
**BIDDING DOCUMENTS
FOR
OWOSSO SCHOOLS
2016 SINKING FUND PROJECTS
DISTRICT WINDOW AND DOOR REPLACEMENTS**

**OWOSSO PUBLIC SCHOOLS
OWOSSO, MICHIGAN**

Prepared By:
SPICER GROUP, INC.
SAGINAW, MICHIGAN
MARCH 2016

Plans Included

DA-1287- 01-9

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ADVERTISEMENT

**OWOSSO SCHOOLS 2016 SINKING FUND PROJECTS
DISTRICT WINDOW AND DOOR REPLACEMENTS**

**OWOSSO PUBLIC SCHOOLS
SHIAWASSEE COUNTY, MICHIGAN**

Bids will be received by **The Owosso Public Schools (OWNER)** at the **Washington Campus, 645 Alger Street, Owosso, MI 48867** for **District Window and Door Replacements**. Bids will be received until **3:00 p.m.** local time on **March 16, 2016**. Bids will be publicly opened and read aloud at that time.

Each proposal shall be accompanied by certified check or bidder's bond in the amount of 5% of the bid. Checks shall be drawn payable to **Owosso Public Schools** as security for the acceptance of the Contract and subject to the conditions stated in the Instructions to Bidders.

A **mandatory** prebid conference will be held on **March 9, 2016 @ 3:30 p.m.** at **Owosso Middle School, 219 North Water Street, Owosso, MI 48867**. Representatives of OWNER and Professional will be present to discuss the Project. Bidders are required to attend and participate in the conference. Professional will transmit to all prospective Bidders of record such Addenda as Professional considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

Electronic copies of plans, proposal forms and specifications may be viewed beginning March 2, 2016 on the bidding section of the Spicer Group, Inc. website at www.spicergroup.com. Use the bid form in the specifications for submittal of a sealed bid. All addendums will be posted to this website. The Bidder is responsible for ensuring all addendums have been received and acknowledged prior to submittal of the bid. No paper copies of these documents will be available for purchase.

OWNER:
OWOSSO PUBLIC SCHOOLS
645 Alger Street
Owosso, MI 48867

DESIGN PROFESSIONAL:
Spicer Group, Inc.
230 S. Washington Avenue
Saginaw, MI 48607

INSTRUCTIONS TO BIDDERS

Defined Terms:

1.1 Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in General Conditions. The term "Bidder" means one who submits a Bid directly to OWNER, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible and responsive Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids). The term "Issuing Office" means the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

Copies of Bidding Documents:

2.1 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Owosso Public Schools. The deposit will not be refunded.

2.2 Complete sets of the Bidding Documents must be used in preparing Bids; neither OWNER nor Professional assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3 OWNER and Professional in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

Qualifications of Bidders:

3.1 To demonstrate qualifications to perform Work, each Bidder must be prepared to submit within five days of OWNER's request written evidence, such as financial data, previous experience, present commitments and other such data as may be called for below (or in the Supplementary Conditions). Each bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of contract. Bidder must complete AIA Document 305, Contractor's Qualification Statement and submit it with Bid. Failure to do so may result in rejection of Bid.

Examination of Contract Documents and Site:

4.1 It is the responsibility of each Bidder before submitting a Bid to:

4.1.1 To examine the Contract Documents thoroughly and other related data identified in the Bidding Documents (including "technical data" referred to below);

4.1.2 To visit the site and to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;

4.1.3 To consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;

4.1.4 To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data and;

4.1.5 To promptly notify Professional of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.

4.1.6 To attend the mandatory Pre-Bid meeting.

4.1.7 To field verify all dimensions

4.2 Reference is made to the Supplementary Conditions, if applicable, for identification of:

4.2.1 Those reports of explorations and tests of subsurface conditions at or contiguous to the site which have been utilized by Professional in preparation of the Contract Documents. Bidder may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for the purposes of bidding or construction.

4.2.2 Those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site that have been utilized by Professional in preparation of the Contract Documents. Bidder may rely upon the accuracy of the "technical data" contained in such drawings but not upon other data, measurements, interpretations, opinions or information shown or indicated in such drawings or otherwise relating to such structures, nor upon the completeness thereof for the purposes of bidding or construction.

4.2.3 Copies of such reports and drawings will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents. Bidder is responsible for any interpretation or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.3 Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and Professional by owners of such Underground Facilities or others, and OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.4 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Paragraphs 4.2 and 4.3 of the General Conditions.

4.5 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, test and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.6 On request in advance, OWNER will provide each Bidder access to the site to conduct such explorations, examinations, investigations, studies, and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such activities.

4.7 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by CONTRACTOR. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

4.8 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and the specific means, methods, techniques, sequences or procedures of construction as may be shown or indicated in or expressly required by the Contract Documents, and the Bidder has given Professional written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof by Professional is acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

4.9 In the event of a discrepancy between the Owner and the bidder, the specifications shall supercede the Drawings. The submission of a bid shall guarantee that the bidder has read and reviewed the contract documents completely.

Interpretations and Addenda:

5.1 All questions about the meaning or intent of the Contract Documents are to be directed to Professional. Interpretations or clarifications considered necessary by Professional in response to such questions will be issued by Addenda via U.S. Postal Service First Class Mail, other package courier such as United Parcel Service (U.P.S.), or delivered to all parties recorded by Professional as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or Professional.

Bid Security:

6.1 Each Bid must be accompanied by Bid security made payable to OWNER in an amount of five percent of the Bidder's maximum Bid price and in the form of a certified check or a Bid Bond issued by a surety meeting requirements of Article 5, Bonds and Insurance, Paragraph 5.1, of the General Conditions section of the Bidding Documents.

6.2 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh day after the Effective Date of the Agreement or one day longer than Bid hold period after the Bid opening, whereupon Bid security furnished by such Bidders may be returned.

Contract Time:

7.1 The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time is defined in the General Conditions) are set forth in the Bid Form and the Agreement.

Liquidated Damages:

8.1 Provisions for liquidated damages, if any, are set forth in the Agreement.

9.1 The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to Professional, application for such acceptance will not be considered by Professional until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by Professional is set forth in Paragraphs 6.7.1, 6.7.2 and 6.7.3 of the General Conditions and may be supplemented in the General Requirements.

Subcontractors, Suppliers and Others:

10.1 If the OWNER requires the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within seven days after the Bid opening submit to OWNER a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualifications for each such Subcontractor, Supplier, person or organization if requested by OWNER. An OWNER or Professional who, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, may on or before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute, in which case the apparent Successful Bidder shall submit an acceptable substitute, that Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and OWNER may consider such price adjustment in evaluating Bids and making the contract award. If apparent Successful Bidder declines to make any such substitutions, OWNER may award the contract to the next lowest bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Suppliers, or other person or organization listed and to whom OWNER and Professional do not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and Professional subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.8 of the General Conditions.

10.2 In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to OWNER those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with OWNER's written consent.

10.3 No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

Bid Form:

11.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained from Professional (or the issuing office). Unless noted otherwise in the Bid Form, only the Bid Form and its specified documents shall be submitted.

11.2 All blanks on the Bid Form must be completed in ink or by typewriter.

11.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature. Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided. State contractor license number, if any, must also be shown.

11.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

- 11.5 All names must be typed or printed below the signature.
- 11.6 The Bid shall contain an acknowledgment of receipt of all issued Addenda (the numbers of which must be filled in on the Bid Form).
- 11.7 The address and telephone number for communications regarding the Bid must be shown.
- 11.8 The "Legal Status of Bidder" data must be filled out and included with the Bid Form.
- 11.9 Michigan House Bill No. 5376 amends Public Act 451 of 1976 to include a new familial relationship disclosure requirement and as such all bids shall be accompanied by a sworn statement disclosing any familial relationship that exists between the owner(s) or any employee of the bidder and any member of the Board of Education of the School District or the Superintendent of the School District. The Board of Education shall not accept a bid that does not include a sworn and notarized familial relationship disclosure statement.

Submission of Bids:

12.1 Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. Each prospective Bidder is furnished one copy of Bidding Documents with one separate unbound copy of each of the Bid Form and the Bid Bond. The Bidding Documents may be retained by Bidder. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and other required documents. Faxed bids shall not be accepted.

12.2 A mandatory pre-bid conference will be held at **3:30 PM on March 9, 2016 at Owosso Middle School, 219 N. Water Street, Owosso, MI 48867**. Representatives of OWNER and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be binding or legally effective. Bidders not attending the pre-bid conference will not be allowed to bid on this project.

Modification and Withdrawal of Bids:

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

13.2 If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

Opening of Bids:

14.1 Bids will be opened and (unless obviously non-responsive) read aloud publicly at the place indicated in the Advertisement or Invitation to Bid. An abstract of the amounts of the base Bids and major alternatives (if any) will be made available to Bidders after the opening of Bids.

Bids to Remain Subject to Acceptance:

15.1 All bids will remain subject to acceptance for **30** days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

Award of Contract:

16.1 OWNER reserves the right to reject any and all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

16.2 In evaluating Bids, OWNER will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

16.3 OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Bidform. OWNER also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

16.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

16.5 If the contract is to be awarded, it will be awarded to the lowest or best qualified Bidder whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.

16.6 If the contract is to be awarded, OWNER will notify the Successful Bidder during the Bid hold period.

Contract Security and Insurance:

17.1 Article 5.1 of the Bonds and Insurance section of the General Conditions set forth OWNER's requirements as to Performance and Payment Bonds and Insurances. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required performance and payment Bonds and Insurance papers.

Signing of Agreement:

18.1 When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen days thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds and Insurances. Thereafter, OWNER shall deliver one fully signed counterpart to CONTRACTOR.

Retainage:

19.1 Provisions concerning retainage and CONTRACTOR's rights to deposit securities in lieu of retainage are set forth in the Agreement.

BID FORM
(Proposal)

A. PROJECT IDENTIFICATION: 2016 SINKING FUNDS PROJECTS – DISTRICT WINDOW AND DOOR REPLACEMENTS

B. CONTRACT IDENTIFICATION AND NUMBER: 123146SG2015

C. THIS BID IS SUBMITTED TO: OWOSSO PUBLIC SCHOOLS, OWOSSO, MICHIGAN

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance during the Bid hold period. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within fifteen days after the date of OWNER's Notice of Award.
3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - a. BIDDER has examined and read copies of all the Bidding Documents and of the following Addenda. There is no Addendum Acknowledgment sheet; therefore, please acknowledge receipt of Addenda below:

(BIDDER NOTE: Bidder shall fill in date and number of all addenda. Bidder shall submit signed copies of Addendum, acknowledgement receipt of issued with each Addendum with the bid. If no addenda have been issued, insert "N/A".)

Date of Issue	Addendum No.
_____	_____
_____	_____
_____	_____

- b. BIDDER has visited the site and conducted a complete examination of the area and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work;
 - c. BIDDER is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

- d. BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. BIDDER accepts the determination set forth in paragraph 4.2 of the General Conditions of the extent of the "technical data" contained in such reports and drawings upon which BIDDER is entitled to rely as provided in paragraph 4.2 of the General Conditions. BIDDER acknowledges that such reports and drawings are not Contract Documents and may not be complete for BIDDER's purposes. BIDDER acknowledges that OWNER and Professional do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- e. BIDDER is aware of the general nature of Work to be performed by OWNER and others at the site that relates to Work for which the Bid is submitted as indicated in the Contract Documents.
- f. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- g. BIDDER has given PROFESSIONAL written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by PROFESSIONAL is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

4. BIDDER will complete the Work in accordance with the Contract Documents for the following prices(s):

LUMP SUM BID

1.	Lump Sum	Middle School Window Improvements	\$ _____
2.	Lump Sum	District Door Replacement	\$ _____
3.	Lump Sum	Owner's Discretionary Allowance	\$ <u>100,000.00</u>

For the work complete, the total contract sum of: _____ Dollars
 \$ _____

5. BIDDER agrees that the Work:
 - a. All work will be substantially complete by August 15, 2016, such that these systems may be used for their intended purpose, and school may be put into session for the 2016-2017 school year with no disruption. In accordance with paragraph 14.13 of the general conditions.
 - b. Project shall be ready for final inspection by August 26, 2015.
6. The following documents are attached to and made a condition of this Bid:
 - a. Required 5% Bid Security in the form of Bid Bond or Certified Check.
 - b. If required, BIDDER's Qualification Statement with supporting data.
7. Communications concerning this Bid shall be addressed to: **Darrick Huff, P.E., Project Manager, Spicer Group, Inc., 230 S. Washington Ave., Saginaw, MI 48607-1286, Phone: (989) 754.4717, Fax: (989) 754.4440.**
8. Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions.

9. Dated and signed at _____ State of _____.

this _____ day of _____ 20_____.

Name of Bidder: _____

By: _____
(Authorized Officer's Name)

Its: _____
(Officer's Title)

Business Address: _____

(Zip Code)

Telephone Number: (____) _____ Fax Number: (____) _____

Federal I.D. Number: _____

If BIDDER is: (Note to BIDDER - Fill out appropriate section.)

AN INDIVIDUAL

By _____ (SEAL)
(Individual's Name)

doing business as _____

A PARTNERSHIP

By _____ (SEAL)
(Firm Name)

(General Partner)

A CORPORATION

By _____ (SEAL)
(Corporation Name)

(State of Incorporation)

By _____ (SEAL)
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Date of Qualification to do business is _____

A JOINT VENTURE

By _____ (SEAL)
(Name)

(Address)

By _____ (SEAL)
(Name)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above).

AFFIDAVIT OF BIDDER

The undersigned, the owner or authorized officer of _____ (the "Bidder"), pursuant to the familial disclosure requirement provided in the _____ (the "School District") advertisement for construction bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the owner(s) or any employee of _____ and any member of the Board of Education of the School District, or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

By: _____

Its: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 2016, by

_____.

,Notary Public

_____ County, Michigan

My Commission Expires : _____

Acting in the County of: _____

PROJECTS UNDER ACT NO. 524 OF PUBLIC ACTS OF 1980

General Information

1. Interest will be paid on retainage in accordance with the Act.
2. The Contractor may request reasonable interest on accounts past due on prior progress payments which can be included in the next request for payment.
3. Retainage will be in accordance with the Act, Subsections 3 and 4.
4. All matters described in Subsection 3 of the Act shall be submitted to the decision of an agent at the option of the Owner.

Retainage. The retainage for the project shall be as follows:

1. For projects with Payment Schedule No. 1, the retainage shall be in accordance with Act No. 524.
2. For projects with Payment Schedule No. 2, the retainage shall be ten percent (10%) of the contract price.

Payment. All requests for payment shall be in compliance with Act No. 524 of Public Acts of 1980. Construction contracts having a dollar value of less than \$30,000 or a contract that provides for three or fewer payments shall be exempt from the Act.

The requests for payments shall be made in accordance with one of the following Payment Schedules:

Payment Schedules

1. Not later than the 25th day of each calendar month, the Owner will make partial payment to the Contractor on the basis of a duly certified, as approved by the project manager and Owner estimate of the work performed during the preceding calendar month by the Contractor, but the Owner will retain a percentage as stated in Act No. 524 of the amount of each such estimate until final completion and acceptance of all work covered by this contract.
2. Payment requests shall be limited to three or fewer payments less ten percent (10%) retained on each payment request, except for the final payment which shall include all amounts previously retained. Payment requests will only be permitted after completion of fifty percent (50%) of the project, after seventy-five percent (75%) of the project and after one hundred percent (100%) of the project is completed and accepted. No payment request will be made within 30 consecutive days of a previous request.

Act No. 524

Public Acts of 1980

Approved by Governor

January 29, 1981

STATE OF MICHIGAN

80TH LEGISLATURE

REGULAR SESSION OF 1980

Introduced by Rep. Ryan

ENROLLED HOUSE BILL NO. 5541

AN ACT to provide for the terms of certain construction contracts with certain public agencies; to regulate the payment and retainage of payments on construction contracts with certain public agencies; and to provide for the resolution of certain disputes.

The People of the State of Michigan enact:

Sec. 1. As used in this act:

(a) "Agent" means the person or persons agreed to or selected by the contractor and the public agency pursuant to section 4(2).

(b) "Architect or professional engineer" means an architect or professional engineer licensed under Act No. 299 of the Public Acts of 1980, being sections 339.10 to 339.2601 of the Michigan Compiled Laws, and designated by a public agency in a construction contract to recommend progress payments.

(c) "Construction contract" or "contract" means a written agreement between a contractor and a public agency for the construction, alternation, demolition, or repair of a facility, other than a contract having a dollar value of less than \$30,000.00 or a contract that provides for 3 or fewer payments.

(d) "Contract documents" means the construction contract; instructions to bidders, proposal; conditions of the contract; performance bond; labor and material bond; drawings; specifications; all addenda issued before execution of the construction contract and all modifications issued subsequently.

(e) "Contractor" means an individual, sole proprietorship, partnership, corporation, or joint venture, that is a party to a construction contract with a public agency.

(f) "Facility" means a building, utility, road, street, boulevard, parkway, bridge, ditch, drain, levee, dike, sewer, park, playground, or other structure or work that is paid for with public funds or a special assessment.

(g) "Progress payment" means a payment by a public agency to a contractor work in place under the terms of a construction contract.

(h) "Public agency" means this state, or a county, city, township, village, assessment district, or other political subdivision, corporation, commission, agency, or authority created by law. However, public agency does not include the state transportation department, a school district, junior or community college, the Michigan state housing development authority created in Act No. 346 of the Public Acts of 1966, as amended, beings sections 125.1401 to 125.1496 of the Michigan Compiled Laws, and a municipal electric utility or agency. "Assessment district" means the real property within a distinct area upon which special assessments are levied or imposed for the construction, reconstruction, betterment, replacement or repair of a facility to be paid for by funds derived from those special assessments imposed or levied on the benefitted real property.

(i) "Retainage" or "retained funds" means the amount withheld from a progress payment to a contractor pursuant to section 3.

Sec. 2

(1) The construction contract shall designate a person representing the contractor who will submit written requests for progress payments, and a person representing the public agency to whom requests for progress payments are to be submitted. The written requests for progress payments shall be submitted to the designated person in a manner and at such times as provided in the construction contract.

(2) The processing of progress payments by the public agency may be deferred by the public agency until work having a prior sequence, as provided in the contract documents, is in place and is approved.

(3) Each progress payment requested, including reasonable interest if requested under subsection (4), shall be paid within 1 of the following time periods, whichever is later.

(a) Thirty days after the architect or professional engineer has certified to the public agency that work is in place in the portion of the facility covered by the applicable request for payment in accordance with the contract documents.

(b) Fifteen days after the public agency has received the funds with which to make the progress payment from a department or agency of the federal or state government, if any funds are to come from either of those sources.

(4) Upon failure of a public agency to make a timely progress payment pursuant to this section, the person designated to submit requests for progress payments may include reasonable interest on amounts past due in the next request for payment.

Sec. 3

(1) To assure proper performance of a construction contract by the contractor, a public agency may retain a portion of each progress payment otherwise due as provided in this section.

(2) The retainage shall be limited to the following:

(a) Not more than 10% of the dollar value of all work in place until work is 50% in place.

