5 ng/Pa x s x sq. m)**.

- B. Reinforced-Polyethylene Vapor Retarders: Two outer layers of polyethylene film laminated to an inner reinforcing layer consisting of either nylon cord or polyester scrim and weighing not less than 25 lb/1000 sq. ft. (12 kg/100 sq. m), with maximum permeance rating of 0.0507 perm (2.9 ng/Pa x s x sq. m).
- C. Fire-Retardant, Reinforced-Polyethylene Vapor Retarders: Two outer layers of polyethylene film laminated to an inner reinforcing layer consisting of either nonwoven grid of nylon cord or polyester scrim and weighing not less than 22 lb/1000 sq. ft. (10 kg/100 sq. m), with maximum permeance rating of 0.1317 perm (7.56 ng/Pa x s x sq. m) and with flame-spread and smoke-developed indexes of not more than 5 and 60, respectively, per ASTM E 84.
- D. Vapor-Retarder Tape: Pressure-sensitive tape of type recommended by vapor-retarder manufacturer for sealing joints and penetrations in vapor retarder.
- E. Vapor-Retarder Fasteners: Pancake-head, self-tapping steel drill screws; with fender washers.
- F. Single-Component Nonsag Urethane Sealant: ASTM C 920, Type I, Grade NS, Class 25, Use NT related to exposure, and Use O related to vapor-barrier-related substrates.
- G. Adhesive for Vapor Retarders: Product recommended by vapor-retarder manufacturer and has demonstrated capability to bond vapor retarders securely to substrates indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances that are harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and applications indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

3.3 INSTALLATION OF BELOW-GRADE INSULATION

- A. On vertical surfaces, set insulation units using manufacturer's recommended adhesive according to manufacturer's written instructions.
 - 1. If not otherwise indicated, extend insulation a minimum of **36 inches (915 mm)** below exterior grade line.
- B. On horizontal surfaces, loosely lay insulation units according to manufacturer's written instructions. Stagger end joints and tightly abut insulation units.
 - 1. If not otherwise indicated, extend insulation a minimum of **36 inches (915 mm)** in from exterior walls.

3.4 INSTALLATION OF RADIANT BARRIERS

- A. Install interior radiation control coating system according to ASTM C 1321.
- B. Install sheet radiant barriers according to ASTM C 1158.

3.5 INSTALLATION OF INSULATION FOR CONCRETE SUBSTRATES

- A. Install board insulation on concrete substrates by adhesively attached, spindle-type insulation anchors as follows:
 - 1. Fasten insulation anchors to concrete substrates with insulation anchor adhesive according to anchor manufacturer's written instructions. Space anchors according to insulation manufacturer's written instructions for insulation type, thickness, and application indicated.
 - 2. Apply insulation standoffs to each spindle to create cavity width indicated between concrete substrate and insulation.
 - 3. After adhesive has dried, install board insulation by pressing insulation into position over spindles and securing it tightly in place with insulation-retaining washers, taking care not to compress insulation below indicated thickness.
 - 4. Where insulation will not be covered by other building materials, apply capped washers to tips of spindles.

3.6 INSTALLATION OF VAPOR RETARDERS

- A. Place vapor retarders on side of construction indicated on Drawings. Extend vapor retarders to extremities of areas to protect from vapor transmission. Secure vapor retarders in place with adhesives or other anchorage system as indicated. Extend vapor retarders to cover miscellaneous voids in insulated substrates, including those filled with loose-fiber insulation.
- B. Seal vertical joints in vapor retarders over framing by lapping no fewer than two studs.
 - 1. Fasten vapor retarders to wood framing at top, end, and bottom edges; at perimeter of wall openings; and at lap joints. Space fasteners **16 inches (406 mm)** o.c.

2. Before installing vapor retarders, apply urethane sealant to flanges of metal framing including runner tracks, metal studs, and framing around door and window openings. Seal overlapping joints in vapor retarders with vapor-retarder tape according to vapor-retarder manufacturer's written instructions. Seal butt joints with vapor-retarder tape. Locate all joints over framing members or other solid substrates.
 3. Firmly attach vapor retarders to metal framing and solid substrates with vapor-retarder fasteners as recommended by vapor-retarder manufacturer.
- C. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor retarders with vapor-retarder tape to create an airtight seal between penetrating objects and vapor retarders.
- D. Repair tears or punctures in vapor retarders immediately before concealment by other work. Cover with vapor-retarder tape or another layer of vapor retarders.

3.7 PROTECTION

- A. Protect installed insulation and vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072100

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Batt insulation in exterior wall construction.
- B. Batt insulation for filling perimeter window and door shim spaces, and crevices in exterior wall and roof.
- C. Insulation support grids.

1.2 RELATED SECTIONS

- A. Section 05 40 00 - Cold Formed Metal Framing: Supporting construction.
- B. Section 07 21 20 - Board Insulation.
- C. Section 09 21 16 - Gypsum Board Systems: Interior Wall Sound Attenuation Insulation.

1.3 REFERENCES

- A. ASTM C665 - Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- B. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- C. NFPA 255 - Test of Surface Burning Characteristics of Building Materials.
- D. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.4 SYSTEM DESCRIPTION

- A. Materials of This Section: Provide continuity of thermal barrier and vapor retarder at building enclosure elements.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Provide data on product characteristics, performance criteria and limitations and thermal and vapor performance.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.6 COORDINATION

- A. Coordinate work under provisions of Section 01 31 00.

PART 2 PRODUCTS

2.1 MANUFACTURERS - INSULATION MATERIALS

- A. Owens-Corning
- B. Certain Teed
- C. Substitutions: Under provisions of Section 01 60 00.

2.2 MATERIALS

- A. Batt Insulation: ASTM C665; preformed glass fiber friction batt, friction fit, conforming to the following:
 - 1. Thermal Resistance: R of 21 at exterior walls, R-30 (U-0.37) in Roof Areas
 - 2. Roll Size: 6 x 16 x 48 inch
 - 3. Exterior Wall Facing: Faced on one side with resistant foil, mesh reinforced.
 - 4. Flame/Smoke Properties: 25 in accordance with ASTM E84.
 - 5. Exposed facing shall be equal to FSK-25.
- B. Nails or Staples: Steel wire; galvanized; type and size to suit application.
- C. Tape: Bright Aluminum self-adhering type, mesh reinforced, 2 inch wide.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01 31 00.
- B. Verify that substrate, adjacent materials, and insulation are dry and ready to receive insulation.

3.2 INSTALLATION

- A. Install insulation in accordance with insulation manufacturer's instructions.
- B. Install in exterior walls roof and ceiling spaces without gaps or voids. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tight in spaces and tight to exterior side of mechanical and electrical services within the plane of insulation.
- E. Install with factory applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane between framing members.
- F. Tape facing flanges in place at maximum.

- G. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
- H. Metal Framing: Place vapor retarder on warm side of insulation; lap and seal sheet retarder joints over member face.
- J. Extend vapor retarder tight to full perimeter of adjacent window and door frames and other items interrupting the plane of membrane. Tape seal in place.
- K. Coordinate work of this section with construction of air barrier seal specified in Section 09 26 00.

3.3 SCHEDULES

- A. Exterior Wall Insulation: R-131 roll, un-faced, FSK-25.
- B. Insulation with exposed facing: FSK-25

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Fluid-applied, vapor permeable weather barrier membrane.
- B. Joint Treatment:
 - 1. Joint Tape.
 - 2. Joint Compound.
- C. Flashing:
 - 1. Vapor Permeable Fluid-Applied Elastomeric Flashing.
 - 2. Flexible Flashing.(DuPont™ FlexWrap™NF)
 - 3. Sheet Flashing. (DuPont™ StraightFlash™)
- D. Sealant.
- E. Primers for flexible flashing and sheet flashing.

1.2 REFERENCES

- A. ASTM International
 - 1. ASTM C 1250 – Standard Test Method for Nonvolatile Content of Cold Liquid-Applied Elastomeric Waterproofing Membranes.
 - 2. ASTM D 412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension.
 - 3. ASTM D 2240 – Standard Test Method for Rubber Property – Durometer Hardness.
 - 4. ASTM D 4541 – Standard Test Method for Pull-off Strength of Coatings Using Portable Adhesion Testers.
 - 5. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 6. ASTM E 96 - Test Method for Water Vapor Transmission of Materials
 - 7. ASTM E 283 – Standard Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences Across the Specimen.
 - 8. ASTM E 331 – Standard Test Method for Water Penetration of Exterior Windows, Skylight, Doors and Curtain Walls by Uniform Static Air Pressure Differences.
 - 9. ASTM E 779 – Standard Test Method for Determining Air Leakage Rate by Fan Pressurization.
 - 10. ASTM E 783 – Standard Test Method for Field Measurement of Air Leakage through Installed Exterior Windows and Doors.
 - 11. ASTM E 1105 – Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference.
 - 12. ASTM E 1186 – Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems.
 - 13. ASTM E 1677 - Specification for Air Retarder Material or System for Framed Building Walls.

14. ASTM E 2178 – Standard Test Method for Air Permeance of Building Materials
15. ASTM E 2357 – Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.
16. ASTM G155 – Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
17. ASTM C 1305 - Standard Test Method for Crack Bridging Ability of Liquid-Applied Waterproofing Membrane.

- B. AATCC – American Association of Textile Chemists & Colorists
1. Test Method 127 Water Resistance: Hydrostatic Pressure Test.

- C. TAPPI
1. Test Method T-460; Air Resistance of Paper (Gurley Hill Method).

1.3 SUBMITTALS

- A. Refer to Section 01 33 00 - Submittal Procedures.
- B. Product Data: Submit manufacturer's current technical literature for each component.
- C. Quality Assurance Submittals:
1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with indicated requirements.
 2. Manufacturer Instructions: Provide manufacturer's written installation instructions.
- D. Closeout Submittals:
1. Refer to Section 01 73 00 – Execution Requirements.
 2. Weather Barrier Warranty: Manufacturer's executed warranty form with authorized signatures and endorsements indicating date of Substantial Completion.

1.4 QUALITY ASSURANCE

- A. Qualifications:
1. Installer shall have experience with installation of commercial fluid-applied weather barrier assemblies under similar conditions.
 2. Installer shall be trained and certified for installation by manufacturer.
- B. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.
- C. Source Limitations: Provide weather barrier and accessory materials produced by single manufacturer.
- D. Mock-up:
1. Install mock-up using approved weather barrier system including membrane, flashing, joint and detailing compound and related weather barrier accessories according to weather barrier manufacturer's current printed instructions and recommendations.
 - a. Mock-up size: 8 feet by 8 feet.
 - b. Mock-up Substrate: Match wall assembly construction, including window opening.
 - c. Mock-up may remain as part of the work.

- E. Pre-installation Meeting
 - 1. Refer to Section 01 31 19 – Administrative Requirements.
 - 2. Hold a pre-installation conference, two weeks prior to start of weather barrier installation. Attendees shall include Contractor, Architect, certified installer, Owner's Representative, and weather barrier manufacturer's designated field representative.
 - 3. Review all related project requirements and submittals, status of substrate work and preparation, areas of potential conflict and interface, availability of weather barrier system materials and components, installer's training requirements, equipment, facilities and scaffolding, and coordinate methods, procedures and sequencing requirements for full and proper installation, integration and protection.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section 01 60 00 - Product Requirements.
- B. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Store weather barrier materials as recommended by manufacturer.

1.6 SCHEDULING

- A. Review requirements for sequencing of installation of weather barrier system with installation of windows, doors, louvers and flashings to provide a weather-tight barrier system.
- B. Schedule installation of exterior cladding within nine months of weather barrier system installation.

1.7 WARRANTY

- A. Refer to Section 01 74 00 – Warranties and Bonds.
- B. Limited Warranty
 - 1. Manufacturer's warranty for weather barrier for a period of ten (10) years from date of Purchase.
 - 2. Pre-installation meeting and jobsite observations by weather barrier manufacturer for warranty are required.

PART 2 - PRODUCTS

2.1 WEATHER BARRIER

- A. Manufacturer: DuPont Building Innovations; 4417 Lancaster Pike, Chestnut Run Plaza 728, Wilmington, DE 19805; 1.800.44TYVEK (8-9835); <http://weatherization.tyvek.com>
 - 1. Description: A single-component, low VOC, 25 mil thick synthetic polymer fluid-applied product with superior elasticity and flexibility providing resistance to air flow, bulk water and wind driven rain yet allows moisture vapor to escape.
 - 2. Basis of Design: DuPont™ Tyvek® Fluid Applied WB System; including DuPont™ Tyvek® Fluid Applied WB, DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound, DuPont™ Tyvek® Fluid Applied Flashing – Brush Grade and DuPont™ Sealant for Tyvek® Fluid Applied Systems.

B. Substitutions: Per Section 01 60 00.

C. Performance Characteristics:

1. Air Penetration Resistance (Material):
 - a. 0.0002 cfm/ft² at 75 Pa, when tested in accordance with ASTM E 2178.
 - b. Air infiltration greater than 10,000 seconds per 100cc, when tested in accordance with TAPPI Test Method T-460.
2. Air Penetration Resistance (System / Assembly):
 - a. ≤ 0.01 cfm/ft² at 75 Pa, when tested in accordance with ASTM E 2357.
 - b. ≤ 0.01 cfm/ft² at 75 Pa, Type I Air Barrier, when tested in accordance with ASTM E 1677.
3. Water Vapor Transmission: 25 perms, when tested in accordance with ASTM E 96, Method B at 25 mils DFT (Dry Film Thickness).
4. Water Penetration Resistance: Greater than 1000 cm when tested in accordance with AATCC Test Method 127. No leakage at 15 psf when tested in accordance with ASTM E 331.
5. Tensile Strength: Minimum 169 lbs/in², when tested in accordance with ASTM D 412.
6. Estimated Elongation: 420% in accordance with ASTM D 412.
7. Hardness: Passes at a Shore A hardness of 71, when tested in accordance with ASTM D 2240.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E 84. Flame Spread: 25, Smoke Developed: 25.
9. UV Resistance: 9 months
10. Volatile Organic Content (VOC): Less than 2% (25-30 g/L) when measured in accordance with ASTM C 1250.
11. Adhesion Strength (Concrete): Greater than 33 psi when measured in accordance with ASTM D 4541.
12. Low Temperature Crack Bridging: Pass, when tested in accordance with ASTM C 1305.

