

PROJECT MANUAL
INCLUDING SPECIFICATIONS
FOR
CONSTRUCTION
OF THE
**WINDOW REPLACEMENT
AT
BURNEY ELEMENTARY SCHOOL**

Fall River Joint Unified School District

NMR Project No. 14-2674.20



NICHOLS MELBURG & ROSSETTO

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Redding, CA 96002

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MAY 2015

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SECTION 00 52 00
AGREEMENT FORM

THIS CONTRACT, made in three copies on this ____ day of _____, Two Thousand and Fifteen by and between the Fall River Joint Unified School District, Shasta County, California, hereinafter referred to as OWNER, and _____, hereinafter referred to as CONTRACTOR.

WITNESSETH: That the OWNER and CONTRACTOR, for the consideration herein after named, agree as follows:

ARTICLE ONE:

The CONTRACTOR agrees to perform and complete in the best workmanlike manner, all of the work and furnish all of the materials necessary for the **Window Replacement at Burney Elementary School for the Fall River Joint Unified School District** in strict conformity with the Contract Documents, including all addenda thereto, and all of which are adopted by the OWNER, and prepared by NICHOLS, MELBURG & ROSSETTO, 300 Knollcrest Drive, Redding, California 96002. This work includes the following bid:

The BASE BID is:

_____DOLLARS

(\$_____)

UNIT PRICE NO. 1: Remove existing top 3" of existing asphalt paving, re-compaction of existing base materials and replace with new 3" asphalt paving.

_____DOLLARS

(\$_____/Per One Square Foot)

ARTICLE TWO:

It is understood and agreed that the work of this Contract shall and will be completed in _____ from the date of issuance of the Notice to Proceed. The CONTRACTOR agrees the contract time is reasonable.

ARTICLE THREE:

The Contract Documents consist of the Drawings, Documents, Specifications, and accepted proposal, together with all modifications and addenda included in these documents before their execution.

The TOTAL SUM is:

_____DOLLARS

(\$_____)

This TOTAL SUM constitutes the bid for the complete project.

**SECTION 00 52 00
AGREEMENT FORM**

IN WITNESS WHEREOF, the parties hereto, the OWNER and the CONTRACTOR, set their hands and seals the day and year first above written.

By: _____ Dated: _____

FALL RIVER JOINT UNIFIED SCHOOL DISTRICT

By: _____ Dated: _____

CONTRACTOR

By: _____ Dated: _____

CORPORATE SEAL

Know all men by these presents, that

WHEREAS, FALL RIVER JOINT UNIFIED SCHOOL DISTRICT (hereinafter DISTRICT), at a regular Business Meeting on _____, have awarded to _____, hereinafter designated as the Contractor, a contract for _____

and

WHEREAS, said Contractor is required under the terms of said contract to furnish a bond for the faithful performance of said contract;

NOW, THEREFORE, We, the Contractor and

_____, as Surety, are held and firmly bound unto the FALL RIVER JOINT UNIFIED SCHOOL DISTRICT, hereinafter called the DISTRICT, in the penal sum of _____ DOLLARS (\$ _____) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of the obligation is such, that if the above bonded Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said contract and any alteration thereof made as therein provided, on his or their parts to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless DISTRICT, its officers and agents, as therein stipulated, then this obligation shall become null and void. Otherwise it shall be and remain in full force, virtue, and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the specifications accompanying the same shall in anywise affect its obligations on this bond, it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

In the event suit is brought upon this bond by the Owner and judgment is recovered, Surety shall pay all costs incurred by the Owner in such suit, including reasonable attorney's fees to be fixed by the court.

**SECTION 00 61 13.13
PERFORMANCE BOND**

Surety further agrees that death of the Contractor shall not relieve the surety of its obligations hereunder.

In witness whereof, five (5) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Contractor and Surety above named on the _____ day of _____, 20____.

(To be signed by Contractor and Surety and acknowledgment and notarial seal to be attached.)

Principal

By _____

Title _____

Surety

By _____

Title _____

The above bond is accepted and approved this _____ day of _____, 20____.

By: _____
Authorized District Signature

PAYMENT BOND

Know all men by these presents: that

WHEREAS, FALL RIVER JOINT UNIFIED SCHOOL DISTRICT (hereinafter "DISTRICT") and _____, hereinafter designated as the "Contractor", have entered into a contract for the furnishing of all materials, labor services and transportation necessary, convenient, and proper with said Agreement dated and all of the contract documents attached to or forming a part of said Agreement, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law, the Contractor is required before entering upon the performance of the work, to file a good and sufficient bond with the body by whom the contract is awarded, Sections 3247 to 3252, inclusive, of the Civil Code of California.

NOW, therefore, these presents witnesseth: That the said Contractor and the undersigned

_____, as corporate surety, are held and firmly bound unto all laborers, material, men, and other persons referred to in said statutes in the sum of _____ DOLLARS (\$ _____), lawful money of the United States, by the terms of said contract, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally by these presents.

The condition of this obligation is that if the said Contractor or any of his or its subcontractors, or the heirs, executors, administrators, successors, or assigns of any, all or either of them shall fail to pay for any materials, provision, provender or other supplies or teams used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor hereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any of the persons named in Section 3181 of the California Civil Code, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor or any of his or its subcontractors pursuant to Section 18806 of the Revenue and Taxation Code with respect to such work or labor, that said Surety will pay the same in amount not exceeding the amount hereinabove set forth, and also, in case suit is brought upon this bond, will pay reasonable attorneys' fees to be awarded and fixed by the court and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 3181 of the

California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

In witness whereof, this instrument has been duly executed by the Contractor and Surety this _____ day of _____.

(To be signed by
Contractor and Surety

and acknowledgment
and notarial seal to
be attached.)

PRINCIPAL

By _____

TITLE _____

SURETY

By _____

TITLE _____

The above bond is accepted
and approved this _____ day of _____, 20__.

By _____
Authorized District Signature

CERTIFICATE
REGARDING WORKERS' COMPENSATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

Labor Code Section 3700 in relevant part provides:

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract and will require all subcontractors to do the same.

Contractor

By: _____

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this Contract.)



AIA Document A201

General Conditions of the Contract for Construction

*THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES; CONSULTATION
WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS MODIFICATION*

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This document has been approved and endorsed by the Associated General Contractors of America.

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GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

ARTICLE 1

GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Agreement between Owner and Contractor (hereinafter the Agreement), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include other documents such as bidding requirements (advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or portions of addenda relating to bidding requirements).

1.1.2 THE CONTRACT

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

1.1.3 THE WORK

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

1.1.4 THE PROJECT

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

1.1.5 THE DRAWINGS

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

1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equip-

ment, construction systems, standards and workmanship for the Work, and performance of related services.

1.1.7 THE PROJECT MANUAL

The Project Manual is the volume usually assembled for the Work which may include the bidding requirements, sample forms, Conditions of the Contract and Specifications.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 The Contract Documents shall be signed by the Owner and Contractor as provided in the Agreement. If either the Owner or Contractor or both do not sign all the Contract Documents, the Architect shall identify such unsigned Documents upon request.

1.2.2 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results.

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

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

1.3 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

1.3.1 The Drawings, Specifications and other documents prepared by the Architect are instruments of the Architect's service through which the Work to be executed by the Contractor is described. The Contractor may retain one contract record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect, and unless otherwise indicated the Architect shall be deemed the author of them and will retain all common law, statutory and other reserved rights, in addition to the copyright. All copies of them, except the Contractor's record set, shall be returned or suitably accounted for to the Architect, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the

Work without the specific written consent of the Owner and Architect. The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this license shall bear the statutory copyright notice, if any, shown on the Drawings, Specifications and other documents prepared by the Architect. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's copyright or other reserved rights.

1.4 CAPITALIZATION

1.4.1 Terms capitalized in these General Conditions include those which are (1) specifically defined, (2) the titles of numbered articles and identified references to Paragraphs, Subparagraphs and Clauses in the document or (3) the titles of other documents published by the American Institute of Architects.

1.5 INTERPRETATION

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

ARTICLE 2

OWNER

2.1 DEFINITION

2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Owner" means the Owner or the Owner's authorized representative.

2.1.2 The Owner upon reasonable written request shall furnish to the Contractor in writing information which is necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein at the time of execution of the Agreement and, within five days after any change, information of such change in title, recorded or unrecorded.

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

2.2.1 The Owner shall, at the request of the Contractor, prior to execution of the Agreement and promptly from time to time thereafter, furnish to the Contractor reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. *[Note: Unless such reasonable evidence were furnished on request prior to the execution of the Agreement, the prospective contractor would not be required to execute the Agreement or to commence the Work.]*

2.2.2 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site.

2.2.3 Except for permits and fees which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assess-

ments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

2.2.4 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in orderly progress of the Work.

2.2.5 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, such copies of Drawings and Project Manuals as are reasonably necessary for execution of the Work.

2.2.6 The foregoing are in addition to other duties and responsibilities of the Owner enumerated herein and especially those in respect to Article 6 (Construction by Owner or by Separate Contractors), Article 9 (Payments and Completion) and Article 11 (Insurance and Bonds).

2.3 OWNER'S RIGHT TO STOP THE WORK

2.3.1 If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 12.2 or persistently fails to carry out Work in accordance with the Contract Documents, the Owner, by written order signed personally or by an agent specifically so empowered by the Owner in writing, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Subparagraph 6.1.3.

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

2.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may after such seven-day period give the Contractor a second written notice to correct such deficiencies within a second seven-day period. If the Contractor within such second seven-day period after receipt of such second notice fails to commence and continue to correct any deficiencies, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Architect's additional services and expenses made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3

CONTRACTOR

3.1 DEFINITION

3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's authorized representative.

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner pursuant to Subparagraph 2.2.2 and shall at once report to the Architect errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner or Architect for damage resulting from errors, inconsistencies or omissions in the Contract Documents unless the Contractor recognized such error, inconsistency or omission and knowingly failed to report it to the Architect. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

3.2.2 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Architect at once.

3.2.3 The Contractor shall perform the Work in accordance with the Contract Documents and submittals approved pursuant to Paragraph 3.12.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless Contract Documents give other specific instructions concerning these matters.

3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons performing portions of the Work under a contract with the Contractor.

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

3.3.4 The Contractor shall be responsible for inspection of portions of Work already performed under this Contract to determine that such portions are in proper condition to receive subsequent Work.

3.4 LABOR AND MATERIALS

3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

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

3.5 WARRANTY

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

3.6 TAXES

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

3.7 PERMITS, FEES AND NOTICES

3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required when bids are received or negotiations concluded.

3.7.2 The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities bearing on performance of the Work.

3.7.3 It is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly notify the Architect and Owner in writing, and necessary changes shall be accomplished by appropriate Modification.

3.7.4 If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Architect and Owner, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs.

3.8 ALLOWANCES

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

3.8.2 Unless otherwise provided in the Contract Documents:

- .1 materials and equipment under an allowance shall be selected promptly by the Owner to avoid delay in the Work;
- .2 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

- .3 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum and not in the allowances;
- .4 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Clause 3.8.2.2 and (2) changes in Contractor's costs under Clause 3.8.2.3.

3.9 SUPERINTENDENT

3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

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

3.10.2 The Contractor shall prepare and keep current, for the Architect's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Architect reasonable time to review submittals.

3.10.3 The Contractor shall conform to the most recent schedules.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

3.11.1 The Contractor shall maintain at the site for the Owner one record copy of the Drawings, Specifications, addenda, Change Orders and other Modifications, in good order and marked currently to record changes and selections made during construction, and in addition approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work.

3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

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

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

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

3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for

which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the Architect is subject to the limitations of Subparagraph 4.2.7.

3.12.5 The Contractor shall review, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals made by the Contractor which are not required by the Contract Documents may be returned without action.

3.12.6 The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect. Such Work shall be in accordance with approved submittals.

3.12.7 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

3.12.8 The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and the Architect has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals.

3.12.10 Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents.

3.12.11 When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Architect shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

3.13 USE OF SITE

3.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

3.14 CUTTING AND PATCHING

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

3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the

Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.15 CLEANING UP

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

3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

3.16 ACCESS TO WORK

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

3.17 ROYALTIES AND PATENTS

3.17.1 The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

3.18 INDEMNIFICATION

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

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

3.18.3 The obligations of the Contractor under this Paragraph 3.18 shall not extend to the liability of the Architect, the Archi-

tect's consultants, and agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect, the Architect's consultants, and agents and employees of any of them provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

4.1.1 The Architect is the person lawfully licensed to practice architecture or an entity lawfully practicing architecture identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Architect" means the Architect or the Architect's authorized representative.

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

4.1.3 In case of termination of employment of the Architect, the Owner shall appoint an architect against whom the Contractor makes no reasonable objection and whose status under the Contract Documents shall be that of the former architect.

4.1.4 Disputes arising under Subparagraphs 4.1.2 and 4.1.3 shall be subject to arbitration.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents, and will be the Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the correction period described in Paragraph 12.2. The Architect will advise and consult with the Owner. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with other provisions of the Contract.

4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the completed Work and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check quality or quantity of the Work. On the basis of on-site observations as an architect, the Architect will keep the Owner informed of progress of the Work, and will endeavor to guard the Owner against defects and deficiencies in the Work.

4.2.3 The Architect will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility as provided in Paragraph 3.3. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Con-

tractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

4.2.4 Communications Facilitating Contract Administration. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate through the Architect. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

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

4.2.6 The Architect will have authority to reject Work which does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable for implementation of the intent of the Contract Documents, the Architect will have authority to require additional inspection or testing of the Work in accordance with Subparagraphs 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work.

4.2.7 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Paragraphs 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Paragraph 7.4.

4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion, will receive and forward to the Owner for the Owner's review and records written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.

4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying

out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

4.2.11 The Architect will interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made with reasonable promptness and within any time limits agreed upon. If no agreement is made concerning the time within which interpretations required of the Architect shall be furnished in compliance with this Paragraph 4.2, then delay shall not be recognized on account of failure by the Architect to furnish such interpretations until 15 days after written request is made for them.

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

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

4.3 CLAIMS AND DISPUTES

4.3.1 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be made by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

4.3.2 Decision of Architect. Claims, including those alleging an error or omission by the Architect, shall be referred initially to the Architect for action as provided in Paragraph 4.4. A decision by the Architect, as provided in Subparagraph 4.4.4, shall be required as a condition precedent to arbitration or litigation of a Claim between the Contractor and Owner as to all such matters arising prior to the date final payment is due, regardless of (1) whether such matters relate to execution and progress of the Work or (2) the extent to which the Work has been completed. The decision by the Architect in response to a Claim shall not be a condition precedent to arbitration or litigation in the event (1) the position of Architect is vacant, (2) the Architect has not received evidence or has failed to render a decision within agreed time limits, (3) the Architect has failed to take action required under Subparagraph 4.4.4 within 30 days after the Claim is made, (4) 45 days have passed after the Claim has been referred to the Architect or (5) the Claim relates to a mechanic's lien.

4.3.3 Time Limits on Claims. Claims by either party must be made within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be made by written notice. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner.

4.3.4 Continuing Contract Performance. Pending final resolution of a Claim including arbitration, unless otherwise agreed in writing the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

4.3.5 Waiver of Claims: Final Payment. The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

4.3.6 Claims for Concealed or Unknown Conditions. If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 21 days after the Architect has given notice of the decision. If the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Architect for initial determination, subject to further proceedings pursuant to Paragraph 4.4.

4.3.7 Claims for Additional Cost. If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Paragraph 10.3. If the Contractor believes additional cost is involved for reasons including but not limited to (1) a written interpretation from the Architect, (2) an order by the Owner to stop the Work where the Contractor was not at fault, (3) a written order for a minor change in the Work issued by the Architect, (4) failure of payment by the Owner, (5) termination of the Contract by the Owner, (6) Owner's suspension or (7) other reasonable grounds, Claim shall be filed in accordance with the procedure established herein.

4.3.8 Claims for Additional Time

4.3.8.1 If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

4.3.8.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data

substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled construction.

4.3.9 Injury or Damage to Person or Property. If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, of any of the other party's employees or agents, or of others for whose acts such party is legally liable, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after first observance. The notice shall provide sufficient detail to enable the other party to investigate the matter. If a Claim for additional cost or time related to this Claim is to be asserted, it shall be filed as provided in Subparagraphs 4.3.7 or 4.3.8.

4.4 RESOLUTION OF CLAIMS AND DISPUTES

4.4.1 The Architect will review Claims and take one or more of the following preliminary actions within ten days of receipt of a Claim: (1) request additional supporting data from the claimant, (2) submit a schedule to the parties indicating when the Architect expects to take action, (3) reject the Claim in whole or in part, stating reasons for rejection, (4) recommend approval of the Claim by the other party or (5) suggest a compromise. The Architect may also, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim.

4.4.2 If a Claim has been resolved, the Architect will prepare or obtain appropriate documentation.

4.4.3 If a Claim has not been resolved, the party making the Claim shall, within ten days after the Architect's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by the Architect, (2) modify the initial Claim or (3) notify the Architect that the initial Claim stands.

4.4.4 If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Architect, the Architect will notify the parties in writing that the Architect's decision will be made within seven days, which decision shall be final and binding on the parties but subject to arbitration. Upon expiration of such time period, the Architect will render to the parties the Architect's written decision relative to the Claim, including any change in the Contract Sum or Contract Time or both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

4.5 ARBITRATION

4.5.1 Controversies and Claims Subject to Arbitration. Any controversy or Claim arising out of or related to the Contract, or the breach thereof, shall be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator or arbitrators may be entered in any court having jurisdiction thereof, except controversies or Claims relating to aesthetic effect and except those waived as provided for in Subparagraph 4.3.5. Such controversies or Claims upon which the Architect has given notice and rendered a decision as provided in Subparagraph 4.4.4 shall be subject to arbitration upon written demand of either party. Arbitration may be commenced when 45 days have passed after a Claim has been referred to the Architect as provided in Paragraph 4.3 and no decision has been rendered.

4.5.2 Rules and Notices for Arbitration. Claims between the Owner and Contractor not resolved under Paragraph 4.4 shall, if subject to arbitration under Subparagraph 4.5.1, be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect, unless the parties mutually agree otherwise. Notice of demand for arbitration shall be filed in writing with the other party to the Agreement between the Owner and Contractor and with the American Arbitration Association, and a copy shall be filed with the Architect.

4.5.3 Contract Performance During Arbitration. During arbitration proceedings, the Owner and Contractor shall comply with Subparagraph 4.3.4.

4.5.4 When Arbitration May Be Demanded. Demand for arbitration of any Claim may not be made until the earlier of (1) the date on which the Architect has rendered a final written decision on the Claim, (2) the tenth day after the parties have presented evidence to the Architect or have been given reasonable opportunity to do so, if the Architect has not rendered a final written decision by that date, or (3) any of the five events described in Subparagraph 4.3.2.

4.5.4.1 When a written decision of the Architect states that (1) the decision is final but subject to arbitration and (2) a demand for arbitration of a Claim covered by such decision must be made within 30 days after the date on which the party making the demand receives the final written decision, then failure to demand arbitration within said 30 days' period shall result in the Architect's decision becoming final and binding upon the Owner and Contractor. If the Architect renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence, but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.

4.5.4.2 A demand for arbitration shall be made within the time limits specified in Subparagraphs 4.5.1 and 4.5.4 and Clause 4.5.4.1 as applicable, and in other cases within a reasonable time after the Claim has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations as determined pursuant to Paragraph 13.7.

