

**Project Manual with**  
**Specifications**

**Phase 1 of Rehabilitation of the**

**Darlington Schoolhouse**

**600 Ramapo Valley Road, Mahwah, N. J. 07430**

**June 14, 2010**

**Colgan Perry Lawler Aurell Architects**  
**118 Main Street Tappan, NY 10983**

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\* Sections marked with an asterisk apply to the work of all other sections.

## SECTION 001000 – INFORMATION FOR BIDDERS

## 1. Invitation

Contractors whose qualifications have been pre-approved by the New Jersey Historic Preservation Trust and by the New York New Jersey Trail Conference (the Owner), specifically for this project, are invited to submit proposals to the Owner for this project.

## 2. Bid Time and Date

Proposals are to be delivered to the Owner at or before 2:00 p.m. on September 29, 2010 on the form provided, at the address given below.

## 3. Owner

The New York New Jersey Trail Conference, Inc.  
156 Ramapo Valley Road  
Mahwah, New Jersey 07430  
Attn: Edward Goodell, Executive Director  
Tel. (201) 512-9348

## 4. Architect

Colgan Perry Lawler Aurell Architects, LLC  
118 Main Street  
Tappan, New York 10983  
Attn: Walter C. Aurell, President  
Winston C. Perry Jr., Project Manager <win@cpla-arch.com>  
Tel. (845) 680-6670

## 5. Project

Phase 1 of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, New Jersey 07430

## 6. Brief Description

The project consists in general of a single contract for: General Conditions, selective demolition, masonry re-pointing, metal fabrications, repair of exterior and interior

woodwork, rough carpentry, repair of flashing gutters and downspouts, exterior painting, replacement of heating system, replacement of electrical service, sprinkler system, fire alarm system, and such other work as may be indicated in the drawings and specifications, for the rehabilitation of the Darlington Schoolhouse, Phase 1. No occupancy of the building, except for incidental storage, is planned until the completion of a future Phase 2, at which time the building will serve as headquarters and offices for the Owner.

#### 7. Historical Treatment

The Darlington Schoolhouse is a historic resource, listed on the National Register of Historic Places. All work on it must be in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and other specified requirements.

#### 8. Bid Documents

Project Manual with Specifications, dated June 14, 2010.

Drawings, dated June 14, 2010: DD-1, ECS-1 (dated 10/7/09), A-1 through A-6, E-1 through E-4, FA-1, FP1 through FP-5, and M-1 through M-4.

Addenda as may be issued during the bid period.

#### 9. Alternate Prices

State on the proposal the amount by which the lump sum bid would be increased for adding the work described below.

Alternate No. 1 – Construct Valve Room: Add all work required for the construction of Valve Room 107 and the platform and steps adjacent to it specified in Sections 024119 through 087100, including but not limited to selective demolition, rough carpentry, insulation, door, and finishes.

Alternate No. 2 – Fire Protection Sprinkler System: Add all work needed for a complete fire protection sprinkler system and combined domestic/fire-protection water service as shown on Drawings FP-1 through FP-5. Also add electrical work related to the sprinkler system, including power and lighting for the Valve Room, electric heater for the Valve Room, fire alarm connection to the sprinkler system, and grounding of the electrical service to the water service pipe in lieu of alternative grounding.

#### 9. Bonds and Insurance

Requirements for bid bond, performance bond, payment bond, and contractor's insurance appear in Section 002000 – Agreement.

10. Sales Tax Exemption

The project is exempt from New Jersey sales tax.

11. Requests for Information

Requests from bidders for information should be delivered to the Architect by mail, fax or e-mail at least a week before the bid date.

END OF SECTION 001000

# AIA<sup>®</sup> Document A107<sup>™</sup> – 2007

## **Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope**

**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)*

New York-New Jersey Trail Conference, Inc.  
156 Ramapo Valley Road  
Mahwah, NJ 07430

There is a co-owner, the Township of Mahwah, which is not a party to this agreement.

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

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

Phase 1 of Rehabilitation of the historic Darlington Schoolhouse, 600 Ramapo Valley Road, Mahway, NJ, for adaptive reuse as headquarters for the Owner

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

Colgan Perry Lawler Aurell Architects, LLC  
118 Main Street  
Tappan, NY 10983

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.

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**ARTICLE 1 THE WORK OF THIS CONTRACT**

The Contractor shall execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. The Work to be performed by the Contractor is the total construction of the Project and includes all labor, materials, equipment, and services reasonably inferable from the Contract Documents as necessary to construct the Work in accordance with the Contract Documents, and all applicable laws, codes and professional standards. Except as provided for in the Contract Documents to the contrary, the Contractor at its sole cost, risk and expense shall construct, equip, provide, purchase, pay for and furnish all of the Work in accordance with the Contract Documents and governmental codes and regulations as they apply to the performance of the Work. The Contractor shall cooperate with the Owner and with the Architect and exercise the Contractor's best skill and judgment in furthering the interests of the Owner, to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the interests of the Project.

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**ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

**§ 2.1** The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.  
*(Insert the date of commencement, if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)*

TBD

**§ 2.2** The Contract Time shall be measured from the date of commencement.

**§ 2.3** The Contractor shall achieve Substantial Completion of the entire Work not later than \_\_\_\_\_ and Final Completion not later than \_\_\_\_\_. Substantial Completion shall mean completion of the Work in accordance with the requirements of Section 15.4. Final Completion shall mean the full and complete performance of all Work in accordance with the Contract Documents. Owner and Contractor acknowledge that time is of the essence in the Substantial Completion and Final Completion of the Work, and no amendment of the Substantial Completion Date or Final Completion Date shall be permitted except in strict accordance with the provisions of the Contract Documents.  
*(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)*

**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.)*

**ARTICLE 3 CONTRACT SUM**

**§ 3.1** 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 one of the following:  
*(Check the appropriate box.)*

- Stipulated Sum, in accordance with Section 3.2 below
- Cost of the Work plus the Contractor’s Fee, in accordance with Section 3.3 below
- Cost of the Work plus the Contractor’s Fee with a Guaranteed Maximum Price, in accordance with Section 3.4 below

*(Based on the selection above, complete Section 3.2, 3.3 or 3.4 below.)*

**§ 3.2** The Stipulated Sum shall be (\$ \_\_\_\_\_), subject to additions and deductions as provided in the Contract Documents. The Contract Sum shall include the Contractor’s Fee, General Conditions and all compensation due under the Contract Documents.

**§ 3.2.1** The Stipulated Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:  
*(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)*



**§ 3.2.2** Unit prices, if any:

*(Identify and state the unit price, and state the quantity limitations, if any, to which the unit price will be applicable.)*

Item	Units and Limitations	Price Per Unit (\$0.00)
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**§ 3.2.3** Allowances included in the stipulated sum, if any:

*(Identify allowance and state exclusions, if any, from the allowance price.)*

Item	Allowance
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| § 3.3

| § 3.3.1

| § 3.3.2

| § 3.4

| § 3.4.1

| § 3.4.2

| § 3.4.3

| § 3.4.3.1

| § 3.4.3.2

| § 3.4.3.3

| § 3.4.3.4

| § 3.4.3.5

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## ARTICLE 4 PAYMENTS

### § 4.1 PROGRESS PAYMENTS

§ 4.1.1 Based upon Applications for Payment properly 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.

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

§ 4.1.3 Provided that an Application for Payment is received by the Architect not later than the 1st day of a month, the Owner shall make payment of the certified amount to the Contractor not later than the 1st day of the following month. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the Owner not later than thirty ( 30 ) days after the Architect receives and certifies the Application for Payment. *(Federal, state or local laws may require payment within a certain period of time.)*

§ 4.1.4 Retainage, if any, shall be withheld as follows:

Notwithstanding anything to the contrary in this Agreement, Owner shall have the right to retain ten percent (10%) of each Progress Payment otherwise due Contractor under this Agreement until at least thirty (30) days after the Architect has certified Contractor's final Application for Payment and Owner, and if applicable, Owner's lender, have accepted the Work, and Contractor has complied with all conditions precedent to final payment, including those set forth in Sections 4.2 and 15.5. Upon Contractor's request, Owner, in Owner's sole and absolute discretion, and with the consent of Owner's lender, may authorize the release of retainage due designated Subcontractors upon final completion of their scope of work and delivery by such Subcontractors of the appropriate certifications and lien releases required under this Agreement.

§ 4.1.5 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.)*

Wall Street Journal Prime plus 1% per annum.

### § 4.2 FINAL PAYMENT

§ 4.2.1 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 Section 18.2, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 a final Application for Payment has been submitted by Contractor and certified by the Architect;
- .3 Contractor has completed and provided the Owner a full set of cumulative "as built" drawings;
- .4 Contractor has delivered to Owner certified Acceptance of Final Payment and Release of Liens and Claims from Contractor and all Subcontractors, Sub-subcontractors, or Suppliers working through or under Contractor in the form appended hereto as Exhibit "E-1" and "E-2";
- .5 The Township has approved all Work (if required); and
- .6 A final Certificate for Payment has been issued by the Architect.

§ 4.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after (1) the Contractor has fully performed the Contract as provided in Section 4.2.1 and (2) the issuance of the Architect's final Certificate for Payment.

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§ 4.2.3 Acceptance of final payment by the Contractor, a Subcontractor, Sub-subcontractor or material 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 5 DISPUTE RESOLUTION

##### § 5.1 BINDING DISPUTE RESOLUTION

For any claim subject to, but not resolved by, mediation pursuant to Section 21.3, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box. If the Owner and Contractor do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.)*

- Arbitration pursuant to Section 21.4 of this Agreement
- Litigation in a court of competent jurisdiction
- Other *(Specify)* Arbitration pursuant to Section 21.4 of this Agreement or Litigation at the sole discretion of the Owner.

#### ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS

§ 6.1 The Contract Documents are defined in Article 7 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 6.1.1 The Agreement is this executed AIA Document A107–2007, Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope as modified.

§ 6.1.2 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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§ 6.1.3 The Specifications:

*(Either list the Specifications here or refer to an exhibit attached to this Agreement.)*

See List of Specifications Sections annexed hereto as Exhibit "B"

Section	Title	Date	Pages
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§ 6.1.4 The Drawings:

*(Either list the Drawings here or refer to an exhibit attached to this Agreement.)*

See List of Drawings annexed hereto as Exhibit "A"

Number	Title	Date
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§ 6.1.5 The Addenda, if any:

Number	Date	Pages
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Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are enumerated in this Article 6.

§ 6.1.6 Additional documents, if any, forming part of the Contract Documents:

.1

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.2

.3 Other documents:

*(List here any additional documents that are intended to form part of the Contract Documents.)*

List of Drawings annexed hereto as Exhibit "A"

List of Specifications Sections annexed hereto as Exhibit "B"

Insurance/Performance and Payment Bond Requirements annexed hereto as Exhibit "C"

Payment Application Certifications annexed hereto as Exhibits "D-1", "D-2", "E-1" and "E-2"

## ARTICLE 7 GENERAL PROVISIONS

### § 7.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in Article 6 and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement. 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. 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 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 a conflict or inconsistency in or amongst the Contract Documents, or between the Contract Documents and applicable codes in effect at the time the Contract Sum is bid or negotiated, the Contractor shall, unless directed otherwise in writing by the Owner, provide the greatest quantity, highest quality, highest degree of safety, and most stringent material, equipment or Work.

### § 7.2 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 between (1) the Architect and Contractor, (2) the Owner and a Subcontractor, Sub-subcontractor or Supplier, (3) the Owner and the Architect, or (4) any persons or entities other than the Owner and the Contractor.

### § 7.3 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.

### § 7.4 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 their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

### § 7.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 7.5.1 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 will retain all common law, statutory and other reserved rights, including copyrights except as provided in Article 7 of the modified AIA B101-2007 Owner/Architect contract. The Contractor, Subcontractors, Sub-subcontractors, and material 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 this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

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User Notes:

(1163228258)

**§ 7.5.2** The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them 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 this Project outside the scope of the Work without the specific written consent of the Owner and Architect.

**§ 7.6 TRANSMISSION OF DATA IN DIGITAL FORM**

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmission, unless otherwise provided in the Agreement or in the Contract Documents.

*(Paragraph deleted)*

**§ 7.7 NATIONAL REGISTER OF HISTORIC PLACES ACKNOWLEDGEMENT**

Contractor acknowledges that the Darlington Schoolhouse is listed on the National Register of Historic Places and that this Project is being funded in part, by New Jersey Historic Trust grant money. Contractor shall review all laws, codes, regulations and guidelines relating to historic landmarks, including but not limited to those imposed by New Jersey Historic Trust, and shall construct the Project and perform its Work in compliance with such requirements.

**§ 7.8 GREEN BUILDING PRINCIPLES AND PRACTICES**

**§ 7.8.1** Contractor represents to Owner that it is experienced with Green Building principles and practices, that it shall perform its Scope of Work in accordance with Green Building principles and practices, that it has sufficient experienced personnel on staff who will be Key Employees for the Project who have knowledge of and experience with such Green Building principles and practices and who will oversee the Project on behalf of the Contractor and that Contractor shall engage Subcontractors who have knowledge of and experience with such Green Building principles and practices.

**ARTICLE 8 OWNER**

**§ 8.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER**

**§ 8.1.1** If requested by Contractor and if necessary for the Contractor to perform the Work, the Owner shall furnish all necessary surveys and a legal description of the site.

**§ 8.1.2** 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.

**§ 8.1.3** Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 9.6.1, the Owner shall secure and pay for other necessary approvals, easements, assessments and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

**§ 8.2 OWNER'S RIGHT TO STOP THE WORK**

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents, or fails to carry out the 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 is 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.

**§ 8.3 OWNER'S RIGHT TO CARRY OUT THE WORK**

If the Contractor defaults or fails to or neglects to carry out the Work in accordance with the Contract Documents, and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner, without prejudice to any other remedy the Owner may have, may correct such deficiencies and may deduct the reasonable cost thereof, including Owner's expenses, costs and losses and compensation for the Architect's, consultants', engineers', lawyers', or other additional services and expenses made necessary thereby, from the payment then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner upon demand.

## ARTICLE 9 CONTRACTOR

### § 9.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 9.1.1 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.

§ 9.1.2 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 8.1.1, 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. The Contractor shall promptly report in writing to the Owner and Architect any errors, inconsistencies, or omissions discovered by or made known to the Contractor as a request for information in such form as the Owner may require. Contractor shall not perform any portion of the Work without Contract Documents or, where required, approved Shop Drawings, Product Data or Samples. If Contractor performs any construction activity involving error, inconsistency or omission in the Contract Documents which Contractor recognized, or reasonably should have recognized using the normal standard of care, without such notice to Owner and Architect, Contractor shall assume complete responsibility for such performance and shall bear the full amount of the attributable costs for correction as well as any other loss or expense arising out of such performance (i.e. without increase to the Contract Sum).

### § 9.1.3

### § 9.2 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 9.2.1 The Contractor shall perform, supervise and direct the Work, using Contractor's first-class skill and attention. The Contractor shall supervise and direct the Work in good and workmanlike manner, applying thereto at least that degree of skill, care and supervision necessary to be exercised by contractors on work of the type covered by this Agreement and in accordance with general industry standards. Contractor shall promptly comply with all direction from Owner concerning coordination of the Work as a whole under the Contract Documents. Contractor shall be an independent contractor with respect to all work performed hereunder and neither Contractor nor those employed by Contractor to perform such work shall be deemed the agents, representatives, employees or servants of Owner in the performance of such work or any part thereof, in any manner dealt with herein. 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 and in accordance with the Contract.

§ 9.2.2 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 and any damages, losses, costs and expenses resulting from such acts or omissions. It is agreed that the relationship between Owner and Contractor shall be that of independent contractor and not of an agent or employee.

### § 9.3 LABOR AND MATERIALS

§ 9.3.1 Unless otherwise specifically 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. Contractor shall check all labor and materials entering the Work and shall keep full detailed accounts thereof.

§ 9.3.2 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 skilled in tasks assigned to them.

§ 9.3.3 The Contractor may make a substitution only with the consent of the Owner in writing, after evaluation by the Architect and Owner and in accordance with a Change Order.

§ 9.3.4 The Contractor shall deliver, handle, store and install materials in accordance with manufacturers' instructions.

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## § 9.4 WARRANTY

*(Paragraph deleted)*

§ 9.4.1 The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of first class 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. At Owner's discretion, Contractor shall assign to Owner any and all manufacturers' warranties at no cost to Owner.

§ 9.4.2 In addition to any specific guarantees required by the Contract Documents, Contractor hereby guarantees to perform the work in a first-class workmanlike manner and guarantees each portion of the Work against defects in Workmanship for a period of twelve (12) months from the date of Substantial Completion of the entire Project. All guarantees or warranties of equipment or materials furnished to Contractor or any Subcontractor by any manufacturer or supplier shall be deemed to run for the benefit of Owner.

## § 9.5 TAXES/TAX EXEMPT STATUS

The Contractor shall pay sales, consumer, use and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. Contractor acknowledges that Owner is exempt from sales tax in New Jersey. Contractor will take all steps necessary to ensure that all qualified purchases are tax exempt. Contractor agrees that it has not and will not include in the Cost of the Work any sales or similar taxes on exempt purchases.

## § 9.6 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

§ 9.6.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as 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.

§ 9.6.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, permits, authorizations and lawful orders of public authorities applicable to performance of the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, permits, authorizations or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs, losses and expenses attributable to correction. The Contractor shall promptly notify the Owner in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules and regulations.

## § 9.7 ALLOWANCES

The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. The Owner shall select materials and equipment under allowances with reasonable promptness. Allowance amounts shall include the costs to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Allowance amounts shall not include the Contractor's costs for unloading and handling at the site, labor, installation, overhead, and profit.

## § 9.8 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 9.8.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information and approval a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 9.8.2 The Contractor shall perform the Work in general accordance with the most recent schedule submitted to and approved by the Owner and Architect.

## § 9.9 SUBMITTALS

§ 9.9.1 The Contractor shall promptly obtain, review and, approve in writing and submit to the Architect and Owner Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in coordination with the Contractor's construction schedule and in such sequence as to allow the Architect and Owner reasonable

time for review. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner 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, the Contract Documents, and any applicable permits, laws, statutes, codes, rules and regulations. The Work shall be in accordance with approved submittals.

**§ 9.9.2** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

#### **§ 9.10 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. Contractor shall cooperate and coordinate its Work with any other contractors working at the site.

#### **§ 9.11 CUTTING AND PATCHING**

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its several parts fit together properly.

#### **§ 9.12 CLEANING UP**

The Contractor shall at all times keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus material from and about the Project. All costs required for daily and final clean-up in connection with the Scope of Work are included in the Contract Sum.