(b) After the work is 50% in place, additional retainage shall not be withheld unless the public agency determines that the contractor is not making satisfactory progress, or for other specific cause relating to the contractor's performance under the contract. If the public agency so determines, the public agency may retain not more than 10% of the dollar value of work more than 50% in place.

(3) The retained funds shall not exceed the pro rata share of the public agency's matching requirement under the construction contract and shall not be commingled with other funds of the public agency and shall be deposited in an interest bearing account in a regulated financial institution in this state wherein all such retained funds are kept by the public agency which shall account for both retainage and interest on each construction contract separately. A public agency is not required to deposit retained funds in an interest bearing account if the retained funds are to be provided under a state or federal grant and the retained funds have not been paid to the public agency.

(4) Except as provided in section 4(7) and (8), retainage and interest earned on retainage shall be released to a contractor together with the final progress payment.

(5) At any time after 94% of work under the contract is in place and at the request of the original contractor, the public agency shall release the retainage plus interest to the original contractor only if the original contractor provides to the public agency an irrevocable letter of credit in the amount of the retainage plus interest, issued by a bank authorized to do business in this state, containing terms mutually acceptable to the contractor and the public agency.

Sec. 4

(1) The construction contract shall contain an agreement to submit those matters described in subsection (3) to the decision of an agent at the option of the public agency.

(2) If a dispute regarding a matter described in subsection (3) arises, the contractor and the public agency shall designate an agent who has background, training, and experience in the construction of facilities similar to that which is the subject of the contract, as follows:

(a) In an agreement reached within 10 days after a dispute arises.

(b) If an agreement cannot be reached within 10 days after a dispute arises, the public agency shall designate an agent who has background, training, and experience in the construction of facilities similar to that which is the subject of the contract and who is not an employee of the agency.

(3) The public agency may request dispute resolution by the agent regarding the following:

(a) At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the contractor.

(b) At any time after 94% of work under the contract is in place, whether there has been an unacceptable delay by the contractor in performance of the remaining 6% of work under the contract. The agent shall consider the terms of the contract and the procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable and prudent practices in the industry for completion of the project.

(4) This dispute resolution process shall be used only for the purpose of determining the rights of the parties to retained funds and interest earned on retained funds and is not intended to alter, abrogate, or limit any rights with respect to remedies that are available to enforce or compel performance of the terms of the contract by either party.

(5) The agent may request and shall receive all pertinent information from the parties and shall provide an opportunity for an informal meeting to receive comments, documents, and other relevant information in order to resolve the dispute. The agent shall determine the time, place and procedure for the informal meeting. A written decision and reasons for the decision shall be given to the parties within 14 days after the meeting.

(6) The decision of the agent shall be final and binding upon all parties. Upon application of either party, the decision of the agent may be vacated by order of the circuit court only upon a finding by the court that the decision was procured by fraud, duress, or other illegal means.

(7) If the dispute resolution results in a decision.

(a) That there has been a delay as described in subsection (3)(a), all interest earned on retained funds during the period of delay shall become the property of the public agency.

(b) That there has been unacceptable delay as described in subsection (3)(b), the public agency may contract with a subsequent contractor to complete the remaining 6% of work under the contract, and interest earned on retained funds shall become the property of the public agency. A subsequent Contractor under this subdivision shall be paid by the public agency from the following sources until each source is depleted, in the order listed below:

(i) The dollar value of the original contract, less the dollar value of funds already paid to the original contractor and the dollar value of work for which the original contractor has not received payment.

(ii) Retainage from the original contractor, or funds made available under a letter of credit provided under section 3(5).

(iii) Interest earned on retainage from the original contractor, or funds made available under a letter of credit provided under section 3(5).

(8) If the public agency contracts with a subsequent contractor as provided in subsection (7)(b), the final progress payment shall be payable to the original contractor within the time period specified in section 2(3). The amount of the final progress payment to the original contractor shall not include interest earned on retained funds. The public agency may deduct from the final progress payment all expenses of contracting with the subsequent contractor. This act shall not impair the right of the public agency to bring an action or to otherwise enforce a performance bond to complete work under a construction contract.

Sec. 5

(1) Except as provided in subsection (2), this act shall apply only to a construction contract entered into after the effective date of this act.

(2) For a construction contract entered into before the effective date of this act, the provisions of this act may be implemented by a public agency, through a contract amendment, upon the written request of the contractor, with such consideration as the public agency considers adequate.

Sec. 6

This act shall take effect January 1, 1983.

AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE

THIS AGREEMENT is dated as of the _____ day of _____ in the year **2016** by and between

OWOSSO PUBLIC SCHOOLS (hereinafter called OWNER) and

(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR in consideration of the mutual covenants hereinafter set forth, agree as follows:

Owosso Schools 2016 Sinking Fund Projects – District Window and Door Replacements, Owosso, Michigan

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Work - The entire completed construction of the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

The Project for which the Work under the Contract Documents is being done may be the whole or only a part is generally described as follows: Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Article 2. PROFESSIONAL

The Project has been designed by: **Spicer Group, Inc.**

who is hereinafter called PROFESSIONAL and who is to act as OWNER's representative, assume all duties and responsibilities and have the rights and authority assigned to PROFESSIONAL in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME

- 3.1 The Work will be substantially completed by **August 15, 2016**, and ready for final payment at least one (1) week prior to the first week of school for the **2016-2017** school year in accordance with paragraph 14.13 of the General Conditions per the times as indicated in the Bid Form, Section 5.
- 3.2 *Liquidated Damages.* OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **five hundred dollars (\$500.00)** for each day that expires after the time specified in Section 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the Contract Time specified in Section 3.1 or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER **five hundred dollars (\$500.00)** for each day that expires after the time specified in Section 3.1 for completion and readiness for final payment.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.1 below:

LUMP SUM BID

4.1 For all work, a Lump Sum of:

For the work complete:

_____ Dollars \$ _____
(use words) (figures)

All Specific cash allowances are included in the above price and have been computed in accordance with paragraph 11.8 of the General Conditions;

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by PROFESSIONAL as provided in the General Conditions.

- 5.1 OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by PROFESSIONAL, on or about the 25th day of each month during construction. All such payments will be measured by the schedule of values established in paragraph 2.9 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
- 5.2 *Final Payment.* Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by PROFESSIONAL as provided in Section 14.13.

Article 6. INTEREST

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest as allowed by law at the place of the Project.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has examined, read and carefully studied the Contract Documents (including the Addenda) and other related data identified in the Bidding Documents including "technical data".
- 7.2 CONTRACTOR has visited the site, conducted an alert, heads-up, eyes-open reasonable examination of the area, and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

- 7.4 CONTRACTOR has carefully studied all reports of explorations and tests of subsurface or physical conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified, if any, in the General Conditions as provided in paragraph 4.2.1. CONTRACTOR accepts the determination set forth in paragraph 4.2.2 of the General Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.2 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and Professional do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.6 CONTRACTOR has correlated the information known to the CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 7.7 CONTRACTOR has given PROFESSIONAL written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by PROFESSIONAL is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement.
- 8.2 Exhibits to this Agreement.
- 8.3 Performance and Payment Bonds.
- 8.4 Notice to Proceed.
- 8.5 General Conditions.
- 8.6 Specifications contained herein.
- 8.7 Drawings as listed on this document's Title Page.
- 8.9 Addenda.
- 8.10 CONTRACTOR's Bid.
- 8.11 Documentation submitted by CONTRACTOR prior to Notice of Award.
- 8.12 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached

hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are deemed attached to this Agreement.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

Article 9. MISCELLANEOUS

9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.5 **CONTRACT INTERESTS BY OWOSSO PUBLIC SCHOOL DISTRICT OFFICE.** In accordance with Michigan Statutes, no Owosso Public School district public official, member of Owosso Public School District public official's immediate family, nor any organization with which the Owosso Public School District public official or a member of the official's immediate family owns or controls at least 10% of the outstanding equity, voting rights, or outstanding indebtedness may enter into any contract or lease involving a payment or payments of more than \$3,000 within a twelve (12) month period, in whole or in part derived from Owosso Public School District funds unless the Owosso Public School District public official has first made written disclosure of the nature and extent of such relationship or interest to the board and to the department acting for the Owosso Public School District in regard to such contract or lease. Any contract or lease entered into in violation of this subsection may be voided by the Owosso Public School District in an action commenced within three (3) years of the date on which the ethics board, or the department or officer acting for the Owosso Public School District in regard to the allocation of Owosso Public School District funds from which such payment is derived, knew or should have known that a violation of this subsection had occurred.

9.6 **Substance Abuse Prevention. Mission/Purpose:** The Owosso Public School District recognizes and supports drug-free workplace programs as an important element in the national strategy to reduce the devastating effects of drug and alcohol abuse in our society. The Owosso Public School District requires contractors, subcontractors, suppliers and vendors to establish and enforce drug-free workplace policies and programs.

Statement: The possession, use of, distribution or purchase of illegal drugs, or use of alcohol at work by any employee on Owosso Public School district construction job sites, should be strictly prohibited.

Statement: All Tobacco use is strictly prohibited on Owosso Public Schools property. Owosso Public Schools requires that this policy be enforced by all contractors, subcontractors, suppliers and vendors for the entire duration of the project.

The terms of these Substance Abuse and non-tobacco use Statements will cover all construction personnel who are working on Owosso Public School District job sites. This will include employees of all contractors,

subcontractors, contractor suppliers, and their employees, who come to the job sites to do work.

Contractor's Written Program: Each contractor should have in place a written Substance Abuse Program. Each contractor's Substance Abuse Program should have, as a minimum, the following:

- A. *Provisions for testing employees who give their supervisors or company officials sufficient reason to believe that they may be under the influence of alcohol or drugs and therefore may endanger the well-being of other employees or themselves while working on the job site.*

Representatives of the Owosso Public School District who believe that any contractor's employee may be under the influence of alcohol or drugs shall, where deemed appropriate, contact the contractor's appropriate management/supervision authority and request that appropriate action be taken. The individual's employer should ensure that the employee immediately removed from the job site.

- B. *Provisions for testing employees who are involved in an accident relating to work on the job site. An accident is defined as any incident, including "near misses", where injury or damage to property did or could have occurred.*

Any employee who test positive for illegal drugs or alcohol should not be allowed to continue working on the job site until after the employer has provided documentation to the Owosso Public School District that the employee has been approved to return to work by a rehabilitation counselor.

- C. *Where there is substantiated evidence that an employee has violated this policy, provisions to notify employee that will result in the employee being denied further access to any Owner-owned job site.* Procedures for testing and handling of positive drug tests must be in compliance and consistent with Owosso Public School District and Federal laws.

Costs of Substance Abuse Programs and Testing: The cost associated with the development, implementation and enforcement of Substance Abuse Programs and any testing required will be the responsibility of each individual contractor for the respective employee working on the job site. The Owosso Public School District will not be responsible for any cost of substance abuse testing, rehabilitation or medical reviews related to substance abuse. The contractor further agrees to indemnify and hold the Owosso Public School District harmless from any damages or other costs incurred which are related to the implementation or enforcement of any substance abuse policy or program.

- 9.7 Value Enhancement Proposals. Owosso Public School District wants to receive from all Bidders, with submittal of their bids, whenever possible, a list of items for consideration, as project value enhancement proposals. Owosso Public School District recognizes the effort Contractors spend preparing bids and wishes to take advantage of their expertise in providing a project of enhanced value to the Owner. Items proposed should provide construction cost savings while not significantly impacting quality or function, if review of the documents yields no such opportunities, please advise Owosso Public School District accordingly.

The Bid Documents may include a *Value Enhancement Proposal* from which may be submitted with the BID FORM. If the submittal contains material which is proprietary and confidential, qualifying as a "trade secret", the proposer may complete and submit a *Designation of Confidential and Proprietary Information* form, which may be included in the Bid Documents. Do not include any such information on the BID FORM.

If the lowest qualified responsible Bidder does not submit a *Value Enhancement Proposal* form with its bid, it is requested that this information be provided with submittal of the *Request for Subcontractors Approval* form, but not later than with return of the Contract.

The list of proposed items will be reviewed and evaluated by Owosso Public School district and the A/E. The value (price and quality) of each item will be considered and certain items may be selected for further development. These proposed project enhancement negotiations comply with the provision of the

specifications. Contractors are responsible for meeting all Bid Document requirements, unless a written Contract modification or change order is issued.

9.8 STATE OF MICHIGAN MANDATED BACKGROUND CHECKS. All contractors and their employees, who will be working on this project, will be required to undergo fingerprinting and submit to a Michigan State Police background check per (MCL 380.1230). All costs associated with this requirement shall be the responsibility of the contractor.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and PROFESSIONAL. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by PROFESSIONAL on their behalf.

This Agreement will be effective on _____ (which is the Effective Date of the Agreement).

OWNER: **OWOSSO PUBLIC SCHOOLS**

CONTRACTOR:

By: _____
Dr. Andrea Tuttle, Superintendent

By: _____

Attest: _____

Attest: _____

Address for giving notices:

Address for giving notices:

**Owosso Public Schools
645 Alger Street
Owosso, MI 48867**

PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

Owosso Public Schools
645 Alger Street
Owosso, MI 48867

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*: Owosso High School Fire Alarm System

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

Owosso Public Schools
645 Alger Street
Owosso, MI 48867

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
 - 16.1 **Claim:** A written statement by the Claimant including at a minimum:
 1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
 - 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
 - 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:

NOTICE OF AWARD

Dated: _____, 2016

TO: _____
(BIDDER)

ADDRESS: _____

PROJECT: 2016 SINKING FUNDS PROJECTS

OWNER's CONTRACT NO.: 123146SG2015

CONTRACT FOR: _____
(Insert name of Contract as it appears in the Bidding Documents)

You are notified that your Bid dated _____ for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for: _____

(Insert total Work, alternates or sections or Work awarded)

The Contract Price of your contract is: _____ (\$_____).

Four copies of the proposed Contract Documents (except Drawings) will follow this Notice of Award.

You must comply with the following conditions precedent within ten days of the date of this Notice of Award, that is by:

1. You must deliver to Spicer Group, Inc. 5 fully executed counterparts of the Agreement including the Construction Performance Bond, the Construction Payment Bond, and the Certificates of Insurance.
2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Instructions to Bidders (paragraph 18) and General Conditions (paragraph 5.1).

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid in default, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten days after you comply with the above conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

SPICER GROUP, INC. on behalf of

Owosso Public Schools

(OWNER)

By: _____
Darrick W. Huff, P.E., Project Manager. - SGI

ACCEPTANCE OF AWARD

By: _____
(CONTRACTOR)

Copy to PROFESSIONAL

(TITLE)

(DATE)

NOTICE TO PROCEED

Dated: _____, 2016

TO: _____
(CONTRACTOR)

ADDRESS: _____

PROJECT: 2016 SINKING FUNDS PROJECTS

OWNER's CONTRACT No.: 1213146SG2015

CONTRACT FOR: _____

(Insert name of contract as it appears in the bidding documents)

You are notified that the contract Times under the above contract will commence to run on _____. By the date, you are to start performing your obligations under the contract Documents. In accordance with Article 3 of the Agreement the dates of Substantial completion and completion and readiness for final payment are _____.

Before you may start any Work at the site, the General conditions provides that you and Owner must each deliver to the other (with copies to PROFESSIONAL and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the contract Documents.

Also before you may start any Work at the site, you must:

(add other requirements)

(OWNER)

By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

By: _____
(CONTRACTOR)

(AUTHORIZED SIGNATURE)

(TITLE)

(DATE)

ACCEPTANCE OF AWARD

EJCDC No. 1910-23 (1990 Edition)

Prepared by the Engineers Joint Contract Documents committee and endorsed by the Associated General Contractors of America.

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GENERAL CONDITIONS

ARTICLE 1—DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1.1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.2. *Agreement*—The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3. *Application for Payment*—The form accepted by PROFESSIONAL which is to be used in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.5. *Bid*—The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6. *Bidding Documents*—The advertisement or invitation to Bid, instructions to bidders, the Bid form and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7. *Bidding Requirements*—The advertisement or invitation to Bid, instructions to bidders and the Bid form.

1.8. *Bonds*—Performance and Payment bonds and other instruments of security.

1.9. *Change Order*—A document recommended by PROFESSIONAL, which is signed by CONTRACTOR and OWNER and authorizes an

addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.10. *Contract Documents*—The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and PROFESSIONAL's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11. *Contract Price*—The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

1.12. *Contract Times*—The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion and (ii) to complete the Work so that it is ready for final payment as evidenced by PROFESSIONAL's written recommendation of final payment in accordance with paragraph 14.13.

1.13. *CONTRACTOR*—The person, firm or corporation with whom OWNER has entered into the Agreement.

1.14. *defective*—An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to PROFESSIONAL's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

1.15. *Drawings*—The drawings which show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by PROFESSIONAL and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

1.16. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. *Field Order*—A written order issued by PROFESSIONAL which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.18. *General Requirements*—Sections of Division 1 of the Specifications.

1.19. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

1.20. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.21. *Liens*—Liens, charges, security interests or encumbrances upon real property or personal property.

1.22. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.23. *Notice of Award*—The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.24. *Notice to Proceed*—A written notice given by OWNER to CONTRACTOR (with a copy to PROFESSIONAL) fixing the date on which the Contract Times will commence to run and on which

CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.25. *OWNER*—The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.26. *Partial Utilization*—Use by OWNER of a substantially completed part of the Work for the purpose

for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.27. *PCB's*—Polychlorinated biphenyls.

1.28. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

1.29. *PROFESSIONAL*—The person, firm or corporation named as such in the Agreement, performing as the Architect, Engineer, or Planner.

1.30. *PROFESSIONAL's Consultant*—A person, firm or corporation having a contract with PROFESSIONAL to furnish services as PROFESSIONAL's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.31. *Project*—The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.32. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

1.33. *Resident Project Representative*—The authorized representative of PROFESSIONAL who may be assigned to the site or any part thereof.

1.34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.35. *Shop Drawings*—All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.36. *Specifications*—Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

1.37. *Subcontractor*—An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.38. *Substantial Completion*—The Work (or a specified part thereof) has progressed to the point where, in the opinion of PROFESSIONAL as evidenced by PROFESSIONAL's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by PROFESSIONAL's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.39. *Supplementary Conditions*—The part of the Contract Documents which amends or supplements these General Conditions.

1.40. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.41. *Underground Facilities*—All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

1.42. *Unit Price Work*—Work to be paid for on the basis of unit prices.

1.43. *Work*—The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

1.44. *Work Change Directive*—A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by PROFESSIONAL, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.45. *Written Amendment*—A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE 2—PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Times; Notice to Proceed:

2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed.

Starting the Work:

2.4. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

Before Starting Construction:

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to PROFESSIONAL any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from PROFESSIONAL before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or PROFESSIONAL for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6 Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to PROFESSIONAL for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

2.6.3. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.7. N/A

Preconstruction Conference:

2.8. Within twenty days after the Contract Times start to run, but before any Work at the site is started, a

conference attended by CONTRACTOR, PROFESSIONAL and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

Initially Acceptable Schedules:

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, PROFESSIONAL and others as appropriate will be held to review for acceptability to PROFESSIONAL as provided below the schedules submitted in accordance with paragraph 2.6. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to PROFESSIONAL as provided below. The progress schedule will be acceptable to PROFESSIONAL as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on PROFESSIONAL responsibility for the sequencing, scheduling or progress of the work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to PROFESSIONAL as providing a workable arrangement for reviewing and processing the required submittals. CONTRACTOR's schedule of values will be acceptable to PROFESSIONAL as to form and substance.

