

## 7.7 TESTS

7.7.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Architect timely notice of its readiness so the Architect may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities. Unless otherwise provided, the Owner shall bear all costs of other inspections, tests or approvals.

7.7.2 If the Architect determines that any Work requires special inspection, testing, or approval which Subparagraph 7.7.1 does not include, he will, upon written authorization from the Owner, instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Subparagraph 7.7.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Architect's additional services made necessary by such failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

7.7.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by him to the Architect.

7.7.4 If the Architect is to observe the inspections, tests or approvals required by the Contract Documents, he will do so promptly and, where practicable, at the source of supply.

## 7.8 INTEREST

7.8.1 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing at the place of the Project.

## 7.9 ARBITRATION

7.9.1 All claims, disputes and other matters in question between the Contractor and the Owner arising out of, or relating to, the Contract Documents or the breach thereof, except as provided in Subparagraph 2.2.11 with respect to the Architect's decisions on matters relating to artistic effect, and except for claims which have been waived by the making or acceptance of final payment as provided by Subparagraphs 9.9.4 and 9.9.5, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining unless the parties mutually agree otherwise. No arbitration arising out of or relating to the Contract Documents shall include, by consolidation, joinder or in any other manner, the Architect, his employees or consultants except by written consent containing a specific reference to the Owner-Contractor Agreement and signed by the Architect, the Owner, the Contractor and any other person sought to be joined. No arbitration shall include by consolidation, joinder or in any other manner, parties other than the Owner, the Contractor and any other persons substantially involved in a common question of fact or law, whose presence is

required if complete relief is to be accorded in the arbitration. No person other than the Owner or Contractor shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Any consent to arbitration involving an additional person or persons shall not constitute consent to arbitration of any dispute not described therein or with any person not named or described therein. The foregoing agreement to arbitrate and any other agreement to arbitrate with an additional person or persons duly consented to by the parties to the Owner-Contractor Agreement shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

7.9.2 Notice of the demand for arbitration shall be filed in writing with the other party to the Owner-Contractor Agreement and with the American Arbitration Association, and a copy shall be filed with the Architect. The demand for arbitration shall be made within the time limits specified in Subparagraph 2.2.12 where applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

7.9.3 Unless otherwise agreed in writing, the Contractor shall carry on the Work and maintain its progress during any arbitration proceedings, and the Owner shall continue to make payments to the Contractor in accordance with the Contract Documents.

## ARTICLE 8

### TIME

#### 8.1 DEFINITIONS

8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the Work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.

8.1.2 The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date of the Owner-Contractor Agreement or such other date as may be established therein.

8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Architect when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended.

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

#### 8.2 PROGRESS AND COMPLETION

8.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.

8.2.2 The Contractor shall begin the Work on the date of commencement as defined in Subparagraph 8.1.2. He shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

### 8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner or the Architect, or by any employee of either, or by any separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any other cause which the Architect determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

8.3.2 Any claim for extension of time shall be made in writing to the Architect not more than twenty days after the commencement of the delay; otherwise it shall be waived. In the case of a continuing delay only one claim is necessary. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the Work.

8.3.3 If no agreement is made stating the dates upon which interpretations as provided in Subparagraph 2.2.8 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen days after written request is made for them, and not then unless such claim is reasonable.

8.3.4 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

## ARTICLE 9

### PAYMENTS AND COMPLETION

#### 9.1 CONTRACT SUM

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

#### 9.2 SCHEDULE OF VALUES

9.2.1 Before the first Application for Payment, the Contractor shall submit to the Architect a schedule of values allocated to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used only as a basis for the Contractor's Applications for Payment.

#### 9.3 APPLICATIONS FOR PAYMENT

9.3.1 At least ten days before the date for each progress payment established in the Owner-Contractor Agreement, the Contractor shall submit to the Architect an itemized Application for Payment, notarized if required, supported

by such data substantiating the Contractor's right to payment as the Owner or the Architect may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents.

9.3.2 Unless otherwise provided in the Contract Documents, payments will be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site and, if approved in advance by the Owner, payments may similarly be made for materials or equipment suitably stored at some other location agreed upon in writing. Payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the Owner to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest, including applicable insurance and transportation to the site for those materials and equipment stored off the site.

9.3.3 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

#### 9.4 CERTIFICATES FOR PAYMENT

9.4.1 The Architect will, within seven days after the receipt of the Contractor's Application for Payment, either issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor in writing his reasons for withholding a Certificate as provided in Subparagraph 9.6.1.

9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on his observations at the site as provided in Subparagraph 2.2.3 and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in his Certificate); and that the Contractor is entitled to payment in the amount certified. However, by issuing a Certificate for Payment, the Architect shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that he has reviewed the construction means, methods, techniques,

sequences or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the moneys previously paid on account of the Contract Sum.

#### **9.5 PROGRESS PAYMENTS**

**9.5.1** After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents.

**9.5.2** The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to his Subsubcontractors in similar manner.

**9.5.3** The Architect may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Architect on account of Work done by such Subcontractor.

**9.5.4** Neither the Owner nor the Architect shall have any obligation to pay or to see to the payment of any moneys to any Subcontractor except as may otherwise be required by law.

**9.5.5** No Certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

#### **9.6 PAYMENTS WITHHELD**

**9.6.1** The Architect may decline to certify payment and may withhold his Certificate in whole or in part, to the extent necessary reasonably to protect the Owner, if in his opinion he is unable to make representations to the Owner as provided in Subparagraph 9.4.2. If the Architect is unable to make representations to the Owner as provided in Subparagraph 9.4.2 and to certify payment in the amount of the Application, he will notify the Contractor as provided in Subparagraph 9.4.1. 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 he is able to make such representations to the Owner. The Architect may also decline to certify payment or, because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary in his opinion to protect the Owner from loss because of:

- .1 defective work not remedied,
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims,
- .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 another contractor,
- .6 reasonable evidence that the Work will not be completed within the Contract Time, or
- .7 persistent failure to carry out the Work in accordance with the Contract Documents.

**9.6.2** When the above grounds in Subparagraph 9.6.1 are removed, payment shall be made for amounts withheld because of them.

#### **9.7 FAILURE OF PAYMENT**

**9.7.1** If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents any amount certified by the Architect or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and the Architect, stop the Work until payment of the amount owing has been received. The Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, which shall be effected by appropriate Change Order in accordance with Paragraph 12.3.

#### **9.8 SUBSTANTIAL COMPLETION**

**9.8.1** When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner, is substantially complete as defined in Subparagraph 8.1.3, the Contractor shall prepare for submission to the Architect a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect on the basis of an inspection determines that the Work or designated portion thereof is substantially complete, he will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.

**9.8.2** Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Architect, the Owner shall make payment, reflecting adjustment in retainage, if any, for such Work or portion thereof, as provided in the Contract Documents.

#### **9.9 FINAL COMPLETION AND FINAL PAYMENT**

**9.9.1** Upon receipt of 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 he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will promptly issue a final Certificate for Payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable. The Architect's final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 9.9.2 have been fulfilled.

9.9.2 Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3), if required by the Owner, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Owner. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.9.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by the issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract Documents, and if bonds have been furnished as provided in Paragraph 7.5, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.9.4 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:

- .1 unsettled liens,
- .2 faulty or defective Work appearing after Substantial Completion,
- .3 failure of the Work to comply with the requirements of the Contract Documents, or
- .4 terms of any special warranties required by the Contract Documents.

9.9.5 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

## ARTICLE 10

### PROTECTION OF PERSONS AND PROPERTY

#### 10.1 SAFETY PRECAUTIONS AND PROGRAMS

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

#### 10.2 SAFETY OF PERSONS AND PROPERTY

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

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

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

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

10.2.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.2.5 The Contractor shall promptly remedy all damage or loss (other than damage or loss insured under Paragraph 11.3) to any property referred to in Clauses 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under Clauses 10.2.1.2 and 10.2.1.3, except damage or loss attributable to the acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under Paragraph 4.18.

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

10.2.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.

### 10.3 EMERGENCIES

10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 12 for Changes in the Work.

## ARTICLE 11

### INSURANCE

#### 11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by himself or by any 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' or workmen's compensation, disability benefit and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
4. claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person;
5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than any limits of liability specified in the Contract Documents, or required by law, whichever is greater.

11.1.3 The insurance required by Subparagraph 11.1.1 shall include contractual liability insurance applicable to the Contractor's obligations under Paragraph 4.18.

11.1.4 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates shall contain a provision that

coverages afforded under the policies will not be cancelled until at least thirty days' prior written notice has been given to the Owner.