4.5.5 Limitation on Consolidation or Joinder. No arbitration arising out of or relating to the Contract Documents shall include, by consolidation or joinder or in any other manner, the Architect, the Architect's employees or consultants, except by written consent containing specific reference to the Agreement and signed by the Architect, Owner, Contractor and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the Owner, Contractor, a separate contractor as described in Article 6 and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the Owner, Contractor or a separate contractor as described in Article 6 shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a dispute not described therein or with a person or entity not named or described therein. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

4.5.6 Claims and Timely Assertion of Claims. A party who files a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded. When a party fails to include a Claim through oversight, inadvertence or excusable neglect, or when a Claim has matured or been acquired subsequently, the arbitrator or arbitrators may permit amendment.

4.5.7 Judgment on Final Award. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITIONS

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

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

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect will promptly reply to the Contractor in writing stating whether or not the Owner or the Architect, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Architect to reply promptly shall constitute notice of no reasonable objection.

5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. The Contract Sum shall be increased or decreased by the difference in cost occasioned by such change and an appropriate Change Order shall be issued. However, no increase in the Contract Sum shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

5.2.4 The Contractor shall not change a Subcontractor, person or entity previously selected if the Owner or Architect makes reasonable objection to such change.

5.3 SUBCONTRACTUAL RELATIONS

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

5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

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

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

5.4.2 If the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted.

ARTICLE 6

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

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

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

6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to the construction schedule and Contract Sum deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

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

6.2 MUTUAL RESPONSIBILITY

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

6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

6.2.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

6.2.4 The Contractor shall promptly remedy damage wrongfully caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in Subparagraph 10.2.5.

6.2.5 Claims and other disputes and matters in question between the Contractor and a separate contractor shall be subject to the provisions of Paragraph 4.3 provided the separate contractor has reciprocal obligations.

6.2.6 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Paragraph 3.14.

6.3 OWNER'S RIGHT TO CLEAN UP

6.3.1 If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish as described in Paragraph 3.15, the Owner may clean up and allocate the cost among those responsible as the Architect determines to be just.

ARTICLE 7

CHANGES IN THE WORK

7.1 CHANGES

7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

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

7.2 CHANGE ORDERS

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

- .1 a change in the Work;
- .2 the amount of the adjustment in the Contract Sum, if any; and
- .3 the extent of the adjustment in the Contract Time, if any.

7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Subparagraph 7.3.3.

7.3 CONSTRUCTION CHANGE DIRECTIVES

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

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

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

- .1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 unit prices stated in the Contract Documents or subsequently agreed upon;

.3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

.4 as provided in Subparagraph 7.3.6.

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

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

7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Architect on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Clause 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subparagraph 7.3.6 shall be limited to the following:

- .1 costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' or workmen's compensation insurance;
- .2 costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- .5 additional costs of supervision and field office personnel directly attributable to the change.

7.3.7 Pending final determination of cost to the Owner, amounts not in dispute may be included in Applications for Payment. The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

7.3.8 If the Owner and Contractor do not agree with the adjustment in Contract Time or the method for determining it, the adjustment or the method shall be referred to the Architect for determination.

7.3.9 When the Owner and Contractor agree with the determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

7.4 MINOR CHANGES IN THE WORK

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

ARTICLE 8

TIME

8.1 DEFINITIONS

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

8.1.2 The date of commencement of the Work is the date established in the Agreement. The date shall not be postponed by the failure to act of the Contractor or of persons or entities for whom the Contractor is responsible.

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

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

8.2 PROGRESS AND COMPLETION

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

8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor. The date of commencement of the Work shall not be changed by the effective date of such insurance. Unless the date of commencement is established by a notice to proceed given by the Owner, the Contractor shall notify the Owner in writing not less than five days or other agreed period before commencing the Work to permit the timely filing of mortgages, mechanic's liens and other security interests.

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

8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 If the Contractor is delayed at any time in progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by other causes which the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Paragraph 4.3.

8.3.3 This Paragraph 8.3 does not preclude 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 Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

9.2 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 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 as a basis for reviewing the Contractor's Applications for Payment.

9.3 APPLICATIONS FOR PAYMENT

9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for operations completed in accordance with the schedule of values. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for elsewhere in the Contract Documents.

9.3.1.1 Such applications may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives but not yet included in Change Orders.

9.3.1.2 Such applications may not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

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

9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

9.4 CERTIFICATES FOR PAYMENT

9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the

Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Subparagraph 9.5.1.

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

9.5 DECISIONS TO WITHHOLD CERTIFICATION

9.5.1 The Architect may decide not to certify payment and may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Subparagraph 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Subparagraph 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also decide not to certify payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss 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, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 persistent failure to carry out the Work in accordance with the Contract Documents.

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

9.6 PROGRESS PAYMENTS

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

9.6.2 The Contractor shall 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 portion of the Work, the amount to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of such Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in similar manner.

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

9.6.4 Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law.

9.6.5 Payment to material suppliers shall be treated in a manner similar to that provided in Subparagraphs 9.6.2, 9.6.3 and 9.6.4.

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

9.7 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 the amount certified by the Architect or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, which shall be accomplished as provided in Article 7.

9.8 SUBSTANTIAL COMPLETION

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

9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or desig-

nated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. The Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion. When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work 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 Contractor for their written acceptance of responsibilities assigned to them in such Certificate.

9.8.3 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 PARTIAL OCCUPANCY OR USE

9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Subparagraph 11.3.11 and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Subparagraph 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

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

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

9.10 FINAL COMPLETION AND FINAL PAYMENT

9.10.1 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 the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in said final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be cancelled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims. The making of final payment shall constitute a waiver of claims by the Owner as provided in Subparagraph 4.3.5.

9.10.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment. Such waivers shall be in addition to the waiver described in Subparagraph 4.3.5.

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 performance of the Contract.

10.1.2 In the event the Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and Architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is asbestos or polychlorinated biphenyl (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or polychlorinated biphenyl (PCB), or when it has been rendered harmless, by written agreement of the Owner and Contractor, or in accordance with final determination by the Architect on which arbitration has not been demanded, or by arbitration under Article 4.

10.1.3 The Contractor shall not be required pursuant to Article 7 to perform without consent any Work relating to asbestos or polychlorinated biphenyl (PCB).

10.1.4 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material is asbestos or polychlorinated biphenyl (PCB) and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Owner, anyone directly or indirectly employed by the Owner or anyone for whose acts the Owner may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Subparagraph 10.1.4.

10.2 SAFETY OF PERSONS AND PROPERTY

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

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

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

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

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

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

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

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

10.3 EMERGENCIES

10.3.1 In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Paragraph 4.3 and Article 7.

ARTICLE 11

INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;

- .2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 claims for damages insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;
- .5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and
- .7 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

11.1.3 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverages afforded under the policies will not be cancelled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2. Information concerning reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

11.2 OWNER'S LIABILITY INSURANCE

11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance. Optionally, the Owner may purchase and maintain other insurance for self-protection against claims which may arise from operations under the Contract. The Contractor shall not be responsible for purchasing and maintaining this optional Owner's liability insurance unless specifically required by the Contract Documents.

11.3 PROPERTY INSURANCE

11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire Work at the site on a replacement cost basis without voluntary deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Paragraph 9.10 or until no person or entity

other than the Owner has an insurable interest in the property required by this Paragraph 11.3 to be covered, whichever is earlier. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work.

11.3.1.1 Property insurance shall be on an all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's services and expenses required as a result of such insured loss. Coverage for other perils shall not be required unless otherwise provided in the Contract Documents.

11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of the Contractor, Subcontractors and 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 the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor, then the Owner shall bear all reasonable costs properly attributable thereto.

11.3.1.3 If the property insurance requires minimum deductibles and such deductibles are identified in the Contract Documents, the Contractor shall pay costs not covered because of such deductibles. If the Owner or insurer increases the required minimum deductibles above the amounts so identified or if the Owner elects to purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the additional costs not covered because of such increased or voluntary deductibles. If deductibles are not identified in the Contract Documents, the Owner shall pay costs not covered because of deductibles.

11.3.1.4 Unless otherwise provided in the Contract Documents, this property insurance shall cover portions of the Work stored off the site after written approval of the Owner at the value established in the approval, and also portions of the Work in transit.

11.3.2 **Boiler and Machinery Insurance.** The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

11.3.3 **Loss of Use Insurance.** The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or for 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.

11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, adjoining or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Subparagraph 11.3.7 for damages caused by fire or other perils covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Paragraph 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be cancelled or allowed to expire until at least 30 days' prior written notice has been given to the Contractor.

11.3.7 Waivers of Subrogation. The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this Paragraph 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

11.3.8 A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Subparagraph 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an arbitration award in which case the procedure shall be as provided in Paragraph 4.5. If after such loss no other special agreement is made, replacement of damaged property shall be covered by appropriate Change Order.

11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection be made, arbitrators shall be chosen as provided in Paragraph 4.5. The Owner as fiduciary shall, in that case, make settlement with insurers in accordance with directions of such arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.

11.3.11 Partial occupancy or use in accordance with Paragraph 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

11.4 PERFORMANCE BOND AND PAYMENT BOND

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

11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

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

12.1.2 If a portion of the Work has been covered which the Architect has not specifically requested to observe prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work is not in accordance with the Contract Documents, the Contractor shall pay such costs unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

12.2 CORRECTION OF WORK

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

12.2.2 If, within one year after the date of Substantial Completion of the Work or designated portion thereof, or after the date

for commencement of warranties established under Subparagraph 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. This period of one year shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work. This obligation under this Subparagraph 12.2.2 shall survive acceptance of the Work under the Contract and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

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

12.2.4 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Paragraph 2.4. If the Contractor does not proceed with correction of such nonconforming Work within a reasonable time fixed by written notice from the Architect, the Owner may remove it and store the salvable materials or equipment at the Contractor's expense. If the Contractor does not pay costs of such removal and storage within ten days after written notice, the Owner may upon ten additional days' written notice sell such materials and equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation for the Architect's services and expenses made necessary thereby. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

12.2.5 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.6 Nothing contained in this Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the time period of one year as described in Subparagraph 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3 ACCEPTANCE OF NONCONFORMING WORK

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

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

13.1.1 The Contract shall be governed by the law of the place where the Project is located.

13.2 SUCCESSORS AND ASSIGNS

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

13.3 WRITTEN NOTICE

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

13.4 RIGHTS AND REMEDIES

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

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

13.5 TESTS AND INSPECTIONS

13.5.1 Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so the Architect may observe such procedures. The Owner shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded.

13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Subparagraph 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so the Architect may observe such procedures.

The Owner shall bear such costs except as provided in Subparagraph 13.5.3.

13.5.3 If such procedures for testing, inspection or approval under Subparagraphs 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses.

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

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

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

13.6 INTEREST

13.6.1 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 from time to time at the place where the Project is located.

13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

13.7.1 As between the Owner and Contractor:

- .1 Before Substantial Completion.** As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;
- .2 Between Substantial Completion and Final Certificate for Payment.** As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and
- .3 After Final Certificate for Payment.** As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any warranty provided under Paragraph 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Paragraph 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

ARTICLE 14

TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor, for any of the following reasons:

- .1** Issuance of an order of a court or other public authority having jurisdiction;
- .2** an act of government, such as a declaration of national emergency, making material unavailable;
- .3** because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Subparagraph 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents;
- .4** if repeated suspensions, delays or interruptions by the Owner as described in Paragraph 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less; or
- .5** the Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Subparagraph 2.2.1.

14.1.2 If one of the above reasons exists, the Contractor may, upon seven additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead, profit and damages.

14.1.3 If the Work is stopped for a period of 60 days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Subparagraph 14.1.2.

14.2 TERMINATION BY THE OWNER FOR CAUSE

14.2.1 The Owner may terminate the Contract if the Contractor:

- .1** persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2** fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3** persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or
- .4** otherwise is guilty of substantial breach of a provision of the Contract Documents.

14.2.2 When any of the above reasons exist, the Owner, upon certification by the Architect that sufficient cause exists to jus-

tify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 accept assignment of subcontracts pursuant to Paragraph 5.4; and
- .3 finish the Work by whatever reasonable method the Owner may deem expedient.

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

14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, 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 Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

14.3.2 An adjustment shall be made for increases in the cost of performance of the Contract, including profit on the increased cost of performance, caused by suspension, delay or interruption. No adjustment shall be made to the extent:

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

14.3.3 Adjustments made in the cost of performance may have a mutually agreed fixed or percentage fee.

1. GENERAL:

1-01. AIA GENERAL CONDITIONS:

- A. The General Conditions of the Contract for Construction, Standard Form of the American Institute of Architects, Documents No. A-201, 1987 Edition, Articles 1 through 14 inclusive, accompanying the Specifications are hereby made a part of the Contract. The Contractor and each Subcontractor shall inform himself fully regarding these General Conditions, as unfamiliarity with them shall not relieve any Contractor from requirements contained therein.
- B. If any Article of the "AIA General Conditions", identified in Subparagraph A, above, is supplemented by these Supplementary General Conditions, the provisions of that Article, as supplemented shall remain in effect, unless otherwise modified or deleted by these Supplementary General Conditions.

2. SUPPLEMENTS TO THE GENERAL CONDITIONS:

2-01. ARTICLE 1 - CONTRACT DOCUMENTS:

- A. Paragraph 1.1.1 of Item 1.1 - The contract documents: Add the following sentence:

The Contract Documents shall include the Advertisement for Bids, the Instructions to Bidders, sample forms and all Addenda pertaining to these.
- B. Paragraph 1.3.1 of Item 1.3 - Ownership and Use of Documents: Delete this paragraph and insert the following:

1.3.1. All Drawings, Specifications and copies thereof furnished by the Architect are and shall remain the property of the Owner, pursuant to Education Code Section 17316. They are to be used only with respect to this Project and are not to be used on any other project. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication, in derogation of the Architect's common law copyright or other reserved rights.

2-02. ARTICLE 1 - CONTRACT DOCUMENTS:

- A. Item 1.2 - Execution, Correlation and Intent: Add the following paragraph:

1.2.6. The Contractor shall keep on the work a copy of the drawings and specifications and shall at all times give the Architect access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown on mentioned in both. In case of difference between drawings and specification, the specifications shall govern.
- 1.2.7 In case of difference between small- and large-scale drawings, the large-scale drawings shall govern. Schedules on any contract drawing shall take precedence over conflicting information on that or any other contract drawing. On any of the drawings where a portion of the work is detailed or drawn out and the remainder is shown in outline, the parts detailed or drawn out shall apply also to all other like portions of the work.
- 1.2.8 Where the word "similar" appears on the drawings, it shall have a general meaning and not be interpreted as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.

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- 1.2.9 In case of discrepancy either in the figures, in the drawings, or in the specification, the matter shall be promptly submitted to the Architect, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at his own risk and expense. The Architect shall furnish from time to time such detail drawings and other information as he may consider necessary, unless otherwise provided.
- 2-03. **ARTICLE 2 - OWNER:**
- A. Item 2.2 - Information and Services Required of the Owner: Add the following paragraph:
- 2.2.7. **JOB INSPECTION:** The Owner will employ an Inspector on this project approved by the Architect, Structural Engineer and the Division of the State Architect in accordance with Title 24. He will represent the Owner and Architect and act as coordinator with the Contractor. No work shall be prosecuted in his absence.
- B. Item 2.2 - Information and Services Required of the Owner: Add the following paragraph:
- 2.2.8. **JOB PLANS AND SPECIFICATIONS:** The Inspector must have and keep in good condition at all times during the construction period, a complete set of stamped plans per Title 24, Part 1, specifications, addenda, and change orders, together with all codes and documents including Title 24, Parts 1 thru 5 but not limited to; which are referred to in the specifications and made a part thereof.
- 2-04. **ARTICLE 3 - CONTRACTOR:**
- A. Item 3.3 - Supervision and Construction Procedures: Add the following paragraph:
- 3.3.5. **LAYING OUT OF WORK:** The Contractor, immediately upon entering project site for the purpose of beginning work, shall locate all general reference points and take such actions as are necessary to prevent their destruction; lay out his work, be responsible for all lines, elevations, and measurements of buildings, grading, utilities, and other work executed by him under this contract. He shall exercise precaution to verify figures shown on the drawings before laying out work and will be held responsible for any error resulting from his failure to exercise such precaution.
- Dimensions of existing work shall be verified in the field by the Contractor.
- B. Item 3.4 - Labor and Materials: Add the following paragraph:
- 3.4.3 The Contractor acknowledges that he is aware of and understands his obligations under California Labor Code Section 1720 - 1776, regarding payment of the generally prevailing wage rates, and 1777.5 - 1777.7, regarding employment of registered apprentices on public works, which are hereby incorporated herein by reference and made a part hereof.
- C. Item 3.4 - Labor and Materials: Add the following paragraph:
- 3.4.4. Contracts for work under this proposal will obligate the Contractor and Subcontractors not to discriminate in employment practices. The successful bidder must, if requested, submit a list of all Subcontractors who will perform work on the project and written, signed statements from authorized agents of the labor pools with which they will or may deal for employees on the work, together with supporting information to the effect that said labor pools practices and policies are in conformity with Executive Order Number 11246, and that said labor pools will affirmatively cooperate in or offer no hindrance to the recruitment, employment, and equal treatment of employees seeking employment and performing work under the Contractor or certification as to what efforts have been made to secure such statements when such agents or labor pools have filed or refused to furnish same prior to the award of the Contract.

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D. Item 3.4 - Labor and Materials: Add the following paragraph:

3.4.5. HOURS OF WORK: A legal day's work shall constitute not over, and at least eight (8) hours of work in one calendar day, in accordance with the provisions of the Labor Code of California, Articles 1 and 3 of Chapter 1, Part 7, Division II, which are hereby incorporated by reference and made a part hereof. Penalties for violation shall be set forth therein.

E. Item 3.5 - Warranty: Add the following paragraph:

3.5.2. GUARANTEE: Besides special guarantees required elsewhere, the Contractor shall guarantee the work in general for one (1) year from the date of acceptance of the work by the Owner. The General Contractor shall execute and have each of his subcontractors execute two (2) copies of the guarantee and submit to the Architect prior to completion and filing the Notice of Substantial Completion.

F. Item 3.7 - Permits, Fees and Notices: Add the following paragraph:

3.7.5. The Contractor is required to obtain building permits: however, there is no charge for the permits.

G. Item 3.7 - Permits, Fees and Notices: Add the following paragraph:

3.7.6. PROGRESS REPORTS: In accordance with the Title 24, Part 1, California Code of Regulations, the Contractor is required to submit verified progress reports to the Division of the State Architect (on prescribed form) stating that this project is in conformity with duly approved drawings and specifications and give detailed statements of fact as shall be required. Send one (1) copy of each report to the Architect.

2-05. ARTICLE 4 – ADMINISTRATION OF THE CONTRACT

A. Item 4.3.3. – Time Limits on Claims: Revise to read as follows: Claims by either party must be made within 5 days after occurrence of the event giving rise to such Claim.. Claims must be made by written notice. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in 5 days.

2-05 ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY:

A. Item 10.2 - Safety of Persons and Property: Add the following paragraph:

10.2.8. In accordance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.

B. Item 10.2 - Safety of Persons and Property: Add the following paragraph:

10.2.9. The duty of the Architect or Engineers to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

C. Item 10.3 - Emergencies: Add the following paragraph:

10.3.2. In case of extreme emergency which would include danger to human life or the structure, the Owner, Contractor and Architect, or their authorized representatives,

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have the authority to "stop the work" of this project until such "danger" has been eliminated and that no further danger exists. Otherwise, any stoppage of the work will be in accordance with Article 3.3.1 of the General Conditions.