**ARTICLE 3—CONTRACT DOCUMENTS:
INTENT, AMENDING, REUSE**

Intent:

3.1. The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or

from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifications and interpretations of the Contract Documents shall be issued by PROFESSIONAL as provided in paragraph 9.4.

3.3. Reference to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies:

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to PROFESSIONAL in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or PROFESSIONAL for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

3.3.3.1. the provisions of any such standard,

specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or PROFESSIONAL, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, PROFESSIONAL or any of PROFESSIONAL's Consultants, agents or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.4. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of PROFESSIONAL as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to PROFESSIONAL any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

Amending and Supplementing Contract Documents:

3.5. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.5.1. a formal Written Amendment,

3.5.2. a Change Order (pursuant to paragraph 10.4), or

3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

3.6.1. a Field Order (pursuant to paragraph 9.5),

3.6.2. PROFESSIONAL's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or

3.6.3. PROFESSIONAL's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.7. CONTRACTOR, and any Subcontractor or Supplier or any other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of PROFESSIONAL or PROFESSIONAL's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and PROFESSIONAL and specific written verification or adaption by PROFESSIONAL.

ARTICLE 4——AVAILABILITY OF LANDS;
SUBSURFACE AND PHYSICAL
CONDITIONS; REFERENCE
POINTS

Availability of Lands:

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a correct statement of record legal title and legal description of lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's lien against

such lands in accordance with applicable Laws and Regulations. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Protection of Land Monuments and Property Stakes. Land Monuments or lot stakes marking property corners shall not be moved or otherwise disturbed except as directed by PROFESSIONAL. When they occur within the area of concrete base or pavement, they shall be enclosed as specified by the PROFESSIONAL; such work to be paid for by the OWNER. When, in the judgment of the PROFESSIONAL, land monuments or property lot stakes can be saved, all such stakes shall be marked by the CONTRACTOR in a manner agreed to by the PROFESSIONAL and CONTRACTOR, after which the CONTRACTOR shall protect such land monuments or lot stakes from injury. If any land monuments or lot stakes are moved or disturbed by the CONTRACTOR after their locations have been marked in a manner acceptable to the PROFESSIONAL and CONTRACTOR, then the CONTRACTOR agrees that \$500.00 for each and every land monument or lot stake so moved or disturbed may be deducted from any money due to him as a payment to the OWNER for the cost of replacing or resetting said land monument or lot stake.

4.2. **Subsurface and Physical Conditions:**

It is understood by the CONTRACTOR that if any reports or drawings containing "technical data" were utilized by the PROFESSIONAL regarding subsurface conditions per paragraph 4.2.1.1 of the General Conditions or physical conditions per paragraph 4.2.1.2 of the General Conditions then these reports and drawings would be identified in SC 4.2.1 and no where else in the Contract Documents.

4.2.1. **Reports and Drawings:** Reference is made to the Supplementary Conditions for identification of:

4.2.1.1. **Subsurface Conditions:** Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by PROFESSIONAL in preparing the Contract Documents; and

4.2.1.2. *Physical Conditions:* Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by PROFESSIONAL in preparing the Contract Documents.

4.2.2. *Limited Reliance by CONTRACTOR Authorized; Technical Data:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, PROFESSIONAL or any of PROFESSIONAL's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.2.3. *Notice of Differing Subsurface or Physical Conditions:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1 is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as

inherent in work of the character provided for in the Contract Documents; then

CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.23), notify OWNER and PROFESSIONAL in writing about such condition. CONTRACTOR shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. *PROFESSIONAL's Review:* PROFESSIONAL will promptly review the pertinent conditions, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of PROFESSIONAL's findings and conclusions.

4.2.5. *Possible Contract Documents Change:* If PROFESSIONAL concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. *Possible Price and Times Adjustments:* An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

4.2.6.1. Such Condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4, inclusive;

4.2.6.2. A change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;

4.2.6.3. With respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.10 and 11.9; and

4.2.6.4. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if;

4.2.6.4.1. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.6.4.2. The existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

4.2.6.4.3. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.2.3.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in Articles 11 and 12. However, OWNER, PROFESSIONAL and PROFESSIONAL's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.3. Physical Conditions—Underground Facilities:

4.3.1. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or PROFESSIONAL by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

4.3.1.1. OWNER and PROFESSIONAL shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2. The cost of all the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all

Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2. *Not Shown or Indicated:* If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and PROFESSIONAL, PROFESSIONAL will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If PROFESSIONAL concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document such consequences. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated.

If OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. However, OWNER, PROFESSIONAL and PROFESSIONAL's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by

CONTRACTOR on or in connection with any other projects OR anticipated projects.

Reference Points:

4.4. OWNER may provide engineering surveys to establish reference points for construction which in PROFESSIONAL's judgment are necessary to enable

CONTRACTOR to proceed with the Work. CONTRACTOR is referred to Section 6 of the Proposal (Bid Form) for information regarding the type and level or extent of engineering surveys including reference marks and layout that the OWNER may provide. CONTRACTOR shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to PROFESSIONAL whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel. CONTRACTOR is responsible for the protection, replacement and relocation of all reference points and layout work (staking) provided by the OWNER or the PROFESSIONAL. If the OWNER or PROFESSIONAL has to return to the site a second time or more to reset reference points or layout work (staking) destroyed or rendered inaccurate as a result of the CONTRACTOR's negligent or careless activities then the cost of the OWNER or PROFESSIONAL to reset the reference points or layout work (staking) shall be deducted from the final progress payment to the CONTRACTOR by the OWNER, if applicable.

4.5. Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material:

4.5.1. OWNER shall be responsible for any Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.5.2. CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and PROFESSIONAL (and thereafter confirm such notice in writing). OWNER shall promptly consult with PROFESSIONAL concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice; (i) specifying

that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided in Articles 11 and 12.

4.5.3. If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

4.5.4. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, PROFESSIONAL, PROFESSIONAL's Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this subparagraph 4.5.4 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

4.5.5. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

4.5.6. The above procedures outlined in paragraph 4.5 shall be used if the site on which any Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material is uncovered or revealed is owned and controlled by the OWNER. On sites not owned and controlled by the OWNER, the PROFESSIONAL,

OWNER & CONTRACTOR agree that upon uncovering or revealing Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material it will be the OWNER's responsibility to notify the site's property owner of the discovery.

4.6 **Responsibility for Moving of Structures:** Any buildings, poles, conduits, manholes, catchbasins, valve boxes, trees, water mains and services, storm and sanitary sewers, gas mains and services or other structures which in the opinion of the PROFESSIONAL will have to be moved or changed by the CONTRACTOR, in order to permit the proper construction of the work or will be moved or changed by the respective OWNERS, if that is their practice, at the insistence of the OWNER, unless otherwise specifically stated in the contract documents, but any such structures which, in the opinion of the PROFESSIONAL, can be left without being disturbed, shall be left and the CONTRACTOR shall take all necessary precautions for their protection and he will be held fully responsible for their protection. All costs resulting from the moving of such structures shall be borne by the CONTRACTOR and shall be included in the unit prices or lump sums bid for the work.

ARTICLE 5—BONDS AND INSURANCE

Performance, Payment and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

All insurance required by the Contract Documents to be purchased and maintained by

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CONTRACTOR shall be obtained from surety or insurance companies that are authorized to transact business in Michigan and are classified at not lower than each of the following:

5.1.1. Best's Key Rating Guide, current edition:
(1) Rating Classification: A-
(2) Financial Size Category: Class V.

5.2. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

5.3. Licensed Sureties and Insurers; Certificates of Insurance:

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Insurance Coverages, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain in accordance with paragraph 5.4. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain in accordance with paragraph 5.6 hereof.

CONTRACTOR's Liability Insurance:

5.4. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other

obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts; such as the U.S. Longshore and Harborworkers', Maritime Employment, or Railroad Compensation Act(s), if applicable;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3 through 5.4.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, PROFESSIONAL, PROFESSIONAL's Consultants and any other persons or entities identified in the Insurance Coverages, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Insurance Coverages or required by Laws or Regulations, whichever is greater;

5.4.9. include completed operations insurance;

5.4.10. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.12, 6.16 and 6.31 through 6.33;

5.4.11. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.3.2 will so provide);

5.4.12. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing *defective* Work in accordance with paragraph 13.12; and

5.4.13. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

OWNER's Liability Insurance:

5.5. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6. CONTRACTOR shall purchase and maintain property insurance upon the Work for any or all insurable portions of the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in these Supplementary Conditions or required by Laws and Regulations). This insurance shall:

5.6.1. include the interests of OWNER, CONTRACTOR, SubCONTRACTORS, PROFESSIONAL, and PROFESSIONAL's Consultants and also any other persons or entities specifically identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest as an insured or additional insured;

5.6.2 be written on a Builder's Risk "all-risk" or rider or floater or another policy or special causes of loss policy form that shall at least include insurance for any or all insurable portions of the Work for physical loss and damage to the Work, temporary buildings, falsework and Work in transit and shall insure against at least the following perils: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions.

5.6.3 include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of PROFESSIONAL's and architects);

5.6.4 by an installation floater covering materials and equipment in transit for incorporation in the Work or stored and secured at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment as "materials stored and secured on site" recommended by PROFESSIONAL; and

5.6.5 be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and PROFESSIONAL with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph 5.6 shall comply with the requirements of GC-5.8

5.7. Not in this contract.

5.8. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by OWNER will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has

been issued and will contain waiver provisions in accordance with paragraph 5.11.

5.9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interest of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by CONTRACTOR, Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraphs 5.6, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or written amendment. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.11. **Waiver of Rights:**

5.11.1. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.6 will protect OWNER, CONTRACTOR, Subcontractors, PROFESSIONAL, PROFESSIONAL's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, PROFESSIONAL, PROFESSIONAL's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

5.11.2. In addition, OWNER waives all rights against CONTRACTOR, Subcontractors, PROFESSIONAL, PROFESSIONAL's Consultants and the officers, directors, employees and agents of any of them for:

5.11.2.1. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by OWNER; and

5.11.2.2. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.10, after substantial completion pursuant to paragraph 14.8 or after final payment pursuant to paragraph 14.13.

Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in this paragraph 5.11.2 shall contain provisions to the effect that in the event of payment of any such loss, damage or consequential loss the insurers will have no rights of recovery against any of CONTRACTOR, Subcontractors, PROFESSIONAL, PROFESSIONAL's Consultants and the officers, directors, employees and agents of any of them.

Receipt and Application of Insurance Proceeds:

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest

may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

Acceptance of Bonds and Insurance; Option to Replace:

5.14. If either party (OWNER or CONTRACTOR) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization—Property Insurance:

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6—CONTRACTOR'S
RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and PROFESSIONAL except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and CONTRACTOR will not permit overtime work or the performance of the Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to PROFESSIONAL.

6.4. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the

furnishing, performance, testing, start-up and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall be expressly run to the benefit of OWNER. If required by PROFESSIONAL, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable supplier, except as otherwise provided in the Contract Documents.

Progress Schedule:

6.6. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. CONTRACTOR shall submit to PROFESSIONAL for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.7. Substitutes and "Or-Equal" Items:

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by PROFESSIONAL under the following circumstances:

6.7.1.1. "Or-Equal": If in PROFESSIONAL's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally

equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by PROFESSIONAL as an "or-equal" item, in which case review and approval of the proposed item may, in PROFESSIONAL's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2. *Substitute Items:* If in PROFESSIONAL's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under subparagraph 6.7.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow PROFESSIONAL to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the PROFESSIONAL will include the following as supplemented in the General Requirements and as PROFESSIONAL may decide is appropriate under the circumstances. Request for review of proposed substitute items of material or equipment will not be accepted by PROFESSIONAL from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall first make written application to PROFESSIONAL for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized

estimate of all cost or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by PROFESSIONAL in evaluating the proposed substitute. PROFESSIONAL may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3. *CONTRACTOR's Expense:* All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to PROFESSIONAL. CONTRACTOR shall submit sufficient information to allow PROFESSIONAL, in PROFESSIONAL's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by PROFESSIONAL will be similar to that provided in subparagraph 6.7.1.2.

6.7.3. *Professional's Evaluation:* PROFESSIONAL will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2, PROFESSIONAL will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without PROFESSIONAL's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. PROFESSIONAL will record time required by PROFESSIONAL and PROFESSIONAL's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2. and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not PROFESSIONAL accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of PROFESSIONAL and PROFESSIONAL's Consultants for evaluating each such proposed substitute item.

Concerning Subcontractors, Suppliers and Others:

6.8. CONTRACTOR shall not employ and Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom OWNER or PROFESSIONAL may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.1. CONTRACTOR shall be fully responsible to OWNER and PROFESSIONAL for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER or PROFESSIONAL and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or PROFESSIONAL to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.8.2. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the PROFESSIONAL through CONTRACTOR.

6.9. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.10. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and PROFESSIONAL. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.6, the agreement between the

CONTRACTOR and Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, PROFESSIONAL, PROFESSIONAL's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.11 Not in this Contract

Patent Fees and Royalties:

6.12. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or PROFESSIONAL its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, PROFESSIONAL, PROFESSIONAL's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Document.

Permits:

6.13. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

6.14 Laws and Regulations:

6.14.1. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor PROFESSIONAL shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.3.2.

Taxes:

6.15. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

Use of Premises:

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. The CONTRACTOR shall assume full responsibility for the safe-guarding and protection of all buildings, poles, conduits, manholes, catchbasins, valve boxes, trees, water mains and services, storm and sanitary sewers, gas mains and services, or other structures which may occur near his work or which in any way may be affected by any of his work under this contract except as otherwise specifically stated in the contract documents. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, PROFESSIONAL, PROFESSIONAL's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, PROFESSIONAL or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.17. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents:

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to PROFESSIONAL for reference. Upon completion of the Work, these record documents, Samples and Shop Drawings will be delivered to PROFESSIONAL for OWNER.

Safety and Protection:

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all persons on the Work site or who may be affected by the Work;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. When working in a roadway or public right-of-way, the CONTRACTOR shall, at all times, so conduct his work as to ensure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the roadway and the protection of persons and property shall be provided by the CONTRACTOR at all times in accordance with the authority which has jurisdiction over the roadway. To that end, the CONTRACTOR shall erect and shall maintain during the continuance of the work, such barricades, lights, signs and other protective devices which comply with the laws of the State of Michigan and the Michigan Manual for Uniform Traffic Control Devices. The CONTRACTOR shall also furnish such watchmen as will effectually prevent any accident in consequence of his work and he shall be liable for all accidents and damages occasioned in any way by his acts of neglect, or by the acts of neglect of his subCONTRACTORS, agents or workers. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or PROFESSIONAL or PROFESSIONAL's Consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of

CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the work shall continue until such time as all the Work is completed and PROFESSIONAL has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative:

6.21. CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

Hazard Communication Programs:

6.22. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.

Emergencies:

6.23. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or PROFESSIONAL, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give PROFESSIONAL prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If PROFESSIONAL determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

6.24. Shop Drawings and Samples:

6.24.1. CONTRACTOR shall submit Shop Drawings to PROFESSIONAL for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9). All submittals will be identified as PROFESSIONAL may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities,

dimensions, specified performance and design criteria, materials and similar data to show PROFESSIONAL the materials and equipment CONTRACTOR proposes to provide and to enable PROFESSIONAL to review the information for the limited purposes required by paragraph 6.26.

6.24.2 CONTRACTOR shall also submit Samples to PROFESSIONAL for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as PROFESSIONAL may require to enable PROFESSIONAL to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

6.25. Submittal Procedures:

6.25.1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.25.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

6.25.1.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.25.1.3. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.25.2. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

6.25.3. At the time of each submission, CONTRACTOR shall give PROFESSIONAL specific

written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to PROFESSIONAL for review and approval of each such variation.

6.26. PROFESSIONAL will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by PROFESSIONAL as required by paragraph 2.9. PROFESSIONAL's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

PROFESSIONAL's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by PROFESSIONAL, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review and approval.

6.27 PROFESSIONAL's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called PROFESSIONAL's attention to each such variation at the time of submission as required by paragraph 6.25.3 and PROFESSIONAL has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by PROFESSIONAL relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.25.1.

6.28. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by PROFESSIONAL as required by paragraph 2.9, any related Work performed prior to PROFESSIONAL'S review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.29. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.30. CONTRACTOR's General Warranty and Guarantee:

6.30.1. CONTRACTOR warrants and guarantees to OWNER, PROFESSIONAL and PROFESSIONAL's Consultants that all work will be in accordance with Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

6.30.1.1. abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

6.30.1.2. normal wear and tear under normal usage.

6.30.2. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

6.30.2.1. observations by PROFESSIONAL;

6.30.2.2. recommendation of any progress or final payment by PROFESSIONAL;

6.30.2.3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.30.2.4. use or occupancy of the Work or any part thereof by OWNER;

6.30.2.5. any acceptance by OWNER or any failure to do so;

6.30.2.6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by PROFESSIONAL pursuant to paragraph 14.13;

6.30.2.7. any inspection, test or approval by others; or

6.30.2.8. any correction of defective Work by OWNER.

Indemnification:

6.31. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, PROFESSIONAL, PROFESSIONAL's consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

6.32. In any and all claims against OWNER or PROFESSIONAL or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.33. The indemnification obligations of CONTRACTOR under paragraph 6.31 shall not extend to the liability of PROFESSIONAL and PROFESSIONAL's Consultants, officers, directors,

employees or agents caused by the professional negligence, errors or omissions of any of them.

Survival of Obligations:

6.34. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

ARTICLE 7—OTHER WORK

Related Work at Site:

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) CONTRACTOR may make a claim therefor as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of PROFESSIONAL and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of

CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to PROFESSIONAL in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in such other work.

Coordination:

7.4. If OWNER contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

ARTICLE 8—OWNER'S RESPONSIBILITIES

8.1. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through PROFESSIONAL.

8.2. In case of termination of the employment of PROFESSIONAL, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former PROFESSIONAL.

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by PROFESSIONAL in preparing the Contract Documents.

8.5. OWNER's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.10.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's rights to terminate services of CONTRACTOR under certain circumstances.

8.9. The OWNER shall not supervise, direct or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.10. OWNER's responsibility in respect of undisclosed Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

8.11. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9—PROFESSIONAL'S STATUS DURING CONSTRUCTION

OWNER'S Representative:

9.1. PROFESSIONAL will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of PROFESSIONAL as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and PROFESSIONAL.

Visits to Site:

9.2. PROFESSIONAL will make visits to the site at intervals appropriate to the various stages of construction as PROFESSIONAL deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, PROFESSIONAL will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. PROFESSIONAL will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. PROFESSIONAL's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, PROFESSIONAL will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against *defective* Work. PROFESSIONAL's visits and on-site observations are subject to all the limitations on PROFESSIONAL's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of PROFESSIONAL's on-site visits or observations of CONTRACTOR's Work. PROFESSIONAL will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

Project Representative:

9.3. If OWNER and PROFESSIONAL agree, PROFESSIONAL will furnish a Resident Project Representative to assist PROFESSIONAL in providing more continuous observation of the Work. The

responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not PROFESSIONAL's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

Clarifications and Interpretations:

9.4. PROFESSIONAL will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as PROFESSIONAL may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believe that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5. PROFESSIONAL may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly. If OWNER or CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or 12.