#### 11.2 OWNER'S LIABILITY INSURANCE

11.2.1 The Owner shall be responsible for purchasing and maintaining his own liability insurance and, at his option, may purchase and maintain such insurance as will protect him against claims which may arise from operations under the Contract.

#### 11.3 PROPERTY INSURANCE

11.3.1 Unless otherwise provided, the Owner shall purchase and maintain property insurance upon the entire Work at the site to the full insurable value thereof. This insurance shall include the interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work and shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss or damage including, without duplication of coverage, theft, vandalism and malicious mischief. If the Owner does not intend to purchase such insurance for the full insurable value of the entire Work, he shall inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of himself, his Subcontractors and the Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by failure of the Owner to purchase or maintain such insurance and to so notify the Contractor, then the Owner shall bear all reasonable costs properly attributable thereto. If not covered under the all risk insurance or otherwise provided in the Contract Documents, the Contractor shall effect and maintain similar property insurance on portions of the Work stored off the site or in transit when such portions of the Work are to be included in an Application for Payment under Subparagraph 9.3.2.

11.3.2 The Owner shall purchase and maintain such boiler and machinery insurance as may be required by the Contract Documents or by law. This insurance shall include the interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work.

11.3.3 Any loss insured under Subparagraph 11.3.1 is to be adjusted with the Owner and made payable to the Owner as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgagee clause and of Subparagraph 11.3.8. The Contractor shall pay each Subcontractor a just share of any insurance moneys received by the Contractor, and by appropriate agreement, written where legally required for validity, shall require each Subcontractor to make payments to his Sub-subcontractors in similar manner.

11.3.4 The Owner shall file a copy of all policies with the Contractor before an exposure to loss may occur.

11.3.5 If the Contractor requests in writing that insurance for risks other than those described in Subparagraphs 11.3.1 and 11.3.2 or other special hazards be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

**11.3.6** The Owner and Contractor waive all rights against (1) each other and the Subcontractors, Sub-subcontractors, agents and employees each of the other, and (2) the Architect and separate contractors, if any, and their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other perils to the extent covered by insurance obtained pursuant to this Paragraph 11.3 or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee. The foregoing waiver afforded the Architect, his agents and employees shall not extend to the liability imposed by Subparagraph 4.18.3. The Owner or the Contractor, as appropriate, shall require of the Architect, separate contractors, Subcontractors and Sub-subcontractors by appropriate agreements, written where legally required for validity, similar waivers each in favor of all other parties enumerated in this Subparagraph 11.3.6.

**11.3.7** If required in writing by any party in interest, the Owner as trustee shall, upon the occurrence of an insured loss, give bond for the proper performance of his duties. He shall deposit in a separate account any money so received, and he shall distribute it in accordance with such agreement as the parties in interest may reach, or in accordance with an award by arbitration in which case the procedure shall be as provided in Paragraph 7.9. If after such loss no other special agreement is made, replacement of damaged work shall be covered by an appropriate Change Order.

**11.3.8** The Owner as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within five days after the occurrence of loss to the Owner's exercise of this power, and if such objection be made, arbitrators shall be chosen as provided in Paragraph 7.9. The Owner as trustee shall, in that case, make settlement with the insurers in accordance with the directions of such arbitrators. If distribution of the insurance proceeds by arbitration is required, the arbitrators will direct such distribution.

**11.3.9** If the Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion thereof, such occupancy or use shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. This insurance shall not be cancelled or lapsed on account of such partial occupancy or use. Consent of the Contractor and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.

#### **11.4 LOSS OF USE INSURANCE**

**11.4.1** The Owner, at his option, may purchase and maintain such insurance as will insure him against loss of use of his property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of his property, including consequential losses due to fire or other hazards however caused, to the extent covered by insurance under this Paragraph 11.4.

## **ARTICLE 12**

### **CHANGES IN THE WORK**

#### **12.1 CHANGE ORDERS**

**12.1.1** A Change Order is a written order to the Contractor signed by the Owner and the Architect, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum or the Contract Time.

**12.1.2** 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, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents.

**12.1.3** The cost or credit to the Owner resulting from a change in the Work shall be determined in one or more of the following ways:

- .1 by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 by unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 by cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 by the method provided in Subparagraph 12.1.4.

**12.1.4** If none of the methods set forth in Clauses 12.1.3.1, 12.1.3.2 or 12.1.3.3 is agreed upon, the Contractor, provided he receives a written order signed by the Owner, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Architect on the basis of the reasonable expenditures and savings of those performing the Work attributable to the change, including, in the case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Clauses 12.1.3.3 and 12.1.3.4 above, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data for inclusion in a Change Order. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: cost of materials, including sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost to the Owner, payments on account shall be made on the Architect's Certificate for Payment. The amount of credit to be allowed by the Contractor to the Owner for any deletion



or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any, with respect to that change.

**12.1.5** If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to the Owner or the Contractor, the applicable unit prices shall be equitably adjusted.

## **12.2 CONCEALED CONDITIONS**

**12.2.1** Should concealed conditions encountered in the performance of the Work below the surface of the ground or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or should concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum shall be equitably adjusted by Change Order upon claim by either party made within twenty days after the first observance of the conditions.

## **12.3 CLAIMS FOR ADDITIONAL COST**

**12.3.1** If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the Architect written notice thereof within twenty days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 10.3. No such claim shall be valid unless so made. If the Owner and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Architect. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

**12.3.2** If the Contractor claims that additional cost is involved because of, but not limited to, (1) any written interpretation pursuant to Subparagraph 2.2.8, (2) any order by the Owner to stop the Work pursuant to Paragraph 3.3 where the Contractor was not at fault, (3) any written order for a minor change in the Work issued pursuant to Paragraph 12.4, or (4) failure of payment by the Owner pursuant to Paragraph 9.7, the Contractor shall make such claim as provided in Subparagraph 12.3.1.

## **12.4 MINOR CHANGES IN THE WORK**

**12.4.1** The Architect will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time 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 the Contractor.

The Contractor shall carry out such written orders promptly.

## **ARTICLE 13**

### **UNCOVERING AND CORRECTION OF WORK**

#### **13.1 UNCOVERING OF WORK**

**13.1.1** If any portion of the Work should be covered contrary to the request of the Architect or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect, be uncovered for his observation and shall be replaced at the Contractor's expense.

**13.1.2** If any other portion of the Work has been covered which the Architect has not specifically requested to observe prior to being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate contractor as provided in Article 6, in which event the Owner shall be responsible for the payment of such costs.

#### **13.2 CORRECTION OF WORK**

**13.2.1** The Contractor shall promptly correct all Work rejected by the Architect as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Architect's additional services made necessary thereby.

**13.2.2** If, within one year after the Date of Substantial Completion of the Work or designated portion thereof or within one year after acceptance by the Owner of designated equipment or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. This obligation shall survive termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

**13.2.3** The Contractor shall remove from the site all portions of the Work which are defective or non-conforming and which have not been corrected under Subparagraphs 4.5.1, 13.2.1 and 13.2.2, unless removal is waived by the Owner.

**13.2.4** If the Contractor fails to correct defective or non-conforming Work as provided in Subparagraphs 4.5.1, 13.2.1 and 13.2.2, the Owner may correct it in accordance with Paragraph 3.4.

**13.2.5** If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Architect, the Owner may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten days thereafter, the Owner may upon ten additional days' written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Architect's additional services made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

**13.2.6** The Contractor shall bear the cost of making good all work of the Owner or separate contractors destroyed or damaged by such correction or removal.

**13.2.7** Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including Paragraph 4.5 hereof. The establishment of the time period of one year after the Date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

### **13.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK**

**13.3.1** If the Owner prefers to accept defective or non-conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

## **ARTICLE 14**

### **TERMINATION OF THE CONTRACT**

#### **14.1 TERMINATION BY THE CONTRACTOR**

**14.1.1** If the Work is stopped for a period of thirty days under an order of any court or other public authority

having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, or if the Work should be stopped for a period of thirty days by the Contractor because the Architect has not issued a Certificate for Payment as provided in Paragraph 9.7 or because the Owner has not made payment thereon as provided in Paragraph 9.7, then the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.

#### **14.2 TERMINATION BY THE OWNER**

**14.2.1** If the Contractor is adjudged a bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, or if he persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a provision of the Contract Documents, then the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven days' written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished.

**14.2.2** If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including compensation for the Architect's additional services made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or to the Owner, as the case may be, shall be certified by the Architect, upon application, in the manner provided in Paragraph 9.4, and this obligation for payment shall survive the termination of the Contract.