2-06. ARTICLE 11 - INSURANCE AND BONDS:

A. Delete all of the text of Article 11 of the "A.I.A. General Conditions" and insert the following:

Item 11.1 – General:

11.1.1 Contractor, at its expense, shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

11.2 – *Minimum Scope of Insurance*

11.2.1 Coverage shall be at least as broad as:

1. Commercial General Liability on an occurrence form (no sunset clauses). Liability deductible or Self-Insured Retention not to exceed \$5,000. Claims Made or Modified Occurrence Liability coverage will not be accepted. Coverage shall be at least as broad as ISO form CG0001.
2. Umbrella/Excess Liability
3. Automobile Liability including owned, non-owned, and hired automobiles.
4. Worker's Compensation insurance as required by the State of California and Employer's Liability Insurance.
5. Builder's Risk (Course of Construction). Deductible not to exceed \$2,500.
6. Performance and Payment Bonds.

Item 11.3 – *Minimum Limits of Insurance*

11.3.1 Contractor shall maintain limits no less than:

1. General Liability:	\$2,000,000	General Aggregate (Per Project)
	\$2,000,000	Products/Completed Operations Aggregate
	\$1,000,000	Personal & Advertising Injury
	\$1,000,000	Each Occurrence
2. Umbrella/Excess Liability:	\$3,000,000	Aggregate
	\$1,000,000	Each Occurrence
3. Automobile Liability:	\$1,000,000	Per Accident for Bodily Injury and Property Damage
4. Worker's Compensation:	As required by the State of California	
5. Employer's Liability:	\$1,000,000	Per Accident for Bodily Injury or Disease
6. Builder's Risk:	Completed Value of the Project with no Coinsurance Penalty	

Item 11.4 – *Insurance Provisions*

11.4.1 The general liability policy is to contain, or be endorsed to contain, the following provisions:

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1. **Additional Insured:** The **Owner**, its elected or appointed officials, employees, Agents and volunteers are to be covered as Additional Insured's (utilizing Form CG2010 11/85 edition or an acceptable equivalent) by an endorsement To the general liability policy. A CG2010 11/85 acceptable equivalent is an Additional insured endorsement that includes the named insured's "ongoing" Operations and completed operations.
2. **Primary Insurance:** For any claims related to this project, the Contractor's Insurance coverage shall be primary insurance as respects the **Owner**, its Elected or appointed officials, employees, agents and volunteers. Any Insurance or self-insurance maintained by the **Owner**, its elected or appointed Officials, employees, agents and volunteers shall be excess of the Contractor's Insurance and shall not contribute with it.
3. **Cancellation Provision:** Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) day's prior written notice has been provided to the **Owner**.

11.4.2 – *Waiver of Subrogation*

The Contractor's General Liability and Worker's Compensation insurance policies shall provide a Waiver of Subrogation in favor of the **Owner**.

11.4.3 – *Builders Risk (Course of Construction) Insurance*

Contractor shall procure and maintain Builder's Risk insurance (all-risk, special form with valuation on a replacement cost basis) on a one hundred percent completed value of the project for the benefit of the **Owner**, and the Contractor and Subcontractor, as their interest may appear. The policy shall contain a clause which provides coverage until the building is accepted by the **Owner**. If the Builder's Risk policy contains an occupancy provision, permission for early occupancy must be obtained from the insurance company. The Policy should include debris removal, collapse, theft, and transit coverage with no coinsurance penalty provisions. The Builder's Risk Policy is primary and no insurance held or owned by the **Owner** shall be called upon to contribute to a loss. The **Owner** will not be responsible for loss of Contractor tools or machinery.

11.4.4 - *Worker's Compensation*

Before the Contract is entered into, the Bidder to whom it is awarded shall furnish to the **Owner** satisfactory proof that he and all Subcontractors he intends to employ have taken out, for the period covered by the proposed Contract, full compensation insurance and Employer's Liability with limits of at least \$1,000,000 with an insurance carrier satisfactory to the Owner for all persons whom they may employ in carrying out the work contemplated under this Contract in accordance with the Act of the Legislature of the State of California, known as the "Workers' Compensation Insurance and Safety Act" approved May 26, 1913, and all Acts amendatory or supplemental thereto. Such insurance shall be maintained in full force and effect during the period covered by the Contract. In the event the Contractor is self-insured, he shall furnish a Certificate of Permission to Self-Insure, signed by the Department of Industrial Relations Administration of Self-Insurance, Sacramento, California.

If the Contractor fails to maintain such insurance, the **Owner** may take out compensation insurance to cover any compensation which the **Owner** might be liable to pay under the provisions of said Act as amended, by reason of any employee of the Contractor being injured or killed, and deduct and retain the amount of the premiums for such insurance from any sums due the Contractor under the Contract.

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If an injury occurs to any employee of the Contractor for which the employee, or the employee's dependents in the event of the employee's death, is entitled to compensation from the **Owner** under the provisions of said Act as amended, or for which compensation is claimed from the **Owner**, the **Owner** may retain out of the sums due the Contractor under this Contract, an amount sufficient to cover such compensation, as fixed by said Act as amended, until such compensation is paid, or until it is determined that no compensation is due, and if the **Owner** is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid.

The policies represented by the certificates must contain the provision (and the certificates must so state) that the insurance cannot be cancelled until thirty (30) days after written notice of intended revocation has been given to the Owner by Certified Mail.

11.4.5 – Indemnity

Contractor shall indemnify, hold harmless and defend **Owner** and its elected or appointed officials, agents and employees from and against all claims, damages, losses and expenses, including reasonable costs and attorney's fees, arising out of or resulting from Contractor's performance of the Work, or work performed by Contractor's agents or employees, or subcontractors employed on the project, their agents or employees, or products installed on the project by Contractor or subcontractors, excepting only such injury or harm as may be caused solely and exclusively by **Owner's** fault or negligence. Such indemnification shall extend to all claims, demands, or liabilities occurring after completion of the project as well as during the progress of work.

11.4.6 – Acceptability of Insurers

All required insurance must be written by an admitted company licensed to do business in the State of California at the time the policy is issued. All required insurance as set forth in this Contract shall be underwritten by a company with a balance sheet strength, operating performance and business profile that are equal to or exceed an A VIII rating as listed in the A.M. Best Insurance Guide's latest edition. On a case-by-case basis, the **Owner** may accept insurance written on a company listed on the State of California Department of Insurance List of Eligible Surplus Lines ("LESLI List") with a rating of A VIII or above as listed in Best's Insurance Guide's latest edition. Exception may be made for Workers' Compensation Insurance provided by the State Compensation Insurance Fund when not specifically rated.

11.4.7 – Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance meeting all of the requirements stated herein, with the exception of Umbrella/Excess Liability Insurance, Builders' Risk Insurance, and Performance/Payment Bonds.

11.4.8 – Proof of Insurance

Contractor shall furnish the **Owner** with original certificates and amendatory endorsements effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the **Owner** before work commences. However, failure to do so shall not operate as a waiver of these insurance requirements. If the Contractor fails to maintain such insurance as specified by this Contract, the **Owner** may take out such insurance to cover any damages of the above mentioned classes for which the District might be held liable on account of the Contractor's failure to pay such damages, and deduct and retain the amount of the premium from any sums due the Contractor under the Contract.

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The Owner reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

Mail all certificates and endorsements to:

Fall River Joint Unified School District
Attn: Chief Business Official
20375 Tamarack Avenue
Burney, CA 96013

Item 11.5 – Performance Bond & Payment Bond

Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum. The surety must be an admitted surety insurer in the State of California. These bonds shall be maintained for the life of the Contract and one year after the date of filing the Notice of Completion.

The Contractor shall deliver the required bonds to the **Owner** not later than ten days following the date the Agreement is entered into. If the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to commencement of Work, submit evidence satisfactory to the **Owner** that such bonds will be furnished.

The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney, and to have the signature acknowledged by a notary public.

Item 11.6 - Safety

In accordance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the Work. The duty of the Architect or Engineers to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

2-07. ARTICLE 13 - MISCELLANEOUS PROVISIONS:

- A. Paragraph 13.1.1. of Item 13.1 - Governing Law: Add the following sentence:

The Contract shall be governed by codes and standards as outlined under Section 01 42 00 of the specifications.

2-08. ARTICLE 14 - TERMINATION OF THE CONTRACT:

- A. Item 14.2 - Termination by the Owner: Add the following paragraph:

14.2.5. 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 Owner shall be certified by the Architect, upon application, and in the manner provided in Paragraph 9.4, and the obligation for payment shall survive the termination of the remainder of the Contract.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Project consists of construction of the Window Replacement at Burney Elementary School as indicated in Contract Documents.

1.2 REQUIREMENTS INCLUDED

- A. This section includes administrative provisions:
 - 1. Work sequence.
 - 2. Contractor use of premises.
 - 3. Regulatory requirements and reference standards.
 - 4. Owner furnished, Contractor installed products.

1.3 WORK SEQUENCE

- A. Coordinate construction schedule and operations with Owner.
- B. Construct the Work in a manner to provide for public convenience. Do not close off public use of facilities.

1.4 CONTRACTOR USE OF PREMISES

- A. Coordinate use of premises and access to site under direction of Owner.
- B. Use of school sites:
 - 1. Access to Site: Burney Elementary School: Toronto Street, Burney, CA.
 - 2. Construction Operations: Limited to areas noted on Drawings and coordinated with Administration.
 - 3. Time Restrictions for Performing Interior and Exterior Work: None
 - 4. Utility Outages and Shutdown: Approved by school administration. Provide minimum 48 hours notice of proposed shutdowns

1.5 REGULATORY REQUIREMENTS AND REFERENCE STANDARDS

- A. Regulatory Requirements:
 - 1. None.
- B. Reference Standards:
 - 1. For Products specified by association or trade standards, comply with requirements of referenced standard, except when more rigid requirements are specified or are required by applicable codes.
 - 2. Applicable date of each standard is that in effect as of date on proposal or date on Contract where no proposal is available, except when a specific date is specified.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.

1.2 DEFINITIONS

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

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. Unit Price No. 1:
 - 1. Description: Remove and replace existing top 3" of existing asphalt paving, re-compaction of existing base materials and replace with new 3" asphalt paving.
 - 2. Unit of Measure: One square foot.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Documentation of Change in Contract Sum/Price and Contract Time.
- B. Change Procedures.
- C. Construction Change Authorization.
- D. Stipulated Price Change Order.
- E. Unit Price Change Order.
- F. Time and Material Change Order.
- G. Execution of Change Orders.
- H. DSA Approval of Changes - Construction Change Documents (CCD)
- I. Correlation of Contractor Submittals.

1.2 DOCUMENTATION OF CHANGE IN CONTRACT SUM/PRICE AND CONTRACT TIME

- A. Maintain detailed records of work done on a time and material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in the Work.
- B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
- C. On request, provide additional data to support computations:
 - 1. Quantities of products, labor, and equipment.
 - 2. Taxes, insurance and bonds.
 - 3. Overhead and profit.
 - 4. Justification for any change in Contract Time.
 - 5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a time and material basis, with additional information:
 - 1. Origin and date of claim.
 - 2. Dates and times work was performed, and by whom.
 - 3. Time records and wage rates paid.
 - 4. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

1.3 CHANGE PROCEDURES

- A. The Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by AIA A201 by issuing supplemental instructions on AIA Form G710.
- B. The Architect may issue a Change Order Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required

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CONTRACT MODIFICATION PROCEDURES**

and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate.

- C. The Contractor may propose a change by submitting a request for change to the Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 62 00.

1.4 STIPULATED SUM PRICE CHANGE ORDER

- A. Based on Change Order Request and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Architect.

1.5 UNIT PRICE CHANGE ORDER

- A. For pre determined unit prices and quantities; the Change Order will be executed on a fixed unit price basis.
- B. For unit costs or quantities of units of work that are not pre determined, execute Work under a Construction Change Authorization.
- C. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

1.6 TIME AND MATERIAL CHANGE ORDER

- A. Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- B. Architect will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- C. Maintain detailed records of work done on Time and Material basis.
- D. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

1.7 EXECUTION OF CHANGE ORDERS

- A. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- B. All Change Orders shall be approved by the Owner, Architect, Contractor.

1.9 CHANGE ORDER BREAKDOWN/MARKUPS

- A. The Contractor's written response to all change order requests (CORs) shall be formatted with an itemized breakdown of all increases or decreases in the cost of the Contractor's and all Subcontractor's work, in at least the following detail:
 - 1. Material quantities and unit cost.
 - 2. Labor costs (identified with specific item of material to be placed or operation to be performed).
 - 3. Construction equipment.

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- 4. Workmen's Compensation and Public Liability Insurance.
- 5. Overhead.
- 6. Profit.
- 7. Taxes.

B. The mark-up on work subcontracted by a Subcontractor will be limited to one overhead percentage and one profit percentage in addition to the Prime Contractor's coordination percentage. On proposals covering both increases and decreases in the amount of the contract, the overhead, profit and, where applicable, coordination amount, will be computed on the net change only. On proposals for decreases in the amount of the contract the overhead, profit, and where applicable, coordination will be part of the decrease in direct cost.

1. Change Orders of \$0 - \$5,000:

	<u>OVERHEAD</u>	<u>PROFIT</u>	<u>COORDINATION</u>
To Contractor on work performed by other than his own forces -	--	--	15%
To Contractor and/or the subcontractors for that portion of the work performed with their respective forces -	15%	5%	--

2. Change Orders of \$5,001- \$30,000:

	<u>OVERHEAD</u>	<u>PROFIT</u>	<u>COORDINATION</u>
To Contractor on work performed by other than his own forces -	--	--	13%
To Contractor and/or the subcontractors for that portion of the work performed with their respective forces -	12%	5%	--

3. Change Orders of \$30,001 or more:

	<u>OVERHEAD</u>	<u>PROFIT</u>	<u>COORDINATION</u>
To Contractor on work performed by other than his own forces -	--	--	10%
To Contractor and/or the subcontractors for that portion of the work performed with their respective forces -	10%	5%	--

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section covers general requirements for Contractor's Requests for Interpretation (RFIs).

1.2 CONTRACTORS REQUESTS FOR INTERPRETATION

- A. Submit a Request for Interpretation to the Architect when:
1. An unforeseen condition or constructability question occurs.
 2. Questions regarding information in the Contract Documents arise.
 3. Information not found in the Contract Documents is required.
- B. When possible, request such clarification in writing at the next scheduled Project meeting. When the RFI is answered at the Project meeting, number the RFI and enter the response into the meeting minutes.
1. When the urgency of the need, or the complexity of the item makes clarification at the next scheduled Project meeting impractical, prepare and submit a formal written RFI to the Architect without delay.
- C. Submit RFIs within a reasonable time frame so as not to interfere with or impede the progress of the work. Keep the number of RFIs to a minimum. When the number and frequency of RFIs submitted becomes unwieldy, the Architect may require the Contractor to abandon the process and submit requests as either submittals, substitutions, or requests for change.
1. When an answer to an RFI has an effect on cost or time, notify the Architect and Owner in accordance with the Contract Documents at the time of submittal. Notification shall occur prior to commencing such work, so that the change order process can be initiated.
 2. At the time of submitting an RFI, alert the Architect to the time available before the response will cause an impact to the Project.
- D. Submit the RFI through Alliance2Build® Project Collaboration System:
1. Submit an electronic Request for Interpretation by logging into Alliance system and selecting the link "Submit RFI" on the Project Home Page. The next consecutive number will be assigned automatically. Fill in the text boxes with the following information:
 - a. Reference such as Drawing numbers, Detail references or specification numbers, as appropriate.
 - b. Subject of RFI in a concise form describing the nature of the problem
 - c. Importance factor with four available options: Urgent, High, Medium and Low
 - d. Clear, concise explanation of information or clarification requested.
 - e. Contractor's Suggested Resolution for the described request, if appropriate.
 - f. Attach files, drawing references, sketches, images, any types of electronic information that pertain to the request.
- E. Allow a minimum of 3 working days for review and response time; the response time will be increased if inadequate information is provided, when the RFI is submitted out-of-sequence, or if in the opinion of the Architect, more time is needed to answer the RFI.

1.3 QUALITY ASSURANCE

- A. Carefully study the Contract Documents to assure that the requested information is not available therein. RFIs requesting information available in the Contract Documents may not be answered by the Architect.
- B. In all cases where an RFI is issued to request clarification of coordination issues, for example, pipe and duct routing, clearances, specific locations of work shown diagrammatically, and similar

SECTION 01 26 13
REQUESTS FOR INTERPRETATION

items, the Contractor shall fully lay-out a suggested solution using drawings or sketches drawing to scale and submit same with the RFI. An RFI which fails to include a suggested solution will not be answered.

- C. Do not use RFI for the following purposes:
 - 1. To request approval of submittals.
 - 2. To request approval of substitutions.
 - 3. To request changes to the Contract Documents to confirm action taken by the Contractor for requested changes/substitutions to the Contract Documents.

- D. If the Contractor believes that a clarification by the Architect may result in a change in Contract price, the contractor shall not proceed with the work indicated by the RFI until a change order or other acceptable tracking device is prepared and approved by the Owner.
 - 1. If the Contractor believes that a clarification by the Architect results in additional cost, the Contractor shall identify in the RFI the basis of the Contractor's bid as it relates to the RFI.
 - 2. Answered RFIs shall not be construed as an approval to perform extra work.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Procedures for preparation and submittal of Applications for Payment

1.2 SCHEDULE OF VALUES

- A. Submit typed schedule on AIA Form G703 or another Owner and Architect pre-approved 8-1/2" by 11" paper format; Contractor's standard media-driven printout will be considered on request. Submit within 15 days after award of Contract.
- B. Format: Table of Contents of this Project Manual, with modifications as pre-approved by Owner and Architect; identify each line item with number and title of major Specification sections.
- C. Include in each line item a directly proportional amount of Contractor overhead and profit.
- D. Revise schedule to list change orders for each Application for Payment.

1.3 FORMAT

- A. AIA G702 Application and Certificate for Payment: Application for Payment including continuation sheets when required.
- B. For each item, provide a column for listing: Item Number; Description of work; Scheduled Value, Previous Applications: Work in Place and Stored Materials under this Application: Authorized Change Orders; Total Completed and Stored to Date of Application; Percentage of Completion; Balance to Finish; and Retainage.
- C. Prior to submitting the first application for payment submit a schedule of values, per paragraph 1.2 of this section.
- D. Provide spaces for signatures of the following:
 - 1. Contractor
 - 2. Architect
 - 3. Project Inspector
 - 4. Owner

1.4 PREPARATION OF APPLICATIONS

- A. Present required information in typewritten form.
- B. Execute certification by signature of authorized officer.
- C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Certificates for payment as recommended by the Architect or the Owner shall include a 10% retention that will be held by the Owner until such a time as outlined in Section 01 77 00.

**SECTION 01 29 00
PAYMENT PROCEDURES**

F. Prepare Application for Final Payment as specified in Section 01 77 00.

1.5 PAYMENT APPLICATION SUBMITTAL PROCEDURES

- A. Review Pay Application with Project Inspector prior to submitting to Architect.
- B. Submit three copies of each Application for Payment or submit through Alliance2Build .
- C. Submit an updated construction schedule with each Application for Payment.
- D. Payment Period: Monthly.