Rejecting Defective Work:

9.6. PROFESSIONAL will have authority to disapprove or reject Work which PROFESSIONAL believes to be *defective*, or that PROFESSIONAL believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. PROFESSIONAL will also have authority to require special inspection or testing of

the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

9.6.1. OWNER will have the authority to reduce the contract's final payment by an amount equal to but not greater than increased identified associated costs incurred by the OWNER due to rejection and correction of defective work above and beyond reasonable budgeted efforts.

Shop Drawings, Change Orders and Payments:

9.7. In connection with PROFESSIONAL's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8. In connection with PROFESSIONAL's authority as to Change Orders, see Articles 10, 11, and 12.

9.9. In connection with PROFESSIONAL's authority as to Applications for Payment, see Article 14.

Determinations for Unit Prices:

9.10. PROFESSIONAL will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. PROFESSIONAL will review with CONTRACTOR the PROFESSIONAL's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). PROFESSIONAL's written decision thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other and to PROFESSIONAL written notice of intention to appeal from PROFESSIONAL's decision and; (i) an appeal from PROFESSIONAL'S decision is taken within the time limits and in accordance with the procedures set forth in Article 16, Dispute Resolution or (ii) if no such Alternate Dispute Resolution Agreement has been entered into, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to PROFESSIONAL's decision, unless otherwise agreed in writing by OWNER and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 9.11.

Decisions on Disputes:

9.11. PROFESSIONAL will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of

the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to PROFESSIONAL in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to PROFESSIONAL and the other party to the Agreement promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to PROFESSIONAL and the other party within sixty days after the start of such occurrence or event unless PROFESSIONAL allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to PROFESSIONAL and the claimant within thirty days after receipt of the claimant's last submittal (unless PROFESSIONAL allows additional time). PROFESSIONAL will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. PROFESSIONAL's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless (i) an appeal from PROFESSIONAL's decision is taken within the time limits and in accordance with the procedures set forth in Article 16, Dispute Resolution, or (ii) if no such Alternate Dispute Resolution Agreement has been entered into, a written notice of intention to appeal from PROFESSIONAL's written decision is delivered by OWNER or CONTRACTOR to the other and to PROFESSIONAL within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws, and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by OWNER and CONTRACTOR.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, PROFESSIONAL will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by PROFESSIONAL pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may

otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

9.13. *Limitations on PROFESSIONAL's Authority and Responsibilities:*

9.13.1. Neither PROFESSIONAL's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by PROFESSIONAL in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by PROFESSIONAL shall create, impose or give rise to any duty owed by PROFESSIONAL to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2. PROFESSIONAL will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. PROFESSIONAL will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3. PROFESSIONAL will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4. PROFESSIONAL's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspection, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5. The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to PROFESSIONAL's Consultants, Resident Project Representative and assistants.

9.13.6. Insofar as jobsite safety is concerned, the PROFESSIONAL shall be responsible solely for his or her own and his or her employees' activities on the

jobsite, but this shall not be construed to relieve the CONTRACTOR from its responsibility for maintaining a safe jobsite. Neither the professional activities of the PROFESSIONAL, nor the presence of the PROFESSIONAL or his or her employees, subconsultant and SubCONTRACTORS, shall be construed to imply the PROFESSIONAL has any responsibility for methods of work performance, superintendence, sequencing of construction, or safety in, on or about the jobsite. The OWNER and CONTRACTOR agree that the CONTRACTOR is solely responsible for jobsite safety.

ARTICLE 10—CHANGES IN THE WORK

10.1. Without invalidating the Agreement and without notice to any surety, OWNER may, at anytime or from time to time, order additions, deletions or revisions in the Work. Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by PROFESSIONAL (or Written Amendments) covering:

10.4.1 changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1, (ii) required because of acceptance of *defective* Work under paragraph 13.13 or correcting *defective* Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by PROFESSIONAL pursuant to paragraph 9.11;

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.29.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE 11—CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to PROFESSIONAL promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless PROFESSIONAL allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by PROFESSIONAL in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an

adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.2, inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of PROFESSIONAL, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others

in accordance with rental agreements approved by OWNER with the advice of PROFESSIONAL, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof—all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage

and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4—all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTORS's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments .

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of *defective* Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee; or

11.6.2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's fee shall be fifteen percent;

11.6.2.2. for costs incurred under paragraph 11.4.3, the CONTRACTOR's fee shall be five percent;

11.6.2.3. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that only the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of ten percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that only the CONTRACTOR will be paid a fee of five percent of the amount paid to the Subcontractor;

11.6.2.4. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

11.6.2.6. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.5, inclusive.

11.7. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to PROFESSIONAL an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in

the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to OWNER and PROFESSIONAL. CONTRACTOR agrees that:

11.8.1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2. CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.

Prior to final payment, an appropriate Change Order will be issued as recommended by PROFESSIONAL to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.9. Unit Price Work:

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by PROFESSIONAL in accordance with paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

ARTICLE 12—CHANGE OF CONTRACT TIMES

12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to PROFESSIONAL promptly (but in no event later than thirty days) after the occurrence of the event giving rise

to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless PROFESSIONAL allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by PROFESSIONAL in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of the paragraph 12.1.

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

12.3. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God.

Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.4. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii) delays beyond the control of both parties including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

ARTICLE 13—TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.1. *Notice of Defects:* Prompt notice of all defective Work of which OWNER or PROFESSIONAL have actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. OWNER, PROFESSIONAL, PROFESSIONAL'S Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections:

13.3. CONTRACTOR shall give PROFESSIONAL timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below;

13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3. as otherwise specifically provided in the Contract Documents.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish PROFESSIONAL the required certificates of

inspection, or approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and PROFESSIONAL's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of PROFESSIONAL, it must, if requested by PROFESSIONAL, be uncovered for observation.

13.7. Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given PROFESSIONAL timely notice of CONTRACTOR's intention to cover the same and PROFESSIONAL has not acted with reasonable promptness in response to such notice.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of PROFESSIONAL, it must, if requested by PROFESSIONAL, be uncovered for PROFESSIONAL's observation and replaced at CONTRACTOR's expense.

13.9. If PROFESSIONAL considers it necessary or advisable that covered Work be observed by PROFESSIONAL or inspected or tested by others, CONTRACTOR, at PROFESSIONAL's request, shall uncover, expose or otherwise make available for observation, inspection or testing as PROFESSIONAL may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is *defective*, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. If, however, such Work is not found to be *defective*, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof,

CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

OWNER May Stop the Work:

13.10. If the Work is *defective*, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

Correction or Removal of Defective Work:

13.11. If required by PROFESSIONAL, CONTRACTOR shall promptly, as directed, either correct all *defective* Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by PROFESSIONAL, remove it from the site and replace it with Work that is not defective. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.12. Correction Period:

13.12.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be *defective*, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not *defective*, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the *defective* Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3. Where *defective* Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of *defective* Work, OWNER (and, prior to PROFESSIONAL's recommendation of final payment, also PROFESSIONAL) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses and damages attributable to OWNER'S evaluation of and determination to accept such *defective* Work (such costs to be approved by PROFESSIONAL as to reasonableness). If any such acceptance occurs prior to PROFESSIONAL's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails within a reasonable time after written notice from the PROFESSIONAL to correct *defective* Work or to remove and replace rejected Work as required by PROFESSIONAL in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances,

construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors and PROFESSIONAL and PROFESSIONAL's Consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's *defective* Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestone) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

ARTICLE 14—PAYMENTS TO CONTRACTOR
AND COMPLETION

Schedule of Values:

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to PROFESSIONAL. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment

14.2. At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall consult with PROFESSIONAL and review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location

agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation from the supplier, warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

CONTRACTOR's Warranty of Title

14.3. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

14.4. PROFESSIONAL will, within ten days after receipt of each application for payment, either indicate in writing a recommendation of payment and present the application to OWNER, or return the application to CONTRACTOR indicating in writing PROFESSIONAL's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment to OWNER with PROFESSIONAL's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5. PROFESSIONAL's recommendation of any payment requested in an Application for Payment will constitute a representation by PROFESSIONAL to OWNER, based on PROFESSIONAL's on-site observations of the executed Work as an experienced and qualified design professional and on PROFESSIONAL's review of the Application for Payment and the accompanying data and schedules, that to the best of PROFESSIONAL's knowledge, information and belief:

14.5.1. the Work has progressed to the point indicated,

14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for

Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation), and

14.5.3. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is PROFESSIONAL's responsibility to observe the Work.

However, by recommending any such payment PROFESSIONAL will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to PROFESSIONAL in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6. PROFESSIONAL's recommendation of any payment, including final payment, shall not mean that PROFESSIONAL is responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with laws and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7. PROFESSIONAL may refuse to recommend the whole or any part of any payment if, in PROFESSIONAL's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. PROFESSIONAL may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or test, nullify any such payment previously recommended to such extent as may be necessary in PROFESSIONAL's opinion to protect OWNER from loss because:

14.7.1. the Work is defective, or completed Work has been damaged requiring correction or replacement,

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order,

14.7.3. OWNER has been required to correct *defective* Work or complete Work in accordance with paragraph 13.14, or

14.7.4. PROFESSIONAL has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive.

OWNER may refuse to make payment of the full amount recommended by PROFESSIONAL because:

14.7.5. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work,

14.7.6. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens,

14.7.7. there are other items entitling OWNER to a set-off against the amount recommended, or

14.7.8. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive; but OWNER must give CONTRACTOR immediate written notice (with a copy to PROFESSIONAL) stating the reasons for such action and promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

Substantial Completion:

14.8. When CONTRACTOR considers the entire Work ready for its intended use, CONTRACTOR shall notify OWNER and PROFESSIONAL in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that PROFESSIONAL issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and PROFESSIONAL shall make an inspection of the Work to determine the status of completion. If PROFESSIONAL does not consider the Work substantially complete, PROFESSIONAL will notify CONTRACTOR in writing giving the reasons therefor. If PROFESSIONAL considers the Work substantially complete, PROFESSIONAL will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to PROFESSIONAL as to any provisions of

the certificate or attached list. If, after considering such objections, PROFESSIONAL concludes that the Work is not substantially complete, PROFESSIONAL will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, PROFESSIONAL considers the Work Substantially complete, PROFESSIONAL will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as PROFESSIONAL believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion PROFESSIONAL will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform PROFESSIONAL in writing prior to PROFESSIONAL's issuing the definitive certificate of Substantial Completion, PROFESSIONAL's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10. Use by OWNER at OWNER'S option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, PROFESSIONAL and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and PROFESSIONAL that such part of the Work is substantially complete and request

PROFESSIONAL to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and PROFESSIONAL in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request PROFESSIONAL to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and PROFESSIONAL shall make an inspection of that part of the Work to determine its status of completion. If PROFESSIONAL does not consider that part of the Work to be substantially complete, PROFESSIONAL will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If PROFESSIONAL considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

Final Inspection:

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, PROFESSIONAL will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Application for Payment:

14.12. After CONTRACTOR has completed all such corrections to the satisfaction of PROFESSIONAL and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.4.13, (ii) consent of the surety, if any, to final payment, and (iii) complete and legally effective releases or waivers

(satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.13. If, on the basis of PROFESSIONAL's observation of the Work during construction and final inspection, and PROFESSIONAL's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, PROFESSIONAL is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, PROFESSIONAL will, within ten days after receipt of the final Application for Payment, indicate in writing PROFESSIONAL's recommendation of payment and present the Application to OWNER for payment. At the same time PROFESSIONAL will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, PROFESSIONAL will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after the presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance and with PROFESSIONAL's recommendation and notice of acceptability, the amount recommended by PROFESSIONAL will become due and will be paid by OWNER to CONTRACTOR.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if PROFESSIONAL so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of PROFESSIONAL, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the

balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to PROFESSIONAL with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Waiver of Claims:

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from *defective* Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15—SUSPENSION OF WORK AND TERMINATION

OWNER May Suspend Work

15.1. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and PROFESSIONAL which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

OWNER May Terminate:

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.3. if CONTRACTOR disregards the authority of PROFESSIONAL; or

15.2.4. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses and damages incurred by OWNER will be reviewed by PROFESSIONAL as to their reasonableness and when so approved by PROFESSIONAL incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4. Upon seven days' written notice to CONTRACTOR and PROFESSIONAL, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.4.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

15.4.2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

15.4.4. for reasonable expenses directly attributable to termination.

CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

CONTRACTOR May Stop Work or Terminate:

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or PROFESSIONAL fails to act on any Application for Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and PROFESSIONAL, and provided OWNER or PROFESSIONAL do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if PROFESSIONAL has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven day's written notice to OWNER and PROFESSIONAL stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

ARTICLE 16—DISPUTE RESOLUTION

If and to the extent that OWNER and CONTRACTOR have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure shall be as follows. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of paragraphs 9.10, 9.11, and 9.12, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ALTERNATE DISPUTE RESOLUTION (ADR) AGREEMENT

OWNER and CONTRACTOR hereby agree that Article 16 of the General Conditions to the Agreement between OWNER and CONTRACTOR is amended to include the following agreement of the parties:

16.1 OWNER and CONTRACTOR agree that they shall first submit any and all unsettled claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents or the breach thereof ("disputes"), to mediation by the American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association prior to either of them initiating against the other types of demands.

16.1.1 **Agreement of Parties** - Whenever, by stipulation or in their contract, the parties have provided for mediation for existing or future disputes under the auspices of the American Arbitration Association (AAA) or under these Rules, they shall be deemed to have made these Rules, as amended and in effect as of the date of the submission of the dispute, a part of their agreement.

16.1.2 **Initiation of Mediation** - Any party or parties to a dispute may initiate mediation by filing with the AAA a written request for mediation pursuant to these Rules, together with the appropriate administrative fee contained in the Administrative Fee Schedule.

16.1.3 **Request for Mediation** - A request for mediation shall contain a brief statement of the nature of the dispute and the names, addresses, and phone numbers of all parties to the dispute, and those who will represent them, if any, to the mediation. The initiating party shall simultaneously file two (2) copies of the request with the AAA and one copy with every other party to the dispute.

16.1.4 Appointment of Mediator - Upon receipt of a request for mediation, the AAA will appoint a qualified mediator or standing neutral facilitator to serve. Normally, a single mediator will be appointed unless the parties agree otherwise or the AAA determines otherwise. If the agreement of the parties name a mediator or specifies a method of appointing a mediator, that designation or method shall be followed.

16.1.5 Qualifications of a Mediator - Any mediator appointed shall be a member of the AAA's Construction Mediation Panel, with expertise in the area of the dispute and knowledgeable in the mediation process. As an alternative, a standing neutral facilitator for ADR as certified by the Michigan Society of Professional Engineers may be used.

No person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation, except by the written consent of all parties. Prior to accepting an appointment, the prospective mediator shall disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the parties. Upon receipt of such information, the AAA shall either replace the mediator or immediately communicate the information to the parties for their comments. In the event the parties disagree as to whether the mediator shall serve, the AAA will appoint another mediator. The AAA is authorized to appoint another mediator if the appointed mediator is unable to serve promptly.

16.1.6 Vacancies - If any mediator shall become unwilling or unable to serve, the AAA will appoint another mediator, unless the parties agree otherwise.

16.1.7 Representation - Any party may be represented by persons of their choice. The names and addresses of such persons shall be communicated in writing to all parties and to the AAA.

16.1.8 Time and Place of Mediation - The mediator shall fix the time of each mediation session. The mediation shall be held at the appropriate regional office of the AAA, or at any other convenient location agreeable to the mediator and the parties, as the mediator shall determine.

16.1.9 Identification of Matters in Dispute - At least ten (10) days prior to the first scheduled mediation session, each party shall provide the mediator with a brief memorandum setting forth its position with regard to the issues that need to be resolved. At the

discretion of the mediator, such memoranda may be mutually exchanged by the parties.

At the first session, the parties will be expected to produce all information reasonably required for the mediator to understand the issue presented. The mediator may require either party to supplement such information.

16.1.10 Authority of Mediator - The mediator does not have authority to impose a settlement upon the parties but will attempt to help the parties reach a satisfactory resolution of their dispute. The mediator is authorized to conduct joint and separate meetings with the parties and to make oral and written recommendations for settlement. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provide the parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice shall be made by the mediator or the parties, as the mediator shall determine.

The mediator is authorized to end the mediation whenever, in the judgment of the mediator, further efforts at mediation would not contribute to a resolution of the dispute between parties.

16.1.11 Privacy - Mediation sessions are private. The parties and their representatives may attend mediation sessions. Other persons may attend only with the permission of the parties and with the consent of the mediator.

16.1.12 Confidentiality - Confidential information disclosed to a mediator by the parties or by witnesses in the course of the mediation shall not be divulged by the mediator. All records, reports, or other documents received by a mediator while serving in such records or to testify in regard to the mediation in any adversary proceeding or judicial forum.

The parties shall maintain the confidentiality of the mediation and shall not rely on, or introduce as evidence in any arbitral, judicial or other proceedings: (a) views expressed or suggestions made by the other party with respect to a possible settlement of the dispute; (b) admissions made by the other party in the course of the mediation proceedings; (c) proposals made or views expressed by the mediator; (d) the fact that the other party had or had not indicated willingness to accept a proposal for resettlement made by the mediator.

16.1.13 No Stenographic Record - There shall be no stenographic record of the mediation process.

16.1.14 **Termination of Mediation** - The mediation shall be terminated:(a) by the execution of a settlement agreement by the parties; or (b) by a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile; or (c) by a written declaration of a party or parties to the effect that the mediation proceedings are terminated.

16.1.15 **Exclusion of Liability** - Neither the AAA nor the mediator is a necessary party in judicial proceedings relating to the mediation.

Neither the AAA nor any mediator shall be liable to any party for any act or omission in connection with any mediation conducted under these Rules.

16.1.16 **Interpretation and Application of Rules** - The mediator shall interpret and apply these Rules insofar as they relate to the mediator's duties and responsibilities. All other Rules shall be interpreted and applied by the AAA.

16.1.17 **Expenses** - The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator and representatives of the AAA, and the expenses of any witness, or the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the parties unless they agree otherwise.

16.2 Except as provided in paragraph 16.3 below, no mediation arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity (including PROFESSIONAL, PROFESSIONAL's Consultant and the officers, directors, agents, employees or consultants of any of them) who is not a part to this contract unless:

16.2.1 the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the mediation and

16.2.2 such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the mediation and which will arise in such proceedings.

16.3 Notwithstanding paragraph 16.2 if a claim, dispute or other matter in question between OWNER and CONTRACTOR involves the Work of a Subcontractor, either OWNER or CONTRACTOR may join such Subcontractor as a party to the mediation between OWNER and CONTRACTOR hereunder. CONTRACTOR shall include in all subcontracts

required by paragraph 6.11 a specific provision whereby the Subcontractor consents to being joined in a mediation between OWNER and CONTRACTOR involving the Work of such subcontract, and consenting to joinder shall not create any claim, right or cause of action in favor of Subcontractor and against OWNER, PROFESSIONAL or PROFESSIONAL's Consultants that does not otherwise exist.