SUPPLEMENTARY CONDITIONS

1. The "General Conditions of the Contract for Construction", AIA Document A201, thirteenth edition, August 1976, Articles 1 through 14 inclusive, is a part of this Contract.

2. The following supplements shall modify, delete, and/or add to the General Conditions. Where any article, paragraph, or subparagraph in the General Conditions is supplemented by one of the following paragraphs, the provisions of such article, paragraph, or subparagraph shall remain in effect and the supplemental provisions shall be considered as added thereto. Where any article, paragraph, or subparagraph in the General Conditions is amended, voided, or superseded by any of the following paragraphs, the provisions of such article, paragraph, or subparagraph not so amended, voided, or superseded shall remain in effect.

3. Paragraph 4.12: Add the following:

4.12.9 Prepare and submit all Shop Drawings, Samples, and other data in strict accordance with the provisions of Section 01300 of the Specifications.

4. Paragraph 4.15: Add the following:

4.15.3 In addition, comply with the provisions of Section 01710 of the Specifications.

5. Paragraph 11.1: In the first line of subparagraph 11.1.1, following the word "maintain", insert the following:

"in a company or companies acceptable to the Owner".

Following subparagraph 11.1.3, add the following:

Insurance coverage shall be not less than the following:

1. Workmen's Compensation: Statutory;  
Employer's Liability: \$500,000.
2. Public Liability (per person/per occurrence):
  - a. Bodily and personal injury: \$500,000/\$1,000,000;
  - b. Property damage: \$100,000/\$100,000 aggregate.
3. Automobile Liability (per person/per occurrence):
  - a. Bodily injury: \$500,000/\$1,000,000;
  - b. Property damage: \$100,000/\$100,000 aggregate.

END OF SUPPLEMENTARY CONDITIONS

## DIVISION 1 GENERAL REQUIREMENTS

### SECTION 01000 GENERAL AND SPECIAL CONDITIONS

#### A. DESCRIPTION

1. Provisions of the General and Special Conditions govern work under this Division.

(1) Application: The General Conditions of the Contract for Construction (standard form of the American Institute of Architects, Document A-201, current edition, copies of which may be reviewed in the Architect's office or obtained from the Architect), supplementary general conditions, special conditions, and description of work shall apply to all trades and divisions of the construction contract in all sections of the specifications.

(2) Modifications: The following modifications of the general conditions (AIA) shall be in addition thereto and take precedence over the original provisions in case of conflict.

a. Payment: Immediately after execution of the Contract, the Contractor shall submit for approval a breakdown of the Contract sum.

b. Insurance: Contractor shall carry Workmen's Compensation Insurance for every person employed by him on the premises and shall maintain such insurance in full force during the entire time of his Contract. Contractor shall carry Comprehensive General and Automobile Liability Insurance of \$500,000 - \$1,000,000 (minimum) and Property Damage Insurance of \$50,000 - \$1,000,000 (minimum). Any inclusion in the policy as to "loss resulting from excavation, pile driving, shorting, underpinning, razing, or demolition of any building or structure" shall be specifically deleted from the policy.

c. Completion: All work shall be substantially completed at the time stipulated in the Contract or in time extended for justifiable delays, if any.

2. The Contractor shall provide all items, articles, materials, operations, or methods listed, mentioned, or scheduled on the drawings and/or herein, including all labor, materials, equipment, and incidentals necessary and required for their completion.

3. Related work included under a previous separate contract: Due to the special nature of the work involving raising the entire log structure (2'-8") above the present floor level in the south most end of the building; the contract will be divided into (2) parts. The first part will include demolition of the frame additions, concrete walls, porch and floor slabs, etc, (See Section 02100 of these Specifications) and raising the existing structure so that work under this General Contract may proceed.

*works*  
*raised above floor*  
*end of floor*

(1) But it will be the responsibility of the General Contractor who is awarded the work described in these Contract Documents; comprised of the Specifications and Drawings to carefully coordinate his work with that of the Subcontractor moving (lifting) the house.

(2) The house structure will remain raised on the cribbing, beams and needles until the new foundation and related work has been completed and replacement of sill logs and a number of logs in other locations has been completed.

(3) The subcontractor will remove his cribbing, needles, beams, etc., when directed to do so by the General Contractor.

4. Work Included: Prior to initiating any work on the project the Contractor shall examine the buildings, the drawings and Specifications and be totally familiar with existing conditions and the restoration work to be completed.

(1) The General Contractor and each Subcontractor shall be responsible for the verification of all dimensions at the site for any work to be completed under this Contract. Photographs have been used on the Architectural Drawings since any new work must be fitted on-the-job to existing conditions. Due to the nature of this project, absolute levelness, plumbness and squareness generally do not exist. This is the nature of an older structure due to settling and other factors.

(2) All dimensions shown on the Drawings and Details are subject to adjustment to suit existing site conditions. Any discrepancies which may occur between actual job conditions and the Architectural Drawings shall be brought to the attention of the Owner before proceeding with any work.

(3) It shall be understood that unforeseen conditions do arise as restoration work progresses. Conditions that are not visible until existing work covering that condition are removed during the restoration process. It is therefore important that the Contractor maintain close communication with the Owner as work proceeds and new evidence and/or conditions arise - so that decisions may be reached if alternative solutions have to be found for portions of the work.

#### B. SUBSTITUTIONS

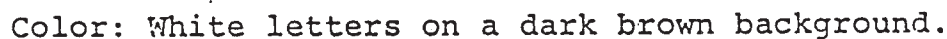
1. To obtain approval to use unspecified products, bidders shall submit written requests at least ten days before the bid date and hour. Requests received after this time will not be considered. Requests shall clearly describe the product for which approval is asked, including all data necessary to demonstrate acceptability. If the product is acceptable, the Architect will approve it in an addendum issued to all prime bidders on record.



1. All work, including work on public property, shall comply with the rules and regulations of the Division of Industrial Safety and all other local and State agencies having jurisdiction. Nothing contained herein shall be construed as permitting work that is contrary to such rules, regulations and codes.

(1) Allow no signs or advertising of any kind on the job site except as specifically approved in advance by the Architect.

## Project Sign



SECTION 01010 SUMMARY OF WORK

A. DESCRIPTION

1. Work Included: The work to be done under this Contract consists of the furnishing of all services, equipment, materials and labor necessary to complete Phase I:

THE COLLIER LOG HOUSE  
Catoctin Furnace, Maryland

for the

Catoctin Furnace Historical Society, Inc.  
Clement Gardiner, President

all as more particularly set forth in the Drawings, Specifications and other Contract Documents.

2. Items that will constitute portions of this Contract:

(1) Excavation for new footings and foundation under existing log structure. The log structure will have been raised to the new floor level and will be supported on wood cribbing, steel beams, etc.

(2) It will be necessary to work under and around the existing building to complete the footings, foundation walls, etc.

(3) To provide and install underground 24" diameter corrugated drain pipe across the front of the side as shown on Sheet A-1 of the drawings.

1) Also to provide an 18" diameter underground corrugated drain pipe across the rear of the side as shown on Sheet A-1.

(4) Provide and install the required amount of fill from off-site sources.

(5) Demolition and removal of debris from site as specified and described in these Specifications and or the Drawings.

(6) Provide and install new concrete footings, foundations, piers, brick masonry and stone masonry as required and Specified or shown on Drawings.

(7) Provide and install replacement logs as shown, indicated, specified and required for a sound structure.

(8) Provide and install a new beam, all new wood floor joists and wood flooring on the first floor of the log structure.

ADD: 10/10/10  
Underpinning elec. conduit SE side

### 3. Deductable Alternatives:

(1) Deduct Alternate No. 1: Delete replacement 6/6 windows/doors and exterior trim around doors and windows. Provide 1/2" plywood nailed over openings to protect building from the weather and elements.

(2) Deduct Alternate No. 2: Delete new wood shingle roof and flashing. Existing tin roof to remain in place.

(3) Deduct Alternate No. 3: Delete removal of existing motor chinking. Existing to remain in place.

(4) Deduct Alternate No. 4: Delete provision of and installation of drain pipe at rear of building. See Sheet A-1.

### B. DRAWINGS AND SPECIFICATIONS

1. The work shall be executed in accordance with the Drawings and Specifications. Due to the nature of restoration work, unforeseen items and conditions will surface during the duration of the project. The Drawings and Specifications and unforeseen conditions will be explained, discussed and resolved by further directions and instructions from the Architect.

### C. EXISTING CONDITIONS

1. The Bidders are required to visit the site and log structure to verify all existing conditions.

### D. PROCEDURES

1. The Contractor shall cause as little inconvenience to the existing surrounding areas as possible. He shall confine his activities to within the Project Limits as shown on the Site Plan.