2.2 ACCESSORIES

A. Joint Treatment:

1. Joint Tape:
 - a. Product: Self-adhered fiberglass mesh tape as recommended by weather barrier manufacturer.
2. Joint Compound: Fluid-applied, vapor permeable, elastomeric flashing material; trowel applied.
 - a. Product: DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound

B. Flashing:

1. Vapor permeable fluid-applied elastomeric flashing:
 - a. Product: DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound.
2. Sheet flashing with butyl adhesive layer.
 - a. Product: DuPont™ StraightFlash™

C. Sealant: Elastomeric; non-vapor permeable sealant; compatible with weather barrier.

1. Product: DuPont™ Sealant for Tyvek® Fluid Applied Systems.

D. Primers for flexible flashing and sheet flashing:

1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.

2. Products:
 - a. 3M High Strength 90
 - b. Denso Butyl Spray

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 PREPARATION

- A. Complete surface preparation, priming, flashing and detailing of openings, cracks, and material transitions prior to beginning installation of fluid-applied weather barrier system.
- B. Surfaces shall be clean and free of frost, oil, grease, mold and efflorescence prior to application of fluid-applied weather barrier system.

3.3 INSTALLATION - DETAILING

- A. Corners: Apply fluid-applied joint compound, 25 mil thick, to outside and inside corners. Joint compound shall extend 2 inches from corner for full height of corner.
- B. Joint treatment:
 1. Sheathing:
 - a. Joints shall be prepared per manufacturer's approved joint treatment details.
 - b. Apply joint tape as recommended by fluid-applied weather barrier manufacturer.
 - 1) No joint treatment required for joints up to 1/16 inch.
 - 2) Joints 1/16 to 1/4 inch: Fluid-applied joint compound applied to form a 1 inch width on each side of sheathing joint; smooth joint compound across sheathing joint. Thickness shall be 15 to 25 mils.
 - 3) Joints 1/16 to 1/2 inch: Apply joint tape to bridge both sides of joint equally. Apply fluid-applied joint compound and trowel smooth embedding joint compound uniformly into joint tape to form a 1 inch width on each side of sheathing joint at a consistent thickness of 15 to 25 mils.
 - 4) Joints 1/2 to 1 inch: Apply sheet flashing primer above and below sheathing joint. Center sheet flashing over sheathing joint and press firmly in place per manufacturer's recommendations.
 2. Non-movement joints in masonry and transitions to columns and beams:
 - a. Joints 1/4 inch wide or less: Apply fluid-applied joint compound a minimum of 2 inches wide by 60 mils thick to each side of joint or crack.
 - b. Joints 1/4 to 1/2 inch: Apply joint tape to joint, then apply joint compound to joint 2 inches wide by 60 mils thick.
- C. Apply fluid-applied joint compound to cladding anchors prior to installation of weather barrier membrane per manufacturer's instructions.
- D. Apply fluid-applied joint compound around penetrations in exterior walls forming a fillet bead minimum 1/2 inch onto each surface.

- E. Installation – Vapor permeable fluid-applied elastomeric flashing at openings:
 - 1. At jambs and head of rough opening: Apply 25 mil thickness of fluid-applied flashing to full depth of opening and 2 inches onto outside face of opening.
 - 2. At sills: Apply primer to substrates as recommended by manufacturer. Cut sheet flashing to fit directly between jambs of opening. Install sheet flashing to full width of sill opening and down onto outside face of opening a minimum of 2 inches. Cover sheet flashing with 25 mil thickness of vapor permeable fluid-applied elastomeric flashing per fluid-applied weather barrier manufacturer's instructions.
- F. Allow Fluid-Applied Flashing, Joint Compound and Sealant to cure for minimum 24 hours before coating with Fluid-applied Weather Barrier.

3.4 INSTALLATION - FLUID-APPLIED WEATHER BARRIER

- A. Install fluid-applied weather barrier prior to installation of windows, doors, and louvers.
- B. Mask and protect any adjacent finished surfaces from fluid-applied weather barrier material.
- C. Install fluid-applied weather barrier over exterior face of required exterior wall substrates in accordance with weather barrier manufacturer recommendations and instructions.
- D. Install fluid-applied weather barrier by power-rolling method to achieve 25 mils providing a consistent and uniform thickness.
- E. Repair any voids, holidays, or non-uniform installations or damage by other trades to proper mil thickness prior to installation of final cladding assemblies.

3.5 FIELD QUALITY CONTROL

- A. Notify weather barrier manufacturer's designated representative to obtain periodic observations of weather barrier system installation.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections as required in Contract Documents.
- C. Inspections: Weather barrier materials, accessories, and installation are subject to inspection for compliance with performance requirements.
- D. Tests: As determined by Owner's testing agency from among the following tests:
 - 1. Quantitative Air-Leakage Testing: Weather barrier assemblies will be tested for air infiltration according to ASTM E 783.
 - 2. Quantitative Air-Leakage Testing: Whole building air leakage will be tested in accordance with ASTM E 779, ASTM E 1827 or equivalent.
 - 3. Qualitative Air-Leakage Testing: Weather barrier assemblies will be tested for evidence of air leakage according to ASTM E 1186.
 - 4. Qualitative Water-Leakage Testing: Weather barrier assemblies will be tested for water leakage according to ASTM E 1105.
- E. Weather barriers assemblies will be considered defective upon failure of inspections and specific project testing required.
 - 1. Apply additional fluid-applied weather barrier material, in accordance with manufacturer's instructions, where inspection results indicate insufficient

- thickness, voids, skips, pinholes or other defects as recommended by weather barrier manufacturer.
2. Remove and replace deficient weather barrier system components for retesting as specified above.

- F. Repair damage to weather barriers caused by destructive testing; follow manufacturer's written instructions.

3.6 PROTECTION AND CLEANING

- A. Protect weather barrier from contact with incompatible materials and sealants not approved per weather barrier manufacturer's recommendation.
- B. Protect installed weather barrier system from damage during construction prior to cladding installation.
 1. If damaged or exposed to UV beyond nine (9) months, clean and prepare surfaces and install additional, full-thickness, fluid-applied weather barrier application in accordance with weather barrier manufacturer's instructions.
- C. Remove masking materials and adjacent protection after weather barrier installation.

END OF SECTION

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Manufactured through-wall flashing with counterflashing.
 - 2. Manufactured reglets with counterflashing.
 - 3. Formed wall sheet metal fabrications.

- B. Related Requirements:

- 1. Section 079500 "Expansion Control" for manufactured sheet metal expansion-joint covers.

1.3 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

- 1. Review construction schedule. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review special roof details, roof drainage, roof-penetration flashing, equipment curbs, and condition of other construction that affect sheet metal flashing and trim.
 - 3. Review requirements for insurance and certificates if applicable.
 - 4. Review sheet metal flashing observation and repair procedures after flashing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Samples for Initial Selection: For each type of sheet metal and accessory indicated with factory-applied finishes.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For fabricator.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Sheet Metal Standard for Copper: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: **120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.**

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.
1. Nonpatinated Exposed Finish: Mill.
 2. Prepatinated Copper-Sheet Finish: prepatinated according to ASTM B 882.
- C. Aluminum Sheet: **ASTM B 209 (ASTM B 209M)**, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.
1. As-Milled Finish: Mill.
 2. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of **0.5 mil (0.013 mm)**.
- D. Zinc-Tin Alloy-Coated Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 temper, of minimum uncoated weight (thickness) indicated; coated on both sides with zinc-tin alloy (50 percent zinc, 50 percent tin).
- E. Copper-Clad Stainless-Steel Sheet: ASTM B 506, annealed Temper O61.
1. Nonpatinated Exposed Finish: Mill.

2.3 UNDERLAYMENT MATERIALS

- A. Felt: ASTM D 226/D 226M, Type II (No. 30), asphalt-saturated organic felt; nonperforated.
- B. Synthetic Underlayment: Laminated or reinforced, woven polyethylene or polypropylene, synthetic roofing underlayment; bitumen free; slip resistant; suitable for high temperatures over **220 deg F (111 deg C)**; and complying with physical requirements of ASTM D 226/D 226M for Type I and Type II felts.
- C. Slip Sheet: Rosin-sized building paper, **3 lb/100 sq. ft. (0.16 kg/sq. m)** minimum.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
 - 2. Fasteners for Copper Zinc-Tin Alloy-Coated Copper and Copper-Clad Stainless-Steel Sheet: Copper, hardware bronze or passivated Series 300 stainless steel.
 - 3. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape **1/2 inch (13 mm)** wide and **1/8 inch (3 mm)** thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- F. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- G. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.

2.5 MANUFACTURED SHEET METAL FLASHING AND TRIM

- A. Through-Wall, Ribbed, Sheet Metal Flashing: Manufacture through-wall sheet metal flashing for embedment in masonry, with ribs at **3-inch (75-mm)** intervals along length of flashing to provide integral mortar bond. Manufacture through-wall flashing with interlocking counterflashing on exterior face, of same metal as flashing.

1. Copper: **10-oz. (0.34-mm-thick)** minimum for fully concealed flashing; **16 oz. (0.55 mm thick)** elsewhere.
- B. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions and with interlocking counterflashing on exterior face, of same metal as reglet.
 1. Surface-Mounted Type: Provide with slotted holes for fastening to substrate, with neoprene or other suitable weatherproofing washers, and with channel for sealant at top edge.
 2. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
 3. Accessories:
 - a. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where Drawings show reglet without metal counterflashing.
 - b. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.

2.6 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 2. Obtain field measurements for accurate fit before shop fabrication.
 3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of **1/4 inch in 20 feet (6 mm in 6 m)** on slope and location lines indicated on Drawings and within **1/8-inch (3-mm)** offset of adjoining faces and of alignment of matching profiles.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 1. Form expansion joints of intermeshing hooked flanges, not less than **1 inch (25 mm)** deep, filled with butyl sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.

- E. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.
- H. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- I. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.
- J. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer.
- K. Do not use graphite pencils to mark metal surfaces.

2.7 WALL SHEET METAL FABRICATIONS

- A. Through-Wall Flashing: Fabricate continuous flashings in minimum **96-inch- (2400-mm-)** long, but not exceeding **12-foot- (3.6-m-)** long, sections, under copings, and at shelf angles. Fabricate discontinuous lintel, sill, and similar flashings to extend **6 inches (150 mm)** beyond each side of wall openings; and form with **2-inch- (50-mm-)** high, end dams. Fabricate from the following materials:
 - 1. Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 2. Zinc-Tin Alloy-Coated Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 3. Copper-Clad Stainless Steel: **0.016 inch (0.40 mm)** thick.
- B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend **4 inches (100 mm)** beyond wall openings. Form head and sill flashing with **2-inch- (50-mm-)** high, end dams. Fabricate from the following materials:
 - 1. Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 2. Aluminum: **0.032 inch (0.81 mm)** thick.
 - 3. Zinc-Tin Alloy-Coated Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 4. Copper-Clad Stainless Steel: **0.016 inch (0.40 mm)** thick.
- C. Wall Expansion-Joint Cover: Fabricate from the following materials:
 - 1. Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 2. Aluminum: **0.040 inch (1.02 mm)** thick.
 - 3. Zinc-Tin Alloy-Coated Copper: **16 oz./sq. ft. (0.55 mm thick)**.
 - 4. Copper-Clad Stainless Steel: **0.018 inch (0.46 mm)** thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
 - 3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches (50 mm).
- B. Synthetic Underlayment: Install synthetic underlayment, wrinkle free, according to manufacturers' written instructions, and using adhesive where possible to minimize use of mechanical fasteners under sheet metal.
- C. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free. Prime substrate if recommended by underlayment manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures. Apply in shingle fashion to shed water, with end laps of not less than 6 inches (150 mm) staggered 24 inches (600 mm) between courses. Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps and edges with roller. Cover underlayment within 14 days.
- D. Apply slip sheet, wrinkle free, before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 - 2. 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.

3. Space cleats not more than **12 inches (300 mm)** apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 5. Torch cutting of sheet metal flashing and trim is not permitted.
 6. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Coat concealed side of uncoated-aluminum sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of **10 feet (3 m)** with no joints within **24 inches (600 mm)** of corner or intersection.
1. Form expansion joints of intermeshing hooked flanges, not less than **1 inch (25 mm)** deep, filled with sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than **1 inch (25 mm)** into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between **40 and 70 deg F (4 and 21 deg C)**, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below **40 deg F (4 deg C)**.
 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

3.4 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.

- B. Through-Wall Flashing: Installation of through-wall flashing is specified in Section 042000 "Unit Masonry."
- C. Reglets: Installation of reglets is specified in Section 042000 "Unit Masonry." Opening Flashings in Frame Construction: Install continuous head, sill, jamb, and similar flashings to extend **4 inches (100 mm)** beyond wall openings.

3.5 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of **1/4 inch in 20 feet (6 mm in 6 m)** on slope and location lines indicated on Drawings and within **1/8-inch (3-mm)** offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.6 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Silicone joint sealants.
 - 2. Urethane joint sealants.

- B. Related Sections:

- 1. Section 042000 "Unit Masonry" for masonry control and expansion joint fillers and gaskets.

1.3 PRECONSTRUCTION TESTING

- A. Preconstruction Compatibility and Adhesion Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.

- 1. Testing will not be required if joint-sealant manufacturers submit joint preparation data that are based on previous testing, not older than 24 months, of sealant products for adhesion to, and compatibility with, joint substrates and other materials matching those submitted.

- B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:

- 1. Locate test joints where indicated on Project or, if not indicated, as directed by Architect.
 - 2. Conduct field tests for each application indicated below:
 - a. Each kind of sealant and joint substrate indicated.
 - 3. Notify Architect seven days in advance of dates and times when test joints will be erected.
 - 4. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
 - 5. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with

requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.4 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.
- C. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.
- E. Preconstruction Field-Adhesion Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.
- F. Field-Adhesion Test Reports: For each sealant application tested.
- G. Warranties: Sample of special warranties.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
- C. Product Testing: Test joint sealants using a qualified testing agency.
 - 1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.

1.7 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- C. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- D. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.
- E. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 SILICONE JOINT SEALANTS

- A. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 100/50, for Use NT.
 1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Sika Corporation, Construction Products Division; SikaSil-C990.
 - b. Tremco Incorporated; Spectrem 1 Spectrem 800.