#### **§ 9.13 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 including attorney's fees, but shall not be responsible for such 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 the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished in writing to the Architect and Owner.

#### **§ 9.14 ACCESS TO WORK**

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

#### **§ 9.15 INDEMNIFICATION**

**§ 9.15.1** To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Owner, Architect, Architect's consultants and agents and employees of any of them from and against claims, liabilities, damages, losses and expenses, including but not limited to attorneys' fees and costs, 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 (including the Work itself) or economic losses, caused in whole or in part 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 which would otherwise exist as to a party or person described in this Section 9.15.1. The Contractor's obligation under this Section 9.15 shall include defending, indemnifying, and promptly discharging any Construction Lien filed by any person who claims to have furnished labor, materials, equipment or services to the Contractor on the Project for which Contractor has received payment from the Owner. Contractor shall be obligated to defend an indemnified party even if the concurrent negligence of the Owner or another indemnified party is alleged.



§ 9.15.2 In claims against any person or entity indemnified under this Section 9.15 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 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts. Contractor shall cause this provision to be included in all Subcontracts.

#### ARTICLE 10 ARCHITECT

§ 10.1 The Architect will provide administration of the Contract 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 as described in the modified AIA B101-2007 Owner/Architect contract.

§ 10.2 The Architect will visit the site at intervals appropriate to the stage of the 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. 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 safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 10.3 On the basis of the site visits, the Architect will keep the Owner informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) 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 any of their agents or employees, or any other persons or entities performing portions of the Work.

§ 10.4 Based on the Architect's evaluations of the Work and 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.

§ 10.5 The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

§ 10.6 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.7 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 will make initial decisions on all claims, disputes and other matters in question between the Owner and Contractor but will not be liable for results of any interpretations or decisions rendered in good faith. Interpretations by the Architect shall not result in an increase in Contract Sum or Contract Time.

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

§ 10.9 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.

#### ARTICLE 11 SUBCONTRACTORS

§ 11.1 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, or supply material or equipment, including rental equipment for, incorporation in or use in performance of work.

§ 11.2 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 Subcontractors or suppliers for each of the principal portions of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers. 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. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection. Failure to object shall not relieve Contractor of its duties, and it is the Contractor's obligation to choose appropriate subcontractors and supplies.

§ 11.3 Contracts between the Contractor and Subcontractors shall (1) require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by the Contract Documents, assumes toward the Owner and (2) allow the Subcontractor the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Contract Documents, has against the Owner.

#### ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 12.1 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.

§ 12.2 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, cooperate, and coordinate the Contractor's activities with theirs.

§ 12.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of a separate contractor.

#### ARTICLE 13 CHANGES IN THE WORK

§ 13.1 By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner, Contractor and Architect, or by written Construction Change Directive signed by the Owner and Architect.

§ 13.2 Adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner and Architect, by the Contractor's cost of labor, material, equipment, and reasonable overhead and profit, unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect will make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly Application for Payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Architect will prepare a Change Order.

§ 13.3 The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

§ 13.4 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and

Contract Time shall be equitably adjusted as mutually agreed between the Owner and Contractor; provided that the Contractor provides written notice to the Owner and Architect promptly and before conditions are disturbed.

§ 13.5 The Contractor shall utilize The American Institute of Architects (AIA) forms for any Change Orders in the Work.

#### ARTICLE 14 TIME

§ 14.1 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.

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

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

§ 14.4 The date of Substantial Completion is the date certified by the Architect in accordance with Section 15.4.3.

§ 14.5 If the Contractor is materially delayed at any time in the commencement or progress of the Work by changes ordered in the Work, by fire, unavoidable casualties or any causes beyond the Contractor's control, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

#### ARTICLE 15 PAYMENTS AND COMPLETION

##### § 15.1 APPLICATIONS FOR PAYMENT

§ 15.1.1 The Contractor shall submit to the Architect before the first Application for Payment, a schedule of values, allocating the entire Contract Sum to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect and Owner may require. This schedule, unless objected to by the Architect or Owner, shall be used in reviewing the Contractor's Applications for Payment.

##### § 15.1.2

§ 15.1.3 At least thirty (30) days before the date established for payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the approved values stated in the Agreement. Such Application shall be supported by data substantiating the Contractor's right to payment as the Architect and Owner may reasonably require. 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 stored, and protected from damage, off the site at a location agreed upon in writing. Applications for Payment shall be in a form satisfactory to the Architect and Owner.

§ 15.1.4 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 other encumbrances adverse to the Owner's interests.

§ 15.1.5 In addition to the other required items, Application for Payment shall be accompanied by the following, all in form and substance satisfactory to Owner: (a) a duly executed waiver of lien and claims from Contractor in the form attached hereto as Exhibit "D-1"; (b) a duly executed lien and claims waiver, in the form attached hereto as Exhibit "D-2", from each Subcontractor and supplier listed on the Contractor's Application for Payment; and (c) such other information, documentation and materials as Architect or Owner may reasonably require.

##### § 15.2 CERTIFICATES FOR PAYMENT

§ 15.2.1 The Architect will, within seven days 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 certification in whole or in part as provided in Section 15.2.3.

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§ 15.2.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluations of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to 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.

§ 15.2.3 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 15.2.2 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 15.2.1. If the Contractor and the 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 9.2.2, 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 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.

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

### § 15.3 PROGRESS PAYMENTS

§ 15.3.1 Owner shall make payment in the manner and within the time provided in the Contract Documents. The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment, 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 similar manner.

§ 15.3.2 Neither the Owner nor Architect shall have an obligation to pay or see to the payment of money to a Subcontractor or Supplier.

§ 15.3.3 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.

### § 15.4 SUBSTANTIAL COMPLETION

§ 15.4.1 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.

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§ 15.4.2 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.

§ 15.4.3 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. When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will issue a Certificate of Substantial Completion which 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 (as supplemented and revised by Architect and Owner). 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 Contract Documents.

§ 15.4.4 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to 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.

#### § 15.5 FINAL COMPLETION AND FINAL PAYMENT

§ 15.5.1 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 stated in Section 15.5.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 15.5.2 Final payment shall not become due until the Contractor has delivered to the Owner, in form and substance acceptable to Owner, a certified accounting of Final Payment and Release of Liens and Claims from Contractor and all Subcontractors or Suppliers working through and under Contractor in the form appended hereto as Exhibits "E-1" and "E-2" and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests or encumbrances arising out of the Contract. 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 costs and reasonable attorneys' fees. Final payment shall also require the acceptance of all Work by Architect and Owner and approval by the Township (if required).

#### § 15.5.3

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§ 15.5.4 Acceptance of final payment by the Contractor, a Subcontractor, a Sub-subcontractor or equipment or material 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 16 PROTECTION OF PERSONS AND PROPERTY

#### § 16.1 SAFETY PRECAUTIONS AND PROGRAMS

*(Paragraphs deleted)*

§ 16.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract, including all those required by law in connection with performance of the Contract. 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;

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- .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 or the Contractor's Subcontractors or Sub-subcontractors; 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.

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 and property and their protection from damage, injury or loss. The Contractor shall promptly remedy damage and loss to property 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 16.1.2 and 16.1.3, except for damage or loss attributable solely to acts or omissions of the Owner or by anyone for whose acts Owner 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 9.15.

**§ 16.1.2** As between Owner and Contractor, Contractor is responsible to the Owner for any and all safety issues relating to the Work on the Project. Contractor shall administer and manage the safety program. This will include, but not necessarily be limited to, review of the safety programs of each Subcontractor. Contractor shall monitor the establishment and execution of effective safety practices known to the industry, as applicable to Work on this Project, and compliance with all applicable regulatory and advisory agency construction safety standards. The Contractor's responsibility for review, monitoring and coordination of the Subcontractor's safety program shall not extend to direct control over execution of the Subcontractor's safety programs; notwithstanding Contractor's safety obligations to the Owner, it is agreed and understood that each individual Subcontractor shall remain controlling employer responsible for the safety programs and precautions applicable to its own work and activities of other's work in areas designated to be controlled by such Subcontractor.

## **§ 16.2 HAZARDOUS MATERIALS**

**§ 16.2.1** The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials. 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 report the condition to the Owner in writing. 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 in an amount to be mutually agreed upon by the parties.

## **§ 16.2.2**

**§ 16.2.3** 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 indemnify the Contractor for all cost and expense thereby incurred.

## **ARTICLE 17 INSURANCE AND BONDS**

**§ 17.1** See Insurance Requirements annexed hereto at Exhibit "D".

## **§ 17.2 OWNER'S LIABILITY INSURANCE**

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

## **§ 17.3 PROPERTY INSURANCE**

**§ 17.3.1** Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all-risk" or equivalent policy form, including builder's risk, in the amount of the initial Contract Sum, plus the value of subsequent modifications and cost of materials supplied and installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and

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entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 15.5 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 17.3.1 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and sub-subcontractors in the Project.

#### § 17.3.2 .

§ 17.3.3 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, and (2) the Architect, Architect's consultants, separate contractors described in Article 12, 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 covered by property insurance obtained pursuant to Section 17.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 12, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 17.3.4 A loss insured under the Owner's property insurance shall be adjusted by the Owner and made payable to the Owner for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their sub-subcontractors in similar manner.

#### § 17.4 PERFORMANCE BOND AND PAYMENT BOND

§ 17.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 17.4.2 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.

#### ARTICLE 18 CORRECTION OF WORK

§ 18.1 The Contractor shall promptly correct Work rejected by the Architect and/or Owner or failing to conform to the requirements of the Contract Documents, whether discovered before or after 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.

§ 18.2 In addition to the Contractor's obligations under Section 9.4, 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 15.4.3, 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, at the Contractor's expense, 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.

§ 18.3 If the Contractor fails to promptly correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 8.3.

§ 18.4 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.

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§ 18.5 The one-year period for correction of Work shall be extended by corrective Work performed by the Contractor pursuant to this Article 18.

## ARTICLE 19 MISCELLANEOUS PROVISIONS

### § 19.1 ASSIGNMENT OF CONTRACT

Except as expressly provided herein, neither party to the Contract shall assign the Contract without written consent of the other, except that 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 such assignment.

### § 19.2 GOVERNING LAW/VENUE

The Contract shall be governed by the law of the State of New Jersey. The venue of any mediation, arbitration or litigation shall be in Bergen County, New Jersey.

### § 19.3 TESTS AND INSPECTIONS

Tests, inspections and approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities shall be made at an appropriate time. 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 (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating the costs to the Contractor. The results of such tests and inspections shall be reported to the Architect within three (3) business days from Contractor's receipt of the inspection report. The Contractor shall be responsible for making all repairs/corrections to the Work as required by the results of such tests and inspections and/or as otherwise required by public agency or authority having jurisdiction over the Project.

### § 19.4 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the period specified by applicable law. As between Owner and Contractor, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in accordance with applicable law

### § 19.5 CLAIMS (WAIVER AND RELEASE)

A "Claim" is a demand or assertion by Contractor seeking, as a matter of right, adjustment or interpretation of the Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between the Contractor and Owner arising out of or relating to the Contract Documents. Contractor acknowledges and agrees that administration of this Project requires timely notice of Claims or potential Claims. All Contractor and Subcontractor Claims must be made by written notice. The responsibility to substantiate Claims shall rest with Contractor. This Contract contains material deadlines for submission of specific Claims. Unless an earlier deadline for submission of Claims is specified in this Contract, and notwithstanding any longer Claim periods referenced elsewhere in the Contract Documents, notice of all material Claims by Contractor must be made in writing to Owner within thirty (30) calendar days after Contractor's management personnel first recognize, or reasonably should have first recognized, the condition giving rise to the Claim, whichever is earlier. Failure to provide timely notice of any Claim shall constitute a Waiver and release of such Claim. This paragraph is a material term that shall be strictly enforced in any arbitration or litigation proceedings.

§ 19.6 If Contractor encounters any condition whatsoever upon which it may base a Claim for extra compensation, extra time, or any other type of Claim, it shall be Contractor's duty to give written notice to Owner prior to commencing any Work involving said condition, except to the extent necessary to prudently deal with an emergency and/or health and safety conditions or providing property protection, in order to allow Owner to inspect said condition and to take such steps as Owner deems necessary. Such written notice shall specify the conditions,

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circumstance, order, or interpretation (whether written or oral) on account of which such Claim is requested, and shall specify all increases in cost and/or time extensions which Contractor believes it will be entitled to on account of such condition, circumstance, order, or interpretation. This notice shall be given by Contractor, and such Claim must be agreed to by Owner, before Contractor proceeds to execute the Work, unless (i) Owner orders Contractor in writing to proceed pending resolution of the dispute concerning such change, or (ii) the Claim relates to an emergency endangering life or property. No such Claim shall be valid unless made strictly as provided in this article, and Contractor shall be liable for any and all expense, loss, delay, or damages resulting therefrom. Any change in the Contract Sum and Contract Time resulting from such timely approved Claim must be authorized by Change Order to be valid. These Change Order procedures and requirements shall be strictly enforced by any arbitration tribunal or litigation.

**§ 19.7** If any Subcontractor or other person working under Contractor files a mechanic's lien or Claim or notice of intention of right to file a lien for or on account of Work, labor, services, materials, equipment or other items furnished under or in connection with this Contract, despite Owner's payment to Contractor therefore, Contractor agrees to discharge or remove such lien, Claim or notice at its own expense by bond, payment or otherwise within thirty (30) calendar days from the date of the filing thereof, and upon its failure to do so, Owner shall have the right to cause any such lien or Claim, notice of intention or stop notice to be removed or discharged by whatever means Owner chooses, at the sole cost and expense of Contractor (such costs and expenses to include legal fees and disbursements). Contractor agrees to hold harmless and indemnify Owner from and against any and all such liens, Claims or other filings, and actions brought or judgments rendered thereon, and from and against any and all losses, damages, liabilities, costs and expenses, including legal fees and disbursements, which Owner may sustain in connection therewith.

**§ 19.8** Owner is contracting with Contractor based on the understanding that \_\_\_\_\_ will serve as Project Superintendent and \_\_\_\_\_ will serve as Project Manager until the Project is completed. Contractor will not remove these employees from the Project without the prior written consent of the Owner.

**§ 19.9** Contractor acknowledges that there are no implied covenants or warranties from Owner under this Agreement

**§ 19.10 NOTICES.** All Notices required under this Agreement shall be in writing, signed by the party giving same, and shall be deemed properly given only if hand delivered or sent by reputable overnight courier, or by registered or certified U.S. mail, return receipt requested, postage pre-paid and addressed as follows:

If to Owner:  
New York-New Jersey Trail Conference, Inc.  
156 Ramapo Valley Road  
Mahwah, NJ 07430  
Attn: Edward Goodell, Executive Director

If to Architect:  
Colgan Perry Lawler Aurell Architects, LLC  
118 Main Street  
Tappan, NY 10983  
Attn: Walter C. Aurell, Partner

If to Contractor:

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

Attn:

**§ 19.11** The parties acknowledge that each party, and if it so chooses, its counsel, have reviewed and revised this Agreement and that the normal rule of construction to the effect that any ambiguities be resolved in favor of the non-drafting party shall not be employed in the interpretation of this Agreement or any amendments or exhibits thereto.

**§ 19.12 SUCCESSORS AND ASSIGNS.** Owner and Contractor respectively bind themselves, their successors and assigns to the other party hereto and to the successors and assigns of such other party in respect to covenants,

agreements and obligations contained in the Contract Documents. Contractor shall not assign this Contract or sublet it nor shall Contractor assign any monies due it or to become due to it hereunder, without the prior written consent of Owner provided, however, that Contractor shall be entitled to enter into subcontracts in accordance with the terms and conditions of this Contract. Owner shall be entitled to assign its rights hereunder to one or more lenders as collateral for loans which Owner may obtain to finance construction of the Project. Contractor agrees to execute such certificates, documents and instruments as are reasonably requested by Owner or any present or future lender of Owner, including, without limitation, certificates, documents and instruments, which evidence Contractor's consent to an assignment of this Contract and confirm the absence or existence of a default on the part of the Owner hereunder.

### **§ 19.13 WAIVER OF LIENS**

**§ 19.13.1** Contractor agrees that no mechanic's claim or lien shall be filed or maintained against the Land, Owner's interest, or the improvements which are the subject of the Work for or on account of any Work or labor done or materials furnished under this Contract, and Contractor hereby expressly waives and relinquishes the right to have, file or maintain any mechanic's lien or claim against the Land, Owner's interests, or the improvements which are the subject of the Work to the fullest extent permitted under the laws of the State of New Jersey. Contractor agrees and acknowledges further that its rights to file a mechanic's lien, or its rights under any mechanic's lien which may be filed, and any amendments thereto, are hereby waived and released in consideration for, upon receipt of and to the extent of all payments received by Contractor hereunder, and Contractor agrees to execute and deliver at the request of Owner a waiver and release of liens in form and substance satisfactory to Owner confirming such waiver and release and the amount of all payments received by Contractor. Contractor's failure to execute and deliver such waiver and release within three (3) business days of Owner's request shall, at Owner's option, be deemed a breach of this Contract which shall entitle Owner to terminate this Contract.

**§ 19.13.2** Contractor covenants and agrees to include in every contract between it and any Subcontractor and/or Supplier a waiver and release of liens clause in form and substance in accordance herewith requiring each Subcontractor and/or Supplier to waive its right to file or maintain a mechanic's lien or claim to the fullest extent permitted under the laws of the State of New Jersey and to deliver waivers and releases of liens as provided herein.

**§ 19.13.3** If any Subcontractor, Supplier or other person acting through and under Contractor files a mechanic's lien or Claim or notice of intention or right to file a lien for or on account of Work, labor, services, materials, equipment or other items furnished under or in connection with this Contract, Contractor agrees to discharge or remove such lien, Claim or notice at its own expense by bond, payment, or otherwise within twenty (20) calendar days from the date of the filing thereof, and upon its failure to do so, Owner shall have the right to cause any such lien or Claim, notice of intention or stop notice to be removed or discharged by whatever means Owner chooses, at the sole cost and expense of Contractor (such costs and expenses to include legal fees and disbursements). Contractor agrees to hold harmless and indemnify Owner from and against any and all such liens, Claims or other filings, and actions brought or judgments rendered thereon, and from and against any and all losses, damages, liabilities, costs and expenses, including legal fees and disbursements, which Owner may sustain in connection therewith.