### E. SPECIAL CONDITIONS

1. Permits: The Contractor shall obtain and pay for all permits, tapping fees, benefit charges, etc., required, give all legal notices, and pay all fees required for the work.

2. Labor: All work shall be performed in the best and most professional manner by mechanics skilled in their respective trades. Mechanics, considered by the Architect to be unskilled shall be dismissed from the work upon notice from the Architect. This contract shall be subject to the Labor Laws of the state where the project is located and subject to labor rules and regulations of the local authorities.

3. Performance: No claim for any extra charges will be allowed because of alleged impossibilities due to inadequate drawings or specifications. The Contractor shall be responsible for verification between field measurements and drawings. The Contractor shall coordinate the work of all trades and to schedule the timing as not to cause delays to any phase of construction due to late



scheduling of interconnected work. After Substantial Completion of the project, the Contractor shall complete all defects and omissions noted at the final inspection in the time period agreed upon at the inspection. The building and grounds shall be kept clean at all times. After completion of the contract and before receiving the final payment, the Contractor shall have all parts of the building cleaned wherever such cleaning is needed. The Contractor shall remove from the premises all trash, rubbish, his own tools and equipment and excess materials. The building and grounds shall be left in perfectly clean condition.

#### F. EXECUTION

1. It shall be the responsibility of the Contractor to coordinate all work.

2. The Contractor and his Subcontractors shall carefully examine the existing building and site conditions and become thoroughly familiar with all portions of the work.

3. Since this is a restoration project, cutting, patching and replacement of deteriorated and missing work will be required. It will be required that:

(1) All parts fit and be properly joined in the best craftsmanship manner.

(2) Work in a deteriorated condition be removed and replaced to match that removed unless otherwise specified.

(3) All new work shall match existing materials and workmanship as closely as possible; so that it is not discernable as being new work.

4. No materials or original work shall be removed or altered unless specified by the drawings or approved by the Owner. If any questions arise as to the degree of removal or replacement the Owner shall be consulted prior to action on the Contractor's part. Work to proceed only with Owner's approval.

5. Any demolition or removal of materials and work shall be done with the utmost care. Protect all surrounding surfaces and areas.

6. After uncovering existing work inspect conditions affecting installation of new work. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved. If uncovered conditions are not as anticipated immediately notify the Owner for resolution and discussion of problem.

7. If any questions as to structural integrity of any parts of the structure arises during any part of the work, immediately notify the Owner.

8. Performance: Perform all required work under this Contract according to the Architectural Drawings and these Specifications. No deviations therefrom will be acceptable unless approved by the Architect and Owner.

## SECTION 01200 PROJECT CONSTRUCTION AND PROJECT MEETINGS

### A. DESCRIPTION

#### 1. Work Included:

(1) To assume adequate planning and execution of the work so that the work is completed within the number of calendar days allowed in the Contract; and to assist the Architect in evaluating progress of work; prepare and maintain the schedule described in this Section.

(2) To enable orderly review during progress of the work, and to provide for systematic discussion of any problems, unforeseen findings, discoveries or conditions in the existing structure during execution of the work; the Architect will conduct meetings throughout the construction period.

### B. QUALITY ASSURANCE

#### 1. Construction Schedule:

(1) Work Progress Schedule: Within ten (10) days after award of Contract, the Contractor shall submit to the Architect, for approval, (4) copies of the complete work progress schedule. This schedule shall show by dates the expected starting times and completion of the various parts of the work. No progress payments will be made to the Contractor until he has submitted an acceptable work progress schedule.

#### (2) Suspension of work:

a. When the whole or a portion of the work is suspended for any reason, each Contractor shall properly cover over, secure and protect such of his work as may be liable to sustain injury from any cause.

b. It shall be the Contractor's responsibility to include a description of delaying factors due to extreme weather conditions or other factors and their impact on the construction schedule with periodic reports.

2. Progress Meetings: Biweekly meetings shall be set up with the Contractor on the job site at a prescribed time for the coordinator for the work of the Contractor, Subcontractors, and the Architect, the Owner's representative. Attendance at the meetings is required. Minutes of the meetings will be kept by the Architect. Copies will be issued to the Contractor and Owner.

3. Preconstruction Meeting: Will be scheduled within (10) days after the Owner has issued Notice to Proceed. The Contractor, Subcontractor for raising the house, the Architect, and other interested parties shall attend.

4. Commencement, Prosecution and Completion of Work. The Contractor shall commence work under this contract upon receipt by him of Notice to Proceed, prosecute said work diligently, and complete the work ready for use not later than the number of calendar days contained in either of his bids, as stipulated by the Supplement to Instruction to Bidders. Time of completion shall be counted from the Contractor's receipt of Notice to Proceed.

5. Commencement Activity. Evidence that the Contractor has started procurement of materials, preparation and submission of shop drawings, preparation of subcontracts and other preparatory work will satisfy the requirement that work commence upon receipt of Notice to Proceed. Therefore, work need not be commenced at the construction site upon Notice to Proceed.



## SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

### A. DESCRIPTION

1. Work included: Work under this Contract includes all necessary temporary items required in good safe construction practice and administration of the project. Any or all of the items may be required in conjunction with work of permanent nature described in any and all other Sections of the Specifications.

2. All temporary work except as specifically stated shall be removed by time of final acceptance of the project. Temporary facilities and controls required for this work include, but are not necessarily limited to:

- (1) Sanitary Facilities.
- (2) Enclosures such as tarpaulins, barricades and canopies.
- (3) Laying out of work.
- (4) Temporary utilities.

3. Related work described elsewhere:

(1) Except that all equipment furnished by subcontractors shall comply with all requirements of pertinent safety regulations, the ladders, planks, hoists, and similar items normally furnished by the individual trades in execution of their own portions of the work are not part of this Section.

(2) Permanent installation and hook-up of utility lines will be completed under the Phase I of the project and will not be included in this Contract. *VII* *ADDENDUM*

### B. PRODUCT HANDLING

Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of the work.

### C. JOB CONDITIONS

1. Laying out of work:

(1) Contractor shall only use qualified personnel to lay out all lines and levels for all the work. Responsibility for accuracy of layout is the responsibility of the Contractor.

(2) Information shown for utilities, property lines, and similar items on the site are from data furnished to the Architect, but he assumes no responsibility for completeness or correctness of same. Each contractor shall verify all such information before proceeding with any work affected thereby.

(3) Each contractor shall verify and correct all measurements and other information given for work in place, and for new work in connection with same and he shall be solely responsible for rectifying any difficulties or discrepancies arising from his failure to do so. All corrections or adjustments shall be reported to the Architect and shall be subject to his approval.

2. Protection of Adjacent Facilities and Property:

(1) Contractor shall continuously maintain adequate protection of all his equipment from damage and shall protect Catoctin Historical Society property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss and he shall adequately protect adjacent property as provided by law and Contract Documents.

(2) Contractor shall erect and properly maintain at all times as required by the conditions and progress of the work all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoist hoists, wall holes, scaffolding, window openings, stairways and falling materials.

ADJ (3) ~~the contractor shall protect adjacent property~~  
3. Safety Precautions:

(1) Signs of Warning or whatever devices be may deem necessary to properly mark hazards and obstructions.

4. Lifting devices for materials: Supply all cranes, lifts, hoists, etc., for the proper and efficient movement of all materials. All shall be provided with proper guys, bracing, safety devices, etc., as required by law and/or good practice. Provide signs warning of any hazards created.

5. Scaffolds: Provide substantially constructed scaffolds at proper heights and/or appropriate strength and size to accommodate the work of the various trades.

6. Temporary Floors: Where necessary for ease and safety of construction.

7. Pumps, ditches, etc., for the maintenance of water free excavation: Provide and maintain if required to complete work.

8. Protection of work, storage and transportation of materials:

(1) Sheds and Platforms: Waterproof shelter must be provided for the storage of cement and all other materials subject to spoilage. Lumber must be stored off the ground and kept dry. Platforms must be provided for the storage of cut stone and other materials likely to be stained if improperly stored.

(2) Protecting work in place: Provide all necessary protection of completed work to prevent any and all damage.

9. Temporary door and window closures:

Provide as necessary to protect the work of various trades and the property (building) from theft and damage.

a. Temporary plywood closure shall be installed over all openings if the provision of windows and doors does not become a part of this Contract.