- B. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use NT.
1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. BASF Building Systems; Omniseal 50.
 - b. Dow Corning Corporation; 756 SMS 791 795 995.
 - c. Sika Corporation, Construction Products Division; SikaSil-C995.
 - d. Tremco Incorporated; Spectrem 2 Spectrem 3.
- C. Single-Component, Pourable, Traffic-Grade, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade P, Class 100/50, for Use T.
1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Dow Corning Corporation; 890-SL.
 - b. Tremco Incorporated; Spectrem 900 SL.
- D. Multicomponent, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type M, Grade NS, Class 50, for Use NT.
1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Tremco Incorporated; Spectrem 4TS.
- E. Mildew-Resistant, Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Pecora Corporation; 898.

2.3 URETHANE JOINT SEALANTS

- A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 100/50, for Use NT.
1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Sika Corporation, Construction Products Division; Sikaflex - 15LM.
 - b. Tremco Incorporated; Vulkem 921 Dymonic FC.
- B. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use NT.

1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Pacific Polymers International, Inc.; Elasto-Thane 230 LM Type II.
 - b. Polymeric Systems, Inc.; PSI-901.
- C. Single-Component, Nonsag, Traffic-Grade, Urethane Joint Sealant: ASTM C 920. Type S, Grade NS, Class 25, for Use T.
 1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. BASF Building Systems; Sonolastic NP1; Sonolastic Ultra.
 - b. Sika Corporation, Construction Products Division; Sikaflex - 1a.
 - c. Tremco Incorporated; Vulkem 116.
- D. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C 920, Type M, Grade NS, Class 50, for Use NT.
 1. Products: Subject to compliance with requirements, provide one of the following or comparable, approved equal:
 - a. Pecora Corporation; Dynatrol II.
 - b. Tremco Incorporated; Dymeric 240; Dymeric 240 FC.

2.4 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type O (open-cell material) Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or

harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, 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. Porous joint substrates include the following:
 - a. Concrete.
 - b. Masonry.
 - c. Unglazed surfaces of ceramic tile.
 - d. Exterior insulation and finish systems.
 - 3. Remove laitance and form-release agents from concrete.
 - 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
 - a. Metal.
 - b. Glass.
 - c. Porcelain enamel.
 - d. Glazed surfaces of ceramic tile.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by 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 or primer 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.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated 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.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. 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.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs 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 profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
 - 4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
 - 5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.

- a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

1. Extent of Testing: Test completed and cured sealant joints as follows:
 - a. Perform 10 tests for the first 1000 feet (300 m) of joint length for each kind of sealant and joint substrate.
 - b. Perform 1 test for each 1000 feet (300 m) of joint length thereafter or 1 test per each floor per elevation.
2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
 - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
3. Inspect tested joints and report on the following:
 - a. Whether sealants filled joint cavities and are free of voids.
 - b. Whether sealant dimensions and configurations comply with specified requirements.
 - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.5 CLEANING

- A. 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.

3.6 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 079500 - EXPANSION CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior wall expansion control systems.
- B. Related Requirements:
 - 1. Section 079200 "Joint Sealants" for liquid-applied joint sealants and for elastomeric sealants without metal frames.

1.3 ACTION SUBMITTALS

- A. Shop Drawings: For each expansion control system specified. Include plans, elevations, sections, details, splices, blockout requirement, attachments to other work, and line diagrams showing entire route of each expansion control system. Where expansion control systems change planes, provide isometric or clearly detailed drawing depicting how components interconnect.
- B. Samples: For each exposed expansion control system and for each color and texture specified, full width by 6 inches (150 mm) long in size.
- C. Samples for Initial Selection: For each type of expansion control system indicated.
 - 1. Include manufacturer's color charts showing the full range of colors and finishes available for each exposed metal and elastomeric seal material.
- D. Product Schedule: Prepared by or under the supervision of the supplier. Include the following information in tabular form:
 - 1. Manufacturer and model number for each expansion control system.
 - 2. Expansion control system location cross-referenced to Drawings.
 - 3. Nominal joint width.
 - 4. Movement capability.
 - 5. Classification as thermal or seismic.
 - 6. Materials, colors, and finishes.
 - 7. Product options.
 - 8. Fire-resistance ratings.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each fire barrier provided as part of an expansion control system, for tests performed by a qualified testing agency.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. General: Provide expansion control systems of design, basic profile, materials, and operation indicated. Provide units with capability to accommodate variations in adjacent surfaces.
 - 1. Furnish units in longest practicable lengths to minimize field splicing. Install with hairline mitered corners where expansion control systems change direction or abut other materials.
 - 2. Include factory-fabricated closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous expansion control systems.
- B. Coordination: Coordinate installation of exterior wall and soffit expansion control systems with roof expansion control systems to ensure that wall transitions are watertight. Roof expansion joint assemblies are specified elsewhere.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: Where indicated, provide expansion control systems with fire barriers identical to those of systems tested for fire resistance per UL 2079 or ASTM E 1966 by a testing and inspecting agency acceptable to authorities having jurisdiction.
 - 1. Hose Stream Test: Wall-to-wall and wall-to-ceiling systems shall be subjected to hose stream testing.
- B. Seismic Performance: Expansion control systems shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
 - 1. The term "withstand" means "the system will remain in place without separation of any parts when subjected to the seismic forces specified and the system will be fully operational after the seismic event."
 - 2. Component Importance Factor is 1.5.

2.3 EXTERIOR WALL EXPANSION CONTROL SYSTEMS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following or approved equal:
 - 1. [EMSEAL Corporation.](#)
 - 2. [JointMaster/InPro Corporation.](#)
 - 3. [Schul International Company, Inc.](#)

4. Tremco Incorporated.

- B. Source Limitations: Obtain expansion control systems from single source from single manufacturer.
- C. Wall-to-Wall:
 - 1. Type: Cover plate.
 - a. Metal: Aluminum.
 - 2. Type: Flat seal.
 - 3. Type: Preformed cellular foam.
- D. Wall Corner:
 - 1. Type: Cover plate.
 - a. Metal: Aluminum.
 - 2. Type: Flat seal.
 - 3. Type: Preformed cellular foam.
- E. Wall-to-Soffit:
 - 1. Type: Cover plate.
 - a. Metal: Aluminum.
 - 2. Type: Flat seal.
 - 3. Type: Preformed cellular foam.
- F. Soffit-to-Soffit:
 - 1. Type: Cover plate.
 - a. Metal: Aluminum.
 - 2. Type: Flat seal.
 - 3. Type: Preformed cellular foam.

2.4 MATERIALS

- A. Aluminum: **ASTM B 221** (**ASTM B 221M**), Alloy 6063-T5 for extrusions; **ASTM B 209** (**ASTM B 209M**), Alloy 6061-T6 for sheet and plate.

1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.
- B. Elastomeric Seals: ASTM E 1783; preformed elastomeric membranes or extrusions to be installed in metal frames.
- C. Compression Seals: ASTM E 1612; preformed elastomeric extrusions having an internal baffle system and designed to function under compression.
- D. Cellular Foam Seals: Extruded, compressible foam designed to function under compression.
- E. Elastomeric Concrete: Modified epoxy or polyurethane extended into a prepackaged aggregate blend, specifically designed for bonding to concrete substrates.
- F. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist the passage of flame and hot gases through a movement joint and to meet performance criteria for required fire-resistance rating.
- G. Moisture Barrier: Flexible elastomeric material.
- H. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107/C 1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.
- I. Accessories: Manufacturer's standard anchors, clips, fasteners, set screws, spacers, and other accessories compatible with material in contact, as indicated or required for complete installations.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

- A. Mill finish.
- B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.
- C. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
 1. Color: Dark bronze.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces where expansion control systems will be installed for installation tolerances and other conditions affecting performance of work.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to expansion control system manufacturer's written instructions.
- B. Coordinate and furnish anchorages, setting drawings, and instructions for installing expansion control systems. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of expansion control systems.
- C. Cast-In Frames: Coordinate and furnish frames to be cast into concrete.

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions for storing, handling, and installing expansion control systems and materials unless more stringent requirements are indicated.
- B. Metal Frames: Perform cutting, drilling, and fitting required to install expansion control systems.
 - 1. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
 - 2. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation. Notify Architect where discrepancies occur that will affect proper expansion control system installation and performance.
 - 3. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.
 - 4. Repair or grout blockout as required for continuous frame support using nonmetallic, shrinkage-resistant grout.
 - 5. Install frames in continuous contact with adjacent surfaces.
 - a. Shimming is not permitted.
 - 6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches (75 mm) from each end and not more than 24 inches (600 mm) o.c.
- C. Seals in Metal Frames: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.
 - 1. Provide in continuous lengths for straight sections.

2. Seal transitions according to manufacturer's written instructions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.
 3. Installation: Mechanically lock seals into frames or adhere to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.
- D. Compression Seals: Apply adhesive or lubricant adhesive as recommended by manufacturer to both frame interfaces and sides of slabs before installing compression seals.
- E. Foam Seals: Install with adhesive recommended by manufacturer.
- F. Epoxy-Bonded Seals: Pressurize seal for time period and to pressure recommended by manufacturer. Do not overpressurize.
- G. Terminate exposed ends of expansion control systems with field- or factory-fabricated termination devices.
- H. Fire-Resistance-Rated Assemblies: Coordinate installation of expansion control system materials and associated work so complete assemblies comply with assembly performance requirements.
1. Fire Barriers: Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of joint, including transitions and field splices.
- I. Moisture Barrier: Provide at all exterior joints and where indicated on Drawings. Provide drainage fittings at a maximum of 50 feet (15.2 m) or where indicated on Drawings.

3.4 PROTECTION

- A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.
- B. Protect the installation from damage by work of other Sections. Where necessary due to heavy construction traffic, remove and properly store cover plates or seals and install temporary protection over expansion control systems. Reinstall cover plates or seals prior to Substantial Completion of the Work.

END OF SECTION 079500

SECTION 081213 - HOLLOW METAL FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Section includes hollow-metal interior frames following the reinstallation of existing windows.**

1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

1.4 COORDINATION

- A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, fire-resistance ratings, temperature-rise ratings, and finishes.
- B. Shop Drawings: Include the following:
 - 1. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
 - 2. Locations of reinforcement and preparations for hardware.
 - 3. Details of each different wall opening condition.
 - 4. Details of anchorages, joints, field splices, and connections.
 - 5. Details of moldings, removable stops, and glazing.
 - 6. Details of conduit and preparations for power, signal, and control systems.
- C. Samples for Initial Selection: For units with factory-applied color finishes.

- D. Samples for Verification: Prepare Samples to demonstrate compliance with requirements for quality of materials and construction. Show profile, corner joint, floor and wall anchors, and silencers. Include separate section showing fixed hollow-metal panels and glazing if applicable.
- E. Schedule: Provide a schedule of hollow-metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
 - 1. Provide additional protection to prevent damage to factory-finished units.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum **4-inch- (102-mm-)** high wood blocking. Provide minimum **1/4-inch (6-mm)** space between each unit to permit air circulation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain hollow-metal work from single source from single manufacturer.

2.2 INTERIOR FRAMES

- A. Construct interior frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Standard-Duty Frames: SDI A250.8, Level 1.
 - 1. Physical Performance: Level C according to SDI A250.4.
 - 2. Materials: Metallic-coated, cold-rolled steel sheet, minimum thickness of **0.042 inch (1.0 mm)**.
 - 3. Construction: Full profile welded.
 - 4. Exposed Finish: Factory.
- C. Heavy-Duty Frames: SDI A250.8, Level 2.
 - 1. Physical Performance: Level B according to SDI A250.4.
 - 2. Materials: Metallic-coated steel sheet, minimum thickness of **0.053 inch (1.3 mm)**.
 - 3. ConstructionFull profile welded.
 - 4. Exposed Finish: Factory.

D. Hollow-Metal Frames: NAAMM-HMMA 860.

1. Physical Performance: Level A according to SDI A250.4.
2. Materials: Metallic-coated steel sheet, minimum thickness of **0.042 inch (1.0 mm)**.
3. Construction: Full profile welded.
4. Exposed Finish: Prime.

E. Commercial Frames: NAAMM-HMMA 861..

1. Physical Performance: Level A according to SDI A250.4.
2. Materials: Uncoated steel sheet, minimum thickness of **0.053 inch (1.3 mm)** for door openings **48 inches (1219 mm)** or less, or window frames; minimum thickness of **0.067 inch (1.7 mm)** for door openings greater than **48 inches (1219 mm)**.
3. Materials: Uncoated steel sheet, minimum thickness of **0.053 inch (1.3 mm)**.
4. Construction: Full profile welded.
5. Exposed Finish: Prime.

2.3 FRAME ANCHORS

A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than **0.042 inch (1.0 mm)** thick, with corrugated or perforated straps not less than **2 inches (51 mm)** wide by **10 inches (254 mm)** long; or wire anchors not less than **0.177 inch (4.5 mm)** thick.
2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than **0.042 inch (1.0 mm)** thick.
3. Compression Type for Drywall Slip-on Frames: Adjustable compression anchors.
4. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum **3/8-inch-(9.5-mm-)** diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

2.4 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.
- D. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), **04Z (12G)** coating designation; mill phosphatized.
 1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.

- E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
- F. Grout: ASTM C 476, except with a maximum slump of **4 inches (102 mm)**, as measured according to ASTM C 143/C 143M.
- G. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool with **6- to 12-lb/cu. ft. (96- to 192-kg/cu. m)** density; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.

2.5 FABRICATION

- A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
 - 1. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
 - 2. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
 - 3.
 - 4. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Stud-Wall Type: Locate anchors not more than **18 inches (457 mm)** from top and bottom of frame. Space anchors not more than **32 inches (813 mm)** o.c. and as follows:
 - 1) Three anchors per jamb up to **60 inches (1524 mm)** high.
 - 2) Four anchors per jamb from **60 to 90 inches (1524 to 2286 mm)** high.
 - 3) Five anchors per jamb from **90 to 96 inches (2286 to 2438 mm)** high.
 - 4) Five anchors per jamb plus one additional anchor per jamb for each **24 inches (610 mm)** or fraction thereof above **96 inches (2438 mm)** high.
 - b. Compression Type: Not less than two anchors in each frame.
 - c. Postinstalled Expansion Type: Locate anchors not more than **6 inches (152 mm)** from top and bottom of frame. Space anchors not more than **26 inches (660 mm)** o.c.
 - 5. Head Anchors: Two anchors per head for frames more than **42 inches (1067 mm)** wide and mounted in metal-stud partitions.
- C. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
 - 1. Reinforce frames to receive nontemplated, mortised, and surface-mounted hardware.