ARTICLE 17—MISCELLANEOUS

Giving Notice:

17.1. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Time:

17.2 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.1. A calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

Notice of Claim:

17.3. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

Cumulative Remedies:

17.4. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and PROFESSIONAL thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

Professional Fees and Court Costs Included:

17.5. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

INSURANCE COVERAGES

The insurance required by Article 5 of the General Conditions shall be for the following coverages and shall be not less than the following amounts or greater where required by Laws and Regulations but shall not prevent the CONTRACTOR from requiring additional coverage is necessary and prudent for the particular situation.

<u>WORKERS' COMPENSATION</u>	<u>MINIMUM LIMITS(000's)</u>
Part One: Compensation	Statutory
Part Two: Employers' Liability:	
accident	\$ 100
disease	\$ 100
aggregate disease	\$ 500
Other: _____	

COMMERCIAL GENERAL LIABILITY

General Aggregate Limit	\$1,000
Products/Completed Operations Aggregate Limit	\$1,000
Personal/Advertising Injury	\$1,000
Each Occurrence Limit	\$1,000

COMPREHENSIVE AUTOMOBILE LIABILITY

Bodily Injury-Each Occurrence Limit	\$ 500
Property Damage-Each Occurrence Limit	\$ 500

OR

Combined Single Limit	\$1,000
No Fault	Statutory

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY

Aggregate Limit	\$1,000
Each Occurrence Limit	\$1,000

OR

In lieu of the Owner's and Contractor's Protective Liability, the Contractor may provide an endorsement to their policy for a per project aggregate coverage with the following limits:

Aggregate Limit	\$1,000
Each Occurrence Limit	\$1,000
(ISO form CG2503 or it's equivalent)	

A copy of this endorsement must accompany the Certificate of Insurance, the Certificate will clearly state the additional insured requirement and the policy contains the per project aggregate endorsement.

UMBRELLA or EXCESS LIABILITY

\$2,000

Insurance required by paragraphs 5.4.3 through 5.4.6 inclusive of the General Conditions shall name as named additional insureds:

**Spicer Group, Inc.
Owosso Public Schools**

SECTION 01010
SUMMARY OF WORK

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Scope of Work
- B. Work by Owner.
- C. Contractor use of site and premises.
- D. Work Sequence.
- E. Owner occupancy.

1.2 SCOPE OF WORK

- A. The Contractor shall furnish all the labor, material and construction equipment and perform all the work for the replacement of Windows, Doors and Hardware, and partial replacement of the Fascia at Owosso Middle School, as shown on the Drawings and described in the Specifications prepared by Spicer Group, Inc. Contractor shall be responsible for the entire work until completed and accepted by the Owner.

1.3 WORK BY OWNER

- A. School district staff will be performing routine maintenance in all facilities during the construction period.

1.4 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Work by Others and Work by Owner.
- B. Access to Site: Limited to times that will not interfere with the education process, over the summer, weekends, after school, etc.
- C. Construction Operations: Limited to areas noted on Drawings.
- D. Utility Outages and Shutdown: Schedule temporary shutdowns of active utilities at times which will cause the least interference with service use and as approved by the Owner and Engineer.

1.5 WORK SEQUENCE

- A. Construct Work in phases to accommodate Owner's occupancy requirements during the construction period, coordinate construction schedule and operations with the Owners Representative.

2. PART 2 PRODUCTS

A. Not Used.

3 PART 3 EXECUTION

A. Not Used.

END OF SECTION

SECTION 01019

CONTRACT CONSIDERATIONS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of Values.
- B. Application for Payment.
- C. Change procedures.
- D. Alternates.

1.2 RELATED SECTIONS

- A. Document Agreement.
- B. Document General Conditions.
- C. Section 01600 - Material and Equipment: Product substitutions and alternates.

1.3 SCHEDULE OF VALUES

- A. Submit typed schedule on Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- C. Revise schedule to list approved Change Orders, with each Application For Payment.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit one copy of each application.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Submit at intervals stipulated in the Agreement
- D. Submit paid invoices for stored materials.
- E. Submit substantiating data justifying dollar amounts when requested by the Engineer.

1.5 CHANGE PROCEDURES

- A. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by a Field Order.

- B. The Engineer may issue a Bulletin 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 and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 10 days.
- C. The Contractor may propose a change by submitting request for change to the Engineer, describing the proposed change and its full effect on the Work. Include 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.
- D. Stipulated Sum/Price Change Order: Based on Bulletin or Contractor's request for a Change Order as approved by Engineer.
- E. Work Directive Change: Engineer may issue a directive signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.
- F. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- G. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- H. Change Order Forms: Spicer Group, Inc. Change Order.
- I. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.6 ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at the Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work as required.
- C. Contractor shall be responsible for costs incurred by Owner for reviewing non-scheduled alternates.
- D. Schedule of Alternates:
 - 1. Alternate No. 1: Discuss possible alternates with Owner.

2 PART 2 PRODUCTS

- 1. Not Used.

3 PART 3 EXECUTION

- 1. Not Used.

END OF SECTION

SECTION 01039

COORDINATION AND MEETINGS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination.
- B. Alteration project procedures.
- C. Cutting and patching.
- D. Preconstruction conference.
- E. Progress meetings.

1.2 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion and for Owners occupancy required for school going back into session.
- C. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 ALTERATION PROJECT PROCEDURES

- A. Materials: As specified in product Sections or if not specified; match existing products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- C. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition.
- D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work to match existing adjacent work in texture and appearance.
- F. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect/Engineer.

- G. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing other imperfections.
- H. Finish surfaces as specified in individual product Sections.

1.4 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements which affects:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 - 1. Fit the several parts together, to integrate with other Work.
 - 2. Uncover Work to install or correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods that will avoid damage to other Work, and provide proper surfaces to receive patching and finishing.
- E. Cut rigid materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- H. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
- I. Identify any hazardous substance or condition exposed during the Work to the Architect/Engineer for decision or remedy.

1.5 PRE-CONSTRUCTION CONFERENCE

- A. Architect/Engineer will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer, applicable governmental agencies and Contractor.
- C. Agenda:
 - 1. Introductions
 - 2. Execution of Owner-Contractor Agreement.
 - 3. Submission of executed bonds and insurance certificates.
 - 4. Distribution of Contract Documents.
 - 5. Submissions of list of Subcontractors, list of products, Schedule of Values, and progress schedule.

6. Designation of personnel representing the parties in Contract, along with contact phone numbers and the Architect/Engineer.
7. Submission of list of supervisory personnel representing the Contractor and Subcontractor along with daytime and emergency phone numbers.
8. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
9. Scheduling.
10. Discussion of required permits.
11. Discussion of important project requirements.

1.6 PROGRESS MEETINGS

- A. Contractor will Schedule and administer meetings throughout progress of the Work at weekly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two working days to Architect/Engineer, participants, and those affected by decisions made.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner's Representative, Architect/Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 1. Review minutes of previous meetings.
 2. Review of Work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of off-site fabrication and delivery schedules.
 7. Maintenance of progress schedule.
 8. Corrective measures to regain projected schedules.
 9. Planned progresses during succeeding work period.
 10. Coordination of projected progress.
 11. Maintenance of quality and work standards.
 12. Effect of proposed changes on progress schedule and coordination.
 13. Other business relating to Work.

2 PART 2 PRODUCTS

1. Not Used

3 PART 3 EXECUTION

1. Not Used

END OF SECTION

SECTION 01300

SUBMITTALS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Shop drawings.
- D. Product data.
- E. Manufacturers' instructions.
- F. Manufacturers' certificates.

1.2 RELATED SECTIONS

- A. Section 01400 - Quality Control: Manufacturers' field services and reports.
- B. Section 01700 - Contract Closeout: Contract closeout submittals.

1.3 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Architect/Engineer accepted form.
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed 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.
- E. Schedule submittals to expedite the Project, and deliver to Architect/Engineer at business address. Coordinate submission of related items.
- F. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- G. Provide space for Contractor and Architect/Engineer review stamps.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittal.
- I. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.4 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 20 days after date established in Notice to Proceed for Architect/Engineer review.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a chart with separate line for each section of Work, identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission.
- G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner and under Allowances.

1.5 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which Contractor requires, plus two copies which will be retained by Architect/Engineer up to seven copies.
- B. After review and distribute in accordance with Article on Procedures above and for Record Documents described in Section 01700 - Contract Closeout.

1.6 PRODUCT DATA

- A. Submit the number of copies that the Contractor requires, plus three copies that will be retained by the Engineer. The Engineer will mark up no more than eight copies.
- B. Mark each copy 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 Article on Procedures above and provide copies for Record Documents described in Section 01700 - Contract Closeout.

1.7 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.

1.8 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturers' certificate to Architect/Engineer for review, in quantities specified for Product Data.

- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect/Engineer.

2 PART 2 PRODUCTS

- 1. Not Used

3 PART 3 EXECUTION

- 1. Not used

END OF SECTION

SECTION 01400
QUALITY CONTROL

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance and control of installation.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals: Submission of Manufacturers' Instructions and Certificates.
- B. Section 01600 - Material and Equipment: Requirements for material and product quality.

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor 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 the Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

2 PART 2 PRODUCTS

- 1. Not Used

3 PART 3 EXECUTION

- 1. Not Used.

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities and Construction Facilities.
- B. Temporary Controls: Protection of the Work.
- C. Construction Facilities: Access roads, parking, progress cleaning.

1.2 RELATED SECTIONS

- A. Section 01700 - Contract Closeout: Final cleaning.

1.3 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.

1.4 PROTECTION OF EXISTING

- A. Field locate existing utilities prior to construction and notify Engineer where possible conflicts exist. Protect utilities encountered during the work. Replace or repair damaged utilities.
- B. Protect utilities encountered during the work. Replace or repair damaged utilities.
- C. Utilities must remain in service. If it becomes necessary to interrupt a utility service, Owner must be notified immediately and steps taken to restore temporary or permanent service as soon as possible.
- D. Where utility and drainage piping crosses the trench, support the piping according to the utility authority's standards and backfill to the top with compacted granular material.
- E. Protect interior surfaces such as floors, carpeting, countertops, desktops, furniture, computer equipment, and all other equipment and surfaces to prevent damage and soiling from dust and debris during construction. Floors are to be protected by covering with protective material to prevent scratches or indentation from construction dust and debris, or moving of equipment.

1.5 SECURITY

- A. Contractor shall be responsible for securing and protecting the site throughout construction.

1.6 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures.

1.7 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a reasonably clean and orderly condition throughout construction.
- B. Clean hallways and rooms daily to the Owner's satisfaction.
- C. Remove waste materials, debris, and rubbish from building daily, and dispose off-site.

2. PART 2 PRODUCTS

- A. Not Used

3. PART 3 EXECUTION

- A. Not Used

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. Document - Instructions to Bidders: Product options and substitution procedures.
- B. Section 01400 - Quality Control: Product quality monitoring.

1.3 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar products.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.

- C. Provide off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Avoid mixing with foreign matter.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.
- H. Materials **may not** be stored in school buildings.

1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.7 SUBSTITUTIONS

- A. Architect/Engineer will consider requests for Substitutions only within 15 days after date of Owner-Contractor Agreement.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 2. Will provide the same warranty for the Substitution as for the specified product.
 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. 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.

F. Substitution Submittal Procedure:

1. Submit as required for shop drawings. Limit each request to one proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence.
3. The Architect/Engineer will notify Contractor, in writing, of decision to accept or reject request.

2 PART 2 PRODUCTS

1. Not Used.

3 PART 3 EXECUTION

1. Not used.

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Punchlist procedures.
- C. Final cleaning.
- D. Adjusting.
- E. Project record documents.
- F. Operation and maintenance data.
- G. Warranties.
- H. Spare parts and maintenance materials.
- I. Correction period.

1.2 RELATED SECTIONS

- A. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning.

1.3 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's inspection.
- B. Provide submittals to Architect/Engineer that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and remaining sum due.
- D. Owner will occupy all portions of the building as specified in Section 01039.

1.4 PUNCHLIST PROCEDURES

- A. Contractor shall notify Engineer when the work is substantially complete in accordance with Contract Documents.
- B. Owner and Engineer will each appoint one Punchlist Representative who will conduct an inspection of the work and compile a list of items that are incomplete or do not comply with the requirements of the Contract Documents. Contractor may accompany the inspection.

- C. Contractor shall acknowledge that subsequent to the initial issuance of the punchlist, more items may be added to the list which will be deemed amended but only by the punchlist representatives.
- D. Contractor shall proceed immediately to address the items on the list.
- E. Contractor shall notify Engineer when listed items are completed and corrected.
- F. Contractor shall make arrangements with the Owner and Punchlist Representative for final inspection and acceptance. Should items still be deficient, they will remain on the list until accepted by the Owner and Engineer.
- G. Money will be retained under the Contract to cover items not accepted by the Owner and Engineer.

1.5 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to a sanitary condition.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.6 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation in accordance with manufacturer's standards.

1.7 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 1. Contract Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other Modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and Modifications.

- E. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Field changes of dimension and detail.
 - 2. Details not on original Contract Drawings.
- F. Delete Architect/Engineer title block and seal from all documents.
- G. Submit documents to Architect/Engineer with claim for final Application for Payment.

1.8 OPERATION AND MAINTENANCE DATA

- A. Submit two sets prior to final inspection, bound in 8-1/2 x 11 inch (216 x 279 mm) text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, type on 24 pound white paper.
- E. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
- F. Part 2: Operation and maintenance instructions arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - 1. Significant design criteria.
 - 2. List of equipment.
 - 3. Parts list for each component.
 - 4. Operating instructions.
 - 5. Maintenance instructions for equipment and systems.
 - 6. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
- G. Part 3: Project documents and certificates, including the following:
 - 1. Shop drawings and product data.
 - 2. Certificates.
 - 3. Photocopies of warranties.
- H. Submit one copy of completed volumes in final form 15 days prior to final inspection. This copy will be returned after final inspection, with Architect/Engineer comments. Revise content of documents as required prior to final submittal.
- I. Submit final volumes revised, within ten days after final inspection.

1.9 WARRANTIES

- A. Provide notarized copies dated to commence the day of final acceptance.
- B. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.

- C. Provide Table of Contents and assemble in three D side ring binder with durable plastic cover.
- D. Submit prior to final Application for Payment.
- E. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

1.10 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to Owner and place in location as directed obtain receipt prior to final payment.

1.11 CORRECTION PERIOD

- A. For a period of one year from the date of Substantial Completion, promptly correct work or replace equipment that is found to be defective.

2 PART 2 PRODUCTS

- 1. Not used.

3 PART 3 EXECUTION

- 1. Not used.

END OF SECTION

SECTION 02070

SELECTIVE DEMOLITION

1. PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of a building.
 - 2. Patching and repairs.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Summary of Work" for use of the building and phasing requirements.
 - 2. Division 1 Section "Construction Facilities and Temporary Controls" for temporary utilities, temporary construction and support facilities, temporary security and protection facilities, and environmental protection measures for selective demolition operations.
 - 3. Division 1 Section "Contract Closeout" for record document requirements.
 - 4. Division 6 Section "Rough Carpentry" for material and construction requirements.
 - 5. Division 9 Section "Gypsum Drywall" for material and construction requirements.

1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to Owner's designated storage area.
- C. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.
- D. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Professional, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

1.4 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections, for information only, unless otherwise indicated.
- B. Proposed dust-control measures.

- C. Proposed noise-control measures.
- D. Schedule of selective demolition activities indicating the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Detailed sequence of selective demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
 - 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
 - 6. Locations of temporary partitions and means of egress.

1.5 PROJECT CONDITIONS

- A. Asbestos: It is not expected that asbestos will be encountered in the Work. If any materials suspected of containing asbestos are encountered, do not disturb the materials. Immediately notify the Professional and the Owner.
 - 1. Asbestos will be removed by Owner before start of Work.

1.6 SCHEDULING

- A. Arrange selective demolition schedule so as not to interfere with Owner's on-site operations.

1.7 WARRANTY

- A. Existing Special Warranty: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

2. PART 2 PRODUCTS

2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
 - 1. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 2. Use materials whose installed performance equals or surpasses that of existing materials.

3. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the Professional.
- E. Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES

- A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to governing authorities.
 - a. Provide not less than 72 hours' notice to Owner if shutdown of service is required during changeover.
- B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving building to be selectively demolished.
 - 1. Owner will arrange to shut off indicated utilities when requested by Contractor.
 - 2. Arrange to shut off indicated utilities with utility companies.
 - 3. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
 - 4. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit after bypassing.
- C. Utility Requirements: Refer to Division 15 and 16 Sections for shutting off, disconnecting, removing, and sealing or capping utility services. Do not start selective demolition work until utility disconnecting and sealing have been completed and verified in writing.

3.3 PREPARATION

- A. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Employ a certified, licensed exterminator to treat building and to control rodents and vermin before and during selective demolition operations.
- C. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

- D. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 2. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition operations.
 - 3. Cover and protect furniture, furnishings, and equipment that have not been removed.

- E. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of building to be selectively demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 POLLUTION CONTROLS

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
 - 1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.

- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.

- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

3.5 SELECTIVE DEMOLITION

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition work above each floor or tier before disturbing supporting members on lower levels.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain adequate ventilation when using cutting torches.

6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 8. Locate selective demolition equipment throughout the structure and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 9. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.
 10. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.
- B. Remove resilient floor coverings and adhesive according to recommendations of the Resilient Floor Covering Institute's (RFCI) "Recommended Work Practices for the Removal of Resilient Floor Coverings" and Addendum.
1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

3.6 PATCHING AND REPAIRS

- A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.
- B. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
1. Completely fill holes and depressions in existing masonry walls to remain with an approved masonry patching material, applied according to manufacturer's printed recommendations.
- C. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.
- D. Patch and repair floor and wall surfaces in the new space where demolished walls or partitions extend one finished area into another. Provide a flush and even surface of uniform color and appearance.
1. Closely match texture and finish of existing adjacent surface.
 2. Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 3. Where patching smooth painted surfaces, extend final paint coat over entire unbroken surface containing the patch after the surface has received primer and second coat.
 4. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 5. Inspect and test patched areas to demonstrate integrity of the installation, where feasible.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.

- C. Burning: Burning of demolished materials will be permitted only at designated areas on Owner's property, providing required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Transport demolished materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.8 CLEANING

- A. Sweep the building broom clean on completion of selective demolition operation.
- B. Change filters on air-handling equipment on completion of selective demolition operations.

3.9 SELECTIVE DEMOLITION SCHEDULE

- 1. As shown on the Drawings.

END OF SECTION

SECTION 06100
ROUGH CARPENTRY

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This section covers furnishing and installing all framing, furring, blocking and metal fastenings as required for the work specified.
- B. Lumber must be sound, thoroughly seasoned, well manufactured and free from a warp that cannot be corrected in process of bridging or nailing. Woodwork exposed to view on outside of building or in finished interior spaces shall be dressed.