10. Water: It shall be the Contractor's responsibility to furnish water supply for the various trades as required.

11. Electricity: Furnish and install all necessary temporary wiring and upon completion of work, remove all such temporary facility.

a. The Contractor will furnish all electricity needed for construction and all operations included in the work.

b. Heating: Provide and maintain all heat needed for proper conduct of all operations included in the work.

12. Contractor's Facilities: Provide temporary sanitary facilities as required for use of all personnel. Maintain in a sanitary condition at all times. Provide and maintain a suitable sanitary privy for the use of workmen; to be removed and the premises left clean at project completion.



## DIVISION 2 SITE WORK

### SECTION 02100 DEMOLITION

#### A. DESCRIPTION

1. Work Included: Demolition and removal work includes but is not necessarily limited to: (See Photographs included as a part of this Section.)

(1) The Demolition work will be completed in several stages.

- a. STAGE I:

(a) Remove concrete porch slab and concrete post bases on West Elevation. (NIC)

(b) Remove concrete slab adjacent to South Elevation. (NIC)

(c) Remove entirely the 20th century frame additions on the East Elevation. Also remove any concrete slabs, walks, etc. and the masonry chimney attached to the 20th century addition. (NIC)

- b. STAGE II: Work to be completed prior to beginning new footings and foundation walls.

(a) Removal of existing stone foundation: Excavation for and installation of cribbing, steel and wood structural supports under house; and setting of jacks shall be completed before removing the existing foundation or deteriorated sill logs, etc.

(b) Foundation removal shall be coordinated with the Contractor lifting the house structure.

#### B. JOB CONDITIONS

1. Because this is an historic restoration project; additional care shall be exercised by all concerned that all existing work to remain as a part of the restored structure shall be protected as carefully as possible.

#### C. EXECUTION

1. Examine the site and existing log structure and thoroughly understand the procedures and scheduling of events to be followed during the completion of the various Stages of the project.

2. No interior demolition within the structure; such as partitions, floors, joists, etc. shall be disturbed unless required by work under other Sections of these Specifications.

3. Remove the existing stone foundation while structure is supported on the cribbing and supports. Cribbing & supports for log house to be installed by a prior contract with a subcontractor.

a. Reusable stone foundation material shall be cleaned and stored on the site for reuse in the construction of the new foundation.

D. CLEANUP

1. Remove all debris and materials that are not to be reused, reinstalled or salvaged, from the site.

2. The site shall be maintained in a clean and neat manner during work on the project due to close proximity of neighboring property owners.

E. PHOTOGRAPHS

1. East Elevation
2. West Elevation
3. North Elevation



Remove existing masonry chimney on 20th century frame addition; as well as frame addition and concrete work under and around that addition.

(N.I.C.)

Remove existing concrete walk.

(N.I.C.)

North Elevation



Remove concrete porch slab and porch post supports.

(N.I.C.)

West Elevation



Remove entirely the 20th c. frame addition and masonry chimney on the north end of that addition.

(N.I.C.)

East Elevation

Remove any concrete walks, slabs, etc.; such as slab on south end of structure. (N.I.C.)

SECTION 02220 EXCAVATING, FILLING AND GRADING

A. DESCRIPTION

1. Work Included: Excavating, filling and grading for this work includes but is not necessarily limited to:

- (1) Excavation to solid structural bearing for installation of wood cribbing supports for jacks to be used to raise the existing wood log structure and masonry fireplaces and flues.
- (2) Excavating for footings and foundations.
- (3) Filling and backfilling to attain indicated grades.
- (4) Trenching and trench backfilling.
- (5) Rough and finish grading on the site.
- (6) Installation of 24" diam. drain pipe. (See Drawings)

B. JOB CONDITIONS

1. Dust Control:

- (1) Use all means necessary to control dust on the site caused by Contractor's operations during performance of the work.
- (2) Thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors and concurrent performance of other work on the site.

2. Protection:

- (1) Use all means necessary to protect all materials of this Section before, during and after installation and to protect all objects designated to remain. Extra care shall be exercised due to the nature of the project.
- (2) In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

C. PRODUCTS

1. Fill Material, General:

- (1) All fill material shall be subject to the approval of the Architect.

2. On-Site Fill Material: All on-site fill material shall be soil-rock mixture which is free from organic matter and other deleterious substances. It shall contain no rocks or lumps over six inches in greatest dimension and not more than 15% of the rocks or lumps shall be larger than 2 1/2 inches in greatest dimension.



3. Drain Pipe: (24) inch diameter corrugated metal drain pipe or oval dimension pipe to equal cross-section of (24) inch diameter pipe. 28' x 28' 12D
4. Imported Fill Material: All imported fill material shall meet the requirements of Article 2 above, and in addition shall be predominately granular with a maximum particle size of two inches and a plasticity index of 12 or less.
5. Trench and Structural backfill: On-site and off-site fill material used for structural and trench backfill shall meet the requirements of Article 2 above.
6. Other Materials: All other materials not specifically described but required for a complete and proper installation, shall be as selected by the Contractor subject to approval of the Architect.

D. EXECUTION

1. General:

(1) Familiarization: Prior to all work of this Section, become thoroughly familiar with the site, site conditions and all portions of the work falling within this Section or affected by work under this Section.

(2) Do not backfill prior to required inspections or approvals .

a. Should any work be so enclosed or covered up before it has been approved, uncover all such work at no additional cost to the Owner; and restore to condition in which it was found at the time of uncovering; all at no additional cost to the Owner.

2. Excavating:

(1) Hand Excavation: Due to the nature of the project it will be necessary to complete portions of the excavation by hand.

(2) Mechanical Excavation: Mechanical excavation may be used where it is feasible and possible.

(3) Depressions: Where depressions result from, or have resulted from the removal of surface or subsurface obstructions, open the depression to equipment working width and remove all debris and soft material as directed by the Architect.

(4) Overexcavation: Backfill and compact all overexcavated areas as specified for fill; and at no additional cost to Owner.

(5) Compaction: Backfill material shall be compacted in 8 inch layers to a dry density of at least 95 percent of AASHTO T-180.

3. Preparation of Subgrade: Remove all ruts, hummocks, and other uneven surfaces by surface grading prior to placement of fill.

3. Excess Water Control:

(1) Unfavorable weather: Do not place, spread or roll and fill material during unfavorable weather conditions. Do not resume operations until moisture content and fill are satisfactory to the Architect.

(2) Softened subgrade: Where soil has been softened or eroded by flooding or placement during unfavorable weather, remove all damaged areas and recompact as specified for fill.

(3) Dewatering: Dewater by means which will ensure dry excavations and the preservation of final lines and grades of bottoms of excavations.

4. Excavating For Footings: Care shall be exercised when excavating for the new footings and crawl space for the existing log structure. Excavation for new footings shall be taken down to soil which will provide solid structural bearing under all new footings and foundations.

5. Fill and Compaction:

(1) Filling: Spread approved fill material in layers not exceeding eight inches in uncompacted thickness.

(2) Moisture conditions: Water or aerate the fill material as necessary, and thoroughly mix to obtain a moisture content which will permit proper compaction.

(3) Jetting will not be permitted.

6. Grading:

(1) General: Except as otherwise directed by the Architect, perform all rough and finish grading required to attain the elevations shown on the drawings.

(2) Treatment after Grading:

a. After grading is completed and Architect has finished inspection; permit no further excavation, filling or grading except with the approval of the Architect.

b. Use all means necessary to prevent erosion of freshly graded areas during construction and until such time as temporary and permanent drainage and erosion controls have been installed.

7. Trenching: Perform all trenching as required for the installation of items where trenching is not specifically described in other Sections of these Specifications.

a. Grade the trench bottoms to provide a smooth, firm and stable foundation free from rock points.

b. Foundation material: Place a minimum of six inches of the specified cohesionless material (crushed stone) in the bottom of the trench.

8. Backfill for Pipes: After the pipe has been bedded and thoroughly covered, spread the fill material in uniform lifts of not more than eight inches. Repeat the spreading and compacting procedure until adjacent grade level is attained.

AD 9. Sealing      ADDENDUM

## DIVISION 3 CONCRETE

### SECTION 03100 FORMWORK, REINFORCEMENT AND CAST-IN-PLACE CONCRETE

#### A. DESCRIPTION

1. Work included: Provide form work reinforcement and cast-in-place concrete in accordance with the provisions of this Section for all cast-in-place concrete shown on the Drawings or required by other Sections of these Specifications.

2. Related work described elsewhere: Excavating for footings is described in Section 02220.

3. Design of formwork is the Contractor's responsibility.

4. Standards: Comply with all pertinent provisions of ACI 347.

#### B. PRODUCTS

##### 1. Forms and Form Materials

(a) Construct formwork for concrete concealed from view with boards of sound grade and sufficient thickness to withstand pressure of newly placed concrete without excessive and objectionable bow or deflection.