2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.

- D. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted or mitered hairline joints.

2.6 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.

1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

- B. Factory Finish: Clean, pretreat, and apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat, complying with SDI A250.3.

2.7 ACCESSORIES

- A. Grout Guards: Formed from same material as frames, not less than 0.016 inch (0.4 mm) thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Drill and tap frames to receive nontemplated, mortised, and surface-mounted hardware.

3.3 INSTALLATION

- A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
- B. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
 - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-rated openings, install frames according to NFPA 80.
 - b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable stops located on secure side of opening.
 - d. Install door silencers in frames before grouting.
 - e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
 - g. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
 - 2. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
 - 3. In-Place Metal Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
 - 4. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
 - a. Squareness: Plus or minus **1/16 inch (1.6 mm)**, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus **1/16 inch (1.6 mm)**, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus **1/16 inch (1.6 mm)**, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus **1/16 inch (1.6 mm)**, measured at jambs at floor.

3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow-metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

- D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.
- E. Factory-Finish Touchup: Clean abraded areas and repair with same material used for factory finish according to manufacturer's written instructions.
- F. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION 081213

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PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Aluminum Swing Doors, including:
 - 1. YKK AP Series 50D Wide Stile Swing Entrances.
- B. Related Sections:
 - 1. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.
 - 2. Single Source Requirement: All products listed below shall be by the same manufacturer.
 - a. Section 08 44 14 Aluminum-Framed Window Wall.

1.2 SYSTEM PERFORMANCE DESCRIPTION

- A. Performance Requirements: Provide aluminum swing doors that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test methods indicated.
 - 1. Air Infiltration (Single Acting Butt Hinges or Offset Pivots): Air infiltration shall be tested in accordance with ASTM E 283-91 at static pressure of 1.57 PSF (75 Pa). Infiltration shall not exceed the following:
 - a. For 20D/35D/50D Single Doors: 0.50 CFM/FT² of total door and frame area.
 - b. For 20D/35D/50D Pair of Doors: 1.0 CFM/FT² of total door and frame area.
 - c. For 35DH Single Doors: 1.20 CFM/FT² of total door and frame area.
 - d. For 35DH Pair of Doors: 1.20 CFM/FT² of total door and frame area.
 - 2. Structural: Door corner structural strength shall be tested per YKK AP's dual moment test procedure and certified by an independent testing laboratory to ensure corner integrity and weld compliance. Certified test procedures and results are available upon request.
 - 3. Uniform Load Test:
 - a. For 20D Single Doors: 35 psf.
 - b. For 20D Pair of Doors: 35 psf.
 - c. For 35D Single Doors: 50 psf.
 - d. For 35D Pair of Doors: 50 psf.
 - e. For 50D Single Doors: 60 psf.
 - f. For 50D Pair of Doors: 60 psf.
 - c. For 35DH Single Doors: 60 psf.
 - d. For 35DH Pair of Doors: 60 psf.
 - 4. Forced Entry Resistance: 300 lbs. satisfactory.

1.3 PROJECT CONDITIONS / SITE CONDITIONS

- A. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

1.4 SUBMITTALS

- A. General: Prepare, review, approve, and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections. Product data, shop drawings, samples, and similar submittals are defined in "Conditions of the Contract."
- B. Product Data: Submit product data for each entrance series specified.
- C. Substitutions: Whenever substitute products are to be considered, supporting technical data, samples, and test reports must be submitted ten (10) working days prior to bid date in order to make a valid comparison.
- D. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, and finish colors.
- E. Samples: Submit verification samples for colors. Minimum 2-1/2 inch by 3 inch (61 mm by 73 mm) samples on actual aluminum substrates indicating full color range expected in installed system.
- F. Quality Assurance / Control Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
 - 2. Installer Qualification Data: Submit installer qualification data.
- G. Closeout Submittals:
 - 1. Warranty: Submit executed warranty documents specified herein, endorsed by YKK AP authorized official and installer.
 - 2. Project Record Documents: Submit project record documents, including operation and maintenance data for installed materials in accordance with Division 1 Project Closeout (Project Record Documents) Section.
 - a. Maintenance Data: Maintenance procedures for care and cleaning of entrance systems.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installer Qualifications: Installer experienced (as determined by contractor) to perform work of this section who has specialized in the installation of work similar to that required for this project. If requested by Owner, submit reference list of completed projects.
 - 2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction process.
- B. Mock-Ups (Field Constructed): Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner's and Architect's acceptance of finish color, and workmanship standard.
 - 1. Mock-Up Size: One door.
 - 2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
 - 3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.
- C. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.6 WARRANTY

- A. Project Warranty: Refer to "Conditions of the Contract" for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by an authorized company official.
 - 1. Warranty Period: Manufacturer's five (5) year standard warranty commencing on the substantial date of completion for the project provided that the warranty, in no event, shall start later than six (6) months from the date of shipment by YKK AP America Inc.
 - 2. Twenty (20) year finish warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS (Acceptable Manufacturers/Products)

- A. Acceptable Manufacturers: YKK AP America Inc.
270 Riverside Parkway, Suite A
Austell, GA 30168
Telephone: (678) 838-6000; Fax: (678) 838-6001
 - 1. Narrow Stile Swing Doors: YKK AP Series 20D Narrow Stile Swing Doors.
 - a. Description: 2-1/8" (54.0 mm) Door Stile.
 - 2. Medium Stile Swing Doors: YKK AP Series 35D/35DH Medium Stile Swing Doors.
 - a. Description: 3-1/2" (88.9 mm) Door Stile
 - 3. Wide Stile Swing Doors: YKK AP Series 50D Wide Stile Swing Doors.
 - a. Description: 5" (127.0 mm) Door Stile
 - 4. Corner Construction: Fabricate door corners joined by concealed reinforcement secured with screws and sigma deep penetration welding.
 - 5. Glazing Stops: Manufacturer's standard snap-in glazing stops with EPDM glazing gaskets to prevent water infiltration.
 - 6. Weather-stripping: Manufacturer's standard pile type in replaceable rabbets for stiles; manufacturer's standard EPDM bulb type in door frames.
 - 7. Hardware: Manufacturer's standard as selected by Architect.
- B. Substitutions in accordance with Section 01 60 00.

2.2 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 Aluminum Alloy.
- B. Aluminum Sheet:
 - 1. Anodized Finish: ASTM B 209 (ASTM B 209M), 5005-H14 Aluminum Alloy, 0.050" (1.27 mm) minimum thickness.
 - 2. Painted Finish: ASTM B 209 (ASTM B 209M), 3003-H14 Aluminum Alloy, 0.080" (1.95 mm) minimum thickness.

2.3 ACCESSORIES

- A. Manufacturer's Standard Accessories:

1. Fasteners: Zinc plated steel concealed fasteners; Hardened aluminum alloys or AISI 300 series stainless steel exposed fasteners, countersunk, finish to match aluminum color.
2. Sealant: Non-skinning type, AAMA 803.3.
3. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.

2.4 RELATED MATERIALS (Specified In Other Sections)

- A. Glass: Refer to Division 8 Glass and Glazing Section for glass materials.

2.5 FABRICATION

- A. Shop Assembly: Fabricate and assemble units with joints only at intersection of aluminum members with uniform hairline joints; rigidly secure, and sealed in accordance with manufacturer's recommendations.
1. Hardware: Drill and cut to template for hardware. Reinforce frames and door stiles to receive hardware in accordance with manufacturer's recommendations.
 2. Welding: Conceal welds on aluminum members in accordance with AWS recommendations or methods recommended by manufacturer. Members showing welding bloom or discoloration on finish or material distortion will be rejected.

2.6 FINISHES AND COLORS

- A. YKK AP America Anodized Plus® Finish: As selected by Architect from samples provide by the Contractor. Basis of Design is Medium Bronze.

CODE	DESCRIPTION
YS1N*	Clear Anodized Plus®
YH3N	Champagne Anodized Plus®
YB1N	Medium Bronze Anodized Plus®
YB5N*	Dark Bronze Anodized Plus®
YK1N*	Black Anodized Plus®
YW3N	White Anodized Plus®
M	Mill Finish

- * Indicates standard finish usually carried as inventory.

Anodized Plus® is an advanced sealing technology that completely seals the anodic film yielding superior durability (See AAMA 612).

- B. High Performance Organic Coating Finish:
1. Fluoropolymer Type: Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solvay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.
 2. Colors: Selected by Architect from the following:
 - a. Standard coating color charts.
 - b. Custom coating color charts.
- C. Finishes Testing:
1. Apply 0.5% solution NaOH, sodium hydroxide, to small area of finished sample area; leave in place for sixty minutes; lightly wipe off NaOH; Do not clean area further.

2. Submit samples with test area noted on each sample.

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS / RECOMMENDATIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, installation instructions, and product carton instructions. The latest installation instructions are available at www.ykkap.com.

3.2 EXAMINATION

- A. Site Verification of Conditions: Verify conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions.
 1. Verify location of preset anchors, perimeter fasteners, and block-outs are in accordance with shop drawings.

3.3 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.
 1. Aluminum Surface Protection: Protect aluminum surfaces from contact with lime, mortar, cement, acids, and other harmful contaminants.

3.4 INSTALLATION

- A. General: Install manufacturer's system in accordance with shop drawings, and within specified tolerances.
 1. Protect aluminum members in contact with masonry, steel, concrete, or dissimilar materials using nylon pads or bituminous coating.
 2. Shim and brace aluminum system before anchoring to structure.

3.5 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Upon request, provide manufacturer's field service consisting of site visit for inspection of product installation in accordance with manufacturer's instructions.

3.6 ADJUSTING AND CLEANING

- A. Adjusting: Adjust swing doors for operation in accordance with manufacturer's recommendations.
- B. Cleaning: The General Contractor shall clean installed products in accordance with manufacturer's instructions prior to owner's acceptance, and remove construction debris from project site. Legally dispose of debris.
- C. Protection: The General Contractor shall protect the installed product's finish surfaces from damage during construction.

END OF SECTION

ALUMINUM - FRAMED
ENTRANCES & STOREFRONTS

08 41 13-5

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Furnish and install Architectural Aluminum Windows, complete with hardware and accessories as shown on shop drawings and specified in this section.
- B. Related Sections:
 - 1. Section 07 90 00 – Joint Sealers: Structural silicone sealant.
 - 2. Section 08 41 13 Aluminum Framed Entrances and Storefronts.
 - 2. Section 08 80 00 - Glazing:
 - a. Units may be factory or shop glazed.

1.02 TEST AND PERFORMANCE REQUIREMENTS

- A. Performance Requirements: Windows shall with the following specific performance requirements indicated.
 - 1. Air Infiltration: Completed window systems shall have 0.10 CFM/FT² (5.5m³/h·m²) maximum allowable infiltration when tested in accordance with ASTM E 283 at a differential static pressure of 6.24 psf (299 Pa).
 - 2. Water Infiltration: There shall be no uncontrolled water leakage when tested in accordance with ASTM E 331 and ASTM E 547 at a static pressure of 15 psf (719 Pa).
 - 3. Static Load: There shall be no damage to fasteners, hardware, accessories, or any other damage that would render the window inoperable when tested in accordance with ASTM E 330 at a differential static pressure of 100.0 psf positive and 100.0 psf negative.
 - 4. Thermal Performance: When tested in accordance with AAMA 1503 and NFRC 102:
 - a. Condensation Resistance Factor (CRF_f): A minimum of 67.
 - b. Thermal Transmittance U Value: 0.40 BTU/HR/FT²/°F or less.
 - 5. Acoustical Performance: Acoustical Performance: When tested in accordance with ASTM E 90:
 - a. Sound Transmission Class (STC) shall not be less than 38.
 - b. Outdoor–Indoor Transmission Class (OITC) shall not be less than 30.
 - 6. Forced Entry Resistance: Windows shall be tested in accordance with ASTM F 842 and TAS 202 and meet the requirements of performance grade 10.

Note: Performance based on lab testing and will vary by configuration and glass type; contact YKK AP engineering for job specific analysis at higher performance levels. Acoustic performance achieved with 1" IG unit consisting of 9/32" laminated exterior glass, 1/2" air space, and 7/32" annealed interior glass, at a temperature of 75 °.

1.03 SUBMITTALS

- A. General: Prepare, review, approve, and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections. Product data, shop drawings, samples, and similar submittals are defined in "Conditions of the Contract."
- B. Quality Assurance/Control Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
- C. Substitutions: Whenever substitute products are to be considered, supporting technical data, samples and test reports must be submitted ten (10) working days prior to bid date in order to make a valid comparison.

1.04 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installer Qualifications: Installer experienced (as determined by contractor) to perform work of this section who has specialized in the installation of work similar to that required for this project. If requested by Owner, submit reference list of completed projects.
 - 2. Manufacturer Qualifications Manufacturer capable of providing field service representation during construction process.
- B. Mock-Ups (Field Constructed): Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner's and Architect's acceptance of finish color, and workmanship standard.
 - 1. Mock-Up Size:
 - 2. Maintenance Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
 - 3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.
- C. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements.

1.05 PROJECT CONDITIONS / SITE CONDITIONS

- A. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

1.06 WARRANTY

- A. Project Warranty: Refer to "Conditions of the Contract" for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by an authorized company official.
 - 1. Warranty Period: Manufacturer's one (1) year standard warranty commencing on the substantial date of completion for the project provided that the warranty, in no event, shall start later than six (6) months from the date of shipment.