2. PART 2 PRODUCTS

2.1 MATERIALS

- A. Framing and Rough Carpentry: Members shall be "SP" (Southern Pine) unless noted otherwise with moisture content not exceeding 19% and grading shall be as follows:
- B. Plates, Blocking and Furring: Light Framing Utility Grade (2" to 4" thick and 2" to 4" wide) or Planks No. 3 (2" to 4" thick and 6" and wider).

2.2 ACCESSORIES

- A. Wood Preservatives: All wood within or in contact with masonry and concrete, and all wood used in the replacement of existing fascia panels, shall be pressure treated with waterborne wood preservatives conforming to AWPA Standards P5, excluding those which contain arsenic and/or chromium. Additionally, include fascia boards, columns and outside members of built up beams. Treatment shall be in accordance with Standard Specifications of American Wood Preserver's Association for treating structural timbers.
- B. Metal Fasteners: Nails, spikes, screws, bolts and similar items shall be of sizes and types to rigidly secure members in place. All connections to be made in such a manner so that the full strength of the structural members being connected may be utilized. Use cadmium plated screws, bolts in treated wood members.

3. PART 3 EXECUTION

3.1 INSTALLATION

- A. Framing and Rough Carpentry: Framing is limited to repair/replacement. All framing shall match existing construction.
- B. Repair/replace all nailing strips and blocking embedded in or attached to concrete and masonry, as conditions required.

- C. Repair/replace blocking shown attached to structural and miscellaneous steel as required for application of sheathing, enclosures and related items as required. Plates attached to underside of steel shall be secured with 1/2" bolts, spaced 48" o.c.

END OF SECTION

SECTION 06200

FINISH CARPENTRY

1 PART 1 GENERAL

- 1.1 This section covers furnishing and installing all finish carpentry, millwork and trim as required for the work specified.
- A. Job Requirements: Unexposed portions of millwork items and trim shall be backprimed on the job with wood preservatives before installation. Backpriming shall be done by the Contractor. Refer to Section 09900 PAINTING for finishes.
1. Lumber must be sound, thoroughly seasoned, well manufactured and free from warp that cannot be corrected in the process of bridging or nailing. Woodwork exposed in finished interior shall be dressed.
 2. Each piece or bundle of lumber shall be identified with the grade and trademark. Use only the recognized official marks of the Association under whose rules it is graded. Grade and trademark will not be required if each shipment is accompanied by Certificate of Inspection issued by Association.
- B. Workmanship
1. Interior Finish Carpentry: In general, and as far as practicable, finish and assemble all interior or wood finish at mill. Fabricate all materials in approved manner. All mouldings shall be clearly cut and sharply defined and miters accurately made. Where nails and screws are necessary, they shall be concealed, cut off heads and plug where conditions require.
 2. Woodwork, etc., throughout shall be cleaned free from tool marks with all nails set and holes sandpapered smooth.
 3. Install all frames and finish of every description plumb, level, straight and true with proper grounds and firmly secured to same. Fit and scribe all finish carpentry or other finished work in careful manner; do not injure surfaces. All nailing shall be blind-nailed wherever possible and so located and driven as not to be visible in finish. Refer to details.
- C. Application of Hardware: Receive, store and be responsible for all finish hardware. Properly tag, index and file all keys as directed. Apply hardware in accordance with manufacturer's instructions. Use care not to injure work when applying hardware.
1. Refer to Section 08700 FINISH HARDWARE.

END OF SECTION

SECTION 07190
WEATHER BARRIER

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sheet materials to provide a continuous air barrier beneath all exterior fascia panels.

1.2 RELATED SECTIONS

- A. Section 07412 – Preformed Metal Fascia Panels and Accessories.
- B. Section 07900 - Caulking and Sealants: Sealants.

1.3 REFERENCES

- A. ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting.
- B. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM E96 – Test Method for Water Vapor Transmission of Materials.
- D. ASTM E2178 – Test Method for Air Permeance of Building Materials.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data indicating material characteristics, performance criteria, and limitations.
- C. Manufacturer's Installation Instructions: Indicate preparation and installation requirements, techniques.

1.5 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate the work of this Section with all Sections referencing this Section.

1.6 WARRANTY

- A. Provide ten year warranty for weather barrier assembly from date of final weather barrier installation.

2. PART 2 PRODUCTS

2.1 WEATHER BARRIER

- A. A non-perforated, nonwoven, non-absorbing, breathable membrane that resists air flow, bulk water and wind driven rain and channels water and moisture to the outside of the building envelope. It has microscopic pores that allows moisture vapor to escape from inside walls.
- B. Physical Properties:
 - 1. Spunbonded polyolefin membrane.
- C. Performance Characteristics:
 - 1. Air Penetration: 0.001 cfm/sf at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
 - 2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96, Method B.
 - 3. Water Penetration Resistance: Minimum 280 cm when tested in accordance with AATCC Test Method 127.
 - 4. Basis Weight: Minimum 2.7 oz/sy, when tested in accordance with TAPPI Test Method T-410.
 - 5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
 - 6. Tensile Strength: Minimum 38/35 lbs/in., when tested in accordance with ASTM D882, Method A.
 - 7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
 - 8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 10, Smoke Developed: 10.

2.2 ACCESSORIES

- A. Seam Tape: As recommended by the weather barrier manufacturer.
- B. Fasteners: Nail Caps: #4 nails with large 1-inch plastic cap fasteners.
- C. Sealants: Products recommended by the weather barrier manufacturer.

3. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify condition of substrate and adjacent materials under provisions of Section 01039.
- B. Verify that surfaces and conditions are ready to accept the Work.

3.2 INSTALLATION

- A. Install weather barrier over exterior wall substrate in accordance with manufacturer's recommendations.
- B. Overlap exterior corners min. 12 inches and seams min. 6 inches.
- C. Install seam tape at all vertical and horizontal overlapping seams.

D. Seal any tears or cuts as recommended by the weather barrier manufacturer.

3.3 PROTECTION OF FINISHED WORK

A. Protect finished Work under provisions of Section 01500.

B. Do not permit adjacent Work to damage Work of this Section.

END OF SECTION

SECTION 07412

PREFORMED METAL SOFFIT, FASCIA AND ACCESSORIES

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This section covers the furnishing of all labor, materials, tools and equipment required to replace all soffit, fascia, and required trim pieces as herein specified and/or as required for a complete job.
- B. Submittals: Contractor is to submit samples of stock and field fabricated trim sections to be used on this project for Owner's review. Color samples are to be submitted on actual material for all soffit, fascia, and accessories to be used. Manufacturer's brochures or photocopies will not be considered for review.

2. PART 2 PRODUCTS

2.1 MATERIALS

- A. Materials shall be as manufactured by Metal Sales Manufacturing or Owner approved equal. Materials shall be prefinished in manufacturer's standard colors as selected by the Owner from samples submitted by the Contractor.
- B. Fascia: FC-6 Color by owner.
- C. Soffit: SVP-T4 vented aluminum soffit Color by owner.
- D. Soffit Accessories: Shall be channels, edges and trim sections compatible with the soffit and fascia systems and as required for a complete installation. Color to match adjacent material.
- E. Field Fabricated Trim: Trim shall be fabricated from 0.019" prefinished aluminum Trim Sheet.
- F. Fasteners: 1/4" Stainless Steel trim nails with matching color heads.

3. PART 3 EXECUTION

3.1 CLEANING

- A. Clean all exterior finishes and trim which are scheduled to remain. Use stiff brushes and clear water. Detergents may be used provided no damage results to existing finishes or adjacent materials or plantings. Exercise extreme caution to prevent scratches, dents or other damage to surfaces (including sealants) being cleaned.

3.2 INSTALLATION

- A. All materials in this section to be installed in accordance with manufacturer's instructions.

- B. Care must be exercised in placing aluminum in contact with metals or materials not compatible with aluminum. Dissimilar materials shall be painted or otherwise protected when they are in contact with aluminum or when drainage from them passes over aluminum.
- C. Fasteners shall be of a type which is compatible with material being applied and shall be concealed where possible. Any fasteners which cannot be concealed shall be colored to match material.
- D. Any fascia and/or trim sections observed to be buckling, bowing or "oil canning" will be considered as unacceptable construction and the Contractor will be required to remove and replace these sections at no additional cost. Provide stiffener ribs and/or expansion slots and/or predrill holes at fasteners in field fabricated trims to prevent bowing, buckling or "oil canning".

END OF SECTION

SECTION 07900

JOINT SEALERS

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sealants and joint backing.
- B. Precompressed foam sealers.

1.2 REFERENCES

- A. ASTM C 834 – Standard Specifications for Latex Sealants; 2000.
- B. ASTM C 919 – Standard Practice for Use of Sealants in Acoustical Applications; 2002.
- C. ASTM C 920 – Standard Specifications for Elastomeric Joint Sealers; 2002.
- D. ASTM C 1193 – Standard Guide for Use of Joint Sealants; 2000.
- E. ASTM D 1056 – Standard Specification for Flexible Cellular Materials – Sponge or Expanded Rubber; 2002.

1.3 SUBMITTALS

- A. See section 01300 for submittal procedures.
- B. Product Data – Provide data indicating sealant chemical characteristics.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Company specializing in manufacturing of the products specified in this section with a minimum three years documented experience.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

2. PART 2 PRODUCTS

2.1 MANUFACTURES

- A. Silicone Sealants:
 - 1. Bostik: www.bostik.com
 - 2. Dow Corning Corp: www.dowcorning.com
 - 3. Pecora Corporation: www.pecora.com
 - 4. Tremco, Inc: www.tremcosealants.com
 - 5. substitutions: see section 1600

- B. Polyurethane and Acrylic and Acrylic Latex Sealants:
 - 1. see above
 - 2. substitutions: see section 1600

2.2 SEALANTS

- A. Type ES-1 – General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, Type OP, Grade NF single component, paintable.
- B. Type ES-2 – Acrylic Sealant: ASTM C 920, Grade NS, Class 12-1/2, Uses NT, M, A, O; single component, solvent curing, non-staining, non-bleeding, non-sagging.
- C. Type ES-3 – Nonsag Polyurethane Sealant: ASTM C 920, Grade NS, Class 25, Uses NT, T, M, A, G, O; single component, chemical curing, non-staining, non bleeding, capable of continuous water immersion, non sagging type.
- D. Type ES-4 – Silicone Sealant: ASTM C 920, Grade NS, Class 25, Uses NT, A, G, M, O; single component, neutral curing, non-sagging, non-staining, fungus resistant, non-bleeding.

2.3 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

3. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate surfaces are ready to receive work.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.2 PREPERATION

- A. Remove loose materials and foreign matter which might impair adhesion of sealant.
- B. Clean and prime joints in accordance with manufacturers instructions.
- C. Perform preparation in accordance with manufacturers instructions and ASTM C 1193.
- D. Protect elements surrounding the work of this section from damage or disfigurement.

3.3 INSTALLATION

- A. Perform work in accordance with sealant manufacturers requirements for preparation of surfaces and material installation instructions.

- B. Perform installation in accordance with ASTM C 1193.
- C. Perform acoustical sealant application work in accordance with ASTM C 919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimension are indicated.
- E. Install bond breaker where joint backing is not used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges and sags.
- G. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- H. Tool joints concave.
- I. Precompressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections, install with face 1/8 to 1/4 inch below adjoining surfaces.

3.4 ADJUSTING AND CLEANING

- A. Clean adjacent soiled surfaces.

3.5 PROTECTION OF FINISHED WORK

- A. Protect sealants until cured.

3.6 SCHEDULE

- A. Exterior joints for which no other sealant type is indicated: Type ES-3.
- B. Control, Expansion, and Soft Joints in masonry, and between masonry and adjacent work: Type ES-3.
- C. Lap joints in exterior sheet metal work: Type ES-4.
- D. Joints between exterior metal frames and adjacent work (except masonry): Type ES-4.
- E. Interior joints for which no other sealant is indicated: Type ES-2.
- F. In STC-rated wall, between outlet boxes and gypsum board and floor/wall and ceiling/wall joints: Type ES-2.

END OF SECTION

SECTION 08100

METAL DOORS AND FRAMES

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Flush Steel Doors.
- B. Steel Frames.
- C. All openings shall be verified in the field by Contractor before fabrication.
- D. System Requirements: The door system components shall be manufactured by one company. Substitutions using a multi source system will not be considered.

1.2 RELATED SECTIONS

- A. Section 08410 – Aluminum Entrances and Storefronts.
- B. Section 08700 – Door Hardware.

1.3 REFERENCES

- A. ANSI/DHI A 115.1G – Installation Guide for Doors and Hardware.
- B. ANSI/BHMA A 156 – Specifications for Hardware Preparations in Standard Steel Doors and Frames.
- C. ANSI A 250.11 – Recommended Erection Instructions for Steel Frames.

1.4 SUBMITTALS

- A. Submit under provision of Section 01300.
- B. Product Data: Manufacturer's standard details and catalog data indicating compliance with referenced standards, and manufacturer's installation instructions.
- C. Shop Drawings: Door, frame, and hardware schedule in accordance with SDI 111D. Show types, quantities, dimensions, specified performance, and design criteria, materials and similar data for each opening required.
 - 1. Indicate frame configuration, anchor types and spacing, location of cutouts for hardware, reinforcement, to ensure doors and frames are properly prepared and coordinated to receive hardware.
 - 2. Indicate door elevations, internal reinforcement, closure method, and cutouts for glass lights and louvers.

1.5 QUALITY ASSURANCE

- A. Supplier: A direct account of the manufacturer who has on permanent staff, an Architectural Hardware Consultant, a Certified Door Consultant or an Architectural Openings Consultant, who will be available to consult with the Architect and Contractor regarding matters affecting the door and frame openings.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Handle, store and protect products in accordance with the manufacturer's printed instructions and ANSI/SDI A250.10 and NAAMM/HMMA 840.
- B. Store doors vertically in a dry area, under a proper vented cover. Place on 4 inch high wood sills to prevent rust or damage. Provide ¼-inch space between doors to promote air circulation.
- C. Store frames in an upright position with heads uppermost under cover. Place on 4 inch high wood sills to prevent rust or damage. Store assembled frames five units maximum in a stack with 2 inch space between frames to promote air circulation.
- D. Do not use non-vented plastic or canvas shelters to prevent rust or damage.
- E. Should wrappers become wet, remove immediately.

1.7 COORDINATION

- A. Coordinate Work with other directly affected sections involving manufacture or fabrication of internal cutouts and reinforcement for door hardware, electric devices and recessed items.
- B. Coordinate Work with frame opening, door and hardware installation.
- C. Sequence installation to accommodate required door hardware.
- D. Verify field dimensions for factory assembled frames prior to fabrication.

2. PART 2 PRODUCTS

2.1 MATERIALS

- A. Acceptable Manufacturer: Steelcraft, Div. of IR Security Technologies, which is located at : 9017 Blue Ash Road; Cincinnati, OH 45242; Toll Free Tel.: 800-243-9780.
- B. Substitutions will be considered in accordance with the provisions of Section 01600.
- C. Provide all steel doors and frames from a single manufacturer.

2.2 DOORS

- A. General: Construct exterior doors to the following designs and gages:
 - 1. Exterior Doors: Zinc-Iron Alloy-Coated galvanized steel, ASTM A 653, Class A60:
 - a. Thickness: 14 gage (1.7 mm).
 - b. Include galvanized components and internal reinforcements with galvanized doors.
 - c. Close tops of exterior swing-out doors to eliminate moisture penetration. Galvanized steel top caps are permitted.
 - 2. Include galvanized components and internal reinforcements.
 - 3. Prime Finish Doors: Clean, phosphatize and factory prime painted doors indicated on Door Schedule as HM.

4. Hardware Reinforcements:
 - a. Hinge reinforcements for full continuous hinges: minimum 7 gage.
 - b. Lock reinforcements: minimum 16 gage.
 - c. Closer reinforcements: minimum 14 gage steel, 20-inch long.
 - d. Galvannealed doors: include galvannealed hardware reinforcements.
 - e. Projection welded hinge and lock reinforcements to the edge of the door.
 - f. Provide adequate reinforcements for other hardware as required.

B. Full Flush Doors:

1. Acceptable Product: Steelcraft L Series.
 - a. Performance:
 - 1) Physical performance: 5 million cycles per ANSI A250.4.
 - 2) Thermal performance (gasketed), ASTM C1363.
 - a) Polyurethane core, 0.498 U-factor.
 - 3) Thermal performance (gasketed), ASTM C236.
 - a) Polyurethane core, 0.09 U-factor.
2. Door Thickness: 1-3/4 inches(45 mm).
3. Door faces reinforced and sound deadened as follows:
 - a. Polyurethane Core: Full 1-3/4 inches thick rigid polyurethane, adhered to inside of door faces and polyurethane core with waterproof adhesive for bond strength and rust prevention.
4. Vertical edge seams: Provide doors with continuous vertical mechanical interlocking joints at lock and hinge edges. Finish edges as follows:
 - a. Welded Vertical Edges (W): Continuous vertical mechanical interlocking joints; edge seams welded, epoxy filled, and ground smooth.
5. Bevel hinge and lock door edges 1/8 inch in 2 inches. Square edges on hinge and/or lock stiles are not acceptable.
6. Reinforce top and bottom of doors with galvannealed 14 gage (1.7 mm), welded to both panels.

2.3 DOOR FRAMES

A. General: Construct exterior metal door frames to the following designs and gages:

1. Exterior Frames: Zinc-Iron Alloy-Coated galvannealed steel, ASTM A 653, Class A60:
 - a. Thickness: 14 gage (1.7 mm).

B. Full Steel Frame:

1. Acceptable Product: Steelcraft F-Series.
 - a. Performance:
 - 1) Physical performance: 5 million cycles per ANSI A250.4.
 - 2) Thermal performance (gasketed), ASTM C1363.
 - a) Polyurethane core, 0.498 U-factor.
 - 3) Thermal performance (gasketed), ASTM C236.
 - a) Polyurethane core, 0.09 U-factor.
2. Construction: Three-piece knock-down frames; mitered joints, with locking tab at each head and jamb intersection.
3. Profile:
 - a. 2 inches (51 mm) face dimension with 5/8 inch high stop.
4. Provide following reinforcement and accessories:
 - a. Hinge preparation for continuous geared hinges.
 - b. Strike preparation (single doors) for 4-7/8 inch universal strike; with plaster guard.

- c. Silencers. Prepare frames to receive inserted type door silencers, 3 per strike jamb on single doors. Stick-on silencers are not permitted.
5. Finish: Factory prime finish in accordance with ANSI A 250.10.

2.4 ACCESSORIES

- A. Anchors: Manufacturer's standard anchors for masonry walls, specified in manufacturer's printed installation instructions for project conditions.
- B. Silencers: Resilient rubber, inserted type, three per strike jamb for single openings. Stick-on silencers shall not be permitted.