(b) Earthforms: Side forms of footings may be omitted and concrete placed directly against excavation only when requested by Contractor and accepted by Architect. When omission of forms is accepted by the Architect, provide additional concrete 2.5 cm (1") on each side of the minimum design profiles and dimensions shown.

2. Reinforcement: Provide complete all steel required for reinforcement of cast-in-place concrete.

(a) Reinforcement Bars: Comply with ASTM A615 Grade 40.

(b) Supports for reinforcement: Bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcement in place.

(c) Welded wire fabric: Comply with ASTM A185 and lap adjoining pieces at least one full mesh.

(d) Steel wire: Comply with ASTM A82.



### 3. Cast-In-Place Concrete:

(a) Throughout the progress of installation of work of this Section, provide at least one person who shall be thoroughly familiar with the skills necessary to direct all work performed under this Section.

(b) In acceptance or rejection of work performed under this Section, the Architect will make no allowance for lack of skill on the part of workmen.

(c) Concrete Mixtures: The concrete mixtures shall be designed by and determined in conformance with ACI Standard 318, Section 502, Method I, using materials to obtain the minimum compressive strength at 28 days as listed below and with the physical properties noted thereafter.

<u>Compr. Strength 28 Days</u>	<u>Max. Aggr. Size Inches</u>	<u>Mix Cement (94# Bag)</u>	<u>Max. Slump Inches</u>	<u>Primary Use</u>
3000	1 1/2	5½	3-4	Building Foundations
3000	1	5½	3-4	Interior Slabs
3500	1	5½	3-4	Site Concrete

(1) Concrete shall be composed of Portlant Cement, fine aggregate, coarse aggregate, and water. Admixtures shall be used where herein specified.

### 4. Other Materials:

(a) Preformed expansion joint filler material shall be resilient non-bituminous type conforming to ASTM D 172; plain type without sealer.

(b) Vapor barriers shall be polyethylene sheets having thickness of not less than 6 mil.

### D. EXECUTION

1. Place concrete in compliance with practices and recommendations of AC.I 304 and 301 and herein specified.

2. Do not use concrete which becomes non plastic and unworkable, does not need required quality control limits or has been contaminated by foreign materials.

3. Cold Weather Placing: Cold weather concreting shall be in accordance with ACI 306. Covering and other means shall be provided for maintaining the concrete at a temperature of at least 50° degrees for not less than 72 hours after placing at a temperature above freezing for remainder of the curing period. Concrete damaged by freezing shall be removed and replaced without additional cost to the Owner.

DIVISION 4 MASONRY

SECTION 04100 STONE AND BRICK

A. DESCRIPTION

- ① Lyman flue damper  
1/2" spark arrestor
- ADD=10
1. Work Included: New stone work for foundation for log house; new stone piers for front porch supports; painting and repair of existing stone fireplace; installation of flue liner and ~~cast iron damper~~ in existing stone fireplace. Painting and repair of existing brick chimneys, brick fireplace and hearths; installation of flue liner and ~~damper~~ in brick fireplace.
2. Remove deteriorated mortar from joints and replace with new mortar in both the stone and brick portions of the work.
3. Chimneys to be rebuilt from second floor up or as required to put them in safe workable condition.
4. Match the original mortar in color and texture as closely as possible. Prepare a sample and let dry thoroughly for Architect's approval. Do not proceed with the work until Architect has given approval of brick, stone and mortar samples.
5. Work ability and plasticity of mortar is important; mortar shall not be sticky or gummy; but handle readily on the pointing tool and trowel.
6. Before stone or brick materials are delivered to the job site, submit samples of proposed brick and stone to Architect for approval.
- ADD 7 Sec. Addendum #12 Revisions 1/27/23

B. QUALITY ASSURANCE

1. Qualifications of workmen: Use only skilled workmen who are trained and experienced in this trade and are completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.

C. MATERIALS

1. Lime: Shall conform to ASTM C207, Type S, Hydrated lime for masonry purposes or Fed. Spec. SS-L-351B.
2. Cement: Shall conform to ASTM C150, Type I or II or Fed. Spec. SS-C-192G(3). It shall not have more than 0.60: alkali (sodium oxide) or not more than 0.15% water soluble alkali by weight (in the combination of lime and cement).
3. Sand: Shall conform to ASTM A144 or Fed. Spec. SS-A-281B (1) para. 3.1.

4. Water: Shall be clean and free from deleterious materials.

5. Mortar Mix: (Pointing and mortaring of stone and brick work)

(1) 1 bag hydrated lime

(1/4) bag white Portland cement

(3) cubic feet of sand to match the original sand (Use Mellott bank sand which is brown in color; or any local sand from area that is brown and buff in color).

#### D. EXECUTION

1. Prior to beginning repointing exposed stone and brick work at chimneys and fireplaces shall be thoroughly clean.

2. Joint preparation: Old mortar shall be cut out to a minimum depth of (1) inch. Any loose or disintegrated mortar beyond this minimum depth shall be removed also. The use of power tools for mortar removal is not acceptable.

3. Joints: Match joints in existing work as closely as possible. Where existing work is not in place use a concave type joint. Recess mortar surface slightly. Following tooling remove any excess mortar from edges with a bristle brush.

4. Brickwork: Size, color and texture of any new brick used for and required for replacement, rebuilding or patching of any areas of the buildings shall match existing brick as closely as possible. Submit samples of brick to the Owner for approval prior to installing any new brick on the job. Pattern of new work shall match existing brick work. New hearths shall be laid in a common bond pattern.

5. Mixing mortar: Use a mechanical mixer of one sack capacity minimum. Mix mortar for at least (3) minutes after all materials have been added. Mix only as much mortar as can be used in (1) hour after water has been added into the batch. Do not retemper mortar.

6. Cleaning: Keep all masonry work clean as work progresses. Clean with clear water and bristle brushes only.

7. Environmental Conditions: Brick and stone masonry work shall not be performed when the temperature is below 40° degrees F., except by approval; in which case satisfactory methods of heating materials before laying and protection of work from freezing will be provided to the satisfaction of the Architect.

WORK DAY  
TEMPERATURES

CONSTRUCTION  
REQUIREMENTS

PROTECTION  
REQUIREMENTS

Above 40°F

Normal masonry  
procedures.

Cover walls with plastic  
or canvas at end of work  
day to prevent water en-  
tering masonry.

40°F to 32°F

Heat mixing water  
to produce mortar  
temperatures be-  
tween 40°F and  
120°F.

Cover walls and mater-  
ials to prevent wetting  
and freezing. Covers  
should be plastic or  
canvas.



## DIVISION 4 MASONRY

### SECTION 04220 CONCRETE UNIT MASONRY

#### A. DESCRIPTION

1. Work Included: Concrete unit masonry required for this work is indicated on the Drawings.

2. Related work described elsewhere:

(1) Formwork, Reinforcement and Cast-In-Place Concrete Section 03100.

(2) Stone and Brick Section 04300.

#### B. QUALITY ASSURANCE

1. Qualifications of Workmen:

(1) Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

2. Codes and Standards: Comply with all pertinent codes and regulations.

#### C. PRODUCT HANDLING

1. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the work and materials of all other trades and the existing structure.

2. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

#### E. PRODUCTS

1. Concrete Blocks

(1) Standard blocks shall be the sizes indicated on the Drawings, light gray or neutral color, and shall conform to the requirements of ASTM C90, open end, grade N-1 standard weight hollow load bearing units.

(2) Solid load-bearing unit masonry shall conform to ASTM C145.

(3) Concrete building brick shall conform to ASTM C55.

(4) Shrinkage of standard blocks shall not exceed the amount recommended in ASTM C426.

(5) Water content:

a. At the time of delivery to the job site, concrete masonry units shall have a value, in weight of contained water, of not more than 35% of the fully saturated content for the unit tested.

b. Ship all units from the factory, and store at the job site, with all necessary protection to prevent increase of water content from rain and other sources.

2. Mortar: All mortar for concrete block shall conform to ASTM C-476 and shall have a compressive strength of 1800 psi in 28 days.

3. Other materials: All other materials, not specified or specifically described but required for a complete and proper installation of the work of this Section.

4. Reinforcement: Provide and install horizontal wire reinforcement equal to Dur-O-Wall in block courses as required:

#### E. EXECUTION

1. Coordination: Carefully coordinate with all other trades to ensure proper and timely completion of the work; and to insure adequate interface of the work of other trades with the work of this Section.