PART 2 PRODUCTS

2.01 MANUFACTURERS (Acceptable Manufacturers/Products)

- A. Acceptable Manufacturers: YKK AP America Inc.
270 Riverside Parkway, Suite 100
Austell, GA 30168
Telephone: (678) 838-6000; Fax: (404) 838-6001
 - 1. Fixed Windows: YKK AP YFW 400 TU ThermaBond Plus® Fixed Windows.
- B. Windows:
 - 1. AAMA Designation: AW-PG100-FW.
 - 2. Description: The windows shall be extruded aluminum; 4" frame depth; Horizontal frame members run through notched vertical members, butted and mechanically fastened with two stainless steel screws per joint; Factory assembled.
 - 3. Configuration: The windows shall be Fixed, Fixed by Fixed, or Fixed over Fixed.
 - 4. Glazing (Contact YKK AP for approved glass types):

- a. Exterior glazing tape with silicone cap bead; 1" (overall) insulating units; Interior EPDM glazing gasket; Factory glazed.
- 5. Thermal Barrier: Provide continuous thermal barrier by means of a poured and debridged pocket consisting of a two-part, chemically curing high density polyurethane which is bonded to the aluminum by YKK ThermoBond Plus®. Systems employing nonstructural type thermal barriers are not acceptable.

C. Substitutions to be submitted in accordance with Section 01 60 00.

2.02 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 Aluminum Alloy.
 - 1. All members shall have minimum wall thickness sufficient to meet the specified structural requirements.

2.03 ACCESSORIES

- A. Manufacturer's Standard Accessories:
 - 1. Fasteners: All fasteners shall be AISI 300 series (except for self-drilling, which are to be series 400) stainless steel.
 - 2. Weather-stripping: All weather-stripping shall be Fin-Seal or equivalent.
 - 3. Glazing Materials: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; glazing gaskets in accordance with ASTM C 864.
 - 4. Glazing Adhesive: Structural silicone sealant.

2.04 RELATED MATERIALS (Specified in Other Sections)

- A. Glass: All windows shall be factory glazed in accordance with manufacturer's standards.
 - 1. Insulated glass type and thickness shall be in accordance with manufacturer's recommendations for design pressure.

2.05 FABRICATION

- A. Frame:
 - 1. Horizontal frame members run through notched vertical members, butted and mechanically fastened with two screws per joint into integral screw splines; Meeting rail notched at each end, butted and mechanically fastened with two screws per end into integral screw splines.
 - 2. All framing joints shall be sealed with quality grade sealant meeting AAMA 803.3 to ensure water tight joint.
- B. Exterior Panning & Trim:
 - 1. Exterior panning & trim shall be extruded aluminum of profile and dimensions as detailed on approved shop drawings.
 - 2. All joints shall be sealed with quality grade sealant meeting AAMA 803.3 to ensure water tight joint.
- C. Mullions:
 - 1. Mullions shall be of extruded aluminum of profile and dimensions as detailed on approved shop drawings.
 - 2. Mullions must provide adequate structural properties to resist wind pressure as specified herein.

2.06 FINISHES AND COLORS

- A. High Performance Organic Coating Finish:
 - 1. Fluoropolymer Type: Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solvay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.

2. Colors: Selected by Architect from the following:
 - a. Standard coating color charts.
- B. Finishes Testing:
 1. Apply 0.5% solution NaOH, sodium hydroxide, to small area of finished sample area; leave in place for sixty minutes; lightly wipe off NaOH; Do not clean area further.
 2. Submit samples with test area noted on each sample.

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS/RECOMMENDATIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, installation instructions, and product carton instructions. The latest installation instructions are available at www.ykkap.com.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions.

3.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

3.04 INSTALLATION

- A. General: Install manufacturer's system in accordance with shop drawings, and within specified tolerances.
 1. Protect aluminum members in contact with masonry, steel, concrete, or dissimilar materials.
 2. Shim and brace aluminum system before anchoring to structure.
 3. Completed windows must allow water to be wept to the exterior; Verify weep holes are open and weep caps are installed correctly.
 4. Seal metal to metal window system joints using sealant recommended by system manufacturer.

3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Upon request, provide manufacturer's field service consisting of site visit for inspection of product installation in accordance with manufacturer's instructions.
- B. Field Test: Conduct field test to determine watertightness of window system. Conduct test in accordance with AAMA 502-02 at locations selected by Architect.

3.06 ADJUSTING AND CLEANING

- A. Adjusting: Adjust operating items as recommended by manufacturer.
- B. Cleaning: The General Contractor shall clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance and remove construction debris from project site. Legally dispose of debris.
- C. Protection: The General Contractor shall protect installed product's finish surfaces from damage during construction.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Glass and glazing for Sections referencing this Section for products and installation.

1.2 RELATED SECTIONS

- A. Section 08 41 13 - Aluminum Framed Entrances and Storefronts.
- B. Section 08 41 14 – Aluminum Frames Window Wall.

1.3 REFERENCES

- A. ANSI/ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- B. ANSI Z97.1 - Safety Performance Specifications and Methods of Test for Safety Glazing Used in Buildings.
- C. ANSI/A17.1 – Accessible and Useable Buildings and Facilities.
- D. ANSI/A21.1 – Safety Requirements for Floor and Wall Openings, Railings and Toe Boards.
- E. ANSI/A58.1 –Minimum Design Loads in Buildings and Other Structures.
- F. ASTM C1036 - Flat Glass.
- G. ASTM C1048 - Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass.
- H. ASTM E546 - Test Method For Frost Point of Sealed Insulating Glass Units.
- I. ASTM E576 - Test Method For Dew/Frost Point of Sealed Insulating Glass Units in Vertical Position.
- J. ASTM E773 - Test Method for Seal Durability of Sealed Insulating Glass Units.
- K. ASTM E774 - Sealed Insulating Glass Units.
- L. FGMA - Glazing Manual.
- M. FGMA - Sealant Manual.
- N. FS TT-C-00598 - Caulking Compound, Oil and Resin Base Type.
- O. FS TT-S-001657 - Sealing Compound, Single Component, Butyl Rubber Based, Solvent Release Type.
- P. FS TT-S-00227 - Sealing Compound, Rubber Base, Two Component.

- Q. FS TT-S-00230 - Sealing Compounds, Synthetic-Rubber Base, Single Component, Chemically Curing.
- R. FS TT-S-01543 - Sealing Compound, Silicone Rubber Base.
- S. FS TT-G-410 - Glazing Compound, Sash (Metal) for Back Bedding and Face Glazing (Not for Channel or Stop Glazing).
- T. Laminators Safety Glass Association - Standards Manual.
- U. SIGMA - Sealed Insulated Glass Manufacturers Association.
- V. Consumer Product Safety Commission (CPSC) – Code of Federal Regulations 16CFR 1201.

1.4 PERFORMANCE REQUIREMENTS

- A. Glass and glazing materials of this Section shall provide continuity of building enclosure vapor and air barrier:
 - 1. In conjunction with materials described in Section 07 90 00.
 - 2. To utilize the inner pane of multiple pane sealed units for the continuity of the air and vapor seal.
 - 3. Maintain continuous air and vapor barrier throughout glazed assembly from glass pane to heel bead of glazing sealant.
- B. Size glass to withstand dead loads and positive and negative live loads acting normal to plane of glass as calculated in accordance with code and as measured in accordance with ANSI/ASTM E330.
- C. Limit glass deflection to flexure limit of glass with full recovery of glazing materials, whichever is less.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data on Glass Types Specified: Provide structural, physical and environmental characteristics, size limitations, and special handling or installation requirements.
- C. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
- D. Samples: Submit two samples, 12 x 12 inch in size, illustrating glass units, coloration and design.
- E. Manufacturer's Installation Instructions: Indicate special precautions required.
- F. Manufacturer's Certificate: Certify that sealed insulated glass, meets or exceed specified requirements.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with FGMA Glazing Manual, FGMA Sealant Manual, SIGMA and Laminators Safety Glass Association - Standards Manual for glazing installation methods.

- B. Maintain one copy of each document on site.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install glazing when ambient temperature is less than 50 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.8 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop Drawings instructed by the manufacturer.

1.9 COORDINATION

- A. Coordinate Work prior to start of work.
- B. Coordinate the Work with glazing frames, wall openings, and perimeter air and vapor seal to adjacent Work.

1.10 WARRANTY

- A. Provide five year manufacturer's warranty under provisions of Section 01 70 00.
- B. Warranty: Include coverage for sealed glass units from seal failure, interpane dusting or misting, and replacement of same.

PART 2 PRODUCTS

2.1 MANUFACTURERS/FABRICATORS - FLAT GLASS MATERIALS

- A. AFG Glass
- B. Pilkington
- C. Viro-Con
- D. PPG.
- E. Substitutions: Under provisions of Section 01 60 00.

2.2 FLAT GLASS MATERIALS

- A. Laminated Safety Glass (Type G-2): Two lites of clear annealed glass, 1/8 inch thick with clear Saflex interlayer by Solutia. Laminate shall comply with CPSC 16 CFR 1201 Category I and Safety Glazing Test Standard and ANSI Z 97.1 1984. Minimum standards specified in ASTM C1036 85 or C1048 85.
- B. Safety Glass (Type G-4): Clear; fully tempered; conforming to ANSI Z97.1 and CPSC 96 CFR (1201); 3/8 inch thick minimum.

2.3 GLAZING COMPOUNDS

- A. Silicone Sealant: Single component, solvent curing; capable of water immersion without loss of properties; non-bleeding non-staining; cured Shore A hardness of 15-25.

2.4 SEALED INSULATING GLASS MATERIALS

- A. 1" Tempered Insulated Glass Units (Type G-6): All insulated glass units designated on the drawings shall be tinted gray and have a 1" overall thickness and be Sunergy Azur glazing quality float glass as manufactured by Glaverbel Glass. Quality of the float glass shall meet the requirements of ASTM C1036. All insulating glass units specified herein shall be AFG Insulating Units as manufactured by AFG Glass or approved equal. Insulating glass units shall consist of a 1/2" thick airspace, with an interior lite of 1/4" thick, clear. All units will be tested in accordance with ASTM E-774, and E-773 test methods and be certified by IGCC CBA, ALI CBA rating and IGMAC. All insulated units shall carry a ten (10) year warranty to include replacement of sealed units exhibiting seal failure, interpane dusting or fogging.
 - 1. Heat – Strengthened Glass (Outboard Lite)
All Heat Strengthened Float glass designated on the drawings shall be 1/4" thick and be Sunergy Azur glazing quality float glass as manufactured by AFG Glass. Quality of the float glass shall meet the requirements of ASTM C1036 or Heat Strengthened glass will be in accordance with ASTM C1048, Kind HS.
- B. The center-of-glass area will provide the following performance characteristics:
Visible Light Transmittance of 50%
Visible Light Reflectance (outdoors) of 10%
Total Solar Energy Transmittance of 28%
Total Solar Energy Reflectance of 7%
Winter U-Value not to exceed .37
Shading Coefficient not to exceed 0.36
- C. Double glazing units to be Sunergy, Sun and Energy Control Sunergy Azur.

2.5 GLAZING ACCESSORIES

- A. Setting Blocks: Silicone, 80 - 90 Shore A durometer hardness, length of 0.1 inch for each square foot (25 mm for each square meter) of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.
- B. Spacer Shims: Silicone, 50 - 60 Shore A durometer hardness, minimum 4 inch long x one half the height of the glazing stop x thickness to suit application, self adhesive on one face.
- C. Glazing Tape: Preformed butyl compound with integral resilient tube spacing device; 10 - 15 Shore A durometer hardness; coiled on release paper; black color.
- D. Glazing Clips: Manufacturer's standard type.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify prepared openings under provisions of Section 01 31 00.
- B. Verify that openings for glazing are correctly sized and within tolerance.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.

3.2 PREPARATION

- A. Clean contact surfaces with solvent and wipe dry.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant.

3.3 EXTERIOR - DRY METHOD (PREFORMED GLAZING)

- A. Cut glazing tape to length; install on glazing pane. Seal corners by butting tape and sealing junctions with butyl sealant.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
- C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.
- D. Install removable stops without displacing glazing tape. Exert pressure for full continuous contact.
- E. Trim protruding tape edge.

3.4 INTERIOR - DRY METHOD (TAPE AND TAPE)

- A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
- C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
- D. Place glazing tape on free perimeter of glazing in same manner described above.
- E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- F. Knife trim protruding tape.

3.5 CLEANING

- A. Clean work under provisions of 01 73 00.
- B. Remove glazing materials from finish surfaces.
- C. Remove labels after work is complete.
- D. Clean glass and mirrors.

3.6 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01 50 00.
- B. After installation, mark pane with an 'X' by using removable plastic tape or paste. Do not mark heat absorbing or reflective glass units.

END OF SECTION

END OF SECTION

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. CertainTeed Corp.
 - 2. Georgia-Pacific Gypsum LLC.
 - 3. USG Corporation.
- B. Gypsum Board, Type X: ASTM C 1396/C 1396M.
 - 1. Thickness: **5/8 inch (15.9 mm)**.
 - 2. Long Edges: Tapered or Tapered and featured (rounded or beveled) for prefilling.
- C. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.
 - 1. Core: **5/8 inch (15.9 mm)**, Type X.
 - 2. Long Edges: Tapered.
 - 3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
 - 1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet, Galvanized or aluminum-coated steel sheet or rolled zinc, or Plastic.
 - 2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.

- e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
- f. Expansion (control) joint.
- g. Curved-Edge Cornerbead: With notched or flexible flanges.

B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.

- 1. Aluminum: Alloy and temper with not less than the strength and durability properties of **ASTM B 221 (ASTM B 221M)**, Alloy 6063-T5.
- 2. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.

2.5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

- 1. Interior Gypsum Board: Paper.
- 2. Exterior Gypsum Soffit Board: Paper.
- 3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
- 4. Tile Backing Panels: As recommended by panel manufacturer.

C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

- 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
- 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type, all-purpose compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
- 3. Fill Coat: For second coat, use drying-type, all-purpose compound.
- 4. Finish Coat: For third coat, use drying-type, all-purpose compound.
- 5. Skim Coat: For final coat of Level 5 finish, use drying-type, all-purpose compound.

2.6 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

- 1. Use screws complying with ASTM C 954 for fastening panels to steel members from **0.033 to 0.112 inch (0.84 to 2.84 mm)** thick.
- 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.

C. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

- D. Vapor Retarder: As specified in Section 072100 "Thermal Insulation."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than **1/16 inch (1.5 mm)** of open space between panels. Do not force into place.
- C. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- D. Form control and expansion joints with space between edges of adjoining gypsum panels.
- E. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than **8 sq. ft. (0.7 sq. m)** in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow **1/4- to 3/8-inch- (6.4- to 9.5-mm-)** wide joints to install sealant.
- F. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide **1/4- to 1/2-inch- (6.4- to 12.7-mm-)** wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- G. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Type X: As indicated on Drawings.
 - 2. Moisture- and Mold-Resistant Type: As indicated on Drawings.
- B. Single-Layer Application:
 - 1.
 - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - 3. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
 - 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners.
 - 2. Bullnose Bead: Use at outside corners.
 - 3. LC-Bead: Use at exposed panel edges.
 - 4. U-Bead: Use at exposed panel edges.
- D. Aluminum Trim: Install in locations indicated on Drawings.

3.5 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

- 1.
2. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated
 - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."
3. Level 5: Where indicated on Drawings.
 - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal channel ceiling framing and suspension system.
- B. Acoustical insulation.
- C. Gypsum board.
- D. Exterior Gypsum Sheathing.
- E. Gypsum Board Accessories
- F. Taped and sanded joint treatment.

1.2 RELATED SECTIONS

- A. Section 05 40 00 - Cold Formed Metal Framing.
- B. Section 09 22 16 - Metal Stud Framing System.
- C. Section 09 90 00 - Painting: Surface finish.

1.3 REFERENCES

- A. ASTM C36 - Gypsum Wallboard.
- B. ASTM C79 - Gypsum Sheathing Board.
- C. ASTM C442 - Gypsum Backing Board and Core Board.
- D. ASTM C475 - Joint Treatment Materials for Gypsum Wallboard Construction.
- E. ASTM C514 - Nails for the Application of Gypsum Wallboard.
- F. ASTM C557 - Adhesive for Fastening Gypsum Wallboard to Wood Framing.
- G. ASTM C630 - Water Resistant Gypsum Backing Board.
- H. ASTM C645 - Non-Load (Axial) Bearing Steel Studs, Runners (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.
- I. ASTM C665 - Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- J. ASTM C754 - Installation of Framing Members to Receive Screw Attached Gypsum Wallboard, Backing Board, or Water Resistant Backing Board.
- K. ASTM C840 - Application and Finishing of Gypsum Board.
- L. ASTM C1002 - Steel Drill Screws for the Application of Gypsum Board.

- M. ASTM E90 - Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- N. ASTM E119 - Fire Tests of Building Construction and Materials.
- O. GA-201 - Gypsum Board for Walls and Ceilings.
- P. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board.
- Q. GA-600 - Fire Resistance Design Manual.
- R. The Gypsum Construction Handbook – Latest Edition.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Provide data on metal framing, gypsum board, and joint tape.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with GA-201 and GA-600.
- B. Maintain one copy of each document on site.

1.7 QUALIFICATIONS

- A. Applicator: Company specializing in performing the work of this section with minimum ten years documented experience.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies in conjunction with the drawings as follows:
 - 1. Fire Rated Partitions: Listed assembly by UL.
 - 2. Fire Rated Ceiling: Listed assembly by UL.

PART 2 PRODUCTS

2.1 GYPSUM BOARD MATERIALS

- A. Exterior Gypsum Sheathing Board: equal to Georgia Pacific Products Dens-Glass Gold, 5/8" thick, composed of gypsum sheathing manufactured in accordance with ASTM C1177 with glass mats both sides and long edges, silicone-treated water-resistant core.
- B. Fire Rated Gypsum Board: ASTM C36; fire resistive type, UL rated; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges.
- C. Gypsum Board: ASTM C1278; fire resistive type, UL rated; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges.
 - 1. All gypsum board utilized on project shall be fire resistive.

2.2 ACCESSORIES

- A. Acoustical Insulation (Sound attenuation blanket or batt): Equal to Thermafiber's 3-inch thick Sound Attenuation Fire Blanket (SAFB), paperless, semi-rigid spun material fiber batt; density 2.5 lb/cf.
- B. Corner Beads: Metal.
- C. Edge Trim: GA 201 and GA 216; Type LC exposed reveal bead.
- D. Joint Materials: ASTM C475; reinforcing tape, joint compound, adhesive, and water.
- E. Fasteners: ASTM C1002, Type S12 and GA-216.
- F. Exterior Sheathing Joint Tape: 2" wide, 10 by 10 glass mesh tape.
- G. Reglets: Extruded alloy 6063 T5 Aluminum, non-vented, 5/8" wide x depth of sheathing.
- H. Control Joints: Metal, No. 093.
- I. Metal Suspension System: Double web, hot dipped galvanized main beams and cross tees, 1 1/2" in height x 15/16" flange with drywall angle clips and accessories required for a complete installation. Equal to Armstrong World Industries Drywall Grid Systems.
- J. Edge Reveals: Edge reveals shall be equal to Fry Reglet's 'F' Reveal DRMF-50/50 extruded aluminum with clear anodized finish.
 - 1. Reveal shall be provided as detailed and at ALL gypsum board transitions to dissimilar materials such as CMU concrete and/or wood and to existing walls and partitions.
- K. Furring Channels: 1/2" resilient channels, 7/8" hat channels, resilient sound isolation clips.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01 31 00.
- B. Verify that site conditions are ready to receive work and opening dimensions are as instructed by the manufacturer.

3.2 METAL STUD INSTALLATION

- A. Install studs in accordance with ASTM C754. GA-201, GA- 216 and GA-600 manufacturers' instructions.
- B. Metal Stud Spacing: 16 inches on center.
- C. Refer to Drawings for indication of partitions extending to finished ceiling only and for partitions extending through the ceiling to the structure above. Maintain clearance under structural building members to avoid deflection transfer to studs. Provide extended leg ceiling runners.

- D. Door Opening Framing: Install double studs at door frame jambs. Install stud tracks on each side of opening, at frame head height, and between studs and adjacent studs.
- E. Blocking: Screw wood blocking to studs. Install blocking for support of plumbing fixtures, toilet partitions, toilet accessories, hardware, chalkboards, markerboards and tackboards.

3.3 WALL FURRING INSTALLATION

- A. Erect wall furring for direct attachment to substrate walls.

3.4 FURRING FOR FIRE RATINGS

- A. Install furring as required for fire resistance ratings indicated and to GA-600 requirements.

3.5 CEILING FRAMING INSTALLATION

- A. Install in accordance with GA 201 and GA 216 and manufacturer's instructions.
- B. Coordinate location of hangers with other work.
- C. Install ceiling framing independent of walls, columns, and above ceiling work.
- D. Reinforce openings in ceiling suspension system which interrupt main carrying channels or furring channels, with lateral channel bracing. Extend bracing minimum 24 inches past each end of openings.
- E. Laterally brace entire suspension system.
- F. Installation of moisture resistant gypsum board on ceilings is prohibited in accordance with manufacturer's direction.

3.6 ACOUSTICAL ACCESSORIES INSTALLATION

- A. Install resilient channels at maximum 16 inches on center. Locate joints over framing members.
- B. Place acoustical insulation in partitions tight within spaces, around cut openings, behind and around electrical and mechanical items within or behind partitions, and tight to items passing through partitions.
- C. Install acoustical sealant at gypsum board perimeter at:
 - 1. Metal Framing: Two beads.
 - 2. Caulk all penetrations of partitions by conduit, pipe, duct work, rough-in boxes, and miscellaneous accessories.

3.7 GYPSUM BOARD INSTALLATION

- A. Install gypsum board in accordance with GA-201, GA-216 and manufacturer's instructions. **Maintain ¼ inch clearance between bottom of gypsum board and finish floor.**
- B. Erect single layer standard gypsum board in most economical direction, with ends and edges occurring over firm bearing.
- C. Erect single layer fire rated gypsum board vertically, with edges and ends occurring

over firm bearing.

- D. Use screws when fastening gypsum board to metal furring or framing.
- E. Double Layer Applications: Use gypsum backing board for first layer, placed perpendicular to framing or furring members. Use fire rated gypsum backing board for fire rated partitions.
- F. Place second layer perpendicular to first layer. Offset joints of second layer from joints of first layer.
- G. Erect exterior gypsum soffit board perpendicular to supports, with staggered end joints over supports.
- H. Treat cut edges and holes in moisture resistant gypsum board with sealant.
- I. Locate control joints as indicated on drawings and in accordance with the gypsum construction handbook - latest edition. If not indicated, control joints shall be a maximum 30 feet on center and include an area not greater than 900 square feet. Control joints shall be located in line with door jambs and direction changes of ceilings or at intersections of gypsum board that will require relief as determined by the Owner and Architect.
- J. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials with "J" type mold or "F" type mold as indicated.
- K. Install backing board over metal studs in accordance with manufacturer's instructions.
- L. Exterior sheathing shall be attached to metal framing with screws spaced at 8 inches on center at perimeter and 8 inches on center in field.

3.8 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
- C. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile.
- D. Tape joints and corners of cementitious backing board.
- E. Provide the following level of finish in accordance with the Gypsum Construction Handbook – Latest Edition.
 - 1. Level of Finish Schedule:
 - a. Level 0 – Temporary Construction
 - b. Level 1 – Plenum areas above ceilings or areas not exposed to view.
 - c. Level 2 – WR Gypsum backing board being used for tile substrate
 - d. Level 3 – Gypsum board scheduled to relieve heavy textured finishes or commercial grade wall coverings.
 - e. Level 4 – Gypsum board scheduled to receive light textured finishes or residential grade wall coverings.
 - f. Level 5 – All gypsum board scheduled to receive paint finish.

3.9 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Summary of Work: Remove damaged ceiling tiles and replace to match existing adjacent tiles. Replace affected ceiling system including ties, wall angles, and hangers.**
- B. Section includes acoustical panels and exposed suspension systems for ceilings.
- C. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
 - 1. Acoustical Panel: Set of full-size Samples of each type, color, pattern, and texture.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For finishes to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Acoustical Ceiling Panels: Full-size panels equal to **2** percent of quantity installed.
 - 2. Suspension-System Components: Quantity of each exposed component equal to **2** percent of quantity installed.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension-system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Acoustical ceiling shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- B. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- C. Fire-Resistance Ratings: Comply with ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

2.2 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances unless otherwise indicated.
- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.

2.3 ACOUSTICAL PANELS

- A. **Subject to compliance with requirements, provide products to match existing adjacent ceiling panels to be selected by the Architect.**
- B. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern.

2.4 METAL SUSPENSION SYSTEMS, GENERAL

- A. Metal Suspension-System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635/C 635M.
 - 1. High-Humidity Finish: Comply with ASTM C 635/C 635M requirements for "Coating Classification for Severe Environment Performance" where high-humidity finishes are indicated.
- B. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.
- C. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Stainless-Steel Wire: ASTM A 580/A 580M, Type 304, nonmagnetic.
 - 3. Nickel-Copper-Alloy Wire: ASTM B 164, nickel-copper-alloy UNS No. N04400.
 - 4. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635/C 635M, Table 1, "Direct Hung") will be less than yield stress of wire.
- D. Hanger Rods and Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.
- E. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized-steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.

2.5 METAL EDGE MOLDINGS AND TRIM

- A. **Subject to compliance with requirements, provide metal edge moldings and trim to match existing adjacent trim to be selected by the Architect.**

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with ASTM C 636/C 636M and seismic design requirements indicated, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

- 1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.

- B. Suspend ceiling hangers from building's structural members and as follows:

- 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 - 2. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
 - 4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 - 5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 - 6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
 - 7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 - 8. Do not attach hangers to steel deck tabs.
 - 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 - 10. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.
 - 11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.

- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without

attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
 - 1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 - 2. Screw attach moldings to substrate at intervals not more than **16 inches (400 mm)** o.c. and not more than **3 inches (75 mm)** from ends, leveling with ceiling suspension system to a tolerance of **1/8 inch in 12 feet (3.2 mm in 3.6 m)**. Miter corners accurately and connect securely.
 - 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
 - 1. Arrange directionally patterned acoustical panels as follows:
 - a. To match existing pattern of ceiling tiles in classrooms.**
 - 2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
 - 3. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 - 4. For reveal-edged panels on suspension-system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension-system surfaces and panel faces flush with bottom face of runners.
 - 5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
 - 6. Protect lighting fixtures and air ducts to comply with requirements indicated for fire-resistance-rated assembly.

3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095113

SECTION 096519 - RESILIENT TILE FLOORING

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Summary of Work: Replace 180 SF of carpet with vinyl tile in Classroom 501.**
- B. Section Includes:
 - 1. Solid vinyl floor tile.
 - 2. Vinyl composition floor tile.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: Full-size units of each color and pattern of floor tile required.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than **50 deg F (10 deg C)** or more than **90 deg F (32 deg C)**. Store floor tiles on flat surfaces.

1.9 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than **70 deg F (21 deg C)** or more than **95 deg F (35 deg C)**, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than **55 deg F (13 deg C)** or more than **95 deg F (35 deg C)**.
- C. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For resilient tile flooring, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
- B. FloorScore Compliance: Resilient tile flooring shall comply with requirements of FloorScore certification.

2.2 SOLID VINYL FLOOR TILE

- A. **Products:** Subject to compliance with requirements, **provide luxury vinyl tile as selected by Architect**. Available products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Armstrong World Industries, Inc.
 - 2. Johnsonite; A Tarkett Company.
- B. Tile Standard: ASTM F 1700.
- C. Colors and Patterns: **As selected by Architect from full range of industry colors.**

2.3 VINYL COMPOSITION FLOOR TILE

- A. **Products:** Subject to compliance with requirements, **provide vinyl composition tile as selected by the Architect.** Available products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. [Armstrong World Industries, Inc.](#)
 - 2. [Congoleum Corporation.](#)
 - 3. [Mannington Mills, Inc.](#)
- B. Tile Standard: ASTM F 1066, tile.
- C. Size: **12 by 12 inches (305 by 305 mm).**
- D. Colors and Patterns: **As selected by Architect from full range of industry colors.**

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
 - 1. Adhesives shall comply with the following limits for VOC content:
 - a. Vinyl Composition Tile Adhesives: 50 g/L or less.
 - 2. Adhesives shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
 - 3. Moisture Testing: Proceed with installation only after substrates pass testing according to floor tile manufacturer's written recommendations.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install floor tiles until they are the same temperature as the space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
- E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.3 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.
- G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor areas. Maintain overall continuity of color and pattern

between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.