1.6 SUBSTANTIATING DATA

- A. When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question.
- B. Provide one copy of data with cover letter for each copy of submittal. Show Application number and date, and line item by number and description.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
1. General Submittal Procedures
 2. Electronic Submittal Procedures
 3. Physical Submittal Procedure
 4. Contractor Responsibilities
 5. Product Data
 6. Shop Drawings
 7. Samples
 8. Manufacturer's Instructions
 9. Manufacturers' certificates.
 10. Agency deferred approvals.

1.2 DESCRIPTION

- A. Types of Submittals: Submittal procedures specified in this section include construction progress schedules, shop drawings, product data, samples, manufacturers' certificates, manufacturer's installation instructions, and agency deferred approvals.
- B. Intent: Architect's review of shop drawings is intended to be a preview of what the Contractor intends to provide, and will function as an effort to foresee unacceptable materials or assemblies and to avoid the possibility of their rejection at the Project Site. Architect will review submittals only for conformance with the design concept of the Project and with the information given in the Contract Documents.
- C. The Architect's review of shop drawings will be general and shall not be construed:
1. As permitting departure from the Contract requirements except as otherwise provided for under "substitution" provisions of Section 01 62 00;
 2. As relieving Contractor of responsibility for omissions or errors, including details, dimensions, materials, etc.;
 3. That review of a separate item indicates acceptance of an assembly in which the item functions. Architect will only review acceptance of an assembly in which the item functions. Architect will only review submittals required by Contract Documents for conformance with design concept of the Project and with the information given in the Contract Documents.

1.3 GENERAL SUBMITTAL PROCEDURES

- A. All submittals shall be made electronically through the Alliance2Build. Only Samples for verification should be submitted physically.
- B. Transmit each Sample submittal with AIA Form G810 or other Architect-accepted form.
- C. Sequentially number the submittals and transmittal forms as shown in each section requiring submittals with the project manual section number from which the submittal is being requested followed by the alphabetic suffix. (I.E. 01 33 00A) Resubmittals are to have original number followed by an underscore and an additional numerical suffix beginning with '1' and then consecutively thereafter with each resubmittal. (I.E. 01 33 00A_1)

**SECTION 01 33 00
SUBMITTAL PROCEDURES**

- D. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.
 - E. Apply Contractor's stamp and signature or initial (electronically or physically) certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
 - F. Unless otherwise authorized by the Architect, all of the submittals required by a specification section shall be submitted together at the same time. Electronic submittals of product data, shop drawings, etc. may be submitted ahead of physical color samples with approval of the Architect. Submittals that do not include all required submittals for a given specification section will be returned without review.
 - G. Schedule submittals to expedite the Project, and deliver Samples to architect at business address. Coordinate submission of related items.
 - H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
 - I. Substitutions must be submitted according to Section 01 62 00. Substitutions submitted without following this procedure will be rejected.
 - J. Provide space for Contractor and Architect review stamps.
 - K. Revise and resubmit submittals as required, identify all changes made since previous submittal.
 - L. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.
- 1.4 ELECTRONIC SUBMITTAL PROCEDURES
- A. All submittals shall be submitted electronically.
 - B. Submittals shall be uploaded to Alliance System in full size PDF format. Do not reduce Shop Drawings from original sheet size.
 - C. One PDF copy of electronic submittals will be returned to the Contractor. Contractor may distribute submittals to the concerned parties electronically or physically. Any printing costs for physical distribution of submittals shall be borne by the Contractor. The Architect will not print copies for distribution.
 - D. Follow all General Submittal Procedures as described above.
- 1.5 CONTRACTOR RESPONSIBILITIES
- A. Review shop drawings, product data and samples prior to submission.
 - B. Determine and verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with specifications.
 - 5. Conformance with applicable codes.
 - C. Submittals giving inadequate indication of contractor review and approval will be returned without review, for resubmission.

**SECTION 01 33 00
SUBMITTAL PROCEDURES**

- D. Coordinate each submittal with requirements of the Work and of the Contract Documents.
 - E. Notify the Architect in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.
 - F. Begin no fabrication or construction activity that requires submittals until return of submittals with Architect's stamp and initials or signature indicating finish review.
 - G. After Architect's final review, distribute copies.
- 1.6 PRODUCT DATA
- A. Submit all product data electronically.
 - B. Mark the submittal to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
 - C. After review, distribute in accordance with Submittal Procedures and provide copies for Record Documents as described in Section 01 77 00.
 - D. Show dimensions and clearances required.
- 1.7 SHOP DRAWINGS
- A. Submit all shop drawings electronically.
 - B. The intent is for this to be a coordinated shop drawing reflecting, with only minor modifications, an as built document. This document shall be updated and submitted as a record document per Section 01 77 00.
- 1.8 SAMPLES
- A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Provide units identical with final condition of proposed materials or products for the work. Coordinate sample submittals for interfacing work.
 - B. Submit samples of finishes from the full range of manufacturers' standard colors textures, and patterns for Architect's selection.
 - C. Include identification on each sample, with full Project information.
 - D. Submit the number or samples specified in individual specification Sections; four of which will be retained by Architect.
 - E. Reviewed samples which may be used in the Work are indicated in individual specification Sections.
- 1.9 MANUFACTURER'S INSTRUCTIONS
- A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
 - B. Identify conflicts between manufacturers' instructions and Contract Documents.

**SECTION 01 33 00
SUBMITTAL PROCEDURES**

1.10 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturers' certificate to Architect for review, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect.

1.11 ACTION ON SUBMITTALS

- A. Architect's Action: Architect will review each submittal, mark with "Action" and where possible, return within a reasonable period of time from date of receipt. Where submittal must be held for coordination, Contractor will be so advised without delay. Action markings shall be interpreted as follows:

- 1. No Exceptions Noted (NEN): Work may proceed, provided it complies with Contract Documents.
- 2. Furnish As Corrected (FAC): Work may proceed, provided it complies with notations and corrections indicated on submittal and with Contract Documents.
- 3. Revise And Resubmit (RAR): Do not proceed with work. Revise submittal in accordance with notations thereon, and resubmit without delay to obtain a different action marking.
- 4. Submit Additional Material (SAM): Do not proceed with work. Resubmit submittal with additional material as requested without delay to obtain a different action marking.
- 5. REjected (REJ): Do not proceed with work. Revise submittal in accordance with notations thereon, and resubmit without delay to obtain a different action marking.
- 6. See Summary Sheet (SSS): Refer to summary sheet attached to submittal for direction.
- 7. Reviewed By Consultant (RBC): Submittal has been reviewed by the Architect's consultant. Refer to consultant submittal stamp for direction.

- B. Sample Architect's Action Stamp:


**SECTION 01 33 00
SUBMITTAL PROCEDURES**

Submittal Number: _____

No Exceptions Noted REjected
 Furnish As Corrected See Summary Sheet
 Revise And Resubmit Reviewed By Consultant
 Submit Additional Material

Notes and/or comments made on shop drawings during this review do not relieve Contractor from compliance with requirements of the Contract Documents. This review has been performed by the Architect to check general conformance with the design concept of the project and general compliance with the information in the Contract Documents. Review of a specific item shall not include review of an assembly of which said item is a component. Contractor is responsible for confirming and correlating quantities and dimensions; selecting fabrication processes and construction techniques; coordinating his/her work with that of other trades and performing his/her work in a safe and satisfactory manner. This review shall not be interpreted as an approval of Contractor's means and methods of construction.

NICHOLS, MELBURG & ROSSETTO
300 Knollcrest Drive Redding, CA 96002

 By _____ Date: _____

PART 2 - PART 2 PRODUCTS (NOT USED)

PART 3 - PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes general quality control requirements.
 - 1. General quality control.
 - 2. Manufacturers' field services.

1.2 QUALITY CONTROL, GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.3 MANUFACTURER'S FIELD SERVICES

- A. When specified in respective Specification sections, require manufacturer or supplier to have qualified personnel provide on-site observations and recommendations.
 - 1. Observe field conditions, including conditions of surfaces and installation.
 - 2. Observe quality of workmanship.
 - 3. Provide recommendations to assure acceptable installation and workmanship.
 - 4. Where required, start, test, and adjust equipment as applicable.
- B. Representative shall submit written report to Architect or Owner listing observations and recommendations.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Definitions.
- B. Schedule of references.
- C. Schedule of governing codes.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents unless specifically noted.
- C. Obtain copies of standards when required by Contract Documents directly from publication source.

- D. Maintain copy at jobsite during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- F. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.
- G. Schedule of references is general in nature; disregard any reference standard listed that is not applicable to this project.

1.4 STANDARDS AND REGULATIONS

- A. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list.

- 1. ADA Americans with Disabilities Act (ADA)
- 2. ABA Architectural Barriers Act (ABA)
- 3. CFR Code of Federal Regulations
- 4. CRD Handbook for Concrete and Cement
- 5. DOD Department of Defense Military Specifications and Standards
- 6. DSCC Defense Supply Center Columbus (See FS)
- 7. FED-STD Federal Standard (See FS)
- 8. FS Federal Specification
- 9. FTMS Federal Test Method Standard (See FS)
- 10. ICC-ES ICC Evaluation Service, Inc.
- 11. MIL (See MILSPEC)
- 12. MIL-STD (See MILSPEC)
- 13. MILSPEC Military Specification and Standards
- 14. NES National Evaluation Service (See ICC-ES)
- 15. UFAS Uniform Federal Accessibility Standards

- B. Schedule of Governing Codes:

- 1. California Code of Regulations (C.C.R.)
 - a. C.C.R. - Title 24, Part 1 – 2013 Building Standards Administrative Code.

**SECTION 01 42 00
REFERENCE STANDARDS**

- b. 2013 CBC: 2012 IBC as Amended by 2013 California Amendments – C.C.R., Title 24, Parts 1 & 2
 - c. 2013 CEC: 2011 NEC as Amended by California 2013 Amendments - Part 3, Title 24, CCR
 - d. 2013 CMC: 2012 UMC as Amended by California 2013 Amendments - Part 4, Title 24, CCR
 - e. 2013 CPC: 2012 UPC as Amended by California 2013 Amendments - Part 5, Title 24, CCR
 - f. C.C.R. - Title 24, Part 6 - 2013 California Energy Standards
 - g. 2013 CFC: 2012 IFC as Amended by California 2013 Amendments, Part 9 - Title 24, CCR.
 - h. C.C.R. – Title 24, Part 11, 2013 California Green Building Standards Code
 - i. C.C.R. - Title 24, Part 12, 2013 California Referenced Standards Code
 - j. C.C.R. – Title 19
 - k. C.C.R. – Title 22, Social Security, latest register.
- 2. NFPA 101 - Life Safety Code.
 - 3. NFPA 72 – National Fire Alarm Code (California Amended) 2013 Edition.
 - 4. American Disability Act (ADA) or American Disability Act 2010 Standards
 - 5. Standard Specifications for Public Works Constructions.

1.5 SCHEDULE OF REFERENCES

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities listed in the 2013 California Building Code Title 24, Part 2, Chapter 35.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

- 3.1 All work shall be done in accordance with the codes referenced in Section 1.4.B Schedule of Governing Codes, and as required by all agencies having jurisdiction.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes temporary construction facilities and temporary controls.
 - 1. Temporary Utilities: Electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
 - 2. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, construction aids.
 - 3. Construction Facilities: Access roads, parking, progress cleaning and storage.
- B. Provide temporary construction facilities and temporary controls as required to conform to applicable authorities and as required to complete Project in accordance with Contract Documents.

1.2 ELECTRICITY AND LIGHTING

- A. Provide electrical service required for construction operations, with branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.
 - 1. Contractor may connect to on site power source at no charge. Exercise measures to conserve energy.
 - 2. Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70.
- B. Provide lighting for construction operations.
 - 1. Permanent lighting may be used during construction; maintain lighting and make routine repairs. Exercise measures to conserve energy.

1.3 HEAT AND VENTILATION

- A. Provide heat and ventilation as required to maintain specified conditions for construction operation, to protect materials and finishes from damage due to temperature and humidity.
- B. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.4 WATER AND SANITARY FACILITIES

- A. Contractor may connect to on site supply at no charge.
- B. Provide and maintain required sanitary facilities and enclosures. Existing or new facilities shall not be used.

1.5 ACCESS ROADS

- A. Provide and maintain access to fire hydrants, free of obstructions.
- B. Designated existing on-site roads may be used for construction traffic.

1.6 PARKING

- A. Parking will be allowed in areas designated by Owner

1.7 CONSTRUCTION AIDS

- A. Noise, Dust and Pollution Control: Provide materials and equipment necessary to comply with local requirements for noise, dust and pollution control.
- B. Fire Protection: Maintain on-site fire protection facilities as required by applicable authorities and insurance requirements.

1.8 ENCLOSURES

- A. Temporary Exterior Closures: Provide temporary weather-tight closures for exterior openings for acceptable working conditions, for protection for materials, to protect interior materials from dampness, for temporary heating, and to prevent unauthorized entry.
- A. Barriers: Provide barriers as required to prevent public entry to construction areas and to protect adjacent properties from damage from construction operations.
- B. Tree Protection: No parking of vehicles will be allowed under trees. Provide barriers around trees and plants designated to remain; protect plants at their drip lines against vehicular traffic. Protect against stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

1.9 CLEANING DURING CONSTRUCTION

- A. Control accumulation of waste materials and rubbish; recycle or dispose of off-site.
- B. Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.
- C. Storage for Tools, Materials, and Equipment: Limit on-site storage to Project area; provide weather-tight storage, with heat and ventilation for products requiring controlled conditions.
 - 1. Co-ordinate with owner for existing on site storage areas that may be utilized.
 - 2. Maintain adequate space for organized storage and access.
 - 3. Provide lighting for inspection of stored materials.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.1 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic from landscaped areas.

3.2 SECURITY

- A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

3.3 REMOVAL

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion Inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore existing facilities used during construction to specified or original condition.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes basic product requirements governing material and equipment.
 - 1. General product requirements.
 - 2. Product list.
 - 3. Quality assurance.
 - 4. Delivery, storage, and handling.

1.2 GENERAL PRODUCTS REQUIREMENTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications, referenced standards, and applicable codes and regulations as minimum requirements.
- C. Provide new materials except as specifically allowed by Contract Documents.
- D. Materials to be supplied in quantity within a Specification section shall be by one manufacturer, shall be the same, and shall be interchangeable.
- E. Provide equipment and systems composed of materials from a single manufacturer except where otherwise recommended by equipment or systems manufacturer or where otherwise indicated in Contract Documents.

1.3 SUBMITTALS

- A. Submittal 01 60 00 A: Product List: Prior to submittal of second Request for Payment, submit to Architect complete list of major products that are proposed for installation, with name of manufacturer, trade name, and model.
 - 1. Tabulate products by Specification number and title.
- B. Substitutions: Refer to Section 01 62 00 - Product Options.

1.4 QUALITY ASSURANCE

- A. Comply with industry standards and applicable codes except when more restrictive tolerances or requirements indicate more rigid standards or precise workmanship.
- B. Comply with manufacturer's instructions.
- C. Perform work by persons qualified to produce workmanship of specified quality.
- D. Install products straight, true-to-line, and in correct relationship to adjacent materials, with hairline joints, free of rough, sharp and potentially hazardous edges.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging.

**SECTION 01 60 00
PRODUCT REQUIREMENTS**

- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- C. Arrange storage to provide access for inspection; periodically inspect to assure products are undamaged and are maintained under required conditions.
- D. Provide equipment and personnel to handle products by methods to prevent soiling and prevent damage.
- E. Promptly inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
- F. Immediately remove from Project products damaged, wet, stained, and products with mold and products with mildew.
 - 1. Take special care to prevent absorbent products such as gypsum board and acoustical ceiling units from becoming wet.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.
 - 1. Contract Amount: Base on materials and products included in Contract Documents.
 - a. Where listed in Contract Documents, materials and products by manufacturers not listed shall not be used without Owner's and Architect's approval of Contractor's written request for substitution.
- B. Procedures are described for requesting substitution of unlisted materials in lieu of materials named in Specifications or approved for use in addenda.

1.2 CONTRACTOR'S OPTIONS

- A. Products Identified by Reference Standards: Select product meeting referenced standard for products specified only by reference standard.
- B. Named Manufacturers and Named Products: Select products of any named manufacturer meeting Specifications for products specified by naming one or more products or manufacturers.
- C. Substitutions for Named Manufacturers and Named Products: Submit request for substitution for products and for manufacturers not specifically named where products or manufacturers are named in Specifications.
- D. "Or Equal" Clauses: Submit request for substitution for product or manufacturer not specifically named in Specifications where terms "or equal", "or approved equal", or similar references are made.

1.3 SUBSTITUTIONS

- A. Architect/Engineer will consider requests for Substitutions only within 20 days after date established in Notice to Proceed.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- D. Substitution Submittal Procedure:
 - 1. Submit three physical copies or one electronic copy of Request for Substitution data for consideration. Submit completed "Product Substitution Request Form 01 62 33". Limit each request to one proposed Substitution.
 - 2. Submit shop drawings, product data, and certification test results attesting to the proposed product equivalence.
 - 3. The Architect will notify Contractor, in writing, of decision to accept or reject request.
 - 4. Incomplete substitution requests will be rejected without explanation.
 - 5. The Architect may reject any substitution request on the basis of aesthetics.

- E. "Approved Equal" or "Equal" shall mean in the opinion of the Architect.
- F. Substitutions will not be considered for acceptance when:
 - 1. They are indicated or implied on submittals without a formal request from Contractor.
 - 2. They are requested directly by a subcontractor or supplier.
 - 3. Acceptance will require substantial revision of Contract Documents.
- G. Substitute products shall not be ordered without written acceptance of Owner and Architect.
- H. Owner and Architect will determine acceptability of proposed substitutions and reserve right to reject proposals due to insufficient information.
- I. Any substitutions that change or affect the Structural, Access or Fire & Life Safety portions of the project construction documents shall be approved by DSA.

1.4 CONTRACTOR'S REPRESENTATION

- A. Requests constitute a representation that Contractor:
 - 1. Has investigated proposed product and determined it meets or exceeds, in all respects, specified product.
 - 2. Will provide same warranty or longer warranty for substitution as for specified product.
 - 3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
 - 4. Waives claims for additional costs or time that subsequently become apparent.
 - 5. Will pay costs of changes to Contract Documents, Drawings, details and Specifications required by accepted substitutions.

1.5 ARCHITECT'S DUTIES

- A. Review Contractor's requests for substitutions with reasonable promptness.
 - 1. Architect will recommend that Owner accept or reject substitution request.
 - 2. Architect/Engineer will provide estimate of cost to be borne by Contractor for changes to Contract Documents, Drawings, details and Specifications that are required by substitutions. Written acceptance of charges by Contractor is required prior to any cost being incurred by the Architect/Engineer.
- B. Notify Contractor in writing of decision to accept or reject requested substitution.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 62 33
PRODUCT SUBSTITUTION REQUEST FORM

Project: Burney Elementary School
Window Replacement
NMR Project No.: 14-2674.20

Substitution Request No.: _____
Submittal No.: _____
Date : _____

To: Nichols, Melburg & Rossetto Architects
300 Knollcrest Drive
Redding, CA 96002

From:

1) Specification Section of Item: _____

2) Specified Item: _____
Attach Product Data as required by Section 01 33 00

3) Proposed Substitution: _____
Attach Product Data as required by Sections 01 60 00 and 01 62 00

4) Itemized quality and performance comparison of proposed substitution with specified product. Indicate variations and appropriate specification section references. Attach summary.

5) Reason for submitting Substitution: _____

6) Does substitution effect dimensions shown on Drawings? Yes ___ No ___
If yes clearly indicate changes.