2. Mixing Mortar: Use a mechanical mixer of one sack capacity. Mix mortar for at least (3) minutes after all materials have been added. Mix only as much mortar as can be used in one hour after water has been first mixed into the batch. Do not retemper mortar.

#### 3. INSTALLATION

(1) General: Lay up all walls in running bond, plumb, level, and true to the lines and dimensions shown on the Drawings. Do not use chipped or broken units. If any such units are discovered in the finished wall, the Architect may require their removal and replacement with new units at no additional cost to the Owner.

(2) Dampening:

a. Store all masonry units on the job so that they are kept off the ground and are protected from the rain.

b. Wetting the units will not be permitted, except when hot and dry weather exists causing the units to be warm to the touch, and then only the surface may be wetted with a light fog spray.

(3) Laying Up:

- a. Solid masonry shall be laid with both head and bed joints filled solid with mortar. Use a minimum of 8" of solid masonry under all bearings.
- b. Place all units in mortar with full shoved bed and head joints.
- c. Align all vertical cells to maintain a clear, unobstructed system of flues.
- d. Hold racking to an absolute minimum.
- e. Provide cleanouts at the bottom of each cell for removing mortar droppings. Do not close the cleanouts until they have been inspected and approved by the Architect.

(4) Reinforcement:

- a. Intersecting masonry walls shall be bonded with steel ties at (16") sixteen inches (O.C.) on center. Corners shall be formed by over-lapping standard masonry bond and shall be solid grouted.
- b. Horizontal reinforcing shall be provided at 16 inches O.C. maximum.
- c. Posts, beams, joists, beaming plates and other structural members shall be anchored to the walls with anchor bolts or equivalent. Anchors shall be fully and solidly grouted in place.
- d. Prepare concrete masonry unit walls with necessary ties, etc., to receive stone work.

DIVISION 6 WOOD AND PLASTICS

SECTION 06100 - LUMBER AND ROUGH CARPENTRY

A. DESCRIPTION

1. Work Included: Provide all wood, nails, bolts, screws, ~~cnrhors~~, and other rough hardware and all other items needed for rough and finished carpentry work as shown on the Drawings, described herein and as required.

(1) Replacement logs of various lengths and dimensions to replace rotted, deteriorated and structurally unsound logs in the entire existing structure.

2. Qualifications of Workmen: Provide sufficient workmen and a supervisor who will be present at all times who shall be thoroughly familiar with this type of work. The Owner will make no allowance for lack of skill on the part of workmen.

B. PRODUCT HANDLING

1. Use all means necessary to protect lumber materials during and after delivery to job site. Protect the installed work and materials of all other trades.

2. Do not allow installation of damaged or otherwise non-complying materials.

3. In the event of damage immediately make all repairs or replacements necessary to the approval of the Owner and at no additional cost to the Owner.

4. Carefully protect newly laid flooring and all existing portions of the structure throughout the duration of the project.

C. MATERIALS

1. Sills and plates:

2. Studs:

3. Posts and beams:

4. All horizontal framing members, joists, lintel & roof rafters:

5. All other vertical framing members:

Foundation grade or pressure treated Douglas Fir

Construction Grade Douglas Fir-Hemlock S.P.F.

Douglas Fir-larch, Structural Grade Number 1

Douglas fir-larch, Construction grade Number 3

Douglas Fir-larch, Standard or better.



ADD

wood with nails

ADD # 13

6. ~~Plywood Roof Sheathing:~~ Exterior grade C-C Group I  $\frac{1}{2}$ " thick or better.
7. Exterior wood trim: Premium grade northern White Pine " " white poplar #14
8. Exterior Stairs: Pressure treated fir
9. Exterior wood siding: *or white poplar* Northern white pine or fir beveled lapped siding with  $\frac{3}{8}$ " bead on lower edge. #14
10. Building Paper: Sisal Kraft "Orange Label" waterproof or 15# asphalt-saturated rag felt conforming to ASTM D226.
11. Flooring: Randon width premium white pine with T&G edge. #4
12. Wood preservative: Except where pressure treatment is specified; treat all exterior millwork brush-coat cut surfaces of pressure treated lumber. *with #14*
13. Nails:
  - a. Other materials: All other materials not specifically specified or described but required for a complete and proper installation as indicated on the Drawings.
  - b. Preservative treatment: Except where pressure treatment is specified, dip treat all exterior millwork, the new stair parts, the wood sleepers under the wood floor in the brick portion of the building.

ADD 14

see Addendum #15

D. EXECUTION

1. Replacement logs shall be installed after the new foundation walls are in place.
2. Keep framing at least (2) inches away from chimneys where possible.

SECTION 06400 ARCHITECTURAL WOODWORK

A. DESCRIPTION

1. Work included: Provide all architectural woodwork shown on the Drawings, specified herein and as required, complete in place. 261#15

- (1) Exterior wood stairs at bath doors on east elevation. Steps to have carriages and threads only, no risers (open).
- (2) Wood T&G Batten doors with bead run on face of T&G boards; provide random width boards.
- (3) Exterior window trim; (3) inches wide with a (3/8) inch bead run on inside edge and on lower edge of window sill apron.
- (4) Wood 6/6 double - hung window sash, glass and glazing, sills, stops, etc., for a complete weathertight installation.
- (5) Exterior door trim (3) inches wide with a (3/8) inch bead run on the inside edge.

2. Qualifications of installers: Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and methods required for performance of work under this Section.

B. MATERIALS HANDLING

1. Use all means necessary to protect materials of this Section before, during and after installation and materials of other trades.

2. Replacements: In the event of damage immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.

C. MATERIALS

1. Architectural trim: Replacement trim shall match profile and design of existing trim in area where installed and as shown on the Drawings. Some original window trim is still in place under the presently visible exterior window trim on the 1st floor windows on the north elevation. Remove a piece of this (3) inch trim to have the millwork house copy the profile in making up the replacement trim for the house.

(1) All work included in this Section to be treated with preservatives and to receive a paint finish.

(2) Back-prime all window and door frames prior to installation.

all #17  
(3) Finish Hardware: An allowance of \$1,100.00 is provided for provision of door hardware only. Contractor will provide installation of hardware. ADD 17

D. EXECUTION

1. Fabricate and install work of this Section in strict accordance with the design of the existing work where possible or indicated to do so.

## SECTION 07500 WOOD/SHINGLES

### A. DESCRIPTION

1. Work included: Provide all work and materials needed for a complete and proper installation of the shingle roof.

2. Related work described elsewhere:

- |                                |               |
|--------------------------------|---------------|
| (1) Sealants and caulking      | Section 07950 |
| (2) Flashing and Sheet Metal   | Section 97600 |
| (3) Lumber and rough carpentry | Section 06100 |

### B. QUALITY ASSURANCE

1. Qualifications of personnel:

(1) Throughout progress of the work of this Section, provide at least one person who shall be thoroughly familiar with the specified requirements, completely trained and experienced in the necessary skills, and who shall be present at the site and shall direct all work performed under this Section.

(2) In actual installation of the work of this Section, use adequate numbers of skilled workmen to ensure installation is in strict accordance with the approved design and recommendations of the materials manufactured.

### C. SUBMITTALS

1. Samples:

(1) Shingles: Submit samples for Architect's approval.

2. Manufacturer's literature: Material description and recommended installation procedures.

### D. PRODUCT HANDLING

1. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the work and materials of all other trades.

2. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

3. Product, Deliver, Storage and Handling:

- (1) Deliver materials with manufacturer's labels intact and legible.
- (2) Deliver materials in sealed packages with Underwriter Laboratories, Inc., labels.
- (3) Store materials on raised platforms and protect with coverings at out door locations.
- (4) Do not stack bundles of shingles more than 4 foot high.
- (5) Store rolled goods on end.

E. PRODUCTS

1. Materials:

(1) Shingles: Contractor shall provide and install No. 1 Blue Label Certigroove red clear shingles, 18" long "Perfections", treated by the Koppers Company to achieve a Class C rating. Shingles shall be 5 1/2" to the weather, nailed to sheathing, shall not exceed 6" in width, and shall be installed in accordance with manufacturers instructions. Roofing of porches shall be similar to roofing on main building. *cedar* *ADD #16* *Porch roof 12' x 12'*

2. Accessories:

(1) Metal Flashing: Contractor shall provide and install 16 ounce copper at intersections of roofing with vertical surfaces, such as chimney and porch roofs and at a roof ridge as shown on drawings.

(2) Accessory shingles: As required

3. Other materials: All other materials, not specifically described but required for a complete and proper installation of the work of this Section shall be provided.

F. EXECUTION

1. Inspection: Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

2. Installation:

- (1) Do not install underlayment or shingles on wet surfaces.