**§ 19.13.4** If any action at law or in equity shall be instituted by virtue of or under any law, or statute now in force, or hereafter enacted, by any contractor, subcontractor, sub-subcontractor, materialmen, employee or other person for sums owing to them, Owner may, in Owner's sole discretion, pay all wages, damages, recoveries, costs and expenses and reasonable counsel fees arising therefrom and deduct the same from any monies due or to become due to Contractor.

**§ 19.14** To the extent there are any discrepancies between this Agreement and any proposal appended hereto, the terms and conditions of this Agreement are controlling.

**§ 19.15** Each party hereto waives the right to a trial by jury in any dispute in connection with the transactions contemplated by this Agreement and agrees to take any and all action necessary or appropriate to effect waiver.

**§ 19.16** Contractor will prepare and deliver to Owner on or before the Final Payment of the Contract Sum and as a condition precedent thereto: (a) two (2) complete sets of final cumulative "as-built" plans and specifications of the entire Project in form and substance satisfactory to Owner and (b) all "as-built" plans required by any governmental agency or authority having jurisdiction in connection with any final permits or approvals of the Work.

## ARTICLE 20 TERMINATION OF THE CONTRACT

### § 20.1 TERMINATION BY THE CONTRACTOR

If the Owner fails to make payment as provided in Section 4.1.3 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner, terminate the Contract and recover from the Owner payment for Work properly executed, and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery.

### § 20.2 TERMINATION BY THE OWNER FOR CAUSE

§ 20.2.1 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 timely payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority;
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents; or
- .5 fails to meet the Substantial Completion Date.

§ 20.2.2 When any of the above reasons exists, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any other remedy the Owner may have and after giving the Contractor seven days' written notice, terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever reasonable method the Owner may deem expedient. Upon 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.

§ 20.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 20.2.4 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 Architect, upon application, and this obligation for payment shall survive termination of the Contract.

*(Paragraphs deleted)*

§ 20.2.5 If it is later determined that the Contractor was not properly terminated under this Section 20.2, then the termination shall be deemed to be for the convenience of the Owner and the Contractor will be entitled to be reimbursed pursuant to Section 20.3.

### § 20.3 TERMINATION BY THE OWNER FOR CONVENIENCE

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work properly executed, and costs in accordance with the Contract incurred by reason of such termination. The Contractor shall not, however be entitled to reasonable overhead and profit on the Work not executed.

## ARTICLE 21 CLAIMS AND DISPUTES

§ 21.1 Claims, disputes and other matters in question arising out of or relating to this Contract, including those alleging an error or omission by the Architect but excluding those arising under Section 16.2, shall be referred initially to the Architect for decision. Such matters, except those waived as provided for in Section 21.8 and Sections 15.5.3 and 15.5.4, shall, after initial decision by the Architect or 30 days after submission of the matter to the Architect, be subject to mediation as a condition precedent to binding dispute resolution.

§ 21.2 If a claim, dispute or other matter in question relates to or is the subject of a mechanic's lien, the party asserting such matter may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

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§ 21.3 The parties shall endeavor to resolve their disputes by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with their 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 this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution 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, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 21.4 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 in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement, but shall not be filed with or conducted under the authority of the American Arbitration Association, and shall instead be conducted privately pursuant to the terms of this Article 21. The Arbitrator shall be an attorney with at least 15 years experience practicing in construction law. Demand for arbitration shall be made in writing, delivered to the other party to the Contract. 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. A demand for arbitration shall be made within the time limits specified in this Agreement as applicable, and in other cases within a reasonable time after the Claim has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations. Within thirty (30) days after receipt of a written demand for arbitration, the parties shall mutually agree upon the arbitrator to be retained to arbitrate the dispute. The Final Award shall be rendered in accordance with the time period provided under the Construction Industry Arbitration Rules of the American Arbitration Association and, unless agreed upon otherwise by the parties, shall be a reasoned award identifying the findings and bases of the decision(s) made by the arbitrator(s). Either party shall be entitled to retain the services of a court reporter to record testimony submitted during the hearing proceedings. 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. Either party shall be entitled to appeal a Final Award on the basis of errors of law, as well as the grounds for appeal as set forth in the New Jersey Arbitration Act, N.J.S.A. 2A:23B-1 et seq.

§ 21.5 Either party, at its sole discretion, 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).

§ 21.6 Any party to an arbitration 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 a Claim not described in the written Consent.

§ 21.7 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.

§ 21.8 .

- .1
- .2

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

**NEW YORK-NEW JERSEY TRAIL  
CONFERENCE, INC.**

\_\_\_\_\_  
**OWNER** *(Signature)*

\_\_\_\_\_  
Edward K. Goodell, Executive Director  
*(Printed name and title)*

\_\_\_\_\_  
**CONTRACTOR** *(Signature)*

\_\_\_\_\_  
*(Printed name and title)*

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## **EXHIBIT "A"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

### **LIST OF DRAWINGS**

The drawings are dated June 14, 2010, except the Existing Conditions Survey which is dated October 7, 2009.

- A-1 COVER SHEET
- DD-1 DESIGN DEVELOPMENT
- ECS EXISTING CONDITIONS SURVEY
- A-2 FIRST FLOOR PLAN
- A-3 SECOND FLOOR PLAN
- A-4 EXTERIOR VIEWS
- A-5 DETAILS AND MISCELLANEOUS
- A-6 DETAILS
- E-1 SYMBOLS, NOTES AND SCHEDULES
- E-2 FIRST FLOOR PLAN - DEMOLITION AND NEW WORK
- E-3 SECOND FLOOR PLAN - DEMOLITION AND NEW WORK
- E-4 ATTIC FLOOR PLAN - DEMOLITION AND NEW WORK
- FA-1 SYMBOLS AND NOTES
- FP-1 SYMBOLS, NOTES AND SCHEDULES
- FP-2 CRAWL SPACE PLAN
- FP-3 FIRST FLOOR PLAN - NEW WORK
- FP-4 SECOND FLOOR PLAN - NEW WORK
- FP-5 ATTIC FLOOR PLAN - NEW WORK
- M-1 SYMBOLS, NOTES AND DETAILS
- M-2 FIRST FLOOR PLAN - NEW WORK
- M-3 SECOND FLOOR PLAN - NEW WORK
- M-4 ATTIC FLOOR PLAN - NEW WORK

## **EXHIBIT "B"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

### **LIST OF SPECIFICATION SECTIONS**

The Specifications are dated June 14, 2010

#### **Section No.**

001000 – INFORMATION FOR BIDDERS\*  
002000 - FORM OF AGREEMENT\*  
002100 - EXHIBITS  
003000 - FORM OF PROPOSAL\*  
010000 - GENERAL REQUIREMENTS\*  
013591 - HISTORIC TREATMENT PROCEDURES\*  
020700 – INTERIOR CLEANING  
020800 - ASBESTOS REMOVAL  
024119 - SELECTIVE DEMOLITION  
033053 - MISCELLANEOUS CAST-IN-PLACE CONCRETE  
040120 - MAINTENANCE OF MASONRY  
055000 - METAL FABRICATIONS  
061053 - MISCELLANEOUS ROUGH CARPENTRY  
062013 - EXTERIOR FINISH CARPENTRY  
064023 - INTERIOR ARCHITECTURAL WOODWORK  
072100 – THERMAL INSULATION  
073113 - ASPHALT SHINGLES  
073129 - WOOD SHINGLES AND SHAKES  
075200 – SBS MODIFIED BITUMINOUS MEMBRANE ROOFING  
076200 - SHEET METAL FLASHING AND TRIM  
085200 - WOOD WINDOWS  
087100 – DOOR HARDWARE  
088000 - GLAZING  
099113 - EXTERIOR PAINTING  
099300 – STAINING

For Plumbing, Fire Protection, HVAC, Electrical, and Fire Alarm Specifications see Drawings.

\* Sections marked with an asterisk apply to the work of all other sections.

## **EXHIBIT "C"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

### **I. INSURANCE REQUIREMENTS**

A. Contractor shall, at all times during the period which this Contract is in force, provide and maintain and require all Subcontractors and Sub-subcontractors to provide and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located and to which the Owner has no reasonable objection, such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
4. claims for damages insured by usual personal injury liability coverage;
5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
6. claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
7. claims for bodily injury or broad form property damage arising out of completed operations; and
8. claims involving contractual liability insurance applicable to the Contractor's obligations.

B. The insurance required by Section A shall be written for not less than limits of liability specified herein or required by law, whichever coverage is greater. Coverage will be the standard ISO CG 00 01 terms and conditions (most recent version but at least the 2007 version). Coverages, written on an occurrence basis, shall be maintained without interruption from date of



commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

C. Certificates and endorsements of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates, endorsements and the insurance policies required herein shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire or a reduction in limits until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

D. Minimum Insurance Requirements.

1. Workers Compensation

a. Statutory Limits – in the jurisdiction in which the work is to be performed.

b. Employer's Liability

\$1,000,000 each accident.

\$1,000,000 disease – per employee.

\$1,000,000 disease – policy limit.

2. Comprehensive General Liability (Broad Form)

\$1,000,000 Combined Bodily Injury and Property Damage each Occurrence

\$2,000,000 Aggregate

The General Liability policy shall include coverage for excavation, collapse, and underground work and broad form property damage, including completed operations/products. If the General Liability policy includes a General Aggregate, such General Aggregate shall be not less than \$2,000,000.

Products and Completed Operations Insurance shall be maintained for a minimum period of 2 years from completion of the project.

Aggregate limit shall apply on a per project basis or limits shall be certified as unimpaired, at the time of issuing the certificate of insurance.

3. Blanket Contractual Liability (Broad Form)

Bodily Injury:  
\$1,000,000 Each Occurrence

Property Damage:  
\$1,000,000 Each Occurrence  
\$2,000,000 Annual Aggregate

4. Automobile Liability – Owned, Nonowned and Hired

Bodily Injury:  
\$1,000,000 Each Person  
\$1,000,000 Each Accident

Property Damage:  
\$1,000,000 Each Occurrence

5. Umbrella Excess Liability

\$10,000,000 Over primary insurance  
\$10,000 Retention

E. Additional Insurance Requirements

1. Additional Insureds.

New York-New Jersey Trail Conference, Inc., The Township of Mahwah, Bergen County and the Architect and their respective directors, officers, employees and volunteers shall be named as Additional Insureds on insurance provided by Contractor and any Subcontractors or Sub-subcontractors as specified herein. The Additional Insureds shall be named as Additional Insureds on all policies of insurance required by this Contract (except for Workers Compensation Insurance). General Liability coverage maintained by Contractor and Subcontractors or Sub-subcontractors shall contain Additional Insured endorsement CG 20 10 11/85 or equivalent. The Commercial General Liability Policy and any Excess or Umbrella Liability Policy shall stipulate that the insurance afforded the Additional Insureds shall apply as primary insurance and that any other insurance carried by the Additional Insureds will be excess only and not contribute with Contractor's, Subcontractor's or Sub-subcontractor's insurance. The Commercial General Liability and any Excess or Umbrella Liability Policies shall contain the usual cross liability wording indicating that except for its limits of liability, the policies shall operate as though separate policies were issued to each insured. Contractor shall provide Owner with evidence of compliance with this

paragraph prior to commencement of the Work. Failure of Owner to receive this evidence of compliance of Contractor's obligations under this paragraph shall not constitute a waiver of the Contractor's obligations under this paragraph.

2. Company(s) providing insurance must be licensed or "admitted" in the State of New Jersey and acceptable to Owner.
3. Contractor shall provide to Owner a minimum of 30 days certified mail notice prior to cancellation, expiration, reduction of limits or material change to all policies.
4. All renewals shall be evidenced by a renewal binder, certificate or endorsements at least 15 days prior to the expiration of coverage.
5. Waiver of Subrogation.

The Owner and Contractor waive all rights against each other, their subcontractors of every tier, any separate contractors of the Owner (if any), their agents and employees, the Architect and any of their subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by insurance obtained pursuant to Section 2, or other property insurance applicable to the Work, except with respect to their rights to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar waivers of the Architect, Architect's consultants, and their subcontractors of every tier by appropriate agreements in favor of each of the parties enumerated herein.

- F. If a Commercial General Liability form is used for this insurance, ACORD Form 25-S (Sept. 2009) is written specifically to list required coverages under those policies.
- G. Insurance Requirements for Subcontractors and Sub-subcontractors.

Except as modified by the Owner in writing, the insurance requirements set forth above, including, without limitation, the requirement to name New York-New Jersey Trail Conference, Inc, The Township of Mahwah, Bergen County and the Architect and their respective directors, officers, employees and volunteers as additional insureds and that insurance shall be primary and non-contributory, shall also apply to Subcontractors and their Sub-subcontractors. The Contractor shall be responsible for supervision of the filing with the Owner of insurance certificates and endorsements, satisfactory to the Owner, evidencing the insurance and waivers of subrogation required to be furnished by Subcontractors and Sub-subcontractors commencing any portion of the Work or furnishing equipment or materials and, at least 15 days prior to the expiration of any such policies, shall cause to be filed with the Owner, certificates and endorsements, satisfactory to the Owner, of renewal or replacement policies.

## **II. PERFORMANCE AND PAYMENT BOND REQUIREMENTS**

A. Contractor's proposal must be accompanied by a Bid Bond issued by a surety company which shall insure the Owner to the extent of ten percent (10%) of the bid amount.

B. Within 10 days of the award of the contract, Contractor shall obtain and deliver to the Owner, and shall maintain at all times during the performance of the Work, (1) an executed Performance Bond for 100% of the Contract Sum as surety for faithful performance of the Contract and (2) an executed Payment Bond for 100% of the Contract Sum as surety for the payment of all persons performing labor and furnishing materials in connection therewith. Such bonds shall be in form and substance satisfactory to Owner and shall be issued by an independent corporate surety of recognized financial standing with executive offices in the continental United States. The cost of the premiums for such bonds shall be included in the Contract Sum.

**EXHIBIT "D-1"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

**CONTRACTOR ACKNOWLEDGEMENT OF PROGRESS  
PAYMENT AND RELEASE OF LIENS AND CLAIMS**

[Contractor Name] ("Contractor") hereby acknowledges that upon receipt from New York-New Jersey Trail Conference, Inc. ("Owner") of the sum of \$\_\_\_\_\_ (the "Progress Payment"), such Progress Payment constitutes payment in full of the amount presently due from Owner to Contractor for labor performed or materials furnished by Contractor, and any and all Subcontractors and Sub-subcontractors, pursuant to that certain Construction Contract between Owner and Contractor dated \_\_\_\_\_, 20\_\_, as modified by and including any and all change orders, extras, additions, substitutions and omissions through the date hereof (the "Contract"), in connection with Phase I of the Rehabilitation of the Darlington Schoolhouse, together with all related site improvements (the "Project") located at 600 Ramapo Valley Road Mahwah, Bergen County, New Jersey (the "Property").

The Progress Payment is more particularly described in the application for payment, dated \_\_\_\_\_, 20\_\_ (the "Application") previously submitted by Contractor to Owner, which Application is incorporated herein by this reference. Contractor hereby represents and warrants to Owner that, including the Progress Payment, through the date hereof Contractor has received from Owner payments totaling \$\_\_\_\_\_ for labor performed or materials furnished pursuant to the Contract.

Contractor hereby represents and warrants to Owner that (i) except for retainage in the amount of \$\_\_\_\_\_ (the "Retainage"), the Progress Payment constitutes payment in full of all amounts presently due from Owner to Contractor for labor performed and materials furnished pursuant to the Contract, (ii) no notice of unpaid balance and right to file lien or mechanic's or materialman's lien or claim has been filed against the Property by Contractor, (iii) to the best of Contractor's knowledge, information and belief, no notice of unpaid balance and right to file lien or mechanic's or materialman's lien or claim has been filed against the Property by anyone who has performed labor or furnished materials with respect to the Project, (iv) there is no known basis for the filing of any mechanic's or materialman's lien, claim or notice with respect to the Project, (v) releases, in a form previously approved by Owner, have been obtained by Contractor from all Subcontractors and Sub-subcontractors who are entitled to receive a portion of the Progress Payment, and (vi) all Subcontractors and Sub-subcontractors who were entitled to receive a portion of any prior progress payment have been paid in full.

Contractor, on behalf of itself and all Subcontractors and Sub-subcontractors, for and in consideration of the Progress Payment, hereby forever waives, releases and relinquishes any and all liens, claims and demands whatsoever, which it now has or might or could have on or against the Project, the Property, Owner and Owner's successors and assigns, for labor performed or

materials furnished in connection with the Application; provided, however, that this release does not apply to the Retainage or to any labor performed or materials furnished pursuant to the Contract after the date of this Acknowledgement and Release.

Contractor further declares that by signing and sealing this instrument, Contractor shall be completely estopped from filing or maintaining any and all liens and claims against the Project and the Property for or with respect to the work described in the Application, and that in the event that any lien or claim is filed, Contractor shall immediately take steps to cause any such lien to be discharged and satisfied. Contractor shall indemnify, defend and hold harmless Owner from and against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out or resulting from the assertion of any mechanic's lien or claim or the filing of any mechanic's lien, claim, or notice against the Project or the Property or the failure to discharge mechanic's liens, claims and other filings as aforesaid.

IN WITNESS WHEREOF, Contractor, intending to be legally bound hereby, has caused this instrument to be executed, under seal, as of this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

CONTRACTOR:

[Contractor Name]

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

STATE OF NEW JERSEY )  
  ) ss.  
COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, a Notary Public in and for the State of New Jersey, personally appeared \_\_\_\_\_ the \_\_\_\_\_ of \_\_\_\_\_, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that s/he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first as above written.

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

NOTARY PUBLIC in and for the  
State of New Jersey

My appointment expires:

[NOTARY SEAL]

**EXHIBIT "D-2"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

**SUBCONTRACTOR, SUB-SUBCONTRACTOR AND  
SUPPLIER ACKNOWLEDGEMENT OF PROGRESS  
PAYMENT AND RELEASE OF LIENS AND CLAIMS**

[Subcontractor, Sub-subcontractor, or Supplier Name] ("Subcontractor") hereby acknowledges that upon receipt from [Contractor Name] ("Contractor") of the sum of \$\_\_\_\_\_ (the "Progress Payment"), such Progress Payment constitutes payment in full of the amount presently due from Contractor to Subcontractor for labor performed or materials furnished by Subcontractor, and any and all of its Sub-subcontractors and materialmen, pursuant to that certain subcontract between Contractor and Subcontractor dated \_\_\_\_\_, 20\_\_, as modified by and including any and all change orders, extras, additions, substitutions and omissions through the date hereof (the "Contract"), in connection with Phase I of the Rehabilitation of the Darlington Schoolhouse, together with all related site improvements (the "Project") located at 600 Ramapo Valley Road, Mahwah, Bergen County, New Jersey (the "Property").