7) What effect does the substitution have on other trades or products?

8) What effect does the substitution have on the construction schedule?

PART 1 - GENERAL

1.1 SUMMARY

- A. Contractor shall be responsible for cutting, fitting and patching required to complete Work and to:
 - 1. Make its parts fit together properly.
 - 2. Uncover work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to Contract Documents.
 - 5. Remove samples of installed work as required for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.2 REQUESTS FOR INFORMATION

- A. Submit a written request to Architect well in advance of executing cutting or alteration which affects:
 - 1. Work of Owner or separate contractor.
 - 2. Structural value or integrity of any element of Project.
 - 3. Integrity of weather-exposed or moisture-resistant elements.
 - 4. Efficiency, operational life, maintenance or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.
- B. Requests shall include:
 - 1. Identification of Project and description of affected work.
 - 2. Necessity for cutting or alteration.
 - 3. Effect on work of Owner or separate contractor.
 - 4. Effect on structural integrity, or weatherproof integrity of Project.
 - 5. Alternatives to cutting and patching.
 - 6. Cost proposal, when applicable.
 - 7. Written permission of separate contractor whose work will be affected.
 - 8. Description of proposed work including:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Products proposed to be used.
 - c. Extent of refinishing to be included.

- C. Should conditions of Work or schedule indicate a change of products from original installation, Contractor shall submit request for substitution as specified in Section 01 62 00 - Product Options.
- D. Submit written notice to Architect designating date and time that work will be uncovered.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with Specifications and standards for each specific product involved.
- B. Where Specifications and standards have not been provided, provide materials and fabrication consistent with quality of Project and intended for commercial construction.
- C. Provide new materials for cutting and patching unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with work until Architect has provided further instructions.

3.2 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.
 - 1. Provide services of licensed engineer for designing temporary support where required by applicable authorities for temporary supports and for shoring; submit engineering calculations directly to applicable authorities upon request.
- B. Protect other portions of Project from damage.

3.3 PERFORMANCE

- A. Execute cutting by methods that provide proper surfaces to receive installation of repairs and finishes.
 - 1. Execute excavating and backfilling by methods which will prevent settlement and which will prevent damage to other work.
- B. Employ same installer or fabricator to perform cutting and patching work as employed for new construction for:
 - 1. Weather-exposed or moisture resistant elements.
 - 2. Sight-exposed finished surfaces.

**SECTION 01 73 29
CUTTING & PATCHING**

- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Restore work that has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- E. Fit work tight to pipes, sleeves, ducts, conduit and penetrations through surfaces.
- F. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Protection for products, including Owner-provided products, after installation.

1.2 PROTECTION AFTER INSTALLATION

- A. Protect installed products and control traffic in immediate area to prevent damage from subsequent operations.
- B. Provide protective covers at walls, projections, corners, jambs, sills and soffits in and adjacent to traffic areas.
- C. Cover walls and floors of elevator cabs, and jambs of cab doors, when elevators are used by construction personnel.
- D. Protect finished floors and stairs from dirt, wear and damage:
 - 1. Secure heavy sheet goods or similar protective materials in place, in areas subject to foot traffic.
 - 2. Lay planking or similar rigid materials in place, in areas subject to movement of heavy objects.
 - 3. Lay planking or similar grid materials in place in areas where storage of products will occur.
 - 4. Distribute loads of heavy stockpile materials, such as gypsum wall board, to prevent floor loading conditions in excess of loading capacity.
- E. Protect waterproofed and roofed surfaces:
 - 1. Restrict use of surfaces for traffic of any kind, and for storage of products.
 - 2. When an activity is mandatory, obtain recommendations for protection of surfaces from installer or manufacturer. Install protection and remove on completion of activity. Restrict use of adjacent unprotected areas.
- F. Restrict traffic of any kind across planted lawn and landscape areas.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not used

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes Contract closeout procedures.
 - 1. Substantial completion.
 - 2. Final completion.
 - 3. Project record documents.
 - 4. Material and finish data.
 - 5. Operation and maintenance data.
 - 6. Final Payment
- B. Refer to Section 01 78 36 for Warranty requirements.

1.2 SUBSTANTIAL COMPLETION

- A. When Contractor considers the Work or a designated portion thereof is substantially complete, submit written notice, with list of items to be completed or corrected.
 - 1. List ("Punch List"): Format pre-approved by Owner and Architect; tabular form with each space listed required.
- B. Within a reasonable time Owner will inspect status of completion and may add to "Punch List".
- C. Should Owner determine Work is not substantially complete, Contractor will be promptly notified in writing, giving reasons.
- D. Contractor shall remedy deficiencies and send a second written notice of substantial completion; Owner will re-inspect Work.
- E. When Owner determines Work is substantially complete, a letter of notification of Substantial Completion will be prepared.

1.3 FINAL COMPLETION

- A. When Work is complete, submit written certification indicating:
 - 1. Work has been inspected for compliance with Contract Documents.
 - 2. Work has been completed in accordance with Contract Documents and deficiencies listed (in 'Punch List') with Certificate of Substantial Completion have been corrected.
 - 3. Equipment and systems have been tested in presence of Owner's representative and are operational.
 - 4. Work is complete and ready for final inspection.
- B. Special Submittals: In addition to submittals required by Contract, submit following.
 - 1. Provide submittals required by governing authorities to governing authorities with copies included in Project Record Documents.

2. Submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.

1.4 PROJECT RECORD DOCUMENTS

- A. Keep documents current; do not permanently conceal any work until required information has been recorded.
 1. Contractor to maintain a separate set of Drawings for Project Record Documents (Refer to Section 01 78 39).
 2. Store reproducible Drawings, one set of Project Manual, and one copy of each Change Order separate from documents used for construction, for use as Project Record Documents.
 3. Indicate actual work on Drawings; indicate actual products used in Project Manual, including manufacturer, model number and options.
 4. Update Project Record Documents daily and allow for Architect inspection at least once a month.
- B. At Contract close-out submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.5 MATERIAL AND FINISH DATA

- A. Provide data for primary materials and finishes.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
 1. Electronic Format: Where available in electronic format, submit electronic media with material and finish data.
- C. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:
 1. Trade names, model or type numbers.
 2. Cleaning instructions.
 3. Product data.

1.6 OPERATION AND MAINTENANCE DATA

- A. Provide data for:
 1. Electrically operated items.
 2. Mechanical equipment and controls.
 3. Electrical equipment and controls.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
- C. Provide a separate volume for each system, with a table of contents and index tabs for each volume.

**SECTION 01 77 00
CONTRACT CLOSEOUT**

- D. Arrange by Specification division and gives names, addresses, and telephone numbers of subcontractors and suppliers. List:
 - 1. Appropriate design criteria.
 - 2. List of equipment and parts lists.
 - 3. Operating and maintenance instructions.
 - 4. Shop drawings and product data.
- E. Electronic Format: Where available in electronic format, submit electronic media with material and finish data.

1.7 FINAL PAYMENT

- A. When, in the opinion of the architect, the project is complete (after all punch list items are complete as described in Item 1.2 Substantial Completion), the Architect will advise the owner and the owner will file the Notice of Completion with the County Recorder.
- B. Should there be items not available due to delays in delivery, or should work remain incomplete, the Architect and the School District may require the Contractor to post a certified check in an agreed upon amount sufficient to cover such incomplete or uncorrected items. Such certified check shall be held until completion of all incomplete Work.
- C. The 10% retention outlined in Section 01 26 00 shall be held by the Owner until forty (40) days after the date of recording of the Notice of Completion by the County Recorder. If no stop notices or encumbrances are filed and if all work is complete, the retention shall be paid the contractor. Assessed liquidated damages and extra services provided by the architect and inspector due to additional inspections of incomplete work shall be deducted from the retention.
- D. Final payment to the contractor will not be made until all requirements have been met and all documents set forth herein have been received, including but not limited to: Record Drawings, Warranties, Operation and Maintenance Manuals, Demonstration/Training and extra stock.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not used

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Compile required and incidental warranties required by Contract Documents.
- B. These warranties shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents and which may be prescribed by law, regardless of wording of warranty.

1.2 FORM OF SUBMITTAL

- A. Provide duplicate copies, notarized or on Contractor and Manufacturer's letterhead.
 - 1. Assemble documents executed by subcontractors, installers, suppliers, and manufacturers.
 - 2. Provide table of contents and assemble in binder with durable plastic cover, clearly identified regarding extent of contents.
 - 3. Electronic Format: Submit warranties on electronic media in PDF format.
- B. Warranty Form: Use form acceptable to Owner; completed form shall not detract from or confuse interpretations of Contract Documents.
 - 1. General Contractor shall sign warranty.
 - 2. Subcontractor and installer shall sign warranty where specified.
 - a. Provide required manufacturer's warranties for waterproofing and roofing systems countersigned by subcontractor and installer.
- C. Submit final warranties prior to final application for payment.
 - 1. For equipment put into use with Owner's permission during construction, submit within ten days after first operation.
 - 2. For items of Work delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- D. Provide information for Owner's personnel regarding proper procedure in case of failure and instances that might affect validity of warranty.
- E. Size: 8-1/2" by 11" for three-ring binder; fold larger sheets to fit.

1.3 WARRANTIES

- A. Warranties are intended to protect Owner against failure of work and against deficient, defective and faulty materials and workmanship, regardless of sources.

- B. Limitations: Warranties are not intended to cover failures that result from:
 - 1. Unusual or abnormal phenomena of the elements.
 - 2. Owner's misuse, maltreatment or improper maintenance of work.
 - 3. Vandalism after substantial completion.
 - 4. Insurrection or acts of aggression including war.
- C. Related Damages and Losses: Remove and replace work which is damaged as result of failure, or which must be removed and replaced to provide access for correction of warranted work.
- D. Warranty Reinstatement: After correction of warranted work, reinstate warranty for corrected work to date of original warranty expiration, but not less than half original warranty period.
- E. Replacement Cost: Replace or restore failing warranted items without regard to anticipated useful service lives.
- F. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse interpretations of Contract Documents.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01 78 36.10
WARRANTY FORM

(SUBMIT IN DUPLICATE)

PROJECT Burney Elementary School Window Replacement

LOCATION _____

WARRANTY FOR _____

We hereby warrant that the _____

_____ work which we have installed in the above project for a period of _____ year(s) in accordance with the warranty period required in the specifications.

We agree to repair or replace any or all such work, together with any other work which may be displaced in so doing that may prove defective in workmanship or materials, within the period of _____ year(s) from date of filing of the **Notice of Completion**, without expense whatsoever to the Owner, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above-mentioned conditions within fifteen (15) days after being notified in writing, we collectively or separately do hereby authorize said Owner to proceed to have the defects repaired and made good at our expense and will pay the costs and charges therefrom immediately upon demand. We also agree to pay all costs related to litigation if we do not pay the costs you demand.

DATE: _____

SUBCONTRACTOR'S SIGNATURE: _____

CONTRACTOR'S SIGNATURE: _____

PART 1 GENERAL

1.1 WORK INCLUDED

- H. Remove existing windows where indicated.
- J. Protect existing building from weather damage.
- K. Demolition of Hazardous Materials as identified below.

1.2 EXISTING CONDITIONS

- A. Conduct demolition to minimize interference with adjacent building areas. Maintain protected egress and access at all times.
- B. Provide, erect, and maintain temporary barriers and security devices.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PREPARATION

- A. Erect and maintain weatherproof closures for exterior openings and roof decks.
- B. Erect and maintain temporary partitions to prevent spread of dust, fumes, noise, and smoke to provide for Owner occupancy of adjacent wings. See plan for area affected.
- C. Protect existing items which are not indicated to be altered.
- D. Disconnect, remove, and cap designated utility services within demolition areas.
- E. Mark location of disconnected utilities. Identify and indicate capping locations on Project Record Documents.

3.2 HAZARDOUS MATERIALS

- A. Regulatory Requirements
 - 1. The contractor and all subcontractors involved in this project shall have current knowledge of Title 8, California Code of Regulations, Section 1532.1 Construction Lead Standards.
- B. Reports: Notify architect or owner immediately upon encountering any asbestos construction materials.

3.3 EXECUTION

- A. Demolish in an orderly and careful manner. Protect existing supporting structural members,

SECTION 02 41 14
DEMOLITION FOR REMODELING

utility runs and landscaping. Assume existing components not specifically noted to be removed will remain. Protect to maintain original condition.

- B. Except where noted otherwise, immediately remove demolished materials from site.
- C. Remove materials to be re-installed or retained in manner to prevent damage. Store and protect under provisions of Section 01 60 00.
- D. Remove, store, and protect for re-installation materials and equipment hindering improvements.
- E. Remove material and equipment to be retained by Owner with care to avoid unnecessary damage.
- F. Remove and promptly dispose of contaminated, vermin infested, or dangerous materials encountered.
- G. Report any encounter with asbestos bearing materials to the Architect or Owner immediately and stop work in the area.
- H. Do not burn or bury materials on site.
- I. Remove demolished materials from site as work progresses. Upon completion of work, leave areas of work in clean condition.
- J. Repair areas to remain that are damaged by the Demolition.

END OF SECTION

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Includes but not limited to:
 - 1. Wall framing
 - 2. Preservative treatment of wood

1.2 RELATED WORK

- A. General Conditions, Supplementary General Conditions, and Division 01

1.3 REFERENCES

- A. Title 24, Chapter 23
- B. AWWPA - American Wood Preservers' Association: Book of Standards
- C. FS - TT-W-571 - Wood Preservation: Treating Practices
- D. NFPA - National Forest Products Association
- E. WCLIB - West Coast Lumber Inspection Bureau: Standard Grading Rules for West Coast Lumber
- F. WWPA - Western Wood Products Association
- G. FS FF-N-105B – Common Wire Nails
- H. National Design Specification 2005 edition

1.4 QUALITY ASSURANCE

- A. Lumber Grading Agency: Certified by AF & PA

1.5 REGULATORY REQUIREMENTS

- A. Conform to the 2007 California Building Code Title 24, Chapter 23

1.6 SUBMITTALS

- A. Submittal No. 06 11 00 A - Submit product data under provisions of Section 01 33 00
- B. Submittal No. 06 11 00 B - Provide technical data on wood preservative materials and application instructions

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and protect products under provisions of Section 01 60 00
- B. All pieces of lumber shall be grade stamped with WCLIB or WWPA grade stamp

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

- A. Lumber Species and Materials: Framing Lumber: Shall be Douglas Fir - Larch, unless noted otherwise, and shall comply with the grading rules of WWPA or WCLIB. All lumber shall be stamped as to grade by an approved grading agency. End jointed lumber shall not be used. All structural wood members with the least dimension 2 1/2" or greater shall be free of heart center. All sides surfaced. Grades as follows unless otherwise noted on Drawings:

	USE Grade	Max moisture content at time of installation
1 inch boards	"Construction"	19%
Beams & Headers	No. 1	19%
Roof & Ceiling Joists	No. 1	19%
Studs, Sills, Plates	No. 1	19%
Posts & Timbers	No. 1	19%
Miscellaneous Blocking, & Framing not noted	No. 1	19%

- B. Sill Plates and Wood Floor Sleepers on Concrete: Douglas Fir No. 1 pressure treated. Pressure treatment shall meet the requirements of Specification TT W 571, using Boliden, Chemonhe, Chromated Zinc Chloride, Erdalith or Wolman Salts. Cut faces of treated wood shall be brush treated (two complete applications) prior to installation. Treated lumber shall be identified by the AWWPA stamp.

2.2 FIRESTOPPING: Shall conform to California Building Code Requirements

2.3 CONNECTING HARDWARE:

- A. Furnish and install all connecting hardware indicated on Drawings, specified herein or required to complete the work.
- B. Materials:
1. Nails for wood-to-wood connections: Common wire or box, galvanized for exterior work. 16d Green vinyl-coated sinkers are an acceptable substitution for 10d box nails.
 2. Nails for light gauge metal connectors: Common wire nails, sizes as indicated or as specified by metal connector manufacturer
 3. Screws: Standard domestic manufacturer, bright steel. Galvanized for exterior use. Brass, bronze, aluminum or stainless when used to fasten items made of those metals.
 4. Screws: For attaching interior trim and finish to drywall partitions, use Type S, self drilling, self tapping anodized steel drywall screws of indicated lengths
 5. Bolts: ASTM A307 machine bolts with standard hex nuts and steel plate or cut washers or carriage bolts with standard hex nuts and cut washers as indicated. Bolts, nuts and washers wholly or partially exposed on exterior shall be galvanized. Sill plate anchor bolts shall use 3" x 3" x 1/4" Plate Washers.

6. Steel Plates and Angles: ASTM A36
7. Lag Screws, Shear Plates, and Split Ring Connectors: As per American Forest & Paper Association "National Design Specifications for Wood construction" (1991 Edition.)
8. Framing Anchors, Joist Hangers, Etc: As made by Simpson Company and indicated on drawings, or equivalent devices as approved by Architect and DSA.
9. Power Driven Inserts: "Ramset" or as approved by Architect and DSA; install as per manufacturer's directions.
10. Miscellaneous Clips, Steel Assemblies: As per ASTM A36
11. Provide drilled anchors (kwik bolts) as indicated on plan in concrete. Pull test as indicated on DSA structural test and inspection form and per table in General Structural Notes of construction drawing set.

2.4 BUILDING PAPER

- A. Two (2) layers 15 lb. felt

PART 3 EXECUTION

3.1 FRAMING

- A. General: Install all wood framing making proper provisions for work of other trades. Do all cutting of wood required to accommodate plumbing, heating and ventilating, electrical and other trades. Fit neatly around all exposed items such as outlet boxes, conduit, pipes and ducts.
- B. Exterior Base Plates or Bearing or Sheathed Wall Sills Resting on Concrete: Bed in cement mortar to obtain a continuous bearing. Mortar shall consist of one part cement to three parts sand. Mix mortar in small quantities so it can be used promptly. Size all plates or sills and set level true to line. Bolt down with bolts of size, length and spacing indicated, with a bolt not more than nine inches from the end of any piece. Each piece shall receive at least two bolts.
- C. Rough Framing: Fit closely; set accurately to required lines and levels and secure rigidly in place. Set horizontal and inclined members with crown edge up. Do not cut, notch, or bore structural members without specific approval. Reinforce cut members as directed. Bolt, nail and spike thoroughly with not less than sizes and quantities indicated. Structural members shall provide full contact at all bearing surfaces. Joists shall be spliced over bearings unless shown otherwise.
- D. Studs: Make walls and partitions of nominal 2x4, 2x6, 4x6, 2x8, or 4x8 studs, 16 inches on center, unless otherwise indicated or required to be larger to accommodate mechanical or electrical equipment, piping, and fixtures or the fixtures or equipment of any other trade. Unless otherwise indicated, all panels, valve covers, cleanouts, devices, access doors, recessed cabinet boxes, etc. shall be mounted flush with the adjacent wall surface. When any such item is of a depth where it is not practical to use solid studding to the full thickness of the wall, the wall shall be furred. When furring is required, it shall extend the full width of the room on the wall in which it occurs and from floor to roof or ceiling joists. The studs comprising all interior partitions and the wall material affixed to

**SECTION 06 11 00
WOOD FRAMING**

them shall extend from floor to ceiling joist framing except as otherwise indicated. Staggered stud walls shall be constructed where indicated on drawings.