(2) Assure that all surfaces to which shingles are to be applied are uniform, smooth, sound, clean, dry and free from irregularities.

(3) Verify that installation of metal flashings and work of other trades that penetrate roof have been completed.

(4) Nail metal drip edge along bottom edge and to the sides (rake) laid.

(5) Flashing shall be provided in strict accordance with manufacturer's recommendations for individual conditions.

(6) Nailing and fasteners: Install in strict accordance with manufacturer's recommendations and specifications.

3. Application: Shingles shall be applied in strict accordance with manufacturers recommendations and specifications.

(1) Nailing instructions: Shall be provided in strict accordance with the manufacturer's specifications.

4. Adjustment: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

#### G. WARRANTY

Provide Owner with a (20) year warranty for the work described in this Section and shown on the Drawings; at no cost to the Owner with contractor's one year guarantee for labor.



## SECTION 07600 FLASHING AND SHEET METAL

### A. DESCRIPTION

1. Work included: Provide all flashings, counter flashings and sheet metal not specifically described in other Sections of these Specifications but required to prevent penetration of water through exterior shell of the building.

Related work described elsewhere:

(1) Wood shingle roofing:                      Section 07500

### B. QUALITY ASSURANCE

1. Qualifications of manufacturer: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect.

2. Qualifications of installers: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

### C. SUBMITTALS

1. The manufacturer's recommended installation procedures, when approved by the Architect, will become the basis for inspecting and accepting or rejecting actual installation procedures used on the Work.

### D. PRODUCT HANDLING

1. Protection: Use all means necessary to protect material of this Section before, during and after installation and to protect installed work and materials of all other trades.

2. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

### E. PRODUCTS

1. Materials and gauge: Where sheet metal is required, and material or gauge is indicated herein or on the Drawings, provide the highest quality and gauge commensurate with the referenced standards.

(1) Exposed Metal Flashing: Exposed flashing shall be equal to "Nervastral" 600 (62 mil) flashing and installed in strict accordance with manufacturer's written instruction.

- a. All visible flashing shall have finish or shall be field painted. Color to be selected by the Architect.

(2) Unexposed flashing: Wall, sill, and head flashing shall be equal to "Nervastral" HD (20 mil) flashing and installed as per Drawings, and/or manufacturer's written instructions.

(3) Fabric Plastic Flashing material shall consist of 3 ounce electrolytic sheet copper bonded, bonded both sides to asphalt saturated cotton fabric with an asphalt mastic and the entire assemblage crimped the full sheet width.

(4) Solder shall be composition Sn50 for copper.

(5) Other materials: All other materials, not specifically described but required for a complete and proper installation of this Section, shall be new, first quality of their respective kinds, and as selected by the Contractor subject to the approval of the Architect.

(6) Accessories: Provide and install all sheet metal and flashing accessories as required.

#### F. PRODUCT HANDLING

1. General: Sheet metal items shall be carefully handled to prevent damage to the surfaces, edges and ends and handled to prevent damage to the surfaces, edges and ends and shall be stored at the site above the ground in a covered, dry place.

#### G. EXECUTION

1. Inspection: Examine the areas and conditions under which work of this Section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

#### 2. Workmanship

(1) Flashings shall be installed at intersections of roof with vertical surfaces and at projections through the roof.

#### 3. Fabric Flashing:

(1) Horizontal masonry surfaces. Install material in bed of fresh mortar above and below the flashing or set in trowel coat of mastic with mortar bed over. Turn up on inside vertical surfaces at least 2" where required.

(2) Heads and sills: Install material 1/2 inch in from wall exterior face, through the wall and turn up on inside vertical surfaces at least 2 inches. All sill flashings shall be turned up at corners to a pan.

(3) Lintels: Install 1/2 inch in from exterior face of exterior wall at tops of lintels.

(4) Joints: Joints shall be spliced (splitting the plies) and lapped a minimum of 4 inches with the contacting surfaces coated with mastic the full length and width of all joints.

(5) Punctures through fabric flashing shall be completely sealed with asphalt mastic.

## SECTION 09900 PAINTING

### A. DESCRIPTION

1. Work included: Paint and finish all new exterior surfaces and existing work as required; such as new wood windows, doors, horizontal beveled wood siding in gable ends, rake boards, exterior steps, etc., as shown on Drawings and specified herein.

(1) Priming and existing millwork where old paint removed to surface of raw wood and all new work.

(2) Thoroughly prepare all existing and new wood surfaces to receive paint and or any other finish described under this section.

2. Related work described elsewhere:

(1) Priming and back-priming of all new millwork to be installed.

(2) Preservative treatment of new and existing millwork as described herein and on the Drawings.

3. Definitions: The term "paint" as used herein means all coating systems materials including primers, emulsions, enamels, sealers, fillers, stains, polyurethane floor finishes and other applied materials whether used as prime, intermediate or finish coats.

### B. SUBMITTALS

1. Samples: Following selection of colors and glosses by the Architect submit samples for the Architect's review.

(1) Provide two samples of each color and each gloss specified.

### C. JOB CONDITIONS

1. Surface temperatures: Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45 degrees F, unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect.

2. Weather conditions: Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85%, or to damp or wet surfaces; unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect. Applications may be continued during inclement weather within the temperature limits specified by the paint manufacturer during application and drying periods.

#### D. PRODUCTS

1. Paint Materials: Acceptable manufacturers are: PPG, Pratt and Lambert, Coronado and Martin Senour.

(1) General: Provide the best quality grade of the various types of coatings as regularly manufactured by paint materials manufacturers approved by the Architect. Materials not displaying the manufacturer's identification as a standard best-grade product will not be acceptable.

(2) Durability: Provide paints of durable and washable quality. Do not use paint materials which will not withstand normal washing as required to remove pencil marks, ink, ordinary soil, and similar material without showing discoloration, loss of gloss, staining, or other damage.

(3) Colors and glosses: The Architect will select colors to be used in the various types of paint specified and will be the sole judge of acceptability of the various glosses obtained from materials proposed to be used by the Contractor.

(4) Undercoats and thinners: Provide undercoat paint produced by the same manufacturer as the finish coat. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits. Insofar as practicable, use undercoat, finish coat, and thinner material as part of a unified system of paint finish.

(5) Standards: Provide paint materials which meet or exceed the standards listed for each application in the Painting Schedules of this Section.

#### 2. Application equipment:

(1) General: For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Architect.

(2) Compatibility: Prior to actual use of application equipment, use all means necessary to verify that the proposed equipment is actually compatible with the material to be applied and that the integrity of the finish will not be jeopardized by use of the proposed application equipment.

3. Other materials: All other materials, not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first-quality of their respective kinds, and as selected by the Contractor subject to the approval of the Architect.



### 3. Surface Preparation:

- (1) The painting Contractor shall review the work with the Owner prior to beginning any work.
- (2) Clean each surface to be painted prior to applying paint or surface treatment.
- (3) Remove oil and grease with clean cloths and cleansing solvents of low toxicity.
- (4) Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet newly painted surfaces.
- (5) Smooth all finished wood surfaces exposed to view using the proper sandpaper.
- (6) Preparation of Wood Floors:
  - (a) To be sanded and to receive a toned stain finish to be selected by the Architect. It is the intent to give the new flooring material the appearance of "age" and use.

### 4. Paint Application:

- (1) Drying:
  - a. Allow sufficiently drying time between coats. Modify the period as recommended by the material manufacturer to suit adverse weather conditions.
  - b. Oil-base and oleo-resinous solvent-type paints shall be considered dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- (2) Brush application: Brush-out and work all brush coats onto the surfaces in an even film. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

### 5. Paint Schedule:

#### Exterior Gloss Enamel

- (1) On wood windows, <sup>5</sup>sash, frames and trim; doors, frames, sills and trim; also rake boards, wood siding, exterior steps, etc. use:

### Exterior Gloss Enamel

- (1) On wood window frames, sash and trim use:
- a. First coat: Pigmented Linseed Alkyd resin primer
  - b. Second coat: Linseed alkyd resin Gloss enamel
  - c. Third coat: Linseed alkyd resin Gloss enamel

### Interior Floor Finish

- (1) On sanded floors use:
- a. First coat: Pigmented wood stain
  - b. Second coat: Clear satin sealer
  - c. Third coat: Polyurethane satin varnish
  - d. Fourth coat: Polyurethane satin varnish
  - e. Fifth coat: Polyurethane satin varnish

- . 6. Completed work: Contractor will be required to replace any unsatisfactory work caused by improper or defective paint surfaces or workmanship of work under this Section; and at no additional cost to the Owner.