- H. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- I. Seamless Installation:
 - 1. Heat-Welded Seams: Comply with ASTM F 1516. Rout joints and heat weld with welding bead to permanently fuse sections into a seamless flooring. Prepare, weld, and finish seams to produce surfaces flush with adjoining flooring surfaces.
 - 2. Chemically Bonded Seams: Bond seams with chemical-bonding compound to permanently fuse sections into a seamless flooring. Prepare seams and apply compound to produce tightly fitted seams without gaps, overlays, or excess bonding compound on flooring surfaces.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.
- E. Joint Sealant: Apply sealant to resilient terrazzo floor tile perimeter and around columns, at door frames, and at other joints and penetrations.
- F. Cover floor tile until Substantial Completion.

END OF SECTION 096519

SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on exterior substrates.
- B. Related Requirements:
 - 1. Section 099123 "Interior Painting" for surface preparation and the application of paint systems on interior substrates.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches (200 mm) square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than **45 deg F (7 deg C)**.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between **50 and 95 deg F (10 and 35 deg C)**.
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than **5 deg F (3 deg C)** above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Behr Process Corporation.
 - 2. Benjamin Moore & Co.
 - 3. Benjamin Moore & Co. (Canada).
 - 4. Duron, Inc.
 - 5. ICI Paints.
 - 6. Kelly-Moore Paints.
 - 7. PPG Architectural Finishes, Inc.
 - 8. Pratt & Lambert.
 - 9. Sherwin-Williams Company (The).
 - 10. Valspar Paint.
 - 11. Zinsser.

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. 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.

- C. Colors: As selected by Architect from manufacturer's full range.

2.3 BLOCK FILLERS

- A. Block Filler, Latex, Interior/Exterior: MPI #4.

2.4 PRIMERS/SEALERS

- A. Primer, Alkali Resistant, Water Based: MPI #3.
- B. Primer, Bonding, Water Based: MPI #17.
- C. Primer, Bonding, Solvent Based: MPI #69.

2.5 METAL PRIMERS

- A. Primer, Alkyd, Anti-Corrosive for Metal: MPI #79.
- B. Primer, Alkyd, Quick Dry, for Metal: MPI #76.
- C. Primer, Galvanized, Water Based: MPI #134.
- D. Primer, Galvanized: As recommended in writing by topcoat manufacturer.
- E. Primer, Quick Dry, for Aluminum: MPI #95.

2.6 WATER-BASED PAINTS

- A. Latex, Exterior Flat (Gloss Level 1): MPI #10.
- B. Latex, Exterior Low Sheen (Gloss Level 3-4): MPI #15.
- C. Latex, Exterior Semi-Gloss (Gloss Level 5): MPI #11.
- D. Latex, Exterior, Gloss (Gloss Level 6: MPI #119.

2.7 ALUMINUM PAINT

- A. Aluminum Paint: MPI #1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Portland Cement Plaster: 12 percent.
 - 5. Gypsum Board: 12 percent.
- C. Portland Cement Plaster Substrates: Verify that plaster is fully cured.
- D. Exterior Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer.
 - 1. SSPC-SP 2, "Hand Tool Cleaning."
 - 2. SSPC-SP 3, "Power Tool Cleaning."
 - 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
 - 4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Aluminum Substrates: Remove loose surface oxidation.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
 - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
 - 4. Paint entire exposed surface of window frames and sashes.
 - 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:

1. Paint the following work where exposed to view:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 099113

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. **Summary of Work: Interior painting is required in the classrooms and other areas affected by the exterior wall replacement as a result of the removal of gypsum wallboard and counters. Painting colors and finishes shall match adjacent walls.**
- B. Section includes surface preparation and the application of paint systems on interior substrates.
- C. Related Requirements:
 - 1. Section 099113 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches (200 mm) square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.
 - 3. VOC content.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Behr Process Corporation.
 - 2. Benjamin Moore & Co.
 - 3. California Paints.
 - 4. Duron, Inc.
 - 5. ICI Paints.
 - 6. Kelly-Moore Paints.
 - 7. McCormick Paints.
 - 8. Pratt & Lambert.
 - 9. Sherwin-Williams Company (The).
 - 10. Valspar Paints.
 - 11. Zinsser.

2.2 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.
- B. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction.
 1. Flat Paints and Coatings: 50 g/L.
 2. Nonflat Paints and Coatings: 150 g/L.
 3. Primers, Sealers, and Undercoaters: 200 g/L.
- C. Low-Emitting Materials: Interior paints and coatings shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. **Colors: Color to be selected by the Owner or Building Manager to match existing adjacent walls in classrooms.**

2.3 PRIMERS/SEALERS

- A. Primer Sealer, Latex, Interior.
- B. Primer Sealer, Interior, Institutional Low Odor/VOC.

2.4 WATER-BASED PAINTS

- A. Latex, Interior, Flat, (Gloss Level 1, 2, 3, 4, or 5).
- B. Latex, Interior, Institutional Low Odor/VOC, Flat (Gloss Level 1, 2, 3, 4, 5).

2.5 TEXTURED COATING (if used in existing areas)

- A. Primer for Textured Coating, Latex, Flat: As recommended in writing by topcoat manufacturer.
- B. Intermediate Coat for Textured Coating, Latex, Flat: As recommended in writing by topcoat manufacturer.
- C. Textured Coating, Latex, Flat.

2.6 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Concrete: 12 percent.
 2. Masonry (Clay and CMU): 12 percent.

3. Wood: 15 percent.
4. Gypsum Board: 12 percent.
5. Plaster: 12 percent.

- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Plaster Substrates: Verify that plaster is fully cured.
- E. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.
- F. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- G. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions.

2.7 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.

2.8 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."

1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

2.9 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 099123

FACADE REPLACEMENT PROJECT FOR THURMONT PRIMARY SCHOOL THURMONT, MD



CONSTRUCTION DOCUMENT 100% SUBMISSION
June/18/2019

DRAWING INDEX	
TPS-G-CS	COVER SHEET
TPS-A-01	DEMOLITION PLAN
TPS-A-02	PLAN & ELEVATION
TPS-A-03	SECTIONS
TPS-A-04	DETAILS



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NOTES:

REVIEW STAMP:

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Revisions:		
NO.	DATE	DESCRIPTION

Project:

FACADE REPLACEMENT
THURMONT PRIMARY SCHOOL
THURMONT, MD

Drawing Title:
COVER SHEET

SHELADIA Project No. 5530.001

Drawn by: HS

Checked by: YCL

Date: 06.18.2019

Drawing No.

TPS-G-CS



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Project:

FACADE REPLACEMENT
THURMONT PRIMARY SCHOOL
THURMONT, MD

Drawing Title:

DEMOLITION PLAN

SHELADIA Project No. 5530.001

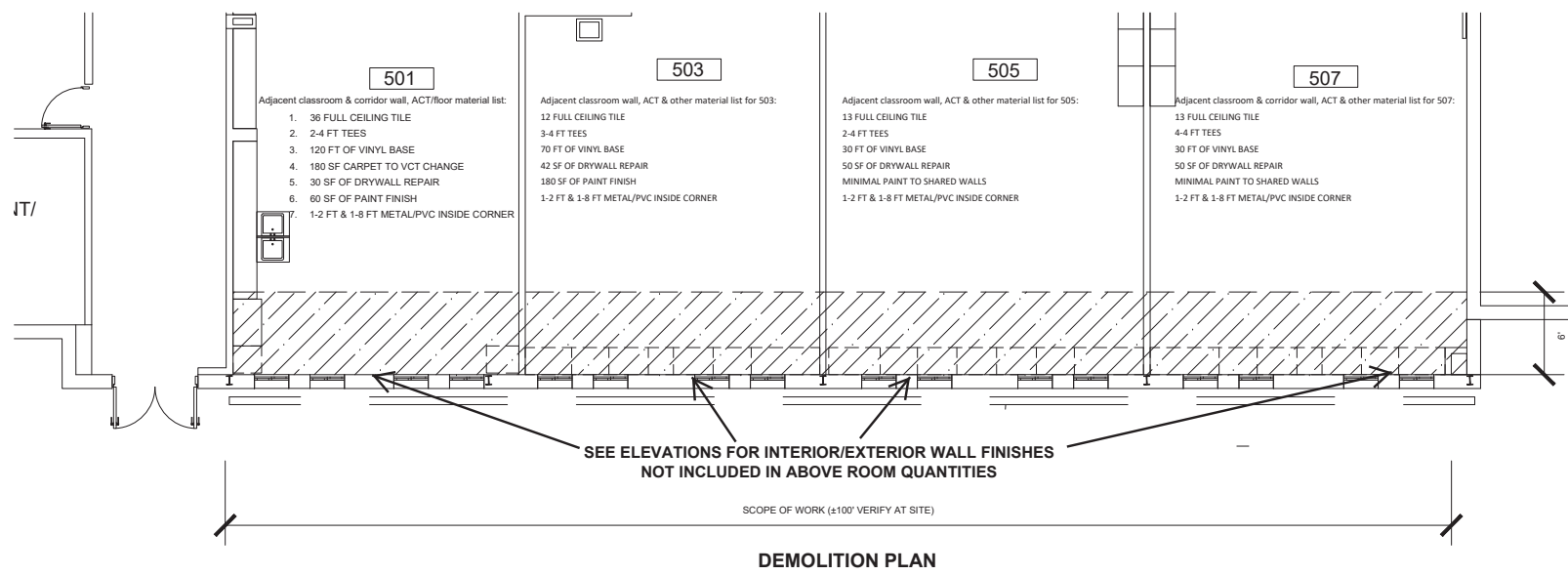
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Checked by: YGL

Date: 06.18.2019

Drawing No.

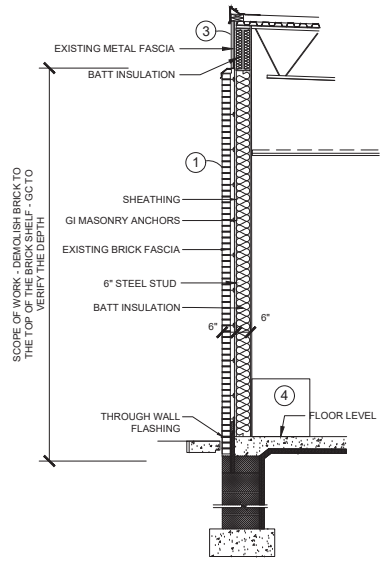
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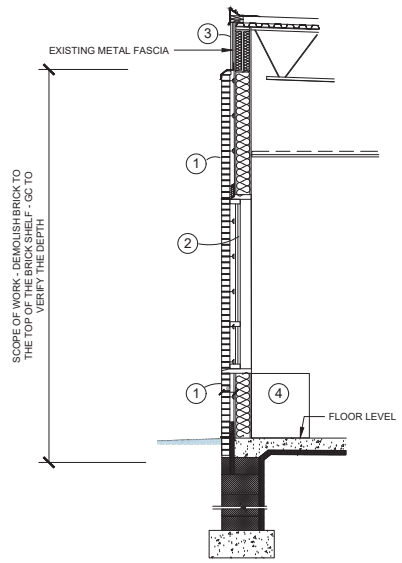
DEMOLITION PLAN

SCOPE OF WORK:

1. Demolish the remaining veneer system, sheathing, anchors, flashings and remaining interior drywall.
2. Demolish the 16 windows and accessories. Reuse the original stud openings for the 15 non-operable replacement windows. Provide a new brick veneer skin over Densglass with air cavity. Provide 2 new saw cut control joints with aluminum covers to terminate the new facade assembly.
3. The Parapet system and metal panels are to be retained. The step flashing and downspout connection at the North Canopy may need to be modified to properly install the proposed CJ & cover plate. Both CJ's may require a fabricated cover item.
4. In Rooms 503, 505, & 507, reinstall the salvaged casework & counter-tops at their former positions in the classrooms. Provide a new PVC back-splash, face attached via decorative grommets. For Room 501, the tall cabinet is to be discarded. The Teachers Wardrobe cabinet shall be installed at the hallway entry door in to the classrooms. Provide caulk at termination of dissimilar materials.
5. Provide new vinyl base where missing, see above for quantities, location showed as hatched area in plan.
6. All rooms have some grid & ceiling work to be performed. See page 3 photos and above for material quantities.
7. In addition to interior drywall treatments at the new exterior wall assemblies, there is a small quantity of drywall & painting work at adjoining walls between the classrooms. See above for estimated quantities & photos for locations. It is preferred the contractor provide an aluminum inside corner piece to avoid taping /mudding & painting the new exterior drywall corners to adjacent surfaces.
8. In Room 501, replace 180 square feet of carpet with vct. Additionally, provide a removable inspection panel feature/ w/exposed fastener behind the North Control Joint to allow for future inspection of the exterior wall cavity. The veneer masonry behind the removable panel shall receive the fluid applied vapor barrier, approx. 40 square feet in area, and a removable batt insulation feature. See photo on page 3 for location. The window HMF to the corridor shall be painted.
9. All windows shall receive new blinds



EXISTING BRICK FACIA WALL SECTION (TYP)



EXISTING WINDOW SECTION (TYP)



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Project:

FACADE REPLACEMENT
THURMONT PRIMARY SCHOOL
THURMONT, MD

Drawing Title:
PLAN & ELEVATION

SHELADIA Project No. 5530.001

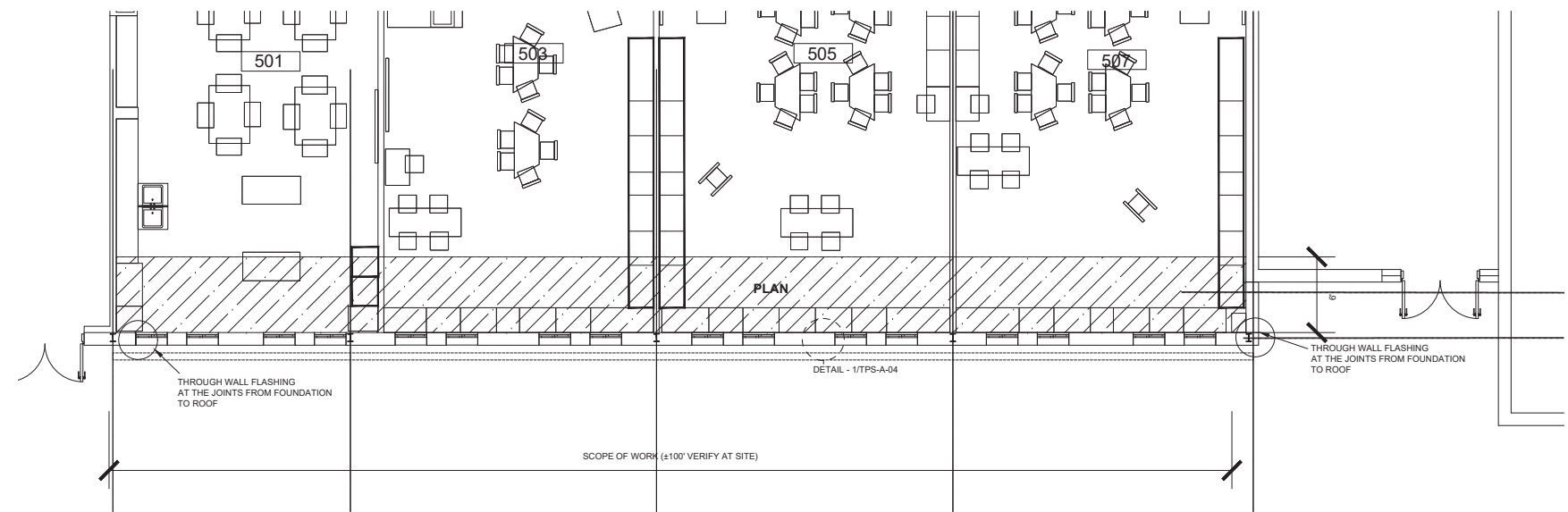
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Checked by: YGL

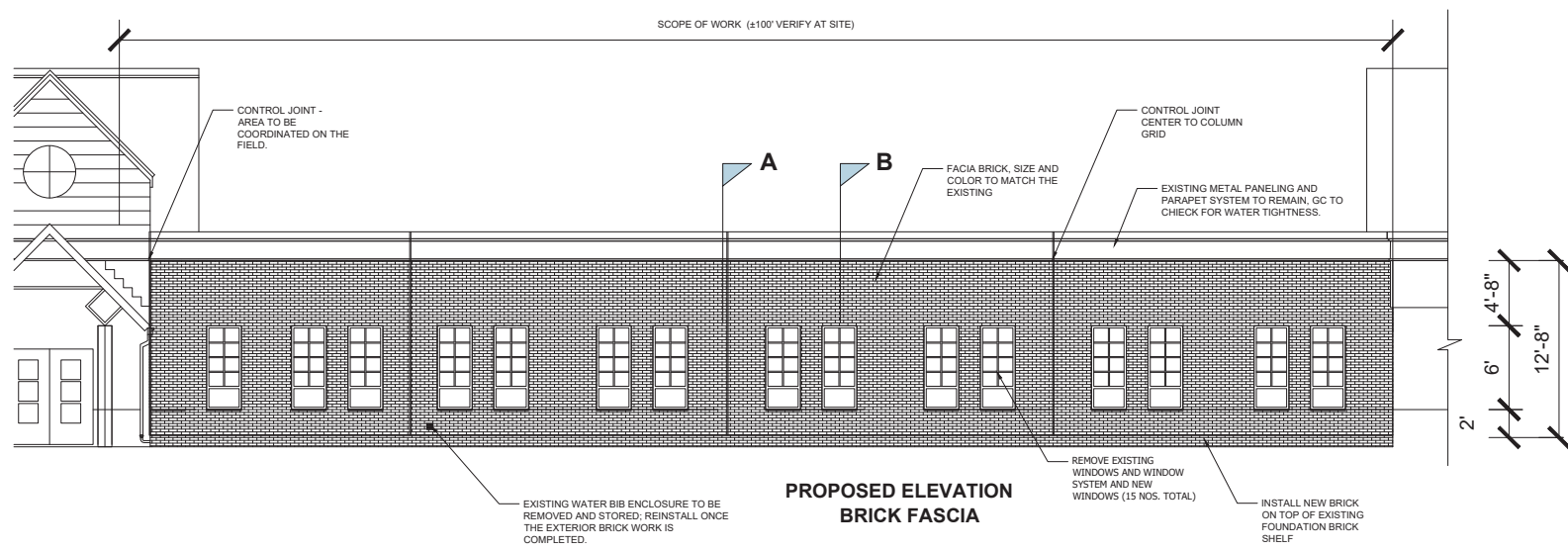
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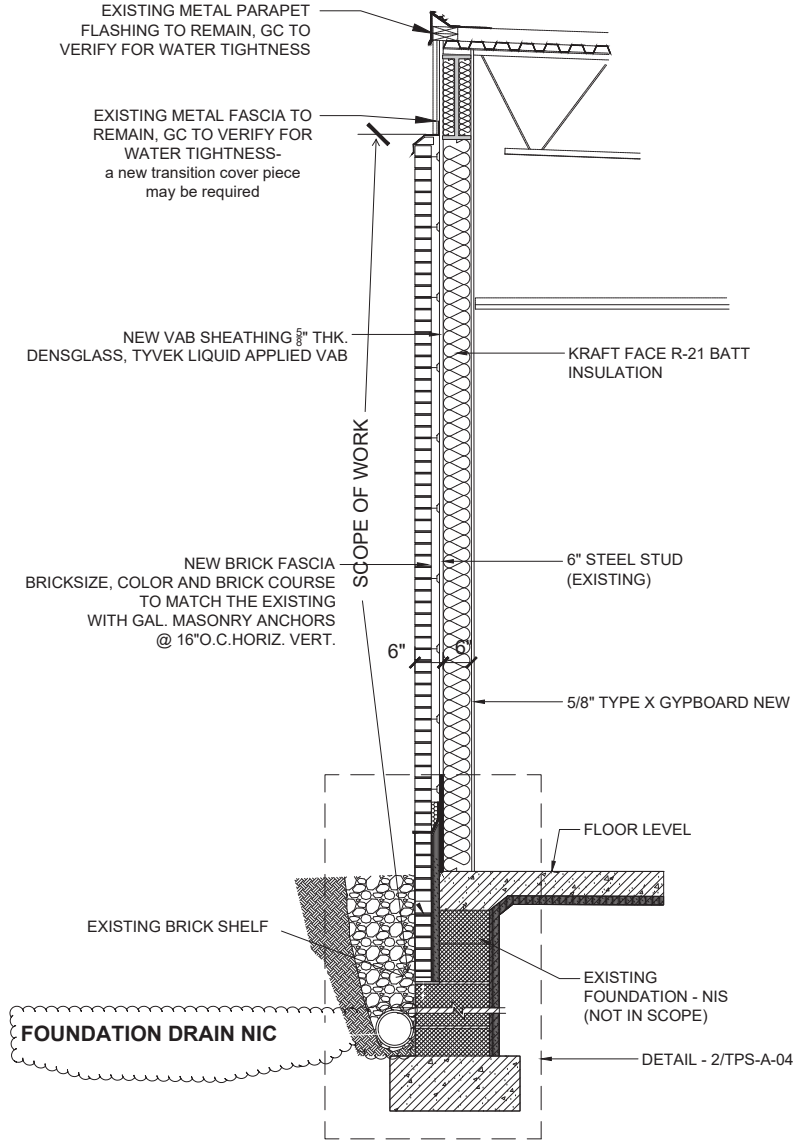
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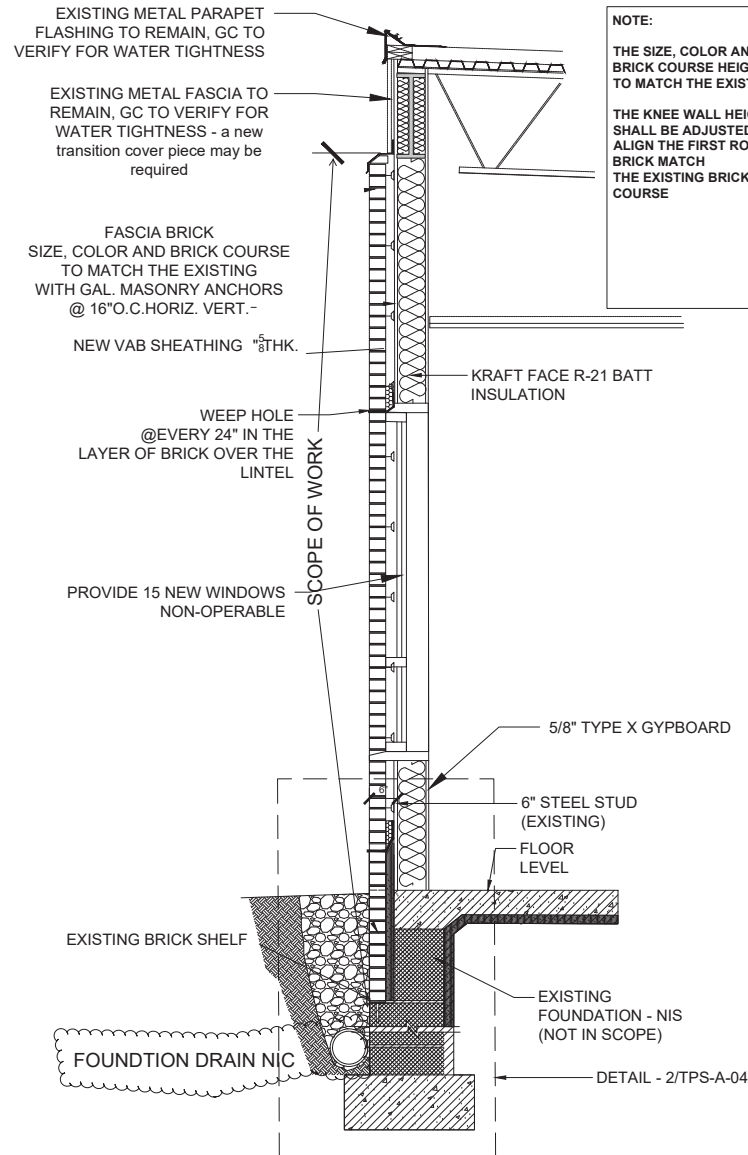
PLAN



**PROPOSED ELEVATION
BRICK FACIA**



SECTION A



SECTION B

NOTE:

THE SIZE, COLOR AND THE BRICK COURSE HEIGHT HAS TO MATCH THE EXISTING

THE KNEE WALL HEIGHT SHALL BE ADJUSTED TO ALIGN THE FIRST ROW OF BRICK MATCH THE EXISTING BRICK COURSE



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FACADE REPLACEMENT
THURMONT PRIMARY SCHOOL
THURMONT, MD

Drawing Title:

SECTIONS

SHELADIA Project No. 5530.001

Drawn by: HS

Checked by: YGL

Date: 06.18.2019

Drawing No.

TPS-A-03



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**FACADE
REPLACEMENT**
THURMONT PRIMARY SCHOOL
THURMONT, MD

Drawing Title:
DETAILS

SHELADIA Project No. 5530.001

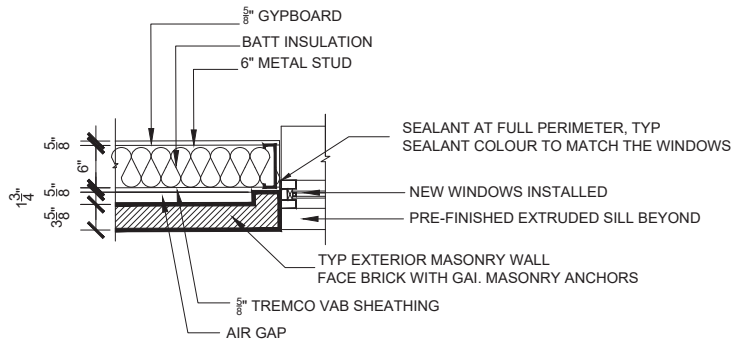
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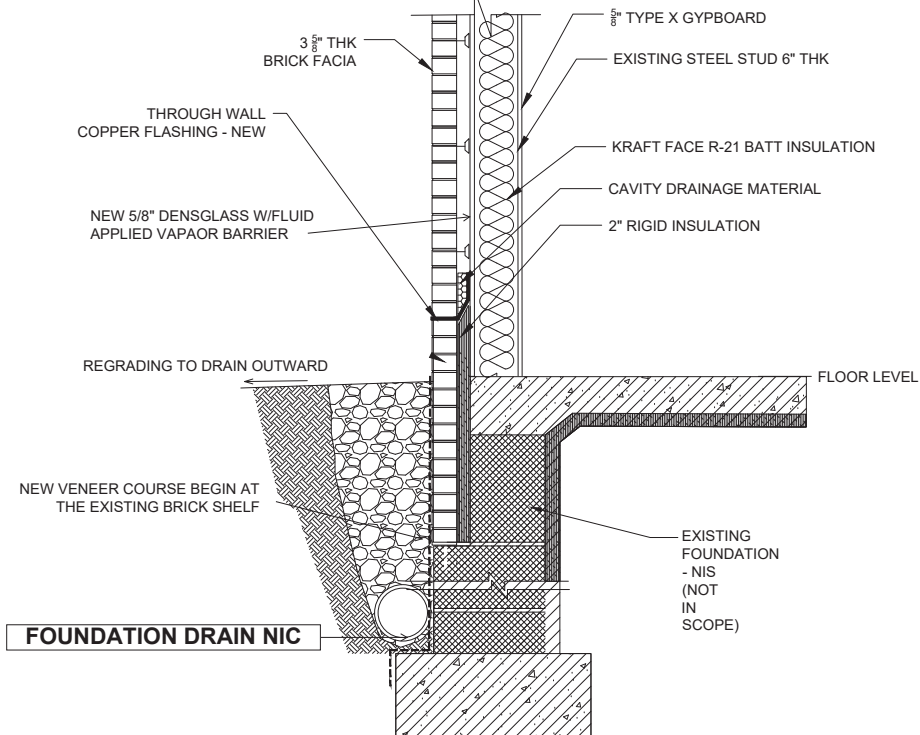
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Drawing No.

TPS-A-04



**DETAIL-1
WALL DETAIL**



**DETAIL-2
KNEE WALL DETAIL**



ROOM 501



ROOM 503



ROOM 505



ROOM 507



Existing facade



Canopy at North CJ



Canopy at South CJ