- E. Top Plates in Bearing Partitions: shall be doubled and lapped at each intersection with walls or partitions. Stagger joints in upper and lower members of top plate not less than 4 feet and splice as shown.
- F. Provide blocking not less than 2 inches in thickness of same width as studs as shown on drawings. Also install all fire stopping as required by Section 708 of the California Building Code.
- G. Frame corners solid where stud walls or partitions meet, or as indicated on drawings.
- H. Retighten anchor bolts before closing in.

3.2 WOOD BACKING AND NAILING STRIPS

- A. Provide all wood backing, furring or blocking indicated or required for proper installation and attachment or work of other trades. Form lumber, which has been cleaned and is in sound conditions, may be used, unless other material is indicated.
- B. Provide wood stripping where indicated for attachment of finish materials to wood or concrete surfaces.

3.3 TOLERANCES

- A. Framing Members: 1/4 inch maximum from true position
- B. Surface Flatness of Floor: 1/4 inch in 10 feet maximum

END OF SECTION

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Includes but not limited to:
 - 1. Wall sheathing at new exterior wall framing.
 - 2. Replacement of existing sheathing as required.

1.2 RELATED WORK

- A. General Conditions, Supplementary General Conditions, and Division 01

1.3 REFERENCES

- A. Title 24, Chapter 23.
- B. PS-1 - Construction and Industrial Plywood
- C. PS2 – Performance Standard for Wood-Based Structural Panels
- D. APA - American Plywood Association
- E. FS FF-N-105B – Common Wire Nails
- F. National Design Specification 2005 edition

1.4 QUALITY ASSURANCE

- A. Plywood Grading Agency: Certified by APA

1.5 REGULATORY REQUIREMENTS

- A. Conform to the 2007 California Building Code

1.6 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

- A. Submittal No. 06 16 00 A – Product Data:
 - 1. Manufacturer's product data, specifications with application and installation instructions for proprietary materials and items.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and protect products under provisions of Section 01 60 00.
- B. All pieces of sheathing shall be stamped with grade stamp

PART 2 PRODUCTS

2.1 STRUCTURAL PLYWOOD:

- A. Plywood shall conform to the requirements of U.S. Product Standard PS 1-95 or PS2-92. Each piece shall be clearly and legibly grade marked with established symbols of the American Plywood Association. Exterior glue required.
- B. Replace existing wall sheathing with same thickness, grade and attachment pattern as existing.

2.2 CONNECTING HARDWARE:

- A. Furnish and install all connecting hardware indicated on Drawings, specified herein or required to complete the work.
- B. Materials:
 - 1. Nails for wood-to-wood connections for attachment of plywood sheathing: Common wire or box, galvanized for exterior work. 16d Green vinyl-coated sinkers are an acceptable substitution for 10d box nails.

PART 3 EXECUTION

3.1 SHEATHING

- A. Secure sheathing perpendicular to framing members with ends staggered. Secure sheet edges over firm bearing. Provide solid blocking between sheathing.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Interior finish carpentry items at new windows with accessories as required for complete installation.
 - 1. Window trims, sills, jambs and other wood trims.
 - 2. Exterior trim at new wall framing.

1.2 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

- A. Submittal No. 06 20 00A - Product Data: Submit literature for manufactured items.

1.3 QUALITY ASSURANCE

- A. Standards: Perform finish carpentry in accordance with standards of Woodwork Institute (formerly Woodwork Institute of California) "Manual of Millwork."

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver materials until site conditions are adequate to receive work; protect items from weather while in transit.
- B. Store materials indoors, in ventilated areas with constant but minimum temperature of 60 degrees F and maximum relative humidity of 25% to 55%.
- C. Do not begin installation of finish carpentry until space is fully enclosed and mechanical systems are fully operational.
 - 1. Maintain interior installation areas at 70 degrees F and 50% to 55% relative humidity.
- D. Immediately remove from site materials with visible mold and materials with mildew.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Interior Hardwood Trim:
 - 1. Paint Grade: Custom Grade, kiln dried Poplar, Alder or Douglas Fir, S-4-S
- B. MDF: ANSI A208.2, Grade 130, made with binder containing no urea-formaldehyde resin.
- C. Anchors, Nails and Screws: Select the material, type, size and finish required by each substrate for secure anchorage; provide toothed steel or lead expansion bolt screws for drilled-in-place anchors.
- D. Wood Filler: Color to match wood being filled.

2.2 FABRICATION

- A. Fabricate finish carpentry items to Woodwork Institute Premium standards.

- B. Use exposed fastening devices or nails only when approved in writing by Architect and unavoidable; arrange neatly.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication where possible; do not delay job progress, allow for trimming and fitting.
- B. Verify surfaces are ready to receive work and field measurements are as shown on shop drawings.
 - 1. Beginning installation signifies acceptance of conditions.
- C. Ensure mechanical and electrical items affecting work are properly placed, complete, and have been inspected by applicable authorities prior to commencement of installation.
- D. Inspect each piece of finish carpentry and discard damaged and defective pieces.

3.2 INSTALLATION

- A. Install work consistent with specified WI MoM quality grade, plumb, level, true and straight with no distortions; shim as required, using concealed shims.
 - 1. Prime paint surfaces in contact with cementitious materials prior to installation; comply with requirements of Section 09 90 00 – Painting and Coating.
- B. Secure work to blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation.
- C. Scribe and cut for accurate fit to other finished work.
- D. Install trim in single, unjointed lengths for openings and for runs less than 10'-0".
 - 1. For longer runs, use only one piece less than 10'-0" in any straight run; provide scarf joints between members.
 - 2. Stagger joints in adjacent members.
 - 3. Cope at returns and miter at corners.
- E. Accessories: Install accessories in accordance with manufacturer's recommendations in locations indicated or as directed by Architect.
- F. Acceptable Tolerances:
 - 1. Variation from True Position: Maximum 1/16" at any position and maximum 1/8" in any 10'-0" length.
 - 2. Adjoining Surfaces of Same Material: No variation permitted.
 - 3. Offset with Abutting Materials: Maximum 1/32".

G. Preparation for Field Finishing:

1. Sand work smooth and set exposed nails and screws.
2. Apply wood filler in exposed nail and screw indentations and leave ready to receive site-applied finishes.
3. Seal concealed and semi-concealed surfaces; brush apply only, using primer consistent with finish coats specified under Section 09 90 00 – Painting and Coating.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide thermal batt insulation with integral vapor retarder and accessories as required for complete installation.
- B. Related Work:
 - 1. Section 09 21 16: Acoustical insulation concealed in gypsum board systems.

1.2 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

- A. Submittal No. 07 21 00A - Product Data: Furnish manufacturer's literature for each type of insulation.
 - 1. Indicate thermal insulation name and number as included in California Energy Commission's Directory of Certified Material.
 - 2. Submit Underwriter's Laboratory approval numbers for required fire ratings; approvals of other laboratories contingent upon acceptance of applicable authorities.
- B. Submittal No. 07 21 00B - Installation Instructions: Submit manufacturer's installation instructions.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Thermal Batt Insulation: Preformed slag mineral or glass fiber with thermosetting resin binders, conforming to ASTM C665; formaldehyde-free.
 - 1. Manufacturers:
 - a. USG Interiors, Inc./Thermafiber FS25 Insulation.
 - b. Johns Manville/FSK-25 Thermal-Shield Insulation.
 - c. Owens-Corning Fiberglas Corp./Fiberglas FS-25 Insulation.
 - d. Substitutions: Refer to Section 01 62 00.
 - 2. R-Value: Minimum R-19 at walls, unless otherwise indicated.
- B. Accessories: Furnish as recommended by insulation manufacturer for insulation types, substrates, and conditions involved.
- C. Insulation shall comply with California standards for insulating material. Maximum flame spread rating of 25 and maximum smoke density per CBC Section 707.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify substrate and adjacent materials are dry and ready to receive insulation; beginning installation signifies acceptance of conditions.
- B. Ensure mechanical and electrical items affecting work are properly placed, complete, and have been inspected by Architect prior to commencement of installation.

3.2 INSTALLATION

- A. Install insulation in accordance with manufacturer's instructions.
- B. Cut and trim insulation neatly, to fit spaces.
 - 1. Backed Insulation: Use insulation free of ripped backs and edges.
- C. Fit insulation tight within spaces and tight to and behind mechanical and electrical services within insulation plane; leave no gaps or voids; maintain integrity of thermal barrier.
- D. Friction fit in place; use tape or penetration supports as necessary to assure permanent installation.
 - 1. Taping: Tape joints and tears in vapor retarder, including joints between insulation and surrounding construction, to ensure vapor-tight installation.
 - 2. Penetration Supports: Cut or bend pins in locations accessible to maintenance personnel, to eliminate potential hazards from exposed pin points.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Portland Cement Plaster Underlayment: Provide Grade D building paper underlayment and flashing for lath and plaster applications, with related concealed metal flashings and accessories as required for complete watertight installation.
2. Membrane Flashing at Penetrations: Provide sheet membrane underlayment and flashing for around penetrations through building paper including windows and doors, with accessories as required for complete watertight installation.

1.2 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

- #### A. Submittal No. 07 25 00A - Product Data: Furnish manufacturer's literature for each type of underlayment.

1.3 QUALITY ASSURANCE

- #### A. Pre-Installation Meeting: Convene one week prior to commencing work; require attendance of parties directly affecting underlayment.

1. Review procedures and coordination required with related work.

1.4 WARRANTY

- #### A. Special Warranty: Provide for correcting failure of underlayment to resist penetration of water. Repair underlayment and pay for or replace damaged materials or surfaces.

1. Special Warranty Period: Two years.

PART 2 - PRODUCTS

2.1 MATERIALS

- #### A. Portland Cement Plaster Underlayment: Provide Grade D water-vapor permeable kraft building paper conforming with ASTM Specification D226, Grade D, 60 minute water resistance (based on Fed Spec UU-B-790a).

1. Manufacturers:

- a. Fortifiber/Super Jumbo Tex.
- b. Substitutions: Refer to Section 01 62 00. Grace Construction Products.

**SECTION 07 25 00
WEATHER BARRIERS**

- B. Membrane Flashing at Penetrations: Rubberized sheet membrane with primers and seam sealers as required for complete watertight installation; type as recommended by manufacturer for substrate and for applications indicated.

- 1. Manufacturers:

- a. Grace Construction Products: Vycor V40.
 - b. Substitutions: Refer to Section 01 62 00.

- C. Siding Underlayment: "Weather Tex" 2 Ply sheeting by Fortifiber Building Systems Group.

2.2 FLASHING FABRICATION

- A. Fabricate metal flashings as recommended by Sheet Metal and Air Conditioning Contractors National Association (SMACNA) "Sheet Metal Manual".
- B. Form flashings to drain water to exterior at roofing and siding construction for penetrations, sill and header flashings.
- C. Form sections square, true and accurate to size, in maximum possible lengths and free from distortion and other defects detrimental to appearance or performance.
- D. Hem exposed edges of metal flashings minimum 1/4" on underside.
- E. Apply bituminous paint on concealed surfaces of metal flashings.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Install underlayment over surfaces that are dry, free of ridges, warps and voids that could damage paper.
- B. Weatherlap joints minimum 2" and seal with plastic cement; secure in place.
- C. Coordinate installation with installation of components and items projecting through underlayment.

3.2 FLASHINGS INSTALLATION

- A. Install flashings as recommended by Sheet Metal and Air Conditioning Contractors National Association (SMACNA) "Sheet Metal Manual".
- B. Weather-lap joints minimum 2" and seal with plastic cement; secure in place.
- C. Fastenings: Concealed in completed installation.

3.3 UNDERLAYMENT INSTALLATION

- A. Install underlayment in accordance with recommendations of underlayment manufacturer and of manufacturer's of products to cover underlayment; comply with applicable code requirements.

**SECTION 07 25 00
WEATHER BARRIERS**

1. Layers: Weather-lap joints as recommended by system manufacturer, not less than 2" at building paper.
 - a. Plaster: Provide two layers building paper underlayment installed in one application with 36" sheets lapped 18" each.
 - b. Other Areas: Provide one layer sheet membrane underlayment.
 2. Secure underlayment in place, stagger joints between layers; lap ends minimum 6"; stagger end joints.
 3. Apply layer of sheet membrane underlayment extending minimum 18" from penetrations, including windows and doors; start at bottom of penetration and weather-lap joints; apply top layer over metal flashing to direct water to exterior.
- B. Apply plastic cement to substrate prior to application of underlayment starter strips to prevent capillary movement of water back up beneath underlayment.
- C. Weather-lap items projecting through underlayment and seal with plastic cement at building paper underlayment, with sealer recommended by sheet membrane underlayment manufacturer at sheet membrane underlayment.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Exterior panels where noted on the drawings.

1.2 REFERENCE

- A. ASTM E.108 Spread-of-flame test
- B. ASTM E-136 - Surface Burning Characteristics
- C. ASTM C1185 Flexural Strength
- D. ASTM E-136 - Non-combustibility
- E. NER 405 – Thermal Resistance
- F. Council of American Building Officials NER Report #405
- G. International Conference of Building Officials I.C.B.O. Report #4342, NER Report #405.
- H. Southern Building Code Congress International S.B.C.C.I. NER Report #405

1.3 SUBMITTALS

- A. Submittal No. 07 46 46 A - Submit manufacturer's technical product data and installation instructions.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site under provisions of Section 01 60 00.
- B. Store and protect products under provisions of Section 01 60 00.

1.5 WARRANTY

- A. Provide 50-year transferable limited warranty.

PART 2 PRODUCTS

2.1 MATERIAL

- A. Exterior siding – 'Hardipanel" 4' x 10' sheets laid horizontally.
 - 1. Pattern: Submit full manufacturer pattern range.

2.2 FASTENERS

- A. 6d hot dipped galvanized spacing as noted.

2.3 ACCESSORIES

- A. Trim: Fry Reglet Vertical Molding. Extruded alloy 6063 T5 for ½" reveal, with chemical conversion coating at horizontal trim band.
- B. Underlayment:
 - 1. Substrate Cover: See Section 07 25 00.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work and field measurements are as shown on shop drawings.
- B. Beginning of installation means acceptance of existing substrate.

3.2 INSTALLATION

- A. Install per manufacturer's published instructions.
- B. Cover substrate with underlayment membrane per manufacturer's instructions.
- C. All siding to be plumb, level and square. Layout siding vertically in a board on board pattern.
- D. Attach panels with fasteners at 6" on center horizontal and 32" on center vertical.
- E. Install vinyl trim as shown on drawings.
- F. Cut all siding with a circular saw or shear. Sand all edges after cut.
- G. Cut material neatly around all projections and seal space between panel and projection.
- H. Leave 1/16 inch maximum gap between all siding joints. Apply sealant to installed trim prior to setting next panel. Wipe off excess sealant squeezed out of joint.
- I. All workmanship shall conform to finish carpentry requirements of the Woodwork Institute.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide joint sealers, for interior and exterior joints not specified elsewhere, with backing rods and accessories as required for complete installation.
1. Joint sealers include sealants and caulking as indicated.

1.2 SYSTEM DESCRIPTION

- A. Performance Requirements:
1. Select materials for compatibility with joint surfaces and indicated exposures.
 2. Where not indicated, select modulus of elasticity and hardness or grade recommended by manufacturer for each application indicated.
 3. Comply with applicable limitations on volatile organic compound (VOC) emissions.

1.3 SUBMITTALS

All submittals shall be made under the provisions of Section 01 33 00.

- A. Submittal No. 07 90 00A – Product Data
1. Submit product data for all specified products.
 2. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, and color availability.
- B. Submittal No. 07 90 00B – Installation Instructions
1. Submit manufacturer's installation instructions
 2. Submit manufacturer's certificate under provisions of Section 01 33 00 that products meet or exceed specified requirements.
 3. Furnish certification indicating installers are trained in proper use of specified products, qualified, and familiar with proper installation techniques.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Firm with minimum five years successful experience on projects of similar type and size, using specified products.
1. Installers shall be familiar with proper application procedures to ensure maximum joint sealer expansion and contraction capabilities.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, cure time, and mixing instructions.

1.6 SITE CONDITIONS

- A. Do not proceed with installation of joint sealers under unfavorable weather conditions.
- B. Install elastomeric sealants when temperature is in lower third of temperature range recommended by manufacturer.
- C. Do not install solvent curing sealants in enclosed building spaces.

1.7 WARRANTY

- A. Special Warranty: Repair or replace joint sealers that fail to perform as intended, because of leaking, crumbling, hardening, shrinkage, bleeding, sagging, staining and loss of adhesion.
 - 1. Special Warranty Period: Three years.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Elastomeric Sealants:

- 1. Single Component Low Modulus Silicone Sealant: ASTM C920 Type S, Class 25, Grade NS; minimum 50% expansion and compaction capability.
 - a. Provide at exterior locations not exposed to traffic.
 - b. Manufacturers:
 - 1) General Electric Co./Silpruf, Silglaz or GESIL.
 - 2) Dow Corning Corp./790 or 795.
 - 3) Pecora Corp./864 Architectural Silicone.
 - 4) Tremco/Spectrum 3.
 - 5) Substitutions: Refer to Section 01 62 00.
- 2. Multi-Component Polyurethane Sealant: ASTM C920, Type M, Grade P, Class 25, self-leveling; minimum 25% expansion and compaction capability.
 - a. Provide following at traffic bearing locations.
 - b. Manufacturers:
 - 1) Pecora Corp./NR-200 Urexpan.
 - 2) Tremco/Vulkem 245.
 - 3) Sonneborn Division of ChemRex /SL 2
 - 4) Substitutions: Refer to Section 01 62 00.

**SECTION 07 90 00
JOINT PROTECTION**

3. Mildew-Resistant Silicone Rubber Sealant: ASTM C920, Type S, Grade NS, Class 25, compounded with fungicide, specifically for mildew resistance and recommended for interior joints in wet areas.
 - a. Provide at interior joints in wet areas.
 - b. Manufacturers:
 - 1) General Electric Co./SCS 1702 Sanitary Sealant.
 - 2) Dow Corning Corp./786 Bathtub Caulk.
 - 3) Pecora Corp./863 #345 White.
 - 4) Tremco/Tremsil 200.
 - 5) Substitutions: Refer to Section 01 62 00.

- B. Non-Elastomeric Sealants:
 1. Acrylic-Emulsion Sealant: ASTM C834 acrylic or latex-rubber-modified acrylic sealant, permanently flexible, non-staining and non-bleeding; recommended for general interior exposure; compatible with paints specified in Section 09 90 90.
 - a. Provide at general interior applications.
 - b. Manufacturers:
 - 1) Pecora Corp./AC-20.
 - 2) Sonneborn Division of ChemRex/Sonolac.
 - 3) Tremco/Ultrem 1500
 - 4) Substitutions: Refer to Section 01 62 00.

- C. Miscellaneous Materials:
 1. Primers/Sealers: Non-staining types recommended by joint sealer manufacturer for joint surfaces to be primed or sealed.
 2. Joint Cleaners: Non-corrosive types recommended by joint sealer manufacturer; compatible with joint forming materials.
 3. Bond Breaker Tape: Polyethylene tape as recommended by joint sealer manufacturer where bond to substrate or joint filler must be avoided for proper performance of joint sealer.
 4. Sealant Backer Rod: Compressible polyethylene foam rod or other flexible, permanent, durable non-absorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer.
 - a. Oversize backer rod minimum 30% to 50% of joint opening.

- D. Colors: Provide colors indicated or as selected by Architect from manufacturer's full range of colors.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare joint surfaces in accordance with ASTM C1193 and as recommended by joint sealer manufacturer.
- B. Clean joint surfaces immediately before installation of joint sealer; remove dirt, insecure materials, moisture and other substances that could interfere with bond of joint sealer.
- C. Prime or seal joint surfaces where recommended by joint sealer manufacturer; do not allow primer/sealer to spill or migrate onto adjoining surfaces.