2.5 FABRICATION

- A. Steel Frames:
 - 1. Factory-welded frames: Head and jamb intersecting corners mitered at 45 degrees, with back welded joints ground smooth.
 - a. Continuous face weld the joint between the head and jamb faces along their length either internally or externally. Grind, prime paint, and finish smooth face joints with no visible face seams.
 - b. Externally weld, grind, prime paint, and finish smooth face joints at meeting mullions or between mullions and other frame members per a current copy of ANSI/SDI A250.8.
 - c. Provide two temporary steel spreaders (welded to the jambs at each rabbet of door openings) on welded frames during shipment. Remove temporary steel spreaders prior to installation of the frame.

2.6 FINISHES

- A. Chemical Treatment: Treat steel surfaces to promote paint adhesion.
- B. Factory Prime Finish: Meet requirements of ANSI A 250.10.

3. PART 3 EXECUTION

3.1 ERECTION

- A. All items shall be set in their correct locations and shall be level, square, plumb, at proper elevations and in alignment with existing conditions.
- B. All joints shall be tightly caulked in order to secure a watertight job. All materials shall be screwed in place using backing, masonry plugs, and/or anchor straps as required.
- C. Where jamb pieces are joined, they shall be accurately cut and fitted to result in a tightly closed joint.
- D. After erection, the Contractor shall adequately protect exposed elements from damage.

3.2 ADJUST AND CLEAN

- A. Adjust doors for proper operation, free from binding or other defects.

- B. Clean and restore soiled surfaces. Remove scraps and debris and leave site in a clean condition.
- C. Prime Coat Touch-Up: Immediately after erection, sand smooth rusted or damaged areas of prime coat, and apply touch-up of compatible air-drying primer.

END OF SECTION

SECTION 08410

ALUMINUM ENTRANCES AND STOREFRONTS

1. PART 1 GENERAL

1.1 SUBMITTALS

- A. In addition to manufacturer's standard product data submit shop drawings for fabrication and installation of entrance doors and frames.

1.2 MODIFICATIONS OF DETAILS

- A. Maintain standard concepts indicated (member sizes, basic profiles, component alignment).

1.3 PERFORMANCE REQUIREMENTS

- A. Fabricate exterior storefront components from manufacturer's stock systems.

2. PART 1 MANUFACTURES

2.1 MANUFACTURERS

- A. Provide the following, or equal:

Corporate Headquarters

Kawneer Company, Inc.

555 Guthridge Ct.

Technology Park/Atlanta

Norcross, GA 30092

<http://www.kawneer.com>

Phone: (770) 449-5555 Fax: (770) 734-1560

- B. System: 360 Insulclad.

2.2 THERMAL PERFORMANCE

- A. Built-in provisions for expansion and contraction resulting from ambient temperature range of 120° F (40° C).

2.3 WIND LOADING

- A. Capable of withstanding uniform pressure of 20 psf inward and 20 psf outward as tested per ASTM E330.

2.4 AIR AND WATER LEAKAGE OF FIXED FRAMING

- A. Air infiltration of not more than 0.06 CFM per sq. ft. tested per ASTM 283 and no uncontrolled water penetration per ASTM E331 at pressure differential of 6.24 psf.

2.5 AIR LEAKAGE OF ENTRANCES

- A. Air infiltration per linear foot of perimeter crack of not more than 0.50 CFM for single doors and 1.0 CFM for pairs of doors per ASTM E283 at pressure differential of 1.567.

2.6 STOREFRONT FRAMING SYSTEM

- A. Inside-outside matched resilient flush-glazed system, shop-fabricated and preassembled from aluminum extrusions, with provisions for glass replacement.

2.7 STILE-AND-RAIL ALUMINUM DOORS

- A. Manufacturer's standard doors, fabricated from aluminum extrusions, indicated 2-1/4" thick.
- B. Aluminum Entrances and Storefront Systems finish to be chosen by Owner from manufacturer's standard color choices.

2.8 GLASS

- A. Preglaze doors with fully tempered safety glass complying with FS DD-G-1403, kind FT, condition A, Type I, and with CSPC 16 CRF Part 1201. For glass and glazing of storefront framing see Section 08800, 'Glass and Glazing'.

2.9 HARDWARE

- A. Manufacturer's standard heavy-duty hardware units of types indicated as applicable for each entrance, finished to match door. See Section 08700 for 'Finish Hardware Schedule'.
- B. Weather-stripping shall be manufacturer's standard for type of door operation indicated.
- C. Comply with manufacturer's instructions and recommendations. Set units plumb and level, accurately aligned and securely anchored. Adjust doors and hardware for smooth operation.

END OF SECTION

SECTION 08520

ALUMINUM WINDOWS

1 PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aluminum Prime Windows:
 - a. Type: Fixed and Casement
 - b. Category: Heavy Commercial (HC)
 - c. Designation: Fixed F-HC75, Casement Open-out: C-HC90
- B. Related Sections:
 - 1. Section 07900 - Joint Sealants
 - 2. Section 08800 - Glass and Glazing

1.2 TESTING AND PERFORMANCE REQUIREMENTS

- A. Test Procedures and Performance:
 - 1. Specifications for Windows, Doors and Unit Skylights: AAMA 101.
 - 2. Air Infiltration Test: ASTM E 283, at 6.24 psf static air pressure differential. Air infiltration shall not exceed 0.30 CFM per sq. ft.
 - 3. Water Resistance Test: ASTM E 331, no water leakage at 12 psf static air pressure differential.
 - 4. Operation and Cycling Performance:
 - 5. Uniform Load Deflection Test: ASTM E 330, at static air pressure of ± 75 psf (fixed), ± 90 psf (casement). No member shall deflect more than 1/175 of its span.
 - 6. Uniform Load Structural Test: ASTM E 330, at static air pressure difference of ± 112.5 psf (fixed), ± 135 psf (casement).
 - 7. Condensation Resistance Test: AAMA 1503.1, CRF Class shall be not less than C55.
 - 8. Thermal Transmittance Test: AAMA 1503.1, U-Value Class shall not exceed .40.

1.3 REFERENCES

- A. AAMA (American Architectural Manufacturers Association)
- B. ANSI (American National Standards Institute)
- C. ASTM (American Society for Testing and Materials)
- D. GANA (Glass Association of North America)

1.4 SUBMITTALS

- A. Provide submittals in a timely manner to meet required construction completion schedule and in accordance with specifications.
 - 1. Shop Drawings:
 - a. Show components complete with dimensions, material and details of anchoring and fastening.
 - b. Show finishes, sealants and other information indicating compliance with specifications.

- c. Submit test report per 1.02 TESTING AND PERFORMANCE REQUIREMENTS.
 - 2. Samples:
 - a. Components: submit samples of anchors, fasteners, hardware, assembled corner sections and other materials and components if requested by architect.
 - b. Finish: submit full range color samples for approval by architect.
 - 3. Warranties: submit written copies in accordance with - 1.06 WARRANTIES.
- 1.5 DELIVERY, STORAGE AND HANDLING
 - A. Protect materials from damage before installation per instructions and in accordance with specifications.
- 1.6 WARRANTIES
 - A. Window System:
 - 1. Qualified window manufacturer, with proven financial responsibility and years of experience of at least the length of the warranty period shall provide written 10 year warranty against defects in materials and workmanship.

2 PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Drawings and Specifications are based on Oldcastle BuildingEnvelope 2000 Series Window.

2.2 MATERIALS

- A. Aluminum: 6063-T6 alloy shall have a minimum wall thickness of 0.062".
 - 1. Extrusions: comply with ASTM B 221. Extrusion tolerances shall meet ANSI H35.2.
 - 2. Sheet: comply with ASTM B 209.
 - 3. Frames:
 - a. Depth: 2"
 - b. Design: Equal leg
 - 4. Thermal Barrier: 5/8" standard system / 1 9/16" arctic system crimped in place rigid PVC.
- B. Hardware: material shall be corrosion resistant and compatible with aluminum. Hardware must prove its strength and suitability by being installed on units that are tested in accordance with specifications.
 - 1. Fasteners: provide non-magnetic stainless steel screws, epoxy adhesives, or other material warranted by the manufacturer.
 - 2. Operating Hardware: Window Type: Projected Awning
 - a. Ventilator hinge type: 2-4 bar friction arm hinges
 - b. Ventilator locks type: 2 cams
 - c. Ventilator handles type: 2 cams
 - d. Hold-open and limit devices type: 1 limit arm
- C. Sealants: color of exposed sealants shall be compatible with adjacent window materials. Comply with AAMA 803.3.

- D. Glazing: windows shall be factory glazed unless too large or unsafe for handling.
 - 1. Glass: provide in accordance with Section 08800.
 - 2. Glazing Materials: units shall be exterior wet glazed using silicone cap beads, setting blocks, edge blocks and accessories as recommended by and in accordance with GANA Glazing Manual.
- E. Weatherstripping: shall be non-shrinking, resistant to ultraviolet degradation, and replaceable closed cell elastomer shall meet ASTM C 509. Dense elastomer shall meet ASTM C 864.
 - 1. Ventilators: provide two rows of compression type neoprene / EPDM alloy or Santoprene.
- F. Screens: shall be inside removable, with frames the same finish as window surface. 18 x 16 black aluminum mesh, standard.

2.3 FABRICATION

- A. Frames: shall be machined, mechanically fastened and sealed to form a watertight joint.
- B. Sash: shall be machined, mechanically fastened and sealed to form a watertight joint.
- C. Component Forming: all aluminum components shall be formed, free of scratches and burrs, before application of finish.

2.4 FINISHES

- A. Cover all exposed areas of aluminum windows and components. Overall finish shall be bronze anodized.
 - 1. Type: Architectural Class I for color anodizing.
 - 2. AAMA Specification: Comply with AAMA 611.
 - 3. Aluminum Association Designation: AA-M10-C22-A44.
 - 4. Color: match 2001 bronze windows

3 PART 3 EXECUTION

3.1 INSPECTION

- A. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface and are in accordance with approved shop drawings.

3.2 INSTALLATION

- A. Install windows with skilled tradesman in accordance with approved shop drawings and specifications.
- B. Unfinished aluminum shall be insulated from direct contact with steel, masonry concrete, and non-compatible materials by bituminous paint, zinc chromate primer or other suitable insulating material.
- C. Install vapor retarder/air barrier in accordance specifications between window perimeter and adjoining collateral materials and existing wall barriers to assure continuity.
- D. Plumb window faces in a single plane for each wall plane. Erect square and true. Anchor to maintain position when subjected to normal thermal and building movement, seismic forces and specified wind loads.

- E. Apply sealants at joints and intersections and at opening perimeters in accordance with approved shop drawings and Section 07900 to provide watertight installation.

3.3 FIELD QUALITY CONTROL

- A. Conduct on-site air and water infiltration tests in accordance with AAMA 502, ASTM E 783, ASTM E 1105 and with architect and window manufacturer's representative present. Architect will select units to be tested. Air infiltration shall not exceed 1.5 x air infiltration amount specified for laboratory testing.
- B. Tested units not meeting specified requirements and units having similar deficiencies shall be corrected at no cost to owner.
- C. Cost for successful tests shall be paid by owner. Unsuccessful tests shall be paid by contractor.
- D. Testing shall be by agency acceptable to architect and window manufacturer and employed by contractor.

3.4 ADJUSTING AND CLEANING

- A. After installation and testing, windows and glazing shall be inspected, adjusted, and left clean and free of labels and dirt. Protect finished installation against damage.
- B. Final cleaning of anodized finish shall be in accordance with AAMA 609.1; painted finish shall be in accordance with AAMA 610.1.

END OF SECTION

SECTION 08710

DOOR HARDWARE

1 PART 1 GENERAL

- 1.1 Refer to "General and Special Conditions", and "Instructions to Bidders", Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.
- 1.2 Work Included:
- A. Furnish all items of Finish Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.
- B. Related work:
1. Division 00 00 00 – Procurement and Contracting Requirements
 2. Division 01 00 00 – General Requirements
 3. Division 06 00 00 – Wood, Plastics, and Composites
 4. Division 08 00 00 – Openings
 5. Division 10 00 00 – Specialties
 6. Division 11 00 00 – Equipment
 7. Division 26 00 00 – Electrical
 8. Division 27 00 00 – Communications
 9. Division 28 00 00 – Electronic Safety and Security
- 1.3 Quality Assurance
- A. Requirements of Regulatory Agencies:
1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
 2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.
 3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.
- B. Hardware Supplier:
1. Shall be an established firm dealing in contract builders' hardware. He must have adequate inventory, qualified personnel on staff and be located within 100 miles of the project. The distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant (AHC).
- C. Manufacturer:
1. Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
 2. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

1.4 Submittals:

A. Hardware Schedule

1. Submit number of Hardware Schedules as directed in Division 1.
2. Follow guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule unless noted otherwise.
3. Schedule will include the following:
 - a. Door Index including opening numbers and the assigned Finish Hardware set.
 - b. Preface sheet listing category only and manufacturer's names of items being furnished as follows:

CATEGORY	SPECIFIED	SCHEDULED
Hinges	Manufacturer A	Manufacturer B
Lock sets	Manufacturer X	Manufacturer X
Kick Plates	Open	Manufacturer Z

- c. Hardware Locations: Refer to Article 3.1 B.2 Locations.
- d. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
- e. Hardware Description: Quantity, category, product number, fasteners, and finish.
- f. Headings that refer to the specified Hardware Set Numbers.
- g. Scheduling Sequence shown in Hardware Sets.
- h. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
- i. Electrified Hardware system operation description.
- j. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
- k. Typed Copy.
- l. Double-Spacing.
- m. 8-1/2 x 11 inch sheets
- n. U.S. Standard Finish symbols or BHMA Finish symbols.

B. Product Data:

1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
2. Submit product data with hardware schedule.

C. Samples:

1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

D. Key Schedule:

1. Submit detailed schedule indicating clearly how the Owner's final keying instructions have been followed.
2. Submit as a separate schedule.

- E. Submit to General Contractor/Construction Manager, the factory order acknowledgement numbers for the various hardware items to be used on the project. The factory order acknowledgement numbers shall help to facilitate and expedite any service that may be required on a particular hardware item. General Contractor/Construction Manager shall keep these order acknowledgement numbers on file in the construction trailer.

1.5 Product Delivery, Storage, and Handling:

- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver to the installer so designated by the contractor.

1.6 Warranties:

- A. Refer to Division 1 for warranty requirements.
- B. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work. Replace work found to be defective as defined in the General Conditions.

2 PART 2 PRODUCT

- 2.1 Furnish each category with the products of only one manufacturer unless specified otherwise; this requirement is mandatory whether various manufacturers are listed or not.

- 2.2 Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, it is understood that this is the owner's Building Standard and "no substitution" is allowed.

A. Hinges:

- 1. Furnish hinges of class and size as listed in sets.
- 2. Numbers used are Ives (IVE).
- 3. Products of a BHMA member are acceptable.

B. Continuous Gear Hinge:

- 1. 6063-T6 aluminum alloy, anodized finish (cap on entire hinge painted if specified). Manufacture to template, uncut hinges non-handed, pinless assembly, three interlocking extrusions, full height of door and frame, lubricated polyacetal thrust bearing, fasteners 410 stainless steel plated and hardened. All hinge profiles to be manufactured to template bearing locations, with standard duty bearing configurations at 5-1/8" spacing with a minimum of 16 bearings; and heavy duty at 2-9/16" spacing with a minimum of 32 bearings. Anodizing of material shall be done after fabrication of components so that all bearing slots are anodized.
- 2. Length: 1" less than door opening height. Fastener 12-24 x 1/2" #3 Phillips keen form stainless steel self-tapping at aluminum and hollow metal doors, 12-1/2" #3 Philips, flathead full thread at wood doors.
- 3. Furnish fire rated hinges "FR" at labeled openings.
- 4. Numbers used are Ives.
 - a. For Hollow Metal frames;
 - 1) Ives 224HD
 - b. For Aluminum frames;
 - 1) Ives 112HD

- C. Locksets and Latchsets - Mortise Type:
1. Locksets shall be manufactured from heavy gauge steel, minimum lockcase thickness 1/8", containing components of steel with a zinc dichromate plating for corrosion resistance.
 2. Locks are to have a standard 2 3/4" backset with a full 3/4" throw two-piece stainless steel mechanical anti-friction latchbolt. Deadbolt shall be a full 1" throw, constructed of stainless steel.
 3. Lockcase shall be easily handed without chassis disassembly by removing handing screw on lockcase and installing in opposite location on reverse side. Changing of door hand bevel from standard to reverse hand shall be done by removing the lockcase scalp plate, and pulling and rotating the latchbolt 180 degrees.
 4. Lock trim shall be through-bolted to the door to assure correct alignment and proper operation. Lever trim shall have external spring cage mechanism to assist in support of the lever weight. Thumb turns shall have "EZ" thumbturn equal to IR-Schlage L583-363.
 5. Function numbers are IR-Schlage.
 - a. IR-Schlage L9000
 6. Lockset Trim:
 - a. IR-Schlage06N
 7. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond door frame trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.

- D. Exit Devices:
1. Exit devices shall be touchpad style, fabricated of brass, bronze, stainless steel, or aluminum, plated to the standard architectural finishes to match the balance of the door hardware.
 2. All exit devices shall incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation. Touchpad shall extend a minimum of one half of the door width. All latchbolts to be deadlatching type, with a self-lubricating coating to reduce wear.
 3. End-cap will be sloped to deflect any impact from carts and they shall be flush with the external mechanism case. End caps that overlap and project above the mechanism case are unacceptable. End cap shall utilize a two-point attachment to the mounting bracket.
 4. Touchpad shall match exit device finish, and shall be stainless steel for US26, US26D, US28, US32, and US32D finishes. Only compression springs will be used in devices, latches, and outside trims or controls.
 5. Plastic templates shall be included with each exit device to facilitate a quick, easy and accurate installation.
 6. Strikes shall be roller type and come complete with a locking plate to prevent movement.
 7. All rim and vertical rod exit devices shall have passed a 5 million(5,000,000) cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
 8. All mortise exit devices shall have passed a 10 million(10,000,000)cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
 9. Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be UL labeled fire exit hardware.
 10. Lever trim for exit devices shall be vandal-resistant type, which will travel to a 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.

11. IR-Von Duprin 35A Series. Series and function numbers as listed in sets.
 12. Trim:
 - a. As specified in sets.
 - b. Levers to match lockset design where specified.
- E. Push and Pull Hardware:
1. Pull, Offset: One inch round rod, 90 degree offset, 12 inch centers.
 2. Manufacturer: Provide push and pull hardware from any member of B.H.M.A.
- F. Closers:
1. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1 ½" in diameter, and double heat treated pinion shall be 11/16" in diameter with double D slab drive arm connection.
 2. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
 3. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed, and backcheck.
 4. All closers shall have solid forged steel main arms (and forged forearms for parallel arm closers).
 5. All surface mounted mechanical closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory.
 6. Closers will have Powder coating finish certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
 7. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
 8. IR-LCN Series as listed in sets.
- G. Overhead Holders and Stops:
1. Type, function and fasteners must be same as Glynn-Johnson specified. Size per manufacturer's selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
 2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
 3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
 - a. IR-Glynn-Johnson
- H. Kick Plates:
1. Furnish .050 inches thick, beveled three sides, 10" high x door width less 2" at single doors and less 1" at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less 2".
 2. Any BHMA manufacturing product meeting above is acceptable.
- I. Wall Stops:
1. Length to exceed projection of all other hardware. Provide with threaded studs and expansion shields for masonry wall construction. Install with slope on top.
 - a. IR-Ives WS33
 - b. BHMAL12011 or L12021

- J. Thresholds:
 - 1. 1/2" high - 5" wide. Cope at jambs.
 - 2. Furnish full wall opening width when frames are recessed.
 - 3. Cope in front of mullions if thresholds project beyond door faces.
 - 4. Furnish with non-ferrous Stainless Steel Screws and Lead Anchors.
 - a. National Guard as listed in sets
 - b. Equal of Zero or Reese

- K. Door Sweeps:
 - 1. Surface Sweeps:
 - a. National Guard as listed in sets
 - b. Equal by Zero or Reese

- L. Weather-stripping:
 - 1. Apply to head and jamb stops.
 - 2. Solid Bar stock all sides
 - a. National Guard as listed in sets
 - b. Equal by Zero or Reese

- M. Miscellaneous:
 - 1. Furnish items not categorized in the above descriptions but specified by manufacturer's names in Hardware Sets.