The Progress Payment is more particularly described in the invoice or application for payment, dated \_\_\_\_\_, 20\_\_ (the "Invoice") previously submitted by Subcontractor to Contractor, which Invoice is incorporated herein by this reference. Subcontractor hereby represents and warrants to Contractor and New York-New Jersey Trail Conference, Inc. ("Owner") that, including the Progress Payment, through the date hereof Subcontractor has received from Contractor payments totaling \$\_\_\_\_\_ for labor performed or materials furnished pursuant to the Contract.

Subcontractor hereby represents and warrants to Contractor and Owner that (i) except for retainage in the amount of \$\_\_\_\_\_ (the "Retainage"), the Progress Payment constitutes payment in full of all amounts presently due from Contractor to Subcontractor for labor performed and materials furnished pursuant to the Contract, (ii) no notice of unpaid balance and right to file lien or mechanic's or materialman's lien or claim has been filed against the Property by Subcontractor, (iii) to the best of Subcontractor's knowledge, information and belief, no notice of unpaid balance and right to file lien or mechanic's or materialman's lien or claim has been filed against the Property by any of its Sub-subcontractors or materialmen who performed labor or furnished materials with respect to the Project, (iv) there is no known basis for the filing of any mechanic's or materialman's lien, claim or notice with respect to the Project, and (v) all Sub-subcontractors and materialmen who were entitled to receive a portion of any progress payment previously paid to Subcontractor have been paid in full.

Subcontractor, on behalf of itself and all Sub-subcontractors and materialmen, for and in consideration of the Progress Payment, hereby forever waives, releases and relinquishes any and all liens, claims and demands whatsoever, which it now has or might or could have on or against

the Project, the Property, Owner and Owner’s successors and assigns, for labor performed or materials furnished in connection with the Invoice; provided, however, that this release does not apply to the Retainage or to any labor performed or materials furnished by Subcontractor pursuant to the Contract after the date of this Acknowledgement and Release.

Subcontractor further declares that by signing and sealing this instrument, Subcontractor shall be completely estopped from filing or maintaining any and all liens, claims and notices against the Project and the Property for or with respect to the work described in the Invoice, and that in the event that any such lien, claim or notice is filed, Subcontractor shall immediately take steps to cause such lien, claim or notice to be discharged and satisfied. Subcontractor shall indemnify, defend and hold harmless Contractor and Owner from and against all claims, damages, losses and expenses, including, but not limited to, attorney’s fees, arising out or resulting from the assertion by Subcontractor, or any of its Sub-subcontractors or materialmen, of any mechanic’s lien or claim or the filing of any mechanic’s lien, claim, or notice against the Project or the Property or the failure to discharge mechanic’s liens, claims and other filings as aforesaid.

IN WITNESS WHEREOF, Subcontractor, intending to be legally bound hereby, has caused this instrument to be executed, under seal, as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

SUBCONTRACTOR:

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

STATE OF NEW JERSEY             )  
  ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, a Notary Public in and for the State of New Jersey \_\_\_\_\_, personally appeared \_\_\_\_\_ the \_\_\_\_\_ of \_\_\_\_\_, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that s/he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first as above written.

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

NOTARY PUBLIC in and for the  
State of New Jersey

My appointment expires:

[NOTARY SEAL]



**EXHIBIT "E-1"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

**CONTRACTOR'S ACCEPTANCE OF FINAL PAYMENT  
AND RELEASE OF LIENS AND CLAIMS**

[Contractor Name] ("Contractor") hereby acknowledges that upon receipt from New York-New Jersey Trail Conference, Inc. ("Owner") of the sum of \$ \_\_\_\_\_, such payment constitutes full and final payment of any and all amounts due to Contractor for labor performed or materials furnished by Contractor, and any and all of its Subcontractors, Sub-Subcontractors, and materialmen, pursuant to contract, or otherwise, including any and all change orders, extras, additions, substitutions and omissions through the date hereof (the "Contract"), in connection with Phase I of the Rehabilitation of the Darlington Schoolhouse, together with all related site improvements (the "Project") located at 600 Ramapo Valley Road, Mahwah, Bergen County, New Jersey (the "Property").

Contractor hereby represents and warrants to Owner that Contractor has received final payment in full of all amounts due for labor performed and materials furnished pursuant to the Contract, (ii) no notice of unpaid balance or right to file construction lien has been filed against the Property or served by Contractor, (iii) no notice of unpaid balance or right to file construction lien has been filed against the Property or served by any of its Subcontractors, Sub-Subcontractors, or materialmen who performed labor or furnished materials with respect to the Project, (iv) there is no known basis for the filing of any construction lien, any other claim, or notice with respect to the Project by Contractor or anyone acting through or under Contractor, and (v) all Subcontractors, Sub-Subcontractors, and materialmen who were entitled to receive a portion of any progress payment previously paid to Contractor have been paid in full.

Contractor, on behalf of itself, its predecessors, successors, affiliates, and all Subcontractors, Sub-Subcontractors, and materialmen, for and in consideration of payment made, hereby forever waives, releases, and relinquishes any and all liens, claims, and demands whatsoever, which it or they now have or might or could have on or against the Project, the Property, Owner and Owner's successors and assigns, attorneys, affiliates, and lenders (collectively "Owner Releasees") for labor performed or materials furnished in connection with the Project.

Contractor further declares that by signing and sealing this instrument, Contractor shall be completely estopped from filing or maintaining any and all liens, claims, and notices against the Project and the Property, and the Owner Releasees, and that in the event that any such lien, claim, or notice is filed or has been filed by Contractor or anyone acting through or under Contractor, Contractor shall immediately take steps to cause such lien, claim, or notice to be withdrawn, discharged, and satisfied. Contractor shall indemnify, defend, and hold harmless Owner Releasees from and against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out or resulting from the assertion by Contractor, or any of its

Subcontractors, Sub-Subcontractors, or materialmen, of any construction claim, lien, or notice or the filing of any construction lien, claim, or notice against the Project or the Property or the failure to discharge mechanic's liens, claims and other filings as aforesaid.

IN WITNESS WHEREOF, Contractor, intending to be legally bound hereby, has caused this instrument to be executed, under seal, as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

CONTRACTOR:  
 [Contractor Name]

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

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

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

STATE OF NEW JERSEY     )  
    ) ss.  
 COUNTY OF \_\_\_\_\_     )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, a Notary Public in and for the State of New Jersey \_\_\_\_\_, personally appeared \_\_\_\_\_ the \_\_\_\_\_ of \_\_\_\_\_, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that s/he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first as above written.

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

NOTARY PUBLIC in and for the  
 State of New Jersey

My appointment expires:

[NOTARY SEAL]

**EXHIBIT "E-2"**

**New York-New Jersey Trail Conference, Inc.  
Phase I of Rehabilitation of the Darlington Schoolhouse  
600 Ramapo Valley Road  
Mahwah, NJ**

**SUBCONTRACTOR, SUB-SUBCONTRACTOR,  
AND SUPPLIER ACCEPTANCE OF FINAL PAYMENT  
AND RELEASE OF LIENS AND CLAIMS**

[Subcontractor, Sub-subcontractor and or Supplier Name] ("Subcontractor", "Sub-Subcontractor," or "Supplier") hereby acknowledges that upon receipt from [Contractor Name] ("Contractor") and New York-New Jersey Trail Conference, Inc. ("Owner") of the sum of \$ \_\_\_\_\_, such payment constitutes full and final payment of any and all amounts due to Subcontractor for labor performed or materials furnished by Subcontractor, and any and all of its Sub-Subcontractors and materialmen, pursuant to contract, or otherwise, including any and all change orders, extras, additions, substitutions and omissions through the date hereof (the "Contract"), in connection with Phase I of the Rehabilitation of the Darlington Schoolhouse together with all related site improvements (the "Project") located at 600 Ramapo Valley Road, Mahwah, Bergen County, New Jersey (the "Property").

Subcontractor hereby represents and warrants to Contractor and Owner that Subcontractor has received final payment in full of all amounts due for labor performed and materials furnished pursuant to the Contract, (ii) no notice of unpaid balance or right to file construction lien has been filed or served against the Property by Subcontractor, (iii) to the best of Subcontractor's knowledge, information and belief, no notice of unpaid balance or right to file construction lien has been filed or served against the Property by any of its Sub-Subcontractors or materialmen who performed labor or furnished materials with respect to the Project, (iv) there is no known basis for the filing of any construction lien, any other claim, or notice with respect to the Project, and (v) all Sub-Subcontractors and materialmen who were entitled to receive a portion of any progress payment previously paid to Subcontractor have been paid in full.

Subcontractor, on behalf of itself, its predecessors, successors, affiliates, and all Sub-Subcontractors and materialmen, for and in consideration of payment made, hereby forever waives, releases, and relinquishes any and all liens, claims, and demands whatsoever, which it now has or might or could have on or against the Project, the Property, Owner and Owner's successors and assigns, attorneys, affiliates, and lenders (collectively "Owner Releasees") for labor performed or materials furnished in connection with the Project.

Subcontractor further declares that by signing and sealing this instrument, Subcontractor shall be completely estopped from filing or maintaining any and all liens, claims, and notices against the Project and the Property, Contractor, and the Owner Releasees, and that in the event that any such lien, claim, or notice is filed or has been filed by Subcontractor or anyone acting through or under Subcontractor, Subcontractor shall immediately take steps to cause such lien, claim, or notice to be withdrawn, discharged, and satisfied. Subcontractor shall indemnify, defend, and hold harmless Contractor and Owner Releasees from and against all claims, damages, losses, and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the assertion by Subcontractor, or any of its Sub-Subcontractors or materialmen,

of any construction lien or claim or the filing of any construction claim, lien, or notice against the Project or the Property or the failure to discharge mechanic's liens, claims, and other filings as aforesaid.

IN WITNESS WHEREOF, Subcontractor, intending to be legally bound hereby, has caused this instrument to be executed, under seal, as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

CONTRACTOR:  
(Customize)

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

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

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

STATE OF NEW JERSEY    )  
  ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, a Notary Public in and for the State of New Jersey \_\_\_\_\_, personally appeared \_\_\_\_\_ the \_\_\_\_\_ of \_\_\_\_\_, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that s/he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first as above written.

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

NOTARY PUBLIC in and for the  
State of New Jersey

My appointment expires:

[NOTARY SEAL]

SECTION 003000 – FORM OF PROPOSAL

(This form may be copied onto bidder's letterhead.)

Date \_\_\_\_\_

To: The New York New Jersey Trail Conference  
156 Ramapo Valley Road  
Mahwah, New Jersey 07430

Subject: Proposal for Construction Contract  
Phase 1 of Rehabilitation of  
The Darlington Schoolhouse

Name of bidder: \_\_\_\_\_

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

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Contact Person (name and title): \_\_\_\_\_

We have familiarized ourselves with the Drawings, the Project Manual with Specifications, the existing building, the site, and the conditions under which the work is to be performed. We acknowledge receipt of the following Addenda, and have included them in our proposal: \_\_\_\_\_

**Base Bid.**

We propose to complete the work described in the contract documents for the lump sum Base Bid amount of

\_\_\_\_\_  
Dollars (\$\_\_\_\_\_).

**Alternate Prices**

We propose to make the changes described in the following Alternate Prices at the following increase or decrease in our Base Bid:

DSH Phase 1

Alternate Price Number 1- Construct Valve Room: Add \_\_\_\_\_  
\_\_\_\_\_ (\$\_\_\_\_\_).

Alternate Price Number 2 – Add Fire Protection Sprinkler System: Add \_\_\_\_\_  
\_\_\_\_\_ (\$\_\_\_\_\_).

**Unit Prices**

We propose to provide additional quantities of the following items at the following unit prices:

Unit Price Number 1 - Additional repointing of stone joints, per lineal foot  
: \_\_\_\_\_ (\$\_\_\_\_\_).

Unit Price Number 2: Additional repointing of brickwork, per square  
foot: \_\_\_\_\_ (\$\_\_\_\_\_).

Unit Price Number 3: Additional replacement of wood wall shingles, per square  
foot: \_\_\_\_\_ (\$\_\_\_\_\_).

If the quantity of any of the above items is decreased from the quantity indicated on the drawings, we agree to a reduction in the contract sum using the same unit prices less fifteen percent (15%) thereof.

**Time to Complete**

We are prepared to start upon receipt of a notice of award of contract and agree to complete the work within \_\_\_\_\_ calendar days barring unusual circumstances outside of our control.

**Attachments**

A Bid Bond in the amount of ten percent of the base bid amount is attached.

A list of the subcontractors we propose to engage is attached. (Where a final selection of subcontractor for a particular trade has not yet been made the bidder may list up to three possible subcontractors from which the selection will be made.)

DSH Phase 1

A corporate resolution authorizing this proposal is attached if required by our corporate documents.

Signed: \_\_\_\_\_

Print name: \_\_\_\_\_

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

Name of Entity \_\_\_\_\_

## SECTION 010000 – GENERAL REQUIREMENTS

### 1.1 USE OF SITE

- A. Contractor will have full access to and use of the site to perform the work, except that the owner will continue to occupy the existing garage for storage. Maintain access to the garage for the owner.
- B. The site consists of the portion of Lot 7 south and west of the Darlington Brook, the unnamed lot in front of the Darlington Schoolhouse belonging to the Township of Mahwah, and the portion of Lot 6 between the Darlington Schoolhouse and the easement belonging to the Bergen County Utilities Authority.
- C. No disturbance of the existing grade or cutting of trees is permitted in the Phase 1 Project.

### 1.2 PAYMENT PROCEDURES

- A. Schedule of Values: Prepare a schedule of values using the Project Manual table of contents as a guide to establish line items. Provide at least one line item for each Specification Section. Include a proportionate share of general costs, overhead and profit in each line. Submit to Architect at least two weeks prior to first application for payment.
- B. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor.
  - 1. Entries shall match data on the schedule of values.
  - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- C. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
  - 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage.
  - 2. When an application shows completion of an item, submit conditional final or full waivers.
  - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  - 4. Waiver Forms: Submit waivers of lien on forms provided in Exhibits to Agreement.



## DSH Phase 1

- D. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
  3. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
  4. Waiver Forms: Submit waivers of lien on forms provided in Exhibits to Agreement.
  5. Evidence that claims have been settled.

### 1.3 COORDINATION MEETINGS

- A. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the agreement.
- B. Progress Meetings: Conduct progress meetings at biweekly intervals or as mutually agreed with the Owner and Architect.

### 1.4 CONSTRUCTION SCHEDULE

- A. Prepare and submit a construction progress schedule in the form of a bar chart or other format acceptable to the Owner. Indicate a separate line for each trade or activity involved in the project, at least one for each line in the schedule of values and separate lines for activities having different time requirements. Indicate times for submittal and approval of required submittals. Revise the schedule if needed. Present a draft schedule at the preconstruction conference and submit the completed schedule prior to the first application for payment.

### 1.5 SUBMITTAL PROCEDURES

- A. Form of Submittals:
1. Samples, color selectors and similar submittals must be actual materials.a.
    - a. Submit 3 copies.
  2. Other submittals may be electronic or paper.
- B. Electronic Submittals: Submit electronic submittals via email as PDF files.
1. Architect will return annotated file or paper copies.

## DSH Phase 1

- C. Paper Submittals: Submit 3 copies of preliminary and 4 copies of final submittals.
- D. Contractor's Review: Review all submittals for compliance with contract requirements and coordination with other work before transmitting to Architect. Indicate Contractor's approval on the submittal or the transmittal.

### 1.6 TEMPORARY FACILITIES AND SERVICES

- A. Provide all temporary facilities and services necessary to carry out the work and protect the building, including, but not limited to:
  - 1. Temporary light and power
  - 2. Temporary water
  - 3. Temporary toilets
  - 4. Contractor's storage and office, if needed.
  - 5. Temporary enclosure.
  - 6. Waste disposal
- B. Requirements: Comply with all applicable requirements of governmental agencies and utility companies.
- C. Comply with NYS Building Code requirements for construction fence.
- D. Existing Services: Safely disconnect and cap all utility services and connections to the existing building as necessary for the work of this project.
- E. Storage: Only clean materials for interior use may be stored within the building. Carefully protect building parts from damage.
- F. Environmental Protection: The site is an environmentally sensitive area. Comply with all applicable regulations of authorities having jurisdiction.
  - 1. Do not permit materials of any sort resulting from the work to be discharged or thrown into the stream or onto the ground.
  - 2. Cover the ground in all work areas with tarpaulins. Collect and dispose of runoff from cleaning operations, residue from preparation for painting, and all other excess materials, waste and debris.
  - 3. Reduce, salvage, and recycle construction waste to the maximum extent feasible.

1.7 CUTTING AND PATCHING

- A. Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
- B. Cutting and Patching, General: Employ skilled workers to perform cutting and patching.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Cutting: Cut in-place construction by using methods least likely to damage elements retained or adjoining construction. Review proposed procedures with the architect.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover exterior openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
- F. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
  - 1. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
  - 2. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- G. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove patching materials from adjacent finished surfaces.

## DSH Phase 1

### 1.8 WASTE MANAGEMENT AND DISPOSAL

- A. Dispose of all demolition and construction waste off site in a manner acceptable to authorities having jurisdiction.
  - 1. Exception: Masonry units may be broken into pieces meeting requirements for backfill and be incorporated in backfill.
- B. To the greatest extent feasible, salvage and/or recycle demolition and construction waste.
- C. Submittals: Obtain and submit records of all waste disposal including manifests, weight tickets, receipts and invoices.
- D. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste disposal.
- E. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- F. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for salvaging or recycling waste materials shall accrue to Contractor.
- G. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
  - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin. Break down cardboard packaging into flat sheets. Bundle and store in a dry location.

### 1.9 CLOSEOUT PROCEDURES

- A. Substantial Completion: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Submit specific warranties and similar documents.
  - 3. Prepare and submit Project Record Drawings, operation and maintenance manuals, and similar final record information.
  - 4. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  - 5. Make final changeover of permanent locks and deliver keys to Owner.
  - 6. Complete startup testing of systems.
  - 7. Submit test/adjust/balance records.

## DSH Phase 1

8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Advise Owner of changeover in heat and other utilities.
  10. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  11. Complete final cleaning, including touchup painting.
  12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects resulting from the work.
- B. Inspection for Substantial Completion: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for final completion.
- C. Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to requirements: "Payment Procedures."
  2. Submit copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list). State that each item has been completed or otherwise resolved for acceptance.
  3. Clean again any areas affected by completion work.
  4. Submit evidence of final, continuing insurance coverage, if required, complying with insurance requirements.
  5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- D. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

### 1.10 RECORD DRAWINGS

- A. Submittal: Submit one set of marked-up Record Prints.
- B. Requirements:

## DSH Phase 1

1. Show the dimensioned location and depth of all underground services, pipes, conduits and cables, including the sanitary sewer.
2. Show the location of all concealed or semi-concealed interior pipes, conduits and cables, except electrical branch circuiting.
3. Show any changes in the Work.