3.2 INSTALLATION

- A. Comply with manufacturer's printed instructions and ASTM C1193, except where more stringent requirements are shown or specified.
- B. Set sealant backer rods at proper depth or position in joint to coordinate with other work, including installation of bond breakers and sealant; do not leave voids or gaps between ends of backer rods.
 - 1. Do not stretch, twist, puncture or tear backer rods.
- C. Install bond breaker tape where required by manufacturer's recommendations to ensure joint sealers will perform properly.
- D. Size materials to achieve required width/depth ratios.
- E. Employ installation techniques that will ensure joint sealers are deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of bond surfaces equally on opposite sides.
- F. Joint Configuration: Fill sealant joint to a slightly concave surface, slightly below adjoining surfaces, unless otherwise indicated.
- G. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture or dirt.
- H. Spillage: Do not allow sealants or compounds to overflow or spill onto adjoining surfaces, or to migrate into voids of adjoining surfaces.
 - 1. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.
- I. Cure joint sealers in compliance with manufacturer's instructions and recommendations to obtain high early bond strength, internal cohesive strength and surface durability.
- J. Maintain finished joints free of embedded matter, ridges and sags.

3.3 CLEANING AND REPAIRING

- A. Clean all work and adjacent soiled surfaces.
- B. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.4 PROTECTION OF FINISHED WORK

- A. Protect sealants until cured.

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

- A. SECTION INCLUDES:
1. Extent of each type of vinyl window is indicated on drawings and schedules
 2. Windows in this section include the following:
 - a. Individual window units
 - b. Windows in continuous runs with mullions
 3. Types of vinyl windows include the following:
 - a. Fixed windows
 - b. Projected windows (awning & sliding vents)

1.2 REFERENCES

- A. AAMA/WDMA/CSA 101/I.S.2/A440-08 North American Fenestration Standard/Specification for windows, doors, and skylights.
- B. AAMA 303 Specifications for PV extrusions.
- C. AAMA 1504-97 and 1503-09, Voluntary Standard for Thermal Performance of Windows, Doors and Glazed Wall Sections
- D. NFRC 100-2010 Procedure for Determining Fenestration Product U Factors.
- E. NFRC 200-2010 Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
- F. ASTM D 3656-07 Standard Specification for Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide window assemblies that will perform as indicated without failure or deterioration. Failure includes the following:
1. Exterior assemblies:
 - a. Excessive deflection
 - b. Excessive water penetration
 - c. Excessive air infiltration
 - d. Failure of glazing
 2. Exterior and interior assemblies:
 - a. Deterioration of materials and finishes except from normal weathering and wear
- B. Provide PVC windows capable of complying with performance requirements indicated, based on testing manufacturer's windows that are representative of those specified, and that are of minimum test size required by AAMA/WDMA/CSA 101 I.S.2/A440-08. Air infiltration shall not exceed 0.3 CFM when tested in accordance with ASTM E 283
- C. Structural Performance: Provide PVC windows capable of withstanding the effects of the following loads, based on testing units representative of those indicated for Project that pass AAMA/WDMA/CSA 101 I.S.2/A440-08, Uniform Load Structural Test:

**SECTION 08 53 13
VINYL WINDOWS**

1. Design Wind Loads: Determine design wind loads applicable to Project from basic wind speed indicated in miles per hour at 33 feet above grade, according to ASCE 7, Section 6.5, "Method 2-Analytical Procedure," based on mean roof heights above grade indicated on Drawings.
 - a. Basic Wind Speed: 90 mph.
 - b. Exposure Category: D.
 2. Deflection: Design glass framing system to limit lateral deflections of glass edges to less than 1/175 of glass-edge length or 3/4 inch, whichever is less, at design pressure based on testing performed according to AAMA/WDMA/CSA 101 I.S.2/A440-08, Uniform Load Deflection Test or structural computations.
- D. Thermal Movements: Provide PVC windows, including anchorage, that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
1. Temperature Change (Range): 120 deg F, ambient
- E. Certification
1. Each prime window unit shall bear the AAMA "Quality Certified" label signifying that the product complies with AAMA 302 as certified by the manufacturer.
 2. The window system shall comply with CBC 2010 California Title 24 Standards and have an identifying label.

1.4 SUBMITTAL

- A. Certification by manufacturer that products comply with requirements of contract documents.
- B. Submittal No. 08 53 13A - Shop drawings: Show all information not fully detailed in product literature and the following:
 1. Elevations and their associated window mark numbers or locations
 2. Full size section details of all typical members
 3. Recommended installation procedures
 4. Hardware description
 5. Anchors, flashings, and related accessories that relate to windows
 6. Glazing description
 7. Finish description
 8. Sealant
 9. Finish
 10. Operational clearances
- C. Submittal No. 08 53 13C - Warranties

1.5 QUALITY ASSURANCE

- A. Qualification of installers: PVC sash shall be installed by persons with at least 5 years experience with systems as specified and detailed; or be certified by the manufacturer as having the necessary qualifications

- B. PVC windows will meet or exceed AAMA/WDMA/CSA 101/I.S.2/A440-08 specifications for sash type as specified. Test reports shall be available on request as noted in Section 2.2
- C. PVC window manufacturer shall be member of AAMA.
- D. PVC windows shall be factory glazed by the window manufacturer unless deemed by the window manufacturer to be in conflict with safe transportation or installation practices.
- E. PVC windows shall be manufactured by a single manufacturer
- F. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle windows in a manner to avoid damage

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify field measurement prior to fabrication so as to provide adequate fabrication tolerance and coordinate with other work to allow proper fit

1.8 WARRANTY

- A. Window Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace vinyl windows that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Failure to meet performance requirements.
 - b. Structural failures including excessive deflection, water leakage, air infiltration, or condensation.
 - c. Faulty operation of movable sash and hardware.
 - d. Deterioration of metals, other materials, and metal finishes beyond normal weathering.
 - e. Failure of insulating glass.
 - 2. Warranty Period:
 - a. Window: Two years from date of Substantial Completion.
 - b. Metal Paint Finish: 15 years from date of Substantial Completion.
 - c. Surface Finish: 5 years from date of Substantial Completion

PART 2 – PRODUCTS

2.1 WINDOWS – GENERAL

- A. Windows – General: Frame and ventilator/sash members of extruded vinyl, complete with all hardware, accessories, sub frames, mullions, sills and other components indicated or required; complying with AAMA/WDMA/CSA 101/I.S.2/A440-08
 - 1. See drawings for sizes, profiles and arrangements of window members

- B. Window Design:
 - 1. Windows for this job are to be furnished as Pro Series 700 PVC vinyl sash as manufactured by Ply Gem Industries, Inc., Cary, NC (888-975-9436)
 - 2. Where glazing stops are indicated, design for reglazing without removal or dismantling of ventilator/sash or frames.
 - 3. Design so water entering from the outside is drained to the exterior with utilization of a proper weep system
 - 4. Where insulating glass or laminated glass is used, provide positive drainage to eliminate water standing in glazing channels
- C. Window Components: Designed or selected by manufacturer for strength required and compatibility with other materials
- D. Weather-stripping: Continuous double weather-stripping at all points where frame of operable ventilator/sash contacts the frame of the window
- E. Glazing Stops: PVC vinyl finished to match windows
- F. Screens: Screen frames will be roll formed vinyl finished to match windows. Wicket doors will be provided where necessary to provide access to handles. Screen material to be fiberglass mesh.

2.2 WINDOWS (FIXED, PROJECTED, CASEMENT)

- A. Windows (Fixed, Projected Awning or Hopper, Casement)
 - 1. Style: Ply Gem Pr Series 700 PVC vinyl, profiles as shown in drawings.
 - 2. Glazing method: PVC vinyl glazing beads
 - 3. Performance class: AAMA/WDMA/CSA 101/I.S.2/A440-08 CW-PG50 (Fixed) or CW-PG40 (Casement) or CW-PG 40 (Awning)
 - 4. Finish options:
 - a. Integral White or Clay color.

2.3 MATERIALS

- A. Vinyl Extrusions: Lineal vinyl extrusions with multiple hollow chambers. Fusion, heat welded corners.
- B. Fasteners: Do not use exposed fasteners except for hardware
 - 1. Hardware fasteners: Match finish of hardware
 - 2. Anchor fasteners: Same as anchors
 - 3. Other fasteners: Non-corrosive and corrosive resistant materials that is compatible with materials being fastened
- C. Concealed anchors (one of the following):
 - 1. Steel, hot dip zinc coated after fabrication in accordance with ASTM 123
 - 2. Stainless steel
 - 3. 1" wide x 5" long galvanized steel masonry anchors
- D. Pile weather-stripping: Woven pile of wool, polypropylene or nylon; complying with AAMA 701/702-11.
- E. Sealant: Use only non hardening, non shrinking and non migrating materials.
 - 1. For non working, metal to metal joints within the window utilize small joint sealant complying with AAMA 800-10.

2. For joints between window units and other building components, use sealant as specified in Division 7.
 3. For glazing: Provide products specified in Section 08 80 00.
- F. Dissimilar metal coating: Non conductive, non absorptive.

2.4 FABRICATION

- A. Fabricate vinyl windows that are reglazable without dismantling sash or ventilator framing.
- B. Provide full-perimeter weatherstripping for each operable sash and ventilator.
- C. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.
- D. Provide water-shed members above side-hinged ventilators and similar lines of natural water penetration.
- E. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.

PART 3 – EXECUTION

3.1 EVALUATION

- A. Inspect window openings before installation. Do not install windows if any detrimental conditions exist.

3.2 INSTALLATION OF WINDOWS

- A. Comply with architectural drawings and addendums, manufacturer's approved shop drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in sill pan or sill flashing (if shown in drawings) and/or bed in sealant or with gaskets, as indicated, for weather tight construction.
- D. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to exterior. Install flashing members over mullion joints where two or more windows are joined in window wall.
- E. Coat all metals that come into contact with masonry, concrete and treated wood using one of the materials specified.

- F. Adjust operating sashes and ventilators, screens, hardware, and accessories for a tight and proper fit at contact points and weather stripping for smooth operation and weather tight closure. Lubricate hardware and moving parts.
- G. Clean surfaces immediately after installing windows following manufacturer's cleaning instructions. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances. Do Not remove AAMA certification labels from window frames.
- H. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- I. Do not remove NFRC or CBC California 2010 Title 24 compliance labels from glass until after final inspection and approval from code enforcement personnel. Then, remove any protective film protecting glass and clean glass following manufacturer's written recommendations for final cleaning and maintenance.
- J. Install joint sealers between sill members and the surface below, as indicated, to provide weather tight construction. Comply with requirements specified in Division 7 for application of joint sealers.
- K. Coordinate installation with wall flashing and/or weather membrane installation.
- L. Coordinate work with building contractor or owner to protect all window surfaces from muriatic acid or other harsh cleaning solutions that may chemically alter the metal finish, hardware, or other components (i.e. glass) of the window system.

3.3 INSTALLATION OF GLAZING

- A. Installed as specified elsewhere in Division 8.

END OF SECTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes glass and glazing and related work as shown and specified.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, data, and installation instructions for review.
- B. Submittal No. 08 80 00A - Shop Drawings: Submit list of materials proposed for use; identify each glazing condition.
- C. Submittal No. 08 80 00B - Samples: If specifically requested, submit 2 minimum 12" x 12" samples for each glass and glazing specified.
- D. Submittal No. 08 80 00C - Certificates: Certify that products installed comply with U.S. Consumer Product Safety Commission Standards, or show that standards do not apply.
- E. Submittal No. 08 80 00D - Closeout Submittals:
 - 1. O & M Manuals: Maintenance instructions.
 - 2. Guarantee: Provide completed form per General Conditions.

1.4 QUALITY ASSURANCE

- A. Reference Standards:
 - 1. American National Standards Institute (ANSI):
 - a. ASTM E774: Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units.
 - b. ANSI Z97.1: Safety Performance Specifications and Methods of Test for Safety Glazing Used in Buildings.
 - 2. Flat Glass Marketing Association (FGMA): Glazing Manual and Glazing Sealing Systems Manual.
 - 3. Insulating Glass Certification Council (IGCC): ASTM E-2190 specification.
 - 4. Laminators Safety Glass Association (LSCA): Standards Manual
 - 5. Sealed Insulated Glass Manufacturers Association (SIGMA): SIGMA No. 64-7-2- Specification for Sealed Insulating Glass Units.
- B. Labeling: All safety glazing shall bear a label stating that safety glazing is being used. The label shall be legible and visible from the inside. Labeling for tempered glazing shall be etched on each light by the manufacturer.

C. Tempered Glass and Safety Glazing: Comply with United States Consumer Product Safety Commission's "Safety Standards for Architectural Glazing Materials" (16 CFR part 1201) category I or II, as applicable; CBC Standard 24-2 and Section 2402A and 2406.

D. Definitions

1. Sealed Insulating Glass Unit Surfaces:

- a. Surface 1: Exterior surface of outer lite
- b. Surface 2: Interior surface of outer lite (contained within airspace)
- c. Surface 3: Exterior surface of inner lite (contained within airspace)
- d. Surface 4: Interior surface of inner lite

1.5 GUARANTEE

A. Provide manufacturer's warranty agreeing to repair or replace any insulating glass unit that is defective in its material or workmanship beginning at date of manufacture for a period of ten (10) years.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver with manufacturer's labels intact; do not remove until completion of final inspection.

PART 2 – PRODUCTS

2.1 GLASS

A. Acceptable Manufacturers:

1. Cardinal Glass Industries

a. Alternate Manufacturers: Proposed equals are subject to substitution process per Section 01 62 00 - PRODUCT OPTIONS.

b. Insulated Glass Units (TIGU): ASTM E-2190; double pane with low conductivity spacer dual seal silicone edge seal; IGCC class CBA rating.

i. Acceptable Products: Low E 366, as manufactured by Cardinal Glass.

ii. Outer Pane: 3/16 inch Low E 366 (coating on #2 surface), Tempered where noted.

Interior cavity: Purged by dry air, filled with argon gas.

Provide Cardinal Preserve[™] Protective Film on exterior surface (#1) and

Interior surface (#4).

iii. Inner Pane: 3/16 inch clear glass, Tempered where noted

iv. Total Thickness: 1 1/6" inch Overall

v. Visible Light Transmittance (VLT): 64% minimum.

vi. Winter U-Factor: 0.24 maximum.

vii. Solar Heat Gain Coefficient (SHGC): 0.27 maximum.

viii. Shading Coefficient (SC): 0.31 maximum.

ix. Solar Energy Transmittance: 24% maximum

x. Light to Solar Gain Ratio (LSG): 2.37 minimum

- xi. Ultraviolet Light Transmission (Tuv): 5 % maximum
- xii. Internal Grids – 8mm x 25mm Contour Muntin Bar in color matching metal window and storefront extrusions, where shown.

3. GLAZING MATERIALS

- a. General: Factory mixed materials recommended by glass manufacturer for each glazing condition. Provide glazing and bedding putties to match color of frame, sealants, tapes, and other materials necessary to perform glazing work. Provide setting blocks, shims, compression seals, felt and neoprene or vinyl glazing channels as required.

4. ACCESSORIES:

- a. General: Materials recommended by glass or glazing material manufacturer.
- b. Setting Blocks and Spacers: Neoprene chemically compatible with specified sealants.
- c. Glazing Points and Spring Wire Clips: Corrosion resistant.
- d. Filler Rod: Compressible synthetic rubber or foam.
- e. Primer-Sealers and Cleaners: As recommended by glass manufacturer.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine conditions of work in place before beginning work; report defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Take field measurements; report variance between plan and field dimensions.
- B. Environmental Requirements: Glaze in dry conditions; minimum temperature 40 degrees F during and 48 hours after installation of glazing compounds.
- C. Protect glass from damage until occupancy of building; replace glass damaged or broken before final acceptance.
- D. Clean contact surfaces with solvent and wipe dry. Seal porous glazing channels or recesses with material compatible with sealer. Prime surfaces scheduled to receive sealant.

3.3 INSTALLATION

- A. Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. Glass:
 - 1. Dimensions: As shown; tolerances as recommended by manufacturer.
 - 2. Edges: Per referenced standards; nipped edges, or edges treated with abrasives, not acceptable.

C. Glazing:

1. General: Use glass type and thickness shown; glaze with glazing compound or glazing gaskets as required. All exterior walls with glazing shall have insulated glass units; interior walls shall have single pane.
2. Tempered Glass:
 - a. General: Type and thickness, as shown.
 - b. Tinted: Install at exterior, as shown.
3. Obscure Glass: Install where shown; set with pattern on interior side.
4. Insulated Glass Units: Install on exterior, unless shown otherwise.

3.4 CLEANING

- A. Keep premises free from accumulation of waste and debris. At completion of installation remove surplus materials and debris.
- B. At completion clean exposed surfaces in a manner that will not damage finish.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide gypsum board systems including gypsum board, joint treatment, acoustical accessories, and general accessories for complete installation.

1.2 REFERENCES

- A. ASTM C754: Installation of Steel Framing Members to Receive Screw-Attached Gypsum Wallboard, Backing Board, or Water-Resistant Backing Board.
- B. ASTM C840: Application and Finishing of Gypsum Board.

1.3 SYSTEM DESCRIPTION

- A. Performance Requirements: Perform gypsum board systems work in accordance with recommendations of ASTM C754 and ASTM C840 unless otherwise specified.
- B. Openings: Obtain dimensions and locations from other trades and provide openings and enclosures for accessories, specialties, equipment, and ductwork.

1.4 SUBMITTALS

All submittals shall be made under the provisions of Section 01 33 00.

- A. Submittal No. 09 21 16A – Product Data
 - 1. Provide product data on metal framing, gypsum board, joint tape, and decorative finish.
 - 2. Furnish manufacturer's certification indicating products comply with Contract Documents and applicable codes.

1.5 PROJECT CONDITIONS

- A. Do not begin installation of interior gypsum board until space is enclosed, space is not exposed to other sources of water, and space is free of standing water.
- B. Maintain areas to receive gypsum board at minimum 50 degree F for 48 hours prior to application and continuously after application until drying of joint compound is complete; comply with ASTM C840.
- C. Immediately remove from site gypsum board for interior use exposed to water, including gypsum board with water stains, with signs of mold, and gypsum board with mildew.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. United States Gypsum Co., USG Corp.
- B. Georgia-Pacific Corp.

- C. National Gypsum Co.
- D. Substitutions: Refer to Section 01 62 00.