### 1.11 OPERATION AND MAINTENANCE MANUAL

C. Prepare operation and maintenance manual, including the following:

1. Operation and maintenance directory.
2. Emergency instructions.
3. Operation instructions for systems, subsystems, and equipment.

END OF SECTION 010000

## SECTION 013591 - HISTORIC TREATMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 GENERAL

- A. This project is a phase in the rehabilitation of a historic building that is listed on the State and National Registers of Historic Places. All work is to be in accordance with the following:
1. The Secretary of the Interior's Standards for the Treatment of Historic Properties, Standards for Rehabilitation.
  2. New Jersey Rehabilitation Subcode, N.J.A.C. 5:23-6

#### 1.2 SUMMARY

1. This section includes general protection and treatment procedures for the entire Project.

#### 1.3 DEFINITIONS

- A. Consolidate: To strengthen loose or deteriorated materials in place.
- B. Dismantle: To disassemble and detach items by hand from existing construction to the limits indicated, using small hand tools and small one-hand power tools, so as to protect nearby historic surfaces; and legally dispose of dismantled items off-site, unless indicated to be salvaged or reinstalled.
- C. Existing to Remain: Existing items that are not to be removed or dismantled.
- D. Historic: Spaces, areas, rooms, surfaces, materials, finishes, and overall appearance which are important to the successful rehabilitation as determined by the Architect. Designated historic areas are indicated on Drawings and generally described below.
1. Rehabilitation Areas: Areas of greatest architectural importance, integrity, and visibility; to be preserved and restored to the original 1891 design and finish, with modifications for a compatible new use, as shown on Drawings:
    - a. The entire existing main building is a rehabilitation area.
  2. Alteration Areas: Areas of slight architectural importance, integrity, and visibility; to leave any remaining original fabric untouched insofar as is consistent with accommodating modern uses for the area as shown on Drawings:
    - a. The one-story attached rear wing consisting of a former boiler room is an alteration area.

3. Noncontributing Areas: Areas that do not contribute to the historical nature of the property:
  - a. The existing garage is a noncontributing area.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by the Architect.
- F. Reconstruct: To remove existing item, replicate damaged or missing components, and reinstall in original position.
- G. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- H. Reinstall: To protect removed or dismantled item, repair and clean it as indicated for reuse, and reinstall it in original position, or where indicated.
- I. Remove: Specifically for historic spaces, areas, rooms, and surfaces, the term means to detach an item from existing construction to the limits indicated, using hand tools and hand-operated power equipment, and legally dispose of it off-site, unless indicated to be salvaged or reinstalled.
- J. Repair: To correct damage and defects, retaining existing materials, features, and finishes while employing as little new material as possible. Includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- K. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- L. Replicate: To reproduce in exact detail, materials, and finish, unless otherwise indicated.
- M. Reproduce: To fabricate a new item, accurate in detail to the original, and in either the same or a similar material as the original, unless otherwise indicated.
- N. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.
- O. Retain: To keep existing items that are not to be removed or dismantled.
- P. Reversible: New construction work, treatments, or processes that can be removed or undone in the future without damaging historic materials, unless otherwise indicated.
- Q. Salvage: To protect removed or dismantled items and deliver them to Owner.
- R. Stabilize: To provide structural reinforcement of unsafe or deteriorated items while maintaining the essential form as it exists at present; also, to reestablish a weather-resistant enclosure.
- S. Strip: To remove existing finish down to base material, unless otherwise indicated.



#### 1.4 SUBMITTALS

- A. Construction Schedule for Historic Treatments: Indicate for the entire Project the following for each activity to be performed in historic spaces, areas, and rooms, and on historic surfaces:
  - 1. Detailed sequence of historic treatment work, with starting and ending dates, coordinated with Owner's continuing operations and other known work in progress.
  - 2. Utility Services: Indicate how long utility services will be interrupted.
  - 3. Use of elevator and stairs.
- B. Preconstruction Documentation: Show preexisting conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by historic treatment operations.
- C. Historic Treatment Program: Submit before work begins.
- D. Fire-Prevention Plan: Submit before work begins.

#### 1.5 QUALITY ASSURANCE

- A. Historic Treatment Specialist Qualifications:
  - 1. Field Supervisor Qualifications: Full-time supervisors experienced in historic treatment work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on Project site during times that historic treatment work is in progress.
  - 2. Worker Qualification: Persons who are experienced in historic treatment work of types they will be performing.
- B. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-prevention devices during each phase or process.

#### 1.6 STORAGE AND PROTECTION OF HISTORIC MATERIALS

- A. Salvaged Historic Materials:
  - 1. Clean only loose debris from salvaged historic items unless more extensive cleaning is indicated.
  - 2. Pack or crate items after cleaning; cushion against damage during handling. Label contents of containers.
  - 3. Store items in a secure area until delivery to Owner.
  - 4. Transport items to Owner's storage area on-site.
  - 5. Protect items from damage during transport and storage.
- B. Historic Materials for Reinstallation:
  - 1. Repair and clean historic items as indicated and to functional condition for reuse.
  - 2. Pack or crate items after cleaning and repairing; cushion against damage during handling. Label 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 unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make item functional for use indicated.
- C. Existing Historic Materials to Remain: Protect construction to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after historic treatment and construction work in the vicinity is complete.
- D. Storage and Protection: When taken from their existing locations, catalog and store historic items within a weathertight enclosure where they are protected from wetting by rain, snow, condensation, or ground water, and from freezing temperatures.
1. Identify each item with a nonpermanent mark to document its original location. Indicate original locations on plans elevations, sections, or photographs by annotating the identifying marks.
  2. Secure stored materials to protect from theft.

#### 1.7 PROJECT CONDITIONS

- A. Hazardous Materials: Hazardous materials are present in construction affected by the work. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
1. Hazardous material remediation is specified elsewhere in the Contract Documents.
  2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
- B. Storage or sale of removed or dismantled items on-site is not permitted unless otherwise indicated.

#### PART 2 - PRODUCTS - (Not Used)

#### PART 3 - EXECUTION

##### 3.1 EXAMINATION

- A. Preparation for Removal and Dismantling: Examine construction to be removed or dismantled to determine best methods to safely and effectively perform removal and dismantling work. Examine adjacent work to determine what protective measures will be necessary. Make explorations, probes, and inquiries as necessary to determine condition of construction to be removed or dismantled and location of utilities and services to remain that may be hidden by construction that is to be removed or dismantled.
1. Verify that affected utilities have been disconnected and capped.
  2. Inventory and record the condition of items to be removed and dismantled for reinstallation or salvage.

3. Before removal or dismantling 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 PROTECTION, GENERAL

- A. Ensure that supervisory personnel are on-site and on duty when historic treatment work begins and during its progress.
- B. Temporary Protection of Historic Materials:
  1. Protect existing historic materials with temporary protections and construction. Do not deface or remove existing materials.
  2. Do not attach temporary protection to historic surfaces except as indicated as part of the historic treatment program and approved by Architect.
- C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
- D. Utility and Communications Services:
  1. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for the historic treatment work.

### 3.3 PROTECTION FROM FIRE

- A. General: Follow fire-prevention plan and the following.
  1. Comply with NFPA 241 requirements unless otherwise indicated.
  2. Remove and keep area free of combustibles including, rubbish, paper, waste, and chemicals, except to the degree necessary for the immediate work.
    - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
  3. Prohibit smoking by all persons within the Project work and staging areas.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or highly combustible materials, including welding, torch-cutting, soldering, brazing, paint removal with heat, or other operations where open flames or implements utilizing high heat or combustible solvents and chemicals are anticipated.
  1. Obtain Owner's approval for operations involving use of welding or other high-heat equipment. Use of open-flame equipment is not permitted Notify Owner before each occurrence, indicating location of such work.
  2. As far as practical, restrict heat-generating equipment to shop areas or outside the building.

3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
  4. Use fireproof baffles to prevent flames, sparks, hot gasses, or other high-temperature material from reaching surrounding combustible material.
  5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
  6. Fire Watch: Before working with heat-generating equipment or highly combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows.
    - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
    - b. Prohibit fire-watch personnel from other work that would be a distraction from fire-watch duties.
    - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
    - d. Have fire watch perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work at the Project site to detect hidden or smoldering fires and to ensure that proper fire-prevention is maintained.
- C. Fire Extinguishers, Fire Blankets, and Rag Buckets: Maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire watch are trained in fire-extinguisher and blanket operation.

### 3.4 GENERAL HISTORIC TREATMENT

- A. Ensure that supervisory personnel are present when historic treatment work begins and during its progress.
- B. Halt the process of deterioration and stabilize conditions, unless otherwise indicated. Perform work as indicated on Drawings. Follow the procedures in subparagraphs below and procedures approved in historic treatment program.
  1. Retain as much existing material as possible; repair and consolidate rather than replace.
  2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
  3. Perform each operation with the gentlest and least potentially damaging method that is feasible.
  4. Use reversible processes wherever possible.
  5. Use historically accurate repair and replacement materials and techniques unless otherwise indicated.
  6. Record existing work before each procedure (preconstruction) and progress during the work with digital preconstruction documentation.
- C. Notify Architect of visible changes in the integrity of material or components whether due to environmental causes including biological attack, UV degradation, freezing, or thawing; or due to structural defects including cracks, movement, or distortion.

1. Do not proceed with the work in question until directed by Architect.
- D. Where missing features are indicated to be repaired or replaced, provide features whose designs are based on accurate duplications rather than on conjectural designs, subject to the approval of Architect.
- E. Where Work requires existing features to be removed or dismantled and reinstalled, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.
- F. Identify new and replacement materials and features with permanent marks hidden in the completed work to distinguish them from original materials. Record a legend of identification marks and the locations of the items on Record Drawings.

### 3.5 HISTORIC REMOVAL AND DISMANTLING

- A. General: Have removal and dismantling work performed by a qualified historic treatment specialist.
- B. Perform work in accordance with the historic treatment program.
- C. Water-Mist Sprinkling: Use water-mist sprinkling and other wet methods to control dust only with adequate, approved procedures and equipment that ensure that such water will not create a hazard or adversely affect other building areas or materials.
- D. Anchorages:
  1. Remove anchorages associated with removed items.
  2. Dismantle anchorages associated with dismantled items.
  3. In non-historic surfaces, patch holes created by anchorage removal or dismantling in accordance with the requirements for new work.
  4. In historic surfaces, patch or repair holes created by anchorage removal or dismantling in accordance with Section specific to the historic surface being patched.

END OF SECTION 013591

## SECTION 020700 - INTERIOR CLEANING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Cleaning of all interior surfaces in the first and second floors.

B. Related Sections:

1. Interior painting and finishing are not included and will be specified in the Phase 2 contract.

#### 1.2 PROJECT CONDITIONS

A. A mold inspection at the building in October 2009 reached the following conclusion:

1. Based on the findings and visual inspection of the interior of the Darlington Schoolhouse we found no imminent hazard of mold contamination to exist. During the inspection the determination was made that mold on a hazardous scale is not present in the building, however precautions should be taken to prevent the spreading of existing mold spores and formation of a potential problem. The recommended precautions are included in this section.

#### 1.3 COORDINATION

A. Perform the work of this section after asbestos abatement and before all other interior work.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

A. Bleach

1. Chlorine based household strength bleach.

B. Detergent

1. Spic-N-Span.

#### 2.2 MIXING

A. Bleach solution: Mix bleach solution in the ratio of 1 part of bleach to 5 parts of water.

B. Mix detergent as recommended on package.

## PART 3 - EXECUTION

### 3.1 EQUIPMENT

- A. Wear appropriately rated dust masks when dust may be raised.
- B. Wear protective clothing and eye protection when spraying bleach solution.
- C. Use HEPA rated vacuum cleaner.

### 3.2 PROTECTION

- A. Provide waterproof covers over cartons of publications and other property of owner that is stored in building.
- B. Mask and cover slate chalkboards during bleach spray. Remove protection after bleach spray so they can be washed.

### 3.3 CLEANING AND SURFACE PREPARATION

- A. Bleach Spray: Spray all plaster walls and ceilings in first and second floor rooms with bleach solution, including top surfaces of trusses and projecting trim. Avoid excess liquid. Immediately wipe up any puddles on wood floors and other wood surfaces.
- B. Debris Removal: Remove all debris, furniture, and other building contents except pieces of the building and other items marked to remain.
- C. Vacuum all floors and other horizontal surfaces.
- D. Damp-wipe all floors, walls, ceilings, trusses, doors, trim and other surfaces with detergent solution. Use rags, sponges, or mops, wrung damp to avoid excess water on wood surfaces. Immediately wipe up any puddles on floors.
- E. Repeat bleach spray and washing on any surfaces where mold stains remain.

END OF SECTION 099124

**SECTION 020800 - ASBESTOS REMOVAL**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This asbestos abatement Project will consist of the removal and disposal of asbestos containing materials at former Darlington School House, First floor Southwest side Bay, first floor Northeast Side Bay, Second floor Bathroom on Southwest Side, and Boiler room Chimney Opening. See section 1.02 “SPECIAL JOB CONDITIONS” in this specification.
- B. The work includes but is not limited to the removal and disposal of asbestos containing materials involving 9”x 9” floor tile and associated mastic on first floor southwest side, Gray linoleum on first floor Northeast side, tan mottled 9”x 9” floor tile on second floor Bathroom Southeast Side, and Flue Packing on Boiler room chimney opening. All work shall be performed in accordance with the guidelines and regulations of the responsible State Agencies, Occupational Safety and Health Administration (OSHA) and federal and local regulations. Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, guidelines and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.
- C. The Contractor shall be aware of all conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the Work.
- D. All Work shall be performed in strict accordance with the Project Documents and governing codes, rules, and regulations. Where conflicts occur between the Project Documents and applicable codes, rules, and regulations, the more stringent shall apply.
- E. The Contractor shall take all necessary precautions to support all electrical, mechanical and other fixtures, which are present in the work areas. All equipment and fixtures shall remain intact and be decontaminated and or encapsulated.
- F. As part of the abatement work, the contractor shall remove and dispose of all asbestos- containing materials from the following areas:

#	Material	Location	Quantity
1	9”x9” Tan floor Tile	1 <sup>st</sup> Floor SW Side Bay	150sf
2	Grey Linoleum	1 <sup>st</sup> Floor NE. Side Bay	10sf*
3	9”X9” Tan Floor Tile	2 <sup>nd</sup> Floor Bathroom SW	150sf
4	Flue Packing	Boiler Room	2sf

\* This material has disappeared since the inspection.

- G. Unless otherwise stated all removal work shall be down to the substrate. Use of solvent or mastic removers may be necessary to achieve complete removal.
- H. The Owner shall provide abatement Project air sampling and analysis as required by applicable regulations.



**1.02 INSURANCE**

A. The contractor shall provide affidavit of insurance in force to include complete operative and products liability for asbestos removal. The amount of coverage shall be a minimum of \$1,000,000.00.

**1.03 CODES AND STANDARDS**

A. All asbestos removal and documentations shall be in accordance with the guidelines and regulations of the responsible state Agencies; Occupational Safety and Health Administration (OSHA), New Jersey Department of Health (NJDOH), New Jersey Department of Labor (NJDOL) AND THE New Jersey Department of Environmental Protection (NJDEP).

B The contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State and Local regulations pertaining to work practices, hauling and disposal. The contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by applicable Federal, State and Local regulations. The contractor shall hold the Owner and Owner's Representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself / herself, his /her employees, or his/her subcontractors.

C Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect as if copied directly into the contract documents, or as if published copies are bound herewith.

D The contractor shall strictly adhere to all precautions necessary for the safety and health of the work personnel in accordance with provisions of OSHA Standards 26 Code of Federal Registers, CFR, Part 1926.1101, Construction Standards and Section 1910.1001, Industry Standards.

**1.04 PERMITS AND COMPLIANCE**

- A. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local laws, rules, and regulations pertaining to Work practices, protection of Workers, authorized visitors to the site, persons, and property adjacent to the Work.
- B. Perform asbestos related Work in accordance with New Jersey Department of Environmental Protection, 40 CFR 61, and 29 CFR 1926, as specified herein. Where more stringent requirements are specified, adhere to the more stringent requirements.
- C. The Contractor must maintain current licenses pursuant to New Jersey Department of Labor and Department of Environmental Conservation for all Work related to this Project, including the removal, handling, transport, and disposal of asbestos containing materials.
- D. The Contractor must have and submit proof upon request that any persons employed by the Contractor to engage in or supervise Work on any asbestos Project have a valid asbestos handling certificate as approved by New Jersey Department of Labor.

**1.05 SUBMITTALS**

- A. Qualification Submittals: Within 7 days after award of the general contract, submit the following documentation. Failure to submit all required documentation truthfully or in a timely manner may be cause for disqualification.
  - 1. Contractor license issued by New Jersey State Department of Labor.

2. A list of Projects performed within the past two (2) years and including the dollar value of all Projects. Provide Project references to include Owner, consultant, and air monitoring firm's name, contact persons, address, and phone number.
  3. Citations/Violations/Legal Proceedings: Submit a statement describing:
    - a. Any citations, violations, criminal charges, or legal proceedings undertaken or issued by any law enforcement, regulatory agency, or consultant concerning performance on previous abatement contracts. Briefly describe the circumstances citing the Project and involved persons and agencies as well as the outcome of any actions.
    - b. Any litigation or arbitration proceedings arising out of performance on past Projects.
  4. Preliminary Schedule: Provide an estimate of manpower to be utilized and the time required for completion of each major Work Area. Include estimated size and number of crews and Work shifts.
- B. Pre-Work Submittals: Within 7 days prior to the pre-construction conference, the Contractor shall submit 3 copies of the documents listed below:
1. Progress Schedule:
    - a. Show the complete sequence of abatement activities and the sequencing of Work within each building or building section.
    - b. Show the dates for the beginning and completion of each major element of Work including substantial completion dates for each Work Area, building, or phase.
    - c. Show Projected percentage of completion for each item, as of the first day of each month.
    - d. Show final inspection dates.
  2. Notifications: As required by Federal, State, and local regulatory agencies together with proof of transmittal (i.e. certified mail return receipt).
- C. Project Close-out Submittals: Submit the following at the closeout of the Project:
1. Originals of all waste disposal manifests, seals, and disposal logs.
  2. OSHA compliance air monitoring records conducted during the Work.
  3. Daily progress log.
  4. A list of all Workers used in the performance of the Project, including name, social security number, and DOL certification number.
  5. Required Employee Statements including Medical Examination Statement, Worker's Acknowledgment Statement, Respirator Fit Test, and Employee Training Statement.

## 1.06 NOTICES

- A. The Contractor shall provide notification of intent to commence asbestos abatement activities as indicated below.
1. At least ten (10) Working days prior to beginning abatement activities, send written notification to:  
  
U.S. Environmental Protection Agency  
National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Coordinator  
.
  2. At least ten (10) days prior to beginning abatement activities, send written notification to:  
New Jersey Department of Labor

Asbestos Control and Licensing Services.  
1 John Fitch Plaza, 3<sup>rd</sup> Floor  
P. O. Box 392  
Trenton, NJ 08625-0392

- B. The Contractor is required to send notifications to regulatory agencies via mail or package delivery service that will provide proof of delivery and receipt.
- C. The Contractor shall post and/or provide Building Occupant Notification at least 10 days prior to beginning abatement activities as required by NJ Department of Labor. The posting shall include the following information:
  - 1. The locations of the abatement Project.
  - 2. The amounts and types of asbestos containing materials being abated.
  - 3. The commencement and completion dates of the Project.
  - 4. The name, address, and asbestos license number of the abatement Contractor.
  - 5. The name, address, and asbestos license number of the Environmental Consultant and laboratory.

### **1.07 PROJECT MONITORING AND AIR SAMPLING**

- A. The Owner shall engage the services of an Environmental Consultant (the Consultant) who shall serve as the Owner's Representative in regard to the performance of the asbestos abatement Project and provide direction as required throughout the entire abatement period. The Consultant's responsibilities will be those of Project Monitor as defined in 40 CFR 61. The Contractor is responsible for all OSHA and safety issues and shall provide a site safety officer as necessary to ensure a safe work environment and operations.
- B. The Contractor is required to ensure cooperation of its personnel with the Consultant for the air sampling and Project monitoring functions described below.
- C. The Consultant shall provide the following administrative services:
  - 1. Review and approve or disapprove all submittals, shop drawings, schedules, and samples.
  - 2. Assure that all notifications to governmental agencies by the Contractor are submitted in a timely manner and are correct in content.
  - 3. Review and approve the Contractor's OSHA compliance testing laboratory.
- D. The Consultant shall provide abatement Project air sampling and analysis as required by applicable regulations. Sampling will include background, pre-abatement, during-abatement, and PCM clearance sampling.

### **1.08 PROJECT SUPERVISOR AND SITE ACCESS**

- A. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
  - 1. The Project Supervisor shall hold New York State certification as an Asbestos Supervisor.
  - 2. The Project Supervisor shall meet the requirements of a "Competent Person" as defined by OSHA 1926.1101 and shall have a minimum of one year experience as a supervisor.
  - 3. The Project Supervisor must be able to read and write English fluently, as well as communicate in the primary language of the Workers.
- B. If the Project Supervisor is not on-site at any time whatsoever, all Work shall be stopped. The Project Supervisor shall remain on-site until the Project is complete. The Project Supervisor cannot be

removed from the Project without the written consent of the Owner and the Environmental Consultant. The Project Supervisor shall be removed from the Project if so requested by the Owner.

- C. The Owner, Owner's Representatives, Project Manager, and the representative of agencies having lawful jurisdiction shall at all times have access to the work area whether work is in preparation or progress.

## **PART 2 PRODUCTS**

### **2.01 PROTECTIVE CLOTHING**

- A. Provide personnel utilized during the Project with disposable protective whole body clothing, headcoverings, gloves and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape, or provide disposable coverings with elastic wrists or tops.
- B. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement Work.
- C. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.
- D. Authorized visitors shall be provided with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the Work Area.

### **2.02 SIGNS AND LABELS**

- A. Provide warning signs and barrier tapes at all approaches to asbestos Work Areas. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area.
  - 1. Provide danger signs in vertical format conforming to 29 CFR 1926.1101, minimum 20" x 14" displaying the following legend.

DANGER  
ASBESTOS CANCER AND LUNG DISEASE  
HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING  
ARE REQUIRED IN THIS AREA

- 2. Provide 3" wide yellow barrier tape printed with black lettered, "DANGER ASBESTOS REMOVAL". Locate barrier tape across all corridors, entrances and access routes to asbestos Work Area. Install tape 3' to 4' AFF.
- B. Provide asbestos danger labels affixed to all asbestos materials, scrap, waste, debris and other products contaminated with asbestos.
  - 1. Provide asbestos danger labels of sufficient size to be clearly legible, displaying the following legend:

DANGER  
CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD

2. Provide the following asbestos labels, of sufficient size to be clearly legible, for display on waste containers (bags or drums) which will be used to transport asbestos contaminated material in accordance with United States Department of Transportation 49 CFR Parts 171 and 172:

RQ HAZARDOUS  
SUBSTANCE  
SOLID, NOS  
ORM-E, NA 9188  
ASBESTOS

3. Generator identification information shall be affixed to each waste container indicating the following printed in indelible ink:  
Generator Name:  
Facility Name:  
Facility Address:

**2.03 SURFACTANT (AMENDED WATER)**

- A. Wet all asbestos-containing materials prior to removal with surfactant mixed and applied in accordance with manufacturer's printed instructions.
- B. Approved Manufacturer:
  1. International Protective Coatings Corp.: Serpiflex Shield
  2. American Coatings Corp.: EPA 55 Asbestos Removal Agent
  3. Certified Technologies: CerTane 2075 Penetrating Surfactant
- A. Encapsulant shall be tinted or pigmented so that application when dry is readily discernible.
- B. Approved Manufacturer:
  1. International Protective Coatings Corp.: Serpiflex Shield
  2. American Coatings Corp.: FNE High Temperature Sealant
  3. Certified Technologies: CerTane 1000 Post Removal Encapsulant

**PART 3 EXECUTION**

**3.01 REMOVAL OF ASBESTOS CONTAINING MATERIALS**

- A. No dry removal or dry disturbance of asbestos material shall be permitted. Asbestos-containing materials shall be removed in accordance with the Contract Documents and the approved Asbestos Work Plan.
- B. The asbestos material shall be adequately wetted with amended water. Sufficient time shall be allowed for penetration to occur prior to abatement activities. All friable asbestos materials shall be thoroughly saturated. All non-hygroscopic (material that resists wetting) asbestos material shall be thoroughly wetted, prior to and during abatement.
- C. Only one type of asbestos containing material shall be abated at a time within an enclosure. Prior to the abatement of another type of asbestos containing material, the area shall be cleaned.

### **3.02 EQUIPMENT AND WASTE CONTAINER DECONTAMINATION AND REMOVAL**

- A. After ACM, PACM, asbestos material and debris is bagged, wrapped, or containerized, waste transfer from the regulated abatement work area as per this Section, shall occur when no gross removal is taking place.
- B. External surfaces of contaminated bags/containers and equipment shall be cleaned by wet wiping or HEPA-vacuuming or both in the regulated abatement work area before moving such items into the waste decontamination system washroom by persons assigned to this duty.
- C. All bagged/containerized contaminated items and asbestos waste shall be passed into the washroom during waste transfer operations. Workers from uncontaminated areas in full protective clothing and appropriate respiratory protection shall enter the washroom and place the appropriate supply of specified clean waste bags/containers within the washroom. One team of workers shall be stationed in the washroom for bag/container cleaning and additional containerization as necessary. The workers shall ensure all curtained doorways are closed during the waste container transfer procedure and that all bags/containers are sealed properly before removing for transport and disposal.
- D. Once in the waste decontamination system, external surfaces of the contaminated bags/containers and equipment shall be cleaned an additional time by wet cleaning in the washroom.
- D. The cleaned containers of asbestos waste and equipment shall not be stored in the clean room but shall be placed in holding carts adjacent to but outside of the clean room, after passing through the decontamination unit. The carts may be used for temporary storage adjacent to the clean room until the end of the work shift.
- E.

## **PART 4 DISPOSAL OF ASBESTOS WASTE**

### **4.01 APPLICABLE REGULATIONS**

- A. All asbestos waste shall be stored, transported and disposed of in accordance with the following regulations as a minimum:
  - 1. New Jersey Department of Environmental Conservation (NJ DEC)
  - 2. US EPA NESHAPS 40 CFR 61
  - 3. US EPA Asbestos Waste Management Guidance EPA/530-SW85
  - 4. NJ DOL

### **4.02 FINAL WASTE REMOVAL FROM SITE REQUIREMENTS.**

- A. Satisfactory clearance air results must be obtained, for all non-exempt regulated abatement work areas, before final waste removal from the site may be completed as per this Subpart.
- B. All remaining tools and equipment shall be removed from the work site after proper decontamination.
- C. All waste generated as part of the asbestos project shall be removed from the site within ten (10) calendar days after successful completion of all regulated abatement work areas at the site. All waste generated during the asbestos project shall be legally disposed of at an

approved landfill facility. All generated waste removed from the site must be documented, accounted for and disposed of in compliance with the requirements of EPA NESHAP.

#### **4.03 HAULER'S ASBESTOS WASTE MANIFESTS**

- A. The Manifests shall have the appropriate signatures of the Environmental Consultant, the Contractor, and the Hauler representatives prior to any waste being removed from the site.
- B. The Contractor shall forward copies of all Waste Manifest to the Owner and Environmental Consultant within 14 days of the waste container being removed from the site. Failure to do so may result in payment being withheld from the Contractor.
- C. Originals of all waste shall be submitted by the Contractor to the Owner with the final close-out documentation.

END OF SECTION 020800

## SECTION 024119 – SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. This Section includes the following:

1. Demolition and removal of selected portions of building or structure.

#### 1.2 QUALITY ASSURANCE

A. Standards: Comply with ANSI A10.6 and NFPA 241.

#### 1.3 PROJECT CONDITIONS

A. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.

1. Removal of incidental asbestos-containing material is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

#### 3.2 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 facilities to remain.



- 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.

### 3.3 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. 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.
  - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 3. Do not use cutting torches.
  - 4. Dispose of demolished items and materials promptly.
- B. 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.
- C. Items to be removed and stored for reinstallation include, but are not limited to:
  - 1. Entrance porch benches.
  - 2. Original lighting fixtures

### 3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

### 3.5 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 SUMMARY

- A. Section includes cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes.

1.2 SUBMITTALS

- A. Samples: Samples of cured concrete for patching exposed surfaces to show color.
- B. Other Action Submittal:
  - 1. Design Mixtures: For each concrete mixture.

1.3 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. Comply with **ACI 301 (ACI 301M)**.

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.

## 2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
  - 1. Portland Cement: ASTM C 150, Type as required to achieve acceptable color match for patching exposed surface.
- B. Normal-Weight Aggregate: ASTM C 33, graded, 1-1/2-inch (38-mm) nominal maximum aggregate size.
- C. Water: ASTM C 94/C 94M.

## 2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.

## 2.5 RELATED MATERIALS

- A. Vapor Retarder: Plastic sheet, ASTM E 1745, Class A or B.

## 2.6 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.
- B. Water: Potable.

## 2.7 CONCRETE MIXTURES

- A. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301 (ACI 301M), as follows:
  - 1. Minimum Compressive Strength: 3500 psi (24.1 MPa) at 28 days.
  - 2. Air Content: Maintain within range permitted by ACI 301 (ACI 301M). Do not allow air content of trowel-finished floor slabs to exceed 3 percent.

## 2.8 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.

### PART 3 - EXECUTION

#### 3.1 FORMWORK

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301 (ACI 301M).

#### 3.2 STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

#### 3.3 CONCRETE PLACEMENT

- A. Comply with ACI 301 (ACI 301M) for placing concrete.

#### 3.4 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).
  1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Remove fins and other projections exceeding 1/8 inch (3 mm).
  1. Apply to concrete surfaces exposed to public view,.
- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

#### 3.5 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on surface.

1. Do not further disturb surfaces before starting finishing operations.
- C. Scratch Finish: Apply scratch finish to surfaces indicated and surfaces to receive concrete floor topping or mortar setting beds for ceramic or quarry tile, portland cement terrazzo, and other bonded cementitious floor finishes, unless otherwise indicated.
- D. Float Finish: Apply float finish to surfaces indicated, to surfaces to receive trowel finish, and to floor and slab surfaces to be covered with fluid-applied or sheet waterproofing, fluid-applied or direct-to-deck-applied membrane roofing, or sand-bed terrazzo.
- E. Trowel Finish: Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin film-finish coating system.
- F. Trowel and Fine-Broom Finish: Apply a partial trowel finish, stopping after second troweling, to surfaces indicated and to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set methods. Immediately after second troweling, and when concrete is still plastic, slightly scarify surface with a fine broom.
- G. Nonslip Broom Finish: Apply a nonslip broom finish to surfaces indicated and to exterior concrete platforms, steps, and ramps. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.

### 3.6 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.

### 3.7 REPAIRS

- A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 033053

## SECTION 040120 - MAINTENANCE OF MASONRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes maintenance of masonry consisting of brick clay and stone masonry restoration as follows:
  - 1. Bricking-in existing flue breechings in chimney.
  - 2. Repointing brick and stone joints where needed.
  - 3. Capping top of unused flues at chimney.
  - 4. Patching foundation parging.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For the following:
  - 1. Pointing Mortar: For each type of pointing mortar required, submit sets of mortar for pointing in the form of sample mortar strips, 6 inches (150 mm) long by 1/2 inch (13 mm) wide, set in aluminum or plastic channels.
    - a. Have each set contain a close color range of at least three Samples of different mixes of colored sands and cements that produce a mortar matching the existing mortar when cured and dry.
    - b. Submit with precise measurements on ingredients, proportions, gradations, and sources of colored sands from which each Sample was made.
- C. Samples for Verification: For the following:
  - 1. Each type, color, and texture of pointing mortar in the form of sample mortar strips, 6 inches (150 mm) long by 1/2 inch (13 mm) wide, set in aluminum or plastic channels.
    - a. Include with each Sample a list of ingredients with proportions of each. Identify sources, both supplier and quarry, of each type of sand and brand names of cementitious materials and pigments if any.
- D. Qualification Data: For restoration specialists.

#### 1.3 QUALITY ASSURANCE

- A. Restoration Specialist Qualifications: Engage an experienced masonry restoration firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance.

Experience installing standard unit masonry is not sufficient experience for masonry restoration work.

1. Field Supervision: Restoration specialist firms shall maintain experienced full-time supervisors on Project site during times that stone restoration and cleaning work is in progress. Supervisors shall not be changed during Project except for causes beyond control of restoration specialist firm.
- B. Mockups: Prepare mockups of restoration and cleaning to demonstrate aesthetic effects and set quality standards for materials and execution and for fabrication and installation.
  1. Brick repointing: Rake out joints in 2 separate areas, each approximately 36 inches (900 mm) high by 48 inches (1200 mm) wide for each type of repointing required and repoint one of the areas.
  2. Stone repointing: Rake out 2 separate joints, each approximately 36 inches (900 mm long) for each type of repointing required and repoint one of the joints.
  3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- 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 hydrated lime in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been opened for more than two days.
- D. Store sand where grading and other required characteristics can be maintained and contamination avoided.

#### 1.5 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit work to be performed according to manufacturers' written instructions and specified requirements.
- B. Repoint mortar joints only when air temperature is between 40 and 90 deg F (4 and 32 deg C) and is predicted to remain so for at least 7 days after completion of the Work unless otherwise indicated.

## PART 2 - PRODUCTS

### 2.1 MASONRY MATERIALS

- A. Face Brick: Provide units with physical properties, colors, color variation within units, surface texture, size, and shape to match existing brickwork.
- B. Building Brick: Provide building brick complying with ASTM C 62, Grade SW where in contact with earth, Grade SW, MW, or NW for concealed backup; and of same vertical dimension as face brick, for masonry work concealed from view.
- C. Flue Capping: Natural bluestone flagging, minimum thickness 2 inches.

### 2.2 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150, Type I or Type II, white or gray or both where required for color matching of exposed mortar.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Mortar Sand: ASTM C 144 unless otherwise indicated.
  - 1. Brick Joints: Blend 5 parts Schofield #124 sand and 4 parts Schofield # 180 sand. Adjust mixture if necessary to achieve match.
  - 2. Stone Joints and Parging: Blend 2 parts Schofield #124 sand and 1 part Schofield #180 sand. Adjust mixture if necessary to achieve match.
  - 3. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
- D. Mortar Pigments: Natural and synthetic iron oxides, compounded for mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortars.
  - 1. Solomon Colors #10X, "Light Buff", as needed.
- E. Water: Potable.

### 2.3 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer. Blend sand separately before mixing mortar.
  - 1. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until



mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.

- B. Colored Mortar: Produce mortar of color and texture to match existing by using specified ingredients or approved substitutions as needed.
  - 1. Mortar Pigments: If mortar pigment is necessary, do not exceed a pigment-to-cement ratio of 1:10 by weight.
- C. Do not use admixtures in mortar unless otherwise indicated.
- D. Mortar Proportions: Mix mortar materials in the following proportions:
  - 1. Pointing Mortar for Brick and Sandstone: 1 part portland cement, 2 parts lime, and 8 parts sand.
    - a. Add mortar pigment if necessary to produce mortar color matching existing.
  - 2. Pointing Mortar for Other Stone: 1 part white portland cement, 1 part lime, and 6 parts sand.
    - a. Add mortar pigments to produce mortar colors to match existing.
  - 3. Parging Mortar: Same as pointing mortar for stone.
  - 4. Rebuilding (Setting) Mortar: Same as pointing mortar except mortar pigments are not required.

### PART 3 - EXECUTION

#### 3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.
- B. Prevent mortar from staining face of surrounding stone and other surfaces.
  - 1. Cover sills, ledges, and projections to protect from mortar droppings.
  - 2. Keep wall area wet below pointing work to discourage mortar from adhering.
  - 3. Immediately remove mortar in contact with exposed stone and other surfaces.
  - 4. Clean mortar splatters from scaffolding at end of each day.

#### 3.2 BRICK REPLACEMENT

- A. Install replacement brick into bonding and coursing pattern of existing brick.
  - 1. Maintain joint width for replacement units to match existing joints.

- B. Lay replacement brick with completely filled bed, head, and collar joints. Butter ends with sufficient mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than **30 g/30 sq. in. per min. (30 g/194 sq. cm per min.)**. Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.
  - 1. Rake out mortar used for laying brick before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing masonry, and at same time as repointing of surrounding area.
  - 2. When mortar is sufficiently hard to support units, remove shims and other devices interfering with pointing of joints.