2.2 MATERIALS

- A. Gypsum Board - Standard
 - 1. ASTM C1396, TYPE X, FIRE RATED, 5/8" thick paper faced gypsum panels with tapered edges.
 - B. Moisture Resistant Gypsum Board
 - 1. Equal to Georgia Pacific Corp. "Dens-Armor Plus High Performance" 5/8" thick fiberglass faced, treated gypsum panels with tapered edges. Fire rated Type X.
 - H. Gypsum Board Accessories: Comply with ASTM C840.
 - 1. Gypsum board sealer: Provide one Coat "Hamilton Prep Coat Plus" prior to application of gypsum board texture.
 - 2. Provide protective coated steel corner beads and edge trim; type designed to be concealed in finished construction by tape and joint compound.
 - 3. Corner Beads: Manufacturer's standard metal beads.
 - 4. Edge Trim: "J", "L", "LK", or "LC" casing beads – manufacturer's standard.
 - 5. Reinforcing Tape, Joint Compound, Adhesive, Water, Fasteners: Types recommended by system manufacturer and conforming to ASTM C475.
 - a. Typical Joint Compound: Chemical hardening type for bedding and filling, ready-mixed or powder vinyl type for topping.
 - 6. Control Joints: Back to back casing beads.
 - a. Back control joints with 4 mil thick polyethylene air seal.
 - 7. Reveals: Extruded aluminum special trim pieces in manufacturer's standard or custom shapes to conform to configurations and dimensions indicated.
 - a. Manufactures:
 - 1) Fry Reglet Corp./Drywall Moldings.
 - 2) MM Systems Corp./Drywall Moldings.
 - 3) Gordon Inc./Final Forms I Drywall Trims.
 - 4) Substitutions: Refer to Section 01 62 00.
 - I. Gypsum Board Texture: Equal to USG "Sheetrock Brand" ready mixed wall and ceiling spray texture.
- 2.3 Acoustic Sealant: Serious Energy "Quiet Seal Pro", non-hardening, gun grade sealant per ASTM C834.

PART 3 - EXECUTION

- A. Gypsum Board Installation: Install in accordance with ASTM C840 and manufacturer's recommendations.
1. Use screws when fastening gypsum board to furring and to framing.
 2. Erect gypsum board with ends and edges occurring over firm bearing.
 - a. Ensure joints of second layer do not occur over joints of first layer in double layer applications.
 3. Place control joints to be consistent with lines of building spaces and as directed by Architect.
 - a. Provide where system abuts structural elements.
 - b. Provide at dissimilar materials.
 - c. Lengths exceeding 30'-0" in partitions.
 - d. Ceiling areas exceeding 50'-0" or 2500 square feet.
 - e. Wings of "L", "U" and "T" shaped ceilings.
 4. Place corner beads at external corners; use longest practical lengths.
 5. Place edge trim where gypsum board abuts dissimilar materials.
 6. Tape, fill, and sand exposed joints, edges, corners and openings to produce surface ready to receive finishes; feather coats onto adjoining surfaces.
 7. Finishing: Comply with Gypsum Association (GA) "Levels of Gypsum Board Finish".
 - a. GA Level 4 (Typical): Provide three coat finishing and sanding is required for surfaces indicated to be painted; provide flush, smooth joints and surfaces ready for applied paint finishes.
 - b. Texture:
 - 1) At walls to be painted – provide light orange peel spray texture..
 - 2) Under fabric wall covering – tape and sand only.
 8. Remove and replace defective work.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Provide integral color three-coat Portland cement plaster (stucco) with metal lath and accessories as required for complete finished system.

1.2 REFERENCES

- A. ASTM C926: Application of Portland Cement Based Plaster.
- B. ASTM C1063: Installation of Lathing and Furring for Portland Cement Plaster.

1.3 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

- A. Submittal No. 09 24 00A – Product Data: Submit manufacturer's product information and installation instructions for each lathing material and accessory, and for plaster materials.

1.4 PROJECT CONDITIONS

- A. Take precautionary measures to ensure plaster is not subjected to excessive sun and wind which could cause uneven and excessive evaporation, premature dehydration, or cracking.
- B. Cold-Weather Requirements: Do not apply plaster unless minimum ambient temperature of 40 degrees F has been and continues to be maintained for minimum 48 hours prior to application and until plaster is cured.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portland Cement Plaster: Provide either neat or ready-mixed (where applicable) materials, at Contractor's option, complying with ASTM C926.

1. Basecoat Materials:

- a. Cement: Normal Type 1 or 1A Portland cement, ASTM C150.
- b. Hydrated Lime: Special finishing hydrated lime, Type S, ASTM C206.
- c. Aggregate: Natural sand, conforming to ASTM C897 or C144.

2. Brown Coat Water Acrylic Admix: Acrylic polymer specifically manufactured for use in Portland Cement Plaster (Stucco) applications and which will not detrimentally affect finish.

- a. Manufacturers:

- 1) Larsen Products Corp./Acrylic Admix 101.
- 2) Thoro System Products, Inc./Acryl 60.
- 3) Chem-Masters Corp./Cretelox.
- 4) Or equal.
- 5) Substitutions: Refer to Section 01 62 00.

**SECTION 09 24 00
PORTLAND CEMENT PLASTERING**

3. Finishing Materials: Match Omega Products (800.600.6634)/AkroFlex as approved by Architect.
 - a. Integral Color: Pure, non-fading, mineral oxide color conforming to ASTM C979 and designed and mixed to provide uniform color finish coat.
 - b. Color: As selected by Architect and as required to produce final color of plaster to match Architect approved samples; custom color may be required.
 4. Water: Clean, fresh and free from injurious amounts of oil, acid, alkali, organic matter or other deleterious substances.
- B. Metal Components: Comply with requirements of ASTM C1063.
1. Manufacturers:
 - a. Clark Dietrich Metal Building Systems
 - b. Phillips Manufacturing Co. (formerly National Gypsum).
 - c. Western Metal Lath Co.
 - d. Or equal
 - e. Substitutions: Refer to Section 01 62 00.
 2. Exterior Components: Hot-dip galvanized finish; ASTM A924 and A653 minimum G90 for 18 gage and lighter formed metal products, ASTM A123 galvanized after fabrication for 16 gage and heavier products.
 - a. Exposed Exterior Components: Zinc accessories unless fully concealed in plaster.
 - b. Anchorage and Fastening: Approved devices of type and size to suit application and to rigidly secure suspension system.
 3. Exterior Metal Lath: 18 gauge x 1 inch or 17 gauge x 1.5" woven wire fabric at vertical applications, 2.5 lbs per square yard.
 - a. Backing: Building paper equal to "Super Jumbo Tex" by Fortifiber Building Systems.
 - b. Anchorage: Furring nails meeting the requirements of Table 25A-c of 2001 California Building Code with cardboard spacers.
 4. Inside Corner Mesh: Minimum 26 gage steel; perforated or expanded flanges or clips shaped to permit complete embedding in plaster; minimum 2" x 2" size.
 5. Weather Barrier: Asphalt saturated building paper "GM Craft" as manufactured by GMC Roofing & Building Paper Products, Inc.
- C. Accessories: Provide as indicated, as recommended by referenced standards, and as required for complete installation.
1. Manufacturers:
 - a. Keene Products from Metalex, a Division of The Koller Group.
 - b. Stockton Products.
 - c. Lath manufacturers.
 - d. Or equal
 - e. Substitutions: Refer to Section 01 62 00.

**SECTION 09 24 00
PORTLAND CEMENT PLASTERING**

2. Casing Beads and Base Screeds: Minimum 26 gage, square edges at casing beads; provide with expanded flanges.
3. Foundation Weep Screed: Stockton BSS Blind Stop #10 Drip.
4. Vent Screed: Stockton SVR. Width as detailed on Drawings.
5. Fascia Corner Molding: Stockton #FCM, Extruded Aluminum
6. Plaster Channel Screed: Stockton PCS-DA. Width as detailed on Drawings.
7. Fasteners: Per Table 25A-C, C.B.C
8. Bonding Agent (at concrete or CMU): "Weld Crete" by Larsons Products, Inc.

2.2 PLASTER MIXES

- A. Provide plaster mixes in accordance with ASTM C926 as appropriate to the substrate indicated and the approved samples.
- B. Mix only as much plaster as can be used in one hour.
- C. Mix materials dry, to uniform color and consistency, before adding water.
- D. Protect mixes from frost, dust and evaporation.
- E. Do not retemper mixes after initial set has occurred.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate suspended work with structural work to ensure inserts and structural anchorage provisions have been installed to receive hangers.
 1. Coordinate location of hangers with other work.
- B. Prior to application ensure mechanical and electrical services behind surfaces to receive cement plaster have been tested and approved.
- C. Ensure metal framing has been properly installed and rigidly secured.

3.2 INSTALLATION

- A. Erect furring and lath in accordance with Chapter 25, Section 2507.3, 2010 California Building Code.
- B. Install work true to lines and levels and to provide surface flatness with maximum variation of 1/8" in 10'-0" in any direction.
- C. Metal Lathing: Apply lath taut, with long dimension perpendicular to supports; secure end laps with tie wire where they occur between supports; lap sides minimum 1-1/2"; secure with tie wires.

**SECTION 09 24 00
PORTLAND CEMENT PLASTERING**

1. Continuously reinforce internal angles.
 2. Place 6" wide x 12" long strips of metal lath diagonally at corners of openings; secure rigidly in place.
 3. Place 6" wide strips of metal lath at junctions of dissimilar materials; place parallel with dissimilar materials; secure rigidly in place.
- D. Installation of Metal Accessories:
1. Fasten in place true to line and in correct relation to adjacent materials and as required to prevent dislodging and misalignment by subsequent operations.
 2. Fasten at both ends and at maximum 12" on center along sides.
 3. Bring grounding edge of accessories to true lines, plumb, level, and straight.
 4. Install accessories to provide required depth of plaster and to bring plaster surface to required plane.
 5. Install continuous corner reinforcement for full length of external corners.
 6. Install sill and drip screeds with paper sheathing and lath installed over attachment flange of screeds.
 7. Beads: Use single length of metal beads wherever length of run does not exceed longest standard stock length available; miter or cope corners.
 - a. Provide casing beads where plaster abuts dissimilar construction and at perimeter of openings where edges of plaster will not be concealed by other work.
- J. Portland Cement Plaster: Conform to ASTM C926.
8. Stucco: Factory prepared pre-blended mixture for one or two coat application as manufactured by BMI Products of northern California.
 9. Maintain surface flatness, with maximum variation of 1/8" in 10'-0".
 10. Avoid excessive working of surface, delay trowelling as long as possible to avoid drawing excess fines to surface.

3.3 CUTTING AND PATCHING

- A. Cut, patch, point, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections.
- B. Repair or replace work to eliminate blisters, buckles, crazing, check cracking, dry-outs, efflorescence, sweat-outs, and similar defects.
- C. Finish cutting and patching to match undamaged plaster; patching shall not be visible in finished installation.

3.4 CLEANING

- A. Promptly remove plaster from surfaces not indicated to be plastered.

**SECTION 09 24 00
PORTLAND CEMENT PLASTERING**

- B. Repair surfaces stained, marred or otherwise damaged during plastering.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Provide painting and finishing of exposed items and surfaces.
 - a. Specified surface preparation, priming and coats of paint are in addition to shop-priming and surface treatment specified under other sections of work.

B. Surfaces To Be Painted:

1. New interior and exterior surfaces in the project scope are to be painted as listed under Section 3.5, Painting Systems.

1.2 SUBMITTALS

All submittals shall be submitted under the provisions of Section 01 33 00.

A. Submittal No. 09 90 00A – Product Data and MSDS:

1. Submit product data on all finishing products.
2. Submit manufacturer's application instructions.
3. Submit MSDS on all finishing products.

B. Submittal No. 09 90 00C – Samples for Verification:

1. Submit three samples 8-1/2 x 11 inch in size illustrating color, texture and sheen for each surface-finishing product scheduled. **Owner to review and approve on site.**

1.3 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label, with:

1. Name of material, color and sheen.
2. Manufacturer's name, stock number and date of manufacture.
3. Contents by volume, for major pigment and vehicle constituents.
4. Thinning and application instructions.
5. Color number
6. VOC content

1.4 SITE CONDITIONS

- A. Apply water-base paints when temperature of surfaces and surrounding air are between 50 and 90 degrees F.
- B. Apply solvent-thinned paints when temperature of surfaces and surrounding air are between 45 and 95 degrees F.
- C. Do not apply paint in rain, fog or mist; or when relative humidity exceeds 85 percent; or to damp or wet surfaces.
- D. Painting may be continued during inclement weather if areas to be painted are enclosed and heated within temperature limits specified.

1.5 EXTRA STOCK

- A. Provide a one gallon container of each paint to Owner.
- B. Label each container with color, color number, texture, and room locations, in addition to the manufacture's label.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Benjamin Moore & Co.
- B. Sherwin-Williams Co.
- C. P.P.G. Industries, Inc., Coatings and Resins Division.
- D. Dunn-Edwards Corp.
- E. Glidden Professional.
- F. Kelly Moore Paint Co.
- G. Frazee Paint Co.
- H. Substitutions: Refer to Section 01 62 00.

2.1 MATERIALS

- A. Definition: "Paint" as used herein means coating systems including primers, emulsions, enamels, stains, sealers and fillers, whether used as prime, intermediate or finish coats.
- B. General: Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- C. Material Quality: Provide top line quality commercial grade (professional painter) paints; materials not bearing manufacturer's identification as a best-grade product shall not be acceptable.
 - 1. Primers: Provide premium grade primers recommended by paint manufacturer for substrates indicated and for finish systems specified.
 - 2. Undercoats and Barrier Coats: Provide undercoat paints produced by same manufacturer as finish coats; use only thinners approved by paint manufacturer, and use only within recommended limits.
 - 3. Finish Coats: Provide finish coats capable of being washed with mild detergent without loss of color, sheen, or pigments.
 - a. Color pigments: Pure, non-fading, Zero VOC, applicable types to suit substrates and service indicated; no lead content permitted.
 - 4. Finish Coat Coordination: Provide finish coats that are compatible with prime paints, undercoats, and barrier coats used.

**SECTION 09 90 00
PAINTING AND COATING**

- a. Review other Specification sections in which prime paints are provided; ensure compatibility of total coatings systems.
 - b. Upon request from other trades furnish information on characteristics of finish materials proposed for use.
 - c. Provide barrier coats over incompatible primers or remove and prime as required.
 - d. Notify Architect in writing of any anticipated problems in use of specified coating systems with substrates primed by others.
- D. Colors and Finishes: Prior to commencement of painting work, Architect will provide a color selection for surfaces to be painted.
- 1. Use of proprietary names in color selection is not intended to imply exclusion of equivalent products of other manufacturers.
 - 2. Final acceptance of colors will be from samples applied on site.
- E. Volatile Organic Compound (VOC) Emissions: Select materials that generate least amount of pollution; consider pollution and volatile organic compound (VOC) emissions generated during manufacturing, transport, installation, use, and disposal.
- 1. Avoid materials that contain ozone depleting chemicals and that emit potentially harmful volatile organic compound (VOC) emissions.
 - 2. Avoid materials that can leach harmful chemicals into ground water; do not allow potentially harmful chemicals to enter sewers nor storm drains.
 - 3. Select materials that can be reused or recycled and materials with significant percentage of recycled content; set specific recycled content percentages for individual materials; avoid materials difficult to recycle.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Inspection: Examine areas and conditions under which painting work is to be applied.
 - 1. Start of painting work indicates acceptance of surfaces and conditions of surfaces and conditions within any particular area.
 - 2. Where exposed items or surfaces are not specifically mentioned in Schedules, paint same as adjacent similar materials or areas.
 - 3. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to a durable paint film.
- B. Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as specified for substrate condition.
- C. Correct minor defects and clean surfaces which affect work of this Section.

**SECTION 09 90 00
PAINTING AND COATING**

- D. Remove hardware, accessories, and items in place and not to be painted, or provide protection prior to surface preparation and painting; after painting reinstall removed items.
- E. Clean surfaces before applying paint; remove oil and grease prior to mechanical cleaning; program cleaning so contaminants from cleaning process do not fall onto wet, newly painted surfaces.
- F. Gypsum Board Surfaces: Latex fill minor defects. Spot prime defects after repair.
- G. Cementitious Materials: Prepare by removing efflorescence, chalk, dirt, grease, oils, and by roughening as required to remove glaze.
 - 1. Determine alkalinity and moisture content of surfaces to be painted.
 - 2. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, neutralize before application of paint.
 - 3. Do not paint over surfaces where moisture content exceeds manufacturer's printed directions.
- H. Wood: Clean wood surfaces of dirt, oil, and other foreign substances; sandpaper smooth surfaces exposed to view, and dust off.
 - 1. Scrape and clean seasoned knots and apply thin coat of recommended knot sealer, before application of priming coat.
 - 2. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job; prime edges, ends, faces, undersides, and backsides of wood.
 - 3. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler; sandpaper smooth when dry.
- I. Store materials in tightly covered containers; maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.
- J. Stir materials before application to produce mixture of uniform density, and stir as required during application; do not stir surface film into material, if necessary, strain material before using.

3.2 PROTECTION

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.

3.3 APPLICATION

- A. Apply paint in accordance with manufacturer's directions; use applicators and techniques best suited for substrate and type of material being applied.
 - 1. Apply additional coats when stains or blemishes show through final coat, until paint is a uniform finish, color and appearance.

**SECTION 09 90 00
PAINTING AND COATING**

2. Provide extra attention to assure dry film thickness at corners and crevices is equivalent to that of flat surfaces.
 3. Sand lightly between each succeeding enamel coat and each varnish coat.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated or prepared for painting as soon as practicable after preparation.
1. Allow time between successive coatings to permit proper drying.
 2. Do not recoat until paint feels firm and does not deform or feel sticky under moderate thumb pressure.
- C. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as recommended by coating manufacturer.
- D. Prime Coats: Apply to all surfaces, even if item has shop primed surface; recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat.
- E. Finish Coats: Provide even texture; leave no laps, irregularity in texture, skid marks, or other surface imperfections.
- F. Completed Work: Match approved samples for color, texture and coverage; remove, refinish or repaint work not accepted.

3.4 PAINTING SYSTEMS

- A. Exterior Work: Provide the following paint systems:
1. Exterior Siding and Trim: Match existing sheen/confirm with owner.
 - a. Prime Coat: Sherwin Williams "Loxon" masonry primer.
 - b. 2nd and 3rd Coat: Exterior latex – Sherwin Williams "Super Paint".
 2. Cement Plaster: Match existing sheen/confirm with owner.
 - a. Prime Coat: Sherwin Williams "Loxon" masonry primer.
 - b. 2nd and 3rd Coat: Exterior latex – Sherwin Williams "Super Paint".
- B. Interior Work: Provide the following paint systems:
1. Gypsum Board: Satin sheen.
 - a. One Coat "Hamilton Prep-Coat Plus" prior to application of gypsum board texture.
 - b. One Coat "Sherwin Williams Multi-Purpose" latex primer.
 - c. 2nd and 3rd Coat: "Sherwin Williams ProMar 200" Zero VOC Latex.
 2. Interior wood trim: Satin sheen.
 - a. One Coat "Sherwin Williams Multi-Purpose" latex primer.
 - b. 2nd and 3rd Coat: "Sherwin Williams Pro- Classic" Acrylic Latex Enamel.

3.5 SCHEDULE - SURFACES TO BE PAINTED, EXTERIOR

- A. Fiber cement siding.
- B. Wood Trim.
- C. Cement Plaster.
- D. See paragraph 3.4.

3.6 SCHEDULE - SURFACES TO BE PAINTED, INTERIOR

- A. Gypsum board.
- B. Wood Trim
- C. See paragraph 3.4.

3.7 CLEAN-UP, PROTECTION, AND REPAIR

- A. Clean-Up: During progress of work, remove discarded paint materials, rubbish, cans and rags from site at end of each work day.
 - 1. Clean glass and paint-spattered surfaces immediately by proper methods of washing and scraping, using care not to scratch or damage finished surfaces.
- B. Protection: Protect work of other trades, whether to be painted or not; correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
 - 1. Provide "Wet Paint" signs to protect newly-painted finishes.
 - 2. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.
- C. Repair: At completion of work of other trades, touch-up and restore damaged surfaces or defaced painted surfaces following manufacturer's recommendations for touch up and repair. Repair any defects that will hinder the performance of the coatings.

END OF SECTION