### 3.3 REPOINTING

- A. Rake out and repoint joints to the following extent:
  - 1. Joints where mortar is missing or where they contain holes.
  - 2. Cracked joints where cracks can be penetrated at least **1/4 inch (6 mm)** by a knife blade **0.027 inch (0.7 mm)** thick.
  - 3. Cracked joints where cracks are **1/16 inch (1.6 mm)** or more in width and of any depth.
  - 4. Joints where they sound hollow when tapped by metal object.
  - 5. Joints where they are worn back **1/4 inch (6 mm)** or more from surface.
  - 6. Joints where they are deteriorated to point that mortar can be easily removed by hand, without tools.
  - 7. Joints where they have been filled with substances other than mortar.
- B. Do not rake out and repoint joints where not required.
- C. Rake out joints as follows, according to procedures demonstrated in approved mockup:
  - 1. Remove mortar from joints to depth of 2 times joint width, but not less than **1/2 inch (13 mm)** or not less than that required to expose sound, unweathered mortar.
  - 2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
  - 3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect.
    - a. Cut out mortar by hand with chisel and resilient mallet. Use no power tools.
- D. Notify Architect of unforeseen detrimental conditions including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.
- E. Pointing with Mortar:
  - 1. Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen joint surfaces before pointing.
  - 2. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than **3/8 inch (9 mm)** until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.

3. After low areas have been filled to same depth as remaining joints, point all joints by placing mortar in layers not greater than **3/8 inch (9 mm)**. Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing masonry units have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or to featheredge the mortar.
4. When mortar is thumbprint hard, tool joints to match original appearance of joints as demonstrated in approved mockup. Remove excess mortar from edge of joint by brushing.
5. Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours including weekends and holidays.
  - a. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.
6. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

#### 3.4 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.
  1. Do not use metal scrapers or brushes.
  2. Do not use acidic or alkaline cleaners.
- B. Wash adjacent woodwork and other nonstone surfaces. Use detergent and soft brushes or cloths.
- C. Clean mortar and debris from roof; remove debris from gutters and downspouts. Rinse off roof and flush gutters and downspouts.
- D. Sweep and rake adjacent pavement and grounds to remove mortar and debris. Where necessary, pressure wash pavement surfaces to remove mortar, dust, dirt, and stains.

END OF SECTION 040120

## SECTION 055000 - METAL FABRICATIONS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Tension rods at existing wood trusses.
  2. Repair and replacement of iron grilles at crawl space vents.

#### 1.2 SUBMITTALS

### PART 2 - PRODUCTS

#### 2.1 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

#### 2.2 FASTENERS

- A. General: Unless otherwise indicated, provide zinc-plated fasteners with coating complying with ASTM B 633 or **ASTM F 1941** (**ASTM F 1941M**), Class Fe/Zn 5, at exterior walls.

#### 2.3 MISCELLANEOUS MATERIALS

- A. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.

#### 2.4 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Use connections that maintain structural value of joined pieces.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges. Remove sharp or rough areas on exposed surfaces.
- C. Weld corners and seams continuously to comply with the following:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  2. Obtain fusion without undercut or overlap.
  3. Remove welding flux immediately.
  4. At exposed connections, finish exposed welds and surfaces smooth and blended.

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- D. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Locate joints where least conspicuous.
- E. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.

### 2.5 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal fabrications after assembly.

### 2.6 STEEL AND IRON FINISHES

- A. Shop prime steel items unless otherwise indicated.
- B. Preparation for Shop Priming: Prepare surfaces to comply with SSPC-SP 3, "Power Tool Cleaning."
- C. Shop Priming: Apply shop primer to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Field Welding: Comply with the following requirements:
  - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  - 2. Remove welding flux immediately.
  - 3. At exposed connections, finish exposed welds and surfaces smooth and blended.
- C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.

3.2 ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

END OF SECTION 055000

## SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Framing with dimension lumber.
  - 2. Pull-down stair.
  - 3. Utility stair and railing in garage.
  - 4. Plywood flooring
  - 5. Plywood backing for electrical panels.
  - 6. Crawl space access hatch.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.

### PART 2 - PRODUCTS

#### 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Provide dressed lumber, S4S, unless otherwise indicated.

#### 2.2 DIMENSION LUMBER FRAMING

- A. Maximum Moisture Content: 19 percent.
- B. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade of any species.
- C. Other Framing: No. 2 grade of the following species:
  - 1. Hem-fir (north); NLGA.

2. Southern pine; SPIB.
3. Douglas fir-larch; WCLIB or WWPA.
4. Spruce-pine-fir; NLGA.

### 2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  1. Blocking.
  2. Nailers.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber with 19 percent maximum moisture content of any species.
- C. For exposed boards, provide lumber with 15 percent maximum moisture content of eastern white pine, Idaho white, lodgepole, ponderosa, or sugar pine; Premium or 2 Common (Sterling) grade; NeLMA, NLGA, WCLIB, or WWPA.

### 2.4 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exterior, AC, in thickness indicated or, if not indicated, not less than **3/4-inch (19-mm)** nominal thickness.

### 2.5 PLYWOOD SUBFLOORING

- A. 3/4 inch T & G Underlayment grade

### 2.6 PLYWOOD FLOORING – ATTIC

- A. 3/4 inch T & G Underlayment grade.

### 2.7 PULL-DOWN STAIR

- A. Description: Metal folding disappearing stairway, including stairway, frame, door and attic railing
  1. Ceiling Opening: 39 inches X 54 inches.
  2. Opening at attic floor: 39 inches X about 64 inches, to allow for sloping end of frame.
  3. Clear width between operating arms: Approximately 32 inches.
- B. Basis of Design:
  1. Manufacturer: Precision Ladders, LLC., P. O. Box 2279, Morristown, Tennessee 37816
  2. Model: Precision Super Simplex Disappearing Stairway SS/AL 123
    - a. 123 represents the dimension in inches between the finished ceiling and floor. Verify actual dimension as built and adjust the number if necessary.
- C. Door: 1/8 inch aluminum panel



1. Steel piano hinge
2. Eye bolt to accommodate pole

D. Stairway:

1. Stringers: 6005-T5 extruded aluminum channel 5 inches X 1 inch X 1/8 inch.
  - a. Tri-fold design
  - b. Hinges: Steel blade type.
  - c. Adjustable foot with plastic Mar-guard.
  - d. Pitch: 63 degrees.
2. Treads: 6005-T5 extruded aluminum channel 5 3/16 inches X 1 1/4 inch X 1/8 inch.
  - a. Width: 30 inches.
  - b. Deeply serrated top surface.
  - c. Load Rating: 500 lbs.
3. Frame: Custom fabricated from 1/8 inch steel with factory installed treads in the space between finished ceiling and floor above. Form the frame on an angle at the hinge end in order to continue the climb from ceiling to floor above at the same incline as the folding portion of the unit. Attach pre-drilled mounting brackets to allow for hanging from and fastening to floor above.
4. Hardware:
  - a. Steel blade type stringer hinges, zinc-plated and chromate-sealed, bolted to stringers.
  - b. Steel operating arms, both sides, zinc-plated and chromate-sealed.
  - c. Double acting steel springs and V-hooks, both sides.
5. Safety: Manufacturer's standard handrails, alignment clips and rubber guards at corners of door.
6. Attic Railing: Fabricated removable sections on three sides of stair opening, of 1 1/4 inch aluminum pipe and aluminum toe boards. Safety chain at open side.
7. Accessories:
  - a. Steel pole with hook.

## 2.8 FASTENERS

- A. Power-Driven Fasteners: NES NER-272.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.

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- C. Do not splice structural members between supports, unless otherwise indicated.
- D. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. NES NER-272 for power-driven fasteners.
  - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.

END OF SECTION 061053

## SECTION 062013 - EXTERIOR FINISH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Repair or replace damaged fascia boards.
  - 2. Repair legs of benches at front porch

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.

#### 2.2 STANDING AND RUNNING TRIM

- A. Lumber Trim:
  - 1. Species and Grade: Western red cedar, Clear Heart; NLGA, WCLIB, or WWPA; or eastern white pine, D Select (Quality); NeLMA, NLGA, WCLIB, or WWPA.
  - 2. Maximum Moisture Content: 19 percent.
  - 3. Face Surface: Surfaced (smooth).

#### 2.3 MISCELLANEOUS MATERIALS

- A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than **1-1/2 inches (38 mm)** into wood substrate.
  - 1. For applications not otherwise indicated, provide stainless-steel or hot-dip galvanized steel fasteners.
- B. Penetrating Epoxy: WEST System by Goudgeon Inc.
- C. Epoxy filler:
  - 1. WEST System by Goudgeon Inc. or Bondo.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Prime lumber to be painted, including all faces, edges and ends, except faces to be glued. Cut to required lengths and prime ends. Comply with requirements in Division 09 Section "Exterior Painting."

### 3.2 INSTALLATION, GENERAL

- A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

### 3.3 STANDING AND RUNNING TRIM INSTALLATION

- A. Install flat grain lumber with bark side exposed to weather.
- B. Install trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long except where necessary.
  - 1. Use scarf joints for end-to-end joints.
  - 2. Stagger end joints in adjacent and related members.
- C. Fit exterior joints to exclude water. Cope at returns and miter at corners.

### 3.4 REPAIR OF EXISTING EXTERIOR MILLWORK

- A. Remove damaged pieces for repair.
- B. Saturate decayed wood with penetrating epoxy.
- C. Fill holes, cracks, and gaps, in excess of ¼ inch in width or depth with wood plugs or Dutchmen, glued in place, or with epoxy filler..
- D. Shape replacements for missing pieces to match similar existing work.
- E. Plane new and existing edges for close fit on bare wood.
- F. Glue with waterproof wood glue or epoxy and clamp in accordance with instructions.
- G. Prime paint exposed and concealed faces.
- H. Reassemble and fasten with screws.

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END OF SECTION 062013

## SECTION 064023 – INTERIOR ARCHITECTURAL WOODWORK

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Repair of exterior stile-and-rail wood doors and wood door frames
  - 2. Replacement of missing cabinet door muntin.
  - 3. Replacement of missing step at Room 206.
  - 4. Prehung fiberglass door and frame.

#### 1.2 SUBMITTALS

- A. Samples for Verification:
  - 1. Lumber with or for transparent finish, not less than 3 inches (125 mm) wide by 12 inches (600 mm) long, for each species and cut, finished on 1 side and 1 edge.

#### 1.3 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" Custom Grade for architectural woodwork for construction, finishes, installation, and other requirements.

#### 1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Adjust fit of doors after building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
  - 1. For repairs and replacement work provide species, grade and cut of wood, and other materials to match similar existing work.

2.2 MISCELLANEOUS MATERIALS

- A. Adhesives, General: Do not use adhesives that contain urea formaldehyde.

2.3 STAIRWORK

- A. Fabricate new balusters to match the existing balusters with dowel tops and dovetail bottoms.

2.4 CLOSET AND UTILITY SHELVING

- A. Shelf Material: 3/4-inch (19-mm) solid lumber.
- B. Cleats: 3/4-inch (19-mm) solid lumber.
- C. Wood Species: Eastern white pine, sugar pine, or western white pine.
- D. Grade: No. 2 Common.

2.5 PREHUNG FIBERGLASS DOOR AND FRAME

- A. Smooth Star fiberglass flush door Model S-100 by Therma-Tru or equal.

PART 3 - EXECUTION

3.1 GENERAL

- A. Fill all holes and patch damaged areas of doors, frames, trim, wainscots, and other interior architectural woodwork
  1. Fill holes ¼ inch and larger with matching wood plugs glued in place with grain aligned and finished flush.
  2. Fill smaller holes with matching wood putty, except near hardware attachment areas use tapered wood pins glued in place and finished flush.
  3. For Dutchmen and patches, select wood with characteristics similar to piece being patched. Cut for a tight fit and glue in place.

3.2 REPAIR OF WOOD DOORS AND FRAMES

- A. Disassemble doors where stiles, rails or panels are to be replaced. Reassemble by original method where possible. Where tenons are broken, fill mortise with solid wood and substitute dowels.
- B. Fill all unused holes and mortises with solid wood, glued in place. Patch all damaged areas.

- C. Plane, adjust, and rehang all doors to swing freely and latch easily after heat has been on for at least one month. Coordinate with work specified in Section Door Hardware.

### 3.3 FINISHING

- A. Prime new pieces, patches and repairs with shellac, tinted if necessary to match adjacent surface. Succeeding coats will be in a future contract.

### 3.4 PREHUNG FIBERGLASS DOOR AND FRAME

- A. Install plumb and straight in accordance with manufacturer's instructions. See Hardware section for lock.

### 3.5 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork to eliminate functional and visual defects. Adjust joinery for uniform appearance.
- B. Clean woodwork on exposed and semiexposed surfaces.

END OF SECTION 064023



## SECTION 072100 - THERMAL INSULATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Glass-fiber blanket insulation.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

### PART 2 - PRODUCTS

#### 2.1 GLASS-FIBER BLANKET INSULATION

- 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 Corporation.
  - 2. Guardian Building Products, Inc.
  - 3. Johns Manville.
  - 4. Knauf Insulation.
  - 5. Owens Corning.
- B. Kraft-Faced, Glass-Fiber Blanket Insulation: ASTM C 665, Type II (non-reflective faced), Class C (faced surface not rated for flame propagation); Category 1 (membrane is a vapor barrier).

### PART 3 - EXECUTION

#### 3.1 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.

### 3.2 INSTALLATION OF INSULATION FOR FRAMED CONSTRUCTION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- B. Glass-Fiber or Mineral-Wool Blanket Insulation: Install in cavities formed by framing members according to the following requirements:
  1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
  2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
  3. Maintain **3-inch (76-mm)** clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
  4. For wood-framed construction, install blankets according to ASTM C 1320 and as follows:
    - a. With faced blankets having stapling flanges, lap blanket flange over flange of adjacent blanket to maintain continuity of vapor retarder once finish material is installed.
  5. Vapor-Retarder-Faced Blankets:
    - a. Exterior Walls: Set units with facing placed toward interior of construction.
- C. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:
  1. Loose-Fill Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately **2.5 lb/cu. ft. (40 kg/cu. m)**.
  2. Spray Polyurethane Insulation: Apply according to manufacturer's written instructions.

END OF SECTION 072100

## SECTION 073113 - ASPHALT SHINGLES

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Asphalt shingles (limited to small damaged area at north eave, and capping of ridge vent).
2. Ridge vent at rear wing.

#### 1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples: For each exposed product and for each color and blend specified.

### PART 2 - PRODUCTS

#### 2.1 ASPHALT SHINGLES

A. Laminated-Strip Asphalt Shingles: Match existing shingles with closest commercially available product.

#### 2.2 RIDGE VENTS

A. Rigid Ridge Vent: Manufacturer's standard, rigid section high-density polypropylene or other UV-stabilized plastic ridge vent with; for use under ridge shingles.

1. 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:
  - a. Air Vent, Inc.; a Gibraltar Industries company.
  - b. Cor-A-Vent, Inc.
  - c. GAF Materials Corporation.
  - d. Lomanco, Inc.
  - e. Mid-America Building Products.
  - f. Obdyke, Benjamin Incorporated.
  - g. Owens Corning.
  - h. RGM Products, Inc.
  - i. Trimline Building Products.

## 2.3 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum **0.120-inch- (3-mm-)** diameter, sharp-pointed, with a minimum **3/8-inch- (9.5-mm-)** diameter flat head and of sufficient length to penetrate **3/4 inch (19 mm)** into solid wood decking or extend at least **1/8 inch (3 mm)** through OSB or plywood sheathing.
  - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.

## PART 3 - EXECUTION

### 3.1 ASPHALT SHINGLE INSTALLATION

- A. General: Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's written instructions. Fasten with roofing nails of sufficient length to penetrate sheathing.
- C. Ridge Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.
  - 1. Fasten ridge cap asphalt shingles to cover ridge vent without obstructing airflow.

END OF SECTION 073113

## SECTION 073129 - WOOD SHINGLES AND SHAKES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Wood wall shingles.
  - 2. Underlayment.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of wood shingle indicated.
- C. Mock Up: Construct a mock up area of 6 square feet on the building, including a corner to illustrate compliance with requirements. Rework if required. Approved mock up may be incorporated in the finished work.

#### 1.3 QUALITY ASSURANCE

- A. Grading Agency Qualifications: An independent testing and inspecting agency recognized by authorities having jurisdiction as qualified to label wood shingles for compliance with referenced grading rules.
- B. Preinstallation Conference: Conduct conference at Project site.

### PART 2 - PRODUCTS

#### 2.1 WALL SHINGLES

- A. Cedar Wall Shingles: Smooth-sawn western red cedar shingles.
  - 1. Grading Standards: CSSB's "Grading Rules for Certigrade Red Cedar Shingles."
  - 2. Grade: No. 1.
  - 3. Size: 16 inches (405 mm) long; 0.40 inch (10 mm) thick at butt.
  - 4. Cedar Wall-Shingle Finish: Unfinished.

#### 2.2 ACCESSORIES

- A. Building Wrap: ASTM E 1677, Type I air retarder; with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84; UV stabilized; and acceptable to authorities having jurisdiction.

- B. Shingle Nails: ASTM F 1667, aluminum stainless-steel or hot-dip galvanized-steel wire nails, sharp pointed, and of sufficient length to penetrate a minimum of **3/4 inch (19 mm)** into sheathing.

### PART 3 - EXECUTION

#### 3.1 BUILDING WRAP INSTALLATION

- A. Building Wrap: Install, wrinkle free, on wall surface. Install at locations where more than 10 square feet of shingles are to be replaced, lapped in direction to shed water. Lap sides not less than 3-1/2 inches (89 mm). Lap ends not less than 6 inches (152 mm), staggered 24 inches (610 mm) between courses.

#### 3.2 WALL-SHINGLE INSTALLATION, SINGLE COURSED

- A. Install wood wall shingles according to manufacturer's written instructions and recommendations in CSSB's "Exterior and Interior Wall Manual."
  - 1. Maintain weather exposure matching the original work.
  - 2. Lap corner shingles left and right in alternate courses.

END OF SECTION 073129

SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS  
MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.

1.2 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.3 WARRANTY

- A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SBS-MODIFIED ASPHALT-SHEET MATERIALS

- A. SBS-Modified Bituminous Membrane Roofing:

1. 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:

- a. Bitec, Inc.
- b. CertainTeed Corp.
- c. Consolidated Fiber Glass Products Co.
- d. Firestone Building Products.
- e. GAF Materials Corporation.
- f. Hickman, W. P. Systems, Inc.
- g. Johns Manville.
- h. Koppers Inc.
- i. TAMKO Building Products, Inc.
- j. Tremco Incorporated.

- B. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I or II, SBS-

- B. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I or II, SBS-modified asphalt sheet (reinforced with polyester fabric or glass fibers); granular surfaced; suitable for application method specified, and as follows:

1. Granule Color: White.

## 2.2 SUBSTRATE BOARDS

- A. Substrate Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, **1/2 inch (13 mm)** thick.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. Georgia-Pacific Corporation; Dens Deck.

- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening substrate board to roof deck.

## 2.3 MISCELLANEOUS MATERIALS

- A. Edge trim: Aluminum, manufacturer's standard.

## PART 3 - EXECUTION

### 3.1 SUBSTRATE BOARD INSTALLATION

- A. Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes with end joints staggered between rows. Tightly butt substrate boards together.

### 3.2 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing" and as follows:

1. Deck Type: N (nailable).
2. Adhering Method: T (torched).
3. Number of SBS-Modified Asphalt Sheets: One.
3. Number of SBS-Modified Asphalt Sheets: One.
4. Surfacing Type: M (mineral-granule-surfaced cap sheet).

- B. Where roof slope exceeds 1/2 inch per 12 inches (1:24), install roofing membrane sheets parallel with slope.



### 3.3 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

- A. Install modified bituminous roofing membrane sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants.
- B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.
  - 1. Repair tears and voids in laps and lapped seams not completely sealed.
  - 2. Apply roofing granules to cover exuded bead at laps while bead is hot.
- C. Install roofing membrane sheets so side and end laps shed water.
- D. At intersection with existing asphalt shingles, remove three courses of shingles, install modified bituminous roofing, and install new matching shingles to overlap modified bituminous roofing by 12 inches.

END OF SECTION 075216

## SECTION 076200 - SHEET METAL FLASHING AND TRIM

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Formed roof drainage sheet metal fabrications.
  - 2. Formed steep-slope roof sheet metal fabrications.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.

#### 1.3 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- B. Copper Sheet Metal Standard: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

### PART 2 - PRODUCTS

#### 2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.
  - 1. Non-Patinated Exposed Finish: Mill.

#### 2.2 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, wedges, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal 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.
  - 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.
    - b. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
  - 2. Fasteners for Copper Sheet: Copper, hardware bronze or Series 300 stainless steel.
- C. Solder:
  - 1. For Copper: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

### 2.3 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
- B. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.
- C. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- D. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.

### 2.4 ROOF DRAINAGE SHEET METAL FABRICATIONS

- A. Downspouts: Fabricate round downspouts complete with mitered elbows. Furnish with metal hangers, from same material as downspouts, and anchors.
  - a. Hanger Style: Hardware bronze spike and semicircular saddle, with copper wire tie.
- 2. Fabricate from the following materials:
  - a. Copper: 16 oz./sq. ft. (0.55 mm thick).

## 2.5 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS

### A. Counter Flashing: Fabricate from the following materials:

1. Copper: 16 oz./sq. ft. (0.55 mm thick).

## PART 3 - EXECUTION

### 3.1 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 so that completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight. Use fasteners, solder, welding rods, 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 to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
  2. Space cleats not more than 12 inches (300 mm) apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
  3. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
  4. Install sealant where indicated.
- B. Seal joints as shown and as required for watertight construction.
- C. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2 inches (38 mm), except reduce pre-tinning where pre-tinned surface would show in completed Work.
1. Do not use torches for soldering. Heat surfaces to receive solder and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.
  2. Copper Soldering: Tin edges of uncoated copper sheets using solder for copper.

### 3.2 ROOF DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.
- B. Gutters: Clean and recondition existing built-in and hung gutters matching original materials and methods.
- C. Downspouts: Join sections with 1-1/2-inch (38-mm) telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches (1500 mm) o.c. in between. Provide elbows at grade.

### 3.3 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
- B. Counterflashing: Install counterflashing over existing base flashing. Fit tightly to base flashing. Extend counterflashing 4 inches (100 mm) over base flashing. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with sealant.
  - a. At chimney, insert counterflashing in brick joints and secure with lead wedges spaced 12 inches apart. Fill excess brick joints with sealant.
  - b. At stone walls, shape the copper to the stones, secure with fasteners at mortar joints, and install sealant between the counterflashing and the stone.
- C. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

### 3.4 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 and sealants.

END OF SECTION 076200

## SECTION 085200 - WOOD WINDOWS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes:
  - 1. Repair of existing wood windows.
  - 2. Replacement sash to suit existing frames where sash are missing or irreparable.

#### 1.2 SUBMITTALS

- A. Shop Drawings: Include elevations, details, hardware, attachments to other work, and installation details for each type of replacement sash.

#### 1.3 QUALITY ASSURANCE

- A. Fabricator/Installer: A qualified woodworker experienced in fabricating and installing replacement sash.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Wood: Clear ponderosa pine or another suitable fine-grained lumber; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than **1/32 inch (0.8 mm)** deep by **2 inches (51 mm)** wide; water-repellent preservative treated.
- B. Penetrating Epoxy: WEST System by Gougeon, Inc.
- C. Epoxy Filler: WEST System by Gougeon Inc., or Bondo.

#### 2.2 GLAZING

- A. Glass and Glazing Materials: Refer to Division 08 Section "Glazing" for glass units and glazing requirements applicable to glazed wood window units.

#### 2.3 SASH FABRICATION

- A. Fabricate wood sash that match the original existing sash and fit the existing frame openings. Measure the diagonal dimensions of openings and fabricate sash to suit any out-of-square conditions and other individual variations.

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- B. Weather Stripping: Provide full-perimeter weather stripping for each new sash.
- C. Machine sash for openings and for hardware that is not surface applied.
- D. Hardware: Match existing original hardware.

### 2.4 WOOD FINISHES

- A. Factory-Primed Windows: Provide manufacturer's standard factory-prime coat on exposed exterior and interior wood surfaces.
  - a. Exterior: White
  - b. Interior: Stain to match existing.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install replacement sash in existing frames in the same manner as original sash.
- C. Equip each new casement sash in the existing main building with two brass hinges matching existing, one hook-and-eye set, and one existing extender bar with two pins. Where existing extender bars are missing or broken, equip each sash with two hook-and-eye sets.
- D. Clean, free-up and adjust all existing window sashes for a snug fit and smooth operation. Note that some previously replaced sash have incorrectly placed extender bars or pins, preventing correct operation. Reposition these items for proper operation. Fill unused holes with wood plugs, glued in place. Repair any rot with penetrating epoxy and epoxy filler. Replace any missing hardware.
- E. Adjust new sashes for a snug fit at contact points and weather stripping for smooth operation and weathertight closure.
- F. Clean exposed surfaces immediately after installing sash or glazing. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- G. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION 085200

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
  - 1. Commercial and restoration door hardware.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each exposed finish.
- C. Other Action Submittals:
  - 1. Door Hardware Sets: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as procedures and diagrams.
    - a. Format: Use same door numbers as in the Contract Documents.
    - b. Content: Include the following information:
      - 1) Identification number, location, hand, and material of each door and frame.
      - 2) Type, style, function, size, quantity, and finish of each new door hardware item.
      - 3) Complete designations of every item required for each door or opening including name and manufacturer.
  - 2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers experienced in installing, reconditioning and replacing historic and modern hardware.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver keys to Owner prior to substantial completion.



## 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form on new items in which manufacturer agrees to repair or replace components of new door hardware that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Three years from date of Substantial Completion, except as follows:
    - a. Locks: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware items indicated in hardware schedule and comply with the requirements of this section.
- B. Wood Screws: Provide slotted, fully threaded wood screws for wood doors and frames with finish matching hardware item.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Wood Doors: Comply with DHI A115-W Series.
- B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- C. Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.2 DOOR HARDWARE SCHEDULE

Door Hardware Set No. 1

Locations: Door No. 01 Main Entrance pair, wd x wd; to have the following:

Qty.	Item	Manufacturer/Supplier	Product	Finish
	Hinges	existing.	.	.
	T & B Bolts.	Existing, inactive leaf.. Repair or replace in kind.	.	.
1	Lockset	Schlage	L9460	US10B
1	Pull Plate	House of Antique Hardware	R-05AA-ZB-10HO Windsor door pull in antique brass	
2	Cylinder Backplate	House of Antique Hardware	SI-01AA-ZB-60 Windsor pattern in antique brass	
1	Push Plate	House of Antique Hardware	SI-05AA-ZB-10LDP 15 3/4" Windsor pattern in antique brass	
1	Saddle.	Replace existing wood	.White oak	.
1 set	Weatherstripping.	Zero	328.	D.

Door Hardware Set No. 2

Locations: Door Nos, 05, 08, exterior, not req'd exits; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3	Hinges.	Stanley	.BB179 – 41/2x41/2 NRP	.US10B
1	Lockset.	Schlage	L9453 41N.	US10B.
1 set	.Weatherstripping	Zero	328.	D.
1	Auto Door Bottom.	Zero.	351.	D.

Door Hardware Set No. 03

Locations: Door No. 11, exterior existing temporary; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
1	Cylinder to suit.		.	.

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Door Hardware Set No. 4

Locations: Door No. 12, fiberglass x wd, prehung, temporary; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
1	Lockset, cylindrical.	.Schlage	.A80PD	26D.
3	Hinges	By door manufacturer		

END OF SECTION 087100

## SECTION 088000 - GLAZING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes glazing for the following products and applications:
  - 1. Windows.
  - 2. Doors.
  - 3. Sidelights.
  - 4. Interior cabinet doors.
- B. **Note: Because replacement of glass in all casement windows is planned as part of the Phase 2 contract, it is not necessary to replace existing glazing compound in casement windows in this contract**

#### 1.2 SUBMITTALS

- A. Product Data: For each glass product and glazing material indicated.
- B. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

#### 1.3 QUALITY ASSURANCE

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
  - 1. GANA Publications: GANA's "Glazing Manual.
  - 2. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of the manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

### PART 2 - PRODUCTS

#### 2.1 GLASS PRODUCTS, GENERAL

- A. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.

- B. Strength: Where float glass is indicated, provide annealed float glass. Where tempered glass is indicated, provide Kind FT heat-treated float glass.

## 2.2 GLASS PRODUCTS

- A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
- B. Heat-Treated Float Glass: ASTM C 1048; Type I; Quality-Q3; Class I (clear) unless otherwise indicated; of kind and condition indicated.

## 2.3 GLAZING SEALANTS

- A. General:
  - 1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
  - 2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
  - 3. VOC Content: For sealants used inside of the weatherproofing system, not more than 250 g/L when calculated according to 40 CFR 59, Subpart D.
- B. Glazing Sealant: Compound for putty glazing:
  - 1. Knife grade: DAP 33 or equal.
- C. Accessories:
  - 1. Glazier's Points

## 2.4 MONOLITHIC-GLASS TYPES

- A. Windows and Fixed Sidelights: Glass Type GL-#1: Clear float glass.
  - 1. Thickness: 6.0 mm.
- B. Doors: Glass Type GL-#2: Clear float glass, fully tempered..
  - 1. Thickness: 6.0 mm.
  - 2. Provide safety glazing label.

## PART 3 - EXECUTION

### 3.1 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Protect glass from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

### 3.2 PREPARATION

- A. Remove existing glass from doors and fixed side panels. Remove broken and cracked glass from windows.
- B. Remove all remaining glazing compound.
- C. Sand or scrape any weathered wood in glazing rabbets down to sound wood.
- D. Restore ant rot with epoxy.
- E. Prime glazing rabbets:
  - 1. Exterior: White alkyd primer paint
  - 2. Interior: Thinned varnish

### 3.3 GLAZING

- A. Replace glass in exterior doors, fixed side panels, and broken or cracked window glass.
- B. Bed glass in a layer of glazing compound.
- C. Secure glass in rabbet with glazier's points, not over 10 inches apart.
- D. Completely fill rabbet with glazing compound using a putty knife. Force compound firmly against glass and wood, and tool to a smooth slope matching original work.
- E. Use wood glazing beads in lieu of compound where present in original design.

### 3.4 CLEANING AND PROTECTION

- A. Protect glass from damage. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.

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- B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.
- C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.
- D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

END OF SECTION 088000

## SECTION 099113 - EXTERIOR PAINTING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:
  - 1. Steel and stainless steel.
  - 2. Wood.
- B. Related Sections include the following:
  - 1. Division 06 Sections for shop priming carpentry with primers specified in this Section.
  - 2. Division 09 Section "Staining and Transparent Finishing" for surface preparation and the application of wood stains and transparent finishes on exterior wood substrates.
  - 3. Division 02 Section "Glazing" for replacing broken, cracked and missing glass.
- C. **Note: Because replacement of glass in all casement windows is planned as part of the Phase 2 contract, it is not necessary to replace or paint existing glazing compound in casement windows in this contract**

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each type of paint system and each color and gloss of topcoat indicated.
  - 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.
- C. 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.

#### 1.3 QUALITY ASSURANCE

- A. MPI Standards:
  - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
  - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.



- B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
  - 2. Final approval of color selections will be based on benchmark samples.
    - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Architect at no added cost to Owner.

#### 1.4 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.

#### 1.5 PROJECT 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.

#### 1.6 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
  - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

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1. Benjamin Moore & Co.
2. ICI Paints.
3. PPG Architectural Finishes, Inc.
4. Sherwin-Williams Company (The).

### 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. Colors: As selected by Architect from manufacturer's full range.

### 2.3 METAL PRIMERS

#### A. Alkyd Anticorrosive Metal Primer: MPI #79.

### 2.4 WOOD PRIMERS

#### A. Exterior Alkyd Wood Primer: MPI #5.

### 2.5 EXTERIOR LATEX PAINTS

#### A. Exterior Latex (Semiloss): MPI #119 (Gloss Level 5)

### 2.6 EXTERIOR ALKYD PAINTS

#### A. Exterior Alkyd Enamel (Semigloss): MPI #94 (Gloss Level 5).

### 2.7 RELATED MATERIALS

#### A. Penetrating Epoxy and Epoxy Filler: WEST System by Goudgeon, Inc.

## 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 work.

- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Wood: 15 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
  - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

### 3.2 PREPARATION GENERAL

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove plates, machined surfaces, and similar items already in place that 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.
  - 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
- E. Wood Substrates:
  - 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
  - 2. Sand surfaces that will be exposed to view, and dust off.
  - 3. Prime edges, ends, faces, undersides, and backsides of wood.
  - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

### 3.3 PREPARATION – PREVIOUSLY PAINTED SURFACES

- A. Coordinate with preparation specified in Glazing and Exterior Carpentry sections.

- B. Remove unused hardware, fasteners, and other extraneous items.
- C. Remove all loose, chipped, alligatored or otherwise unsound existing paint down to bare substrate. Feather edges of sound remaining paint.
- D. Hand-wash surfaces with Spic-N-Span detergent and 20 percent solution of household bleach in warm water and let dry thoroughly.
- E. Sand or plane weathered wood to expose a sound surface, and stabilize surface as follows:
  - 1. Stabilize moderately weathered wood surfaces with thinned varnish.
  - 2. Stabilize heavily weathered wood surfaces with penetrating epoxy.
- F. Fill and fair all irregularities in excess of 1/16 inch in width or depth with epoxy filler before priming, or with exterior grade spackling compound after priming. Sand smooth and reprime spackled surfaces.

### 3.4 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
  - 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.
- 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.

### 3.5 FIELD QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when paints are being applied:
  - 1. Owner will engage the services of a qualified testing agency to sample paint materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
  - 2. Testing agency will perform tests for compliance of paint materials with product requirements.
  - 3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from

previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

### 3.6 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.

### 3.7 EXTERIOR PAINTING SCHEDULE

- A. Steel Substrates:
  - 1. Alkyd System: MPI EXT 5.1D.
    - a. Prime Coat: Alkyd anticorrosive metal primer.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel (semigloss).
- B. Dressed Lumber Substrates: Including architectural woodwork, doors, door frames and windows.
  - 1. Latex Over Alkyd Primer System: MPI EXT 6.3A.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex (semigloss).

END OF SECTION 099113

## SECTION 099300 - STAINING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and the application of wood finishes on the following substrates:
  - 1. Exterior Substrates:
    - a. Wood shingles on walls.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittal:
  - 1. Product Data for Credit EQ 4.2: For interior primers, stains, and transparent finishes, including printed statement of VOC content.
- C. Samples: For each finish and for each color and texture required.
- D. Product List: Printout of MPI's current "MPI Approved Products List" for each product category specified in Part 2, with the product proposed for use highlighted.

#### 1.3 QUALITY ASSURANCE

- A. MPI Standards:
  - 1. Products: Complying with MPI standards indicated and listed in its "MPI Approved Products List."
  - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and finish systems indicated.
- B. Mockups: Apply benchmark samples of each finish system indicated and each color selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Architect will select one surface to represent surfaces and conditions for application of each type of finish system and substrate.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 50 sq. ft.
    - b. Other Items: Architect will designate items or areas required.
  - 2. Final approval of stain color selections will be based on benchmark samples.

- a. If preliminary stain color selections are not approved, apply additional benchmark samples of additional stain colors selected by Architect at no added cost to Owner.

#### 1.4 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
  1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, GENERAL

- A. Material Compatibility:
  1. Provide materials for use within each finish 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 finish system, provide products recommended in writing by manufacturers of topcoat for use in finish system and on substrate indicated.
- B. Stain Colors: As selected by Architect from manufacturer's full range.

#### 2.2 PRIMERS AND SEALERS

- A. Exterior Alkyd Wood Primer: MPI #5.

#### 2.3 STAINS

- A. Exterior, Solid-Color Latex Stain: MPI #16.

### 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 work.
  1. Maximum Moisture Content of Wood Substrates: 15 percent when measured with electronic moisture meter.
  2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes.

3. Begin finish application only after unsatisfactory conditions have been corrected and surfaces are dry.
4. Beginning application of finish system constitutes Contractor's acceptance of substrate and conditions.

### 3.2 PREPARATION AND APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove extraneous hardware and patch holes.
- C. Gently wash existing shingled wall surfaces using a soft bristle brush and a solution of Spic-N-Span detergent in warm water. Rinse with low pressure water.
- D. Protect work of other trades against damage from finish application. Correct damage by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced finished wood surfaces.

### 3.3 EXTERIOR WOOD-FINISH-SYSTEM SCHEDULE

- A. Wood Shingle and Shake Substrates (Excluding Roofs):
  1. Solid-Color Latex Stain System: MPI EXT 6.6D.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Two Stain Coats: Exterior, solid-color latex stain.

END OF SECTION 099300