- N. Fasteners:
 - 1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.
 - 2. **Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.**

2.3 Finishes:

- A. Generally, Dull Chrome, US26D / BHMA 626. Provide finish for each item as indicated in sets.

2.4 Templates and Hardware Location:

- A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
- B. Furnish metal template to frame/door supplier for continuous hinge.
- C. Refer to Article 3.1 B.2, Locations, and coordinate with templates.

2.5 Cylinders and Keying:

- A. All cylinders for this project will be supplied by one supplier regardless of door type and location.
- B. The Finish Hardware supplier will meet with Architect and/or Owner to finalize keying requirements and obtain keying instructions in writing.
 - 1. Supplier shall include the cost of this service in his proposal.

- C. Provide a cylinder for all hardware components capable of being locked.
- D. Provide cylinders master and grand master keyed according to Owner's instructions. Provide change keys, master keys and grand master keys as required by Owner.

3 PART 3 EXECUTION

3.1 Installation

A. General:

- 1. Install hardware according to manufacturers installations and template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.
- 2. Provide blocking/reinforcement for all wall mounted Hardware.
- 3. Reinforced hollow metal doors and frames and reinforced aluminum door and frames will be drilled and tapped for machine screws.
- 4. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self-tapping. Use #13 or 3/16 drill for pilot.
- 5. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame height, applied with construction adhesive.
- 6. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Locations:

- 1. Dimensions are from finish floor to center line of items.
- 2. Include this list in Hardware Schedule.

<u>CATEGORY</u>	<u>DIMENSION</u>
Hinges	Door Manufacturer's Standard
Levers	Door Manufacturer's Standard
Exit Device Touchbar	Per Template
Offset Pulls	Suitable for Exit Devices
Wall Stops/holders	At Head

C. Field Quality Inspection:

- 1. Provide the services of a representative to inspect material furnished and its installation and is adjustment, and to instruct the Owner's personnel in adjustment, care and maintenance of hardware.
- 2. Locksets and exit devices shall be inspected by the finish hardware supplier after installation and after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
- 3. Closers shall be inspected by the finish hardware supplier after installation and after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
- 4. The finish hardware supplier shall prepare a written report stating compliance, and also recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect with copies to the Contractor, hardware installer and building owner.

D. Technical and Warranty Information:

1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and properly execute any warranty work that may be required on the various hardware items supplied on the project.
2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

3.2 Hardware Sets:

HW SET: 01

2	EA	CONTINUOUS HINGE	112HD	628	IVE
1	EA	MULLION	KR4954 X 154	689	VON
1	EA	PANIC HARDWARE	35A-EO	626	VON
1	EA	PANIC HARDWARE	35A-NL-OP	626	VON
1	EA	MORTISE CYLINDER	(MATCH OWNER'S EXISTING SYSTEM)	626	
1	EA	RIM CYLINDER	(MATCH OWNER'S EXISTING SYSTEM)	626	
2	EA	OFFSET DOOR PULL	8190-2-O	630	IVE
1	EA	MULLION SEAL	5100	BLK	NGP
2	EA	SURFACE CLOSER	4111 EDA	689	LCN
2	EA	OVERHEAD HOLDER	100H	630	GLY
1	SET	WEATHER SEAL	(PROVIDED BY THE DOOR & FRAME MFR)		
2	EA	DOOR SWEEP	600A	CL	NGP
1	EA	THRESHOLD	8425	AL	NGP

THE EXIT DEVICES MAY BE "DOGGED" (LATCHBOLTS HELD RETRACTED) FOR PUSH/PULL OPERATION.

HW SET: 02

2	EA	CONTINUOUS HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	3547A-EO	626	VON
1	EA	PANIC HARDWARE	3547A-NL-OP	626	VON
1	EA	RIM CYLINDER	(MATCH OWNER'S EXISTING SYSTEM)	626	
2	EA	OFFSET DOOR PULL	8190-2-O	630	IVE
1	SET	ASTRAGAL	115NA	CL	NGP
2	EA	SURFACE CLOSER	4011T H	689	LCN
2	EA	WALL STOP	WS33	626	IVE
1	SET	WEATHER SEAL	(PROVIDED BY THE DOOR & FRAME MFR)		
2	EA	DOOR SWEEP	600A	CL	NGP
1	EA	THRESHOLD	8425	AL	NGP

PROVIDE "WEEP" HOLES IN THE EXIT DEVICE MECHANISM CASES.

THE EXIT DEVICES MAY BE "DOGGED" (LATCHBOLTS HELD RETRACTED) FOR PUSH/PULL OPERATION.

HW SET: 03

1	EA	CONTINUOUS HINGE	224HD	628	IVE
1	EA	STORE LOCK	L9466L 06N	626	SCH
2	EA	MORTISE CYLINDER	(MATCH OWNER'S EXISTING SYSTEM)	626	
1	EA	SURFACE CLOSER	4011 H	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS33	626	IVE
1	SET	WEATHER SEAL	700NA	CL	NGP
1	EA	DOOR SWEEP	600A	CL	NGP
1	EA	THRESHOLD	8425	AL	NGP

LATCHBOLT RETRACTED BY LEVER FROM EITHER SIDE. DEADBOLT THROWN OR RETRACTED BY KEY CYLINDER FROM EITHER SIDE.

END OF SECTION

SECTION 08800

GLASS GLAZING

1 PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Insulating glass units.
- B. Related Sections
 - 1. Drawings, General and Supplementary Conditions of the Contract, Division 1 and the following Specification Sections, apply to this Section.
 - 2. Section 08 41 00 – Entrances and Storefronts
 - 3. Section 08 42 00 – Entrances
 - 4. Section 08 43 00 – Storefronts
 - 5. Section 08 44 00 – Curtain Wall and Glazed Assemblies
 - 6. Section 08 50 00 – Windows
 - 7. Section 08 60 00 – Roof Windows and Skylights

1.2 REFERENCES

- A. United States
 - 1. ANSI Z97.1 - American National Standard for Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
 - 2. ASTM C162 - Standard Terminology of Glass and Glass Products.
 - 3. ASTM C1036 - Standard Specification for Flat Glass.
 - 4. ASTM C1048 - Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and Uncoated Glass.
 - 5. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Glass.
 - 6. ASTM E1300 - Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.
 - 7. ASTM E2188 - Standard Test Method for Insulating Glass Unit Performance.
 - 8. ASTM E2189 - Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units.
 - 9. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
 - 10. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
 - 11. Insulating Glass Manufacturers Alliance (IGMA) - Glazing Guidelines.

1.3 DEFINITIONS

- A. Sealed Insulating Glass Unit Surfaces & Coating Orientation:
 - 1. Surface 1 – Exterior surface of outer pane (surface facing outdoors of outboard lite).
 - 2. Surface 2 – Interior surface of outer pane (surface facing indoors of outboard lite).
 - 3. Surface 3 – Exterior surface of inner pane (surface facing outdoors of inboard lite).
 - 4. Surface 4 – Room side surface of inner pane (surfacing facing indoors of inboard lite).
- B. Performance Characteristics
 - 1. Center-of-Glass – Performance values that take only the center portion of a glass makeup into account and not the framing members.

2. Glass thermal and optical performance properties shall be based on data and calculations from the current LBNL WINDOW 5.2 computer program.
3. Fenestration Performance – Performance values that take into account the total fenestration (center-of-glass and framing members). Normally identified with building energy codes such as ASHRAE-IESNA 90.1 and the IECC. These values can also be tested and certified by the National Fenestration Rating Council (NFRC).

1.4 SYSTEM DESCRIPTION

- A. Design Requirements
 1. Provide glazing systems capable of withstanding normal thermal movements, windloads and impact loads, without failure, including loss due to defective manufacture, fabrication and installation; deterioration of glazing materials; and other defects in construction.
 2. Provide glass products in the thicknesses and strengths (annealed or heat-treated) required to meet or exceed the following criteria based on project loads and in-service conditions per ASTM E1300.
 - a. Minimum thickness of annealed or heat-treated glass products is selected, so the worst-case probability of failure does not exceed the following:
 - 1) 8 breaks per 1000 for glass installed vertically or not over 15 degrees from the vertical plane and under wind action.
 - 2) 1 break per 1000 for glass installed 15 degrees or more from the vertical plane and under action of wind and/or snow.

1.5 SUBMITTALS

- A. Submit 12-inch (305mm) square samples of each type of glass indicated (except clear monolithic glass products), and 12-inch (305mm) long samples of each color required (except black) for each type of sealant or gasket exposed to view.
- B. Submit manufacturer's product data sheet and glazing instructions.
- C. Glazing contractor shall obtain compatibility and adhesion test reports from sealant manufacturer, indicating that glazing materials were tested for compatibility and adhesion with glazing sealant, as well as other glazing materials including insulating units.
- D. Glazing Contractor shall provide test reports showing that the glass meets the requirements of any security test reports specified on drawings.

1.6 QUALITY ASSURANCE

- A. Comply with published recommendations of glass product manufacturers and organizations below, except where more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this section or referenced standards.
 1. GANA Publications
 2. AAMA Publications
 3. IGMA/IGMAC Publications
- B. Safety glass products in the US are to comply with CPSC 16 CFR Part 1201 for Category II materials.
- C. Safety glass products in Canada are to comply with the testing requirements of CAN/CGSB-12.1-M, Type 1 for Laminated Glass and Type 2 for Tempered Glass.

1. Provide safety glass permanently marked with the company name or logo and CAN/CGSB-12.1-M if the product meets categories 1 and 2, or mark as CAN/CGSB 12.1-M-1 if the product meets the requirements of Category 1 only.
- D. Insulating Glass products are to be permanently marked either on spacers or at least one insulating unit component with appropriate certification label of inspecting and testing agency indicated below:
1. US - Insulating Glass Certification Council (IGCC)
 2. Canada - Insulating Glass Manufacturers Alliance (IGMA) or Insulating Glass Manufacturers Association of Canada (IGMAC)
- E. Single-source fabrication responsibility: All glass fabricated for each type shall be processed and supplied by a single fabricator.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's instruction for receiving, handling, storing and protecting glass & glazing materials.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
- D. Exercise exceptional care to prevent edge damage to glass, and damage/deterioration to coating on glass.
- E. Where insulating glass units will be exposed to substantial altitude changes, comply with insulating glass fabricator's recommendations of venting and sealing.

1.8 PROJECT / SITE CONDITIONS

- A. Environmental Requirements: Installation of glass products at ambient air temperature below 40 degrees F (4.4 degrees C) is prohibited.
- B. Field Measurements: When construction schedule permits, verify field measurements with drawing dimensions prior to fabrication of glass products.

1.9 WARRANTY

- A. Provide a written 10-year limited warranty from date of manufacture for insulating glass. Warranty covers deterioration due to normal conditions of use and not to handling, installing, protecting and maintaining practices contrary to glass manufacturer's published instructions.

2 PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer is used in this section to refer to a firm that produces primary glass or fabricated glass as defined in the referenced standards.
 1. Oldcastle BuildingEnvelope®
 2. Guardian Industries
 3. Pilkington

4. PPG Industries

2.2 MATERIALS

A. Sealed Insulating Glass (IG) Units

1. Insulating Glass Unit Makeup
 - a. Outboard Lite
 - 1) Glass Type:
 - 2) Glass Tint: Bronze
 - 3) Nominal Thickness: ¼”
 - 4) Glass Strength: *Heat-Strengthened*
 - 5) Coating Orientation: *N/A*
 - b. Spacer
 - 1) Nominal Thickness: ½”
 - 2) Gas Fill: *Air*
 - c. Inboard Lite
 - 1) Glass Type:
 - 2) Glass Tint: TiR
 - 3) Nominal Thickness: 1/4
 - 4) Glass Strength: *Heat-Strengthened Coating*
 - 5) *Orientation: N/A*
2. Provide hermetically sealed IG units with dehydrated airspace, dual sealed with a primary seal of polyisobutylene (PIB) and a secondary seal of silicone or an organic sealant depending on the application.
3. US Requirements:
 - a. Insulating glass units are certified through the Insulating Glass Certification Council (IGCC) to ASTM E2190.
 - b. Annealed float glass shall comply with ASTM C1036, Type I, Class 1 (clear), Class 2 (tinted), Quality-Q3.
 - c. Heat-Strengthened float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind HS.
 - d. Tempered float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind FT.
4. Glass shall be annealed, heat-strengthened or tempered as required by codes, or as required to meet thermal stress and wind loads.
5. Glass heat-treated by horizontal (roller hearth) process with inherent roller wave distortion parallel to the bottom edge of the glass as installed when specified.

B. Glazing Products

1. Select appropriate glazing sealants, tapes, gaskets and other glazing materials of proven compatibility with other materials that they contact. These include glass products, insulating glass unit seals and glazing channel substrates under installation and service conditions, as demonstrated by testing and field experience.

3 PART 3 EXECUTION

3.1 EXAMINATION

A. Site Verification and Conditions

1. Verify that site conditions are acceptable for installation of the glass.
2. Verify openings for glazing are correctly sized and within tolerance.
3. Verify that a functioning weep system is present.
4. Verify that the minimum required face and edge clearances are being followed.
5. Do not proceed with glazing until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protection
 - 1. Handle and store product according to manufacturers' recommendations.
- B. Surface Preparation
 - 1. Clean and prepare glazing channels and other framing members to receive glass.
 - 2. Remove coatings and other harmful materials that will prevent glass and glazing installation required to comply with performance criteria specified.

3.3 INSTALLATION

- A. Install products using the recommendations of manufacturers of glass, sealants, gaskets and other glazing materials, except where more stringent requirements are indicated, including those in the "GANA Glazing Manual".
- B. Verify that Insulating Glass (IG) Unit secondary seal is compatible with glazing sealants.
- C. Install glass in prepared glazing channels and other framing members.
- D. Install setting blocks in rabbets as recommended by referenced glazing standards in GANA Glazing Manual and IGMA Glazing Guidelines.
- E. Provide bite on glass, minimum edge and face clearances and glazing material tolerances recommended by GANA Glazing Manual.
- F. Provide weep system as recommended by GANA Glazing Manual.
- G. Set glass lites in each series with uniform pattern, draw, bow and similar characteristics.
- H. Distribute the weight of the glass unit along the edge rather than at the corner.
- I. Comply with manufacturer's and referenced industry recommendations on expansion joints and anchors, accommodating thermal movement, glass openings, use of setting blocks, edge, face and bite clearances, use of glass spacers, edge blocks and installation of weep systems.
- J. Protect glass from edge damage during handling and installation.
- K. Prevent glass from contact with contaminating substances that result from construction operations, such as weld spatter, fireproofing or plaster.
- L. Remove and replace glass that is broken, chipped, cracked or damaged in any way.

3.4 CLEANING

- A. Clean excess sealant or compound from glass and framing members immediately after application, using solvents or cleaners recommended by manufacturers.
- B. Glass to be cleaned according to:
 - 1. GANA Glass Informational Bulletin GANA 01-0300 - Proper Procedures for Cleaning Architectural Glass Products.
 - 2. GANA Glass Information Bulletin GANA TD-02-0402 – Heat-Treated Glass Surfaces Are Different.
- C. Do not use scrapers or other metal tools to clean glass.

END OF SECTION

SECTION 09900

PAINTING AND FINISHES

1. PART 1 GENERAL

1.1 WORK INCLUDED

- A. Exposed exterior items and surfaces.
- B. Exposed interior items and surfaces.
- C. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.

1.2 RELATED SECTIONS

- A. Section 07900 – Caulking and Sealants
- B. Section 08100 – Metal Doors and Frames

1.3 DEFINITIONS

- A. Conform to ANSI/ASTM D16 for interpretation of terms used in this Section.

1.4 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing quality paint and finish products with three years experience.
- B. Applicator: Company specializing in commercial painting and finishing approved by product manufacturer.

1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke rating requirements for finishes.

1.6 SUBMITTALS

- A. Provide product data on all finishing products.
- B. Submit samples and color charts.
- C. Submit manufacturer's application instructions.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect products per manufacturer's recommendations.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptance.
- C. Container labeling to include manufacturer's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, cleanup, color designation, and instructions for mixing and reducing.

- D. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in well ventilated area, unless required otherwise by manufacturer's instructions.
- E. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during, and 72 hours after application of finishes, unless required otherwise by manufacturer's instructions.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is above 50 percent, unless required otherwise by manufacturer's instructions.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

1.9 EXTRA STOCK

- A. Provide a one gallon container of each color and type to Owner. Quart containers will be acceptable for touchup paint and for small items.
- B. Label each container with color and type in addition to the manufacturer's label.

2. PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS – PRIMERS AND COATINGS

- A. PPG Industries, Inc. (PPG).
- B. ICI Dulux Paints (ICI).
- C. Sherwin-Williams Co. (S-W).
- D. Or approved equal.

2.2 MATERIALS

- A. Coatings: Ready mixed, except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
- B. Coatings: Good flow and brushing properties; capable of drying or curing free of streaks or sags.
- C. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.

2.3 FINISHES

- A. Colors: Provide color selections made by the Owner/Architect.

3. PART 3 EXECUTION

3.1 INSPECTION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Measure moisture content of surfaces using an electronic moisture meter. Do not apply coating unless moisture content of surfaces is below the manufacturer's recommendations. Product may be applied to a surface with a pH of 6 to 12.
- D. Beginning of installation means acceptance of existing surfaces.

3.2 PREPARATION

- A. **Cleaning:** Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.
- B. **Surface Preparation:** Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
 - 1. **Wood:** Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
 - 2. **Galvanized Surfaces:** Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal by mechanical methods.
- C. **Materials Preparation:** Mix and prepare paint materials according to manufacturer's written instructions.

3.3 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.
- D. Remove empty paint containers from site.

3.4 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish.
- D. Sand lightly between coats to achieve required finish.

E. Allow applied coat to dry before next coat is applied.

3.5 CLEANING

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect cotton waste, cloths, and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.6 GENERAL FINISH SPECIFICATIONS

A. Exterior Paint Schedule:

1. Zinc Coated (Galvanized) Metal:

Surface

Preparation: SPG 9-E

Primer:

Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

Finish Coats:

Semigloss, Acrylic-Latex, Exterior Enamel, 2 coats. Total dry film thickness of not less than 2.6 mils (0.066 mm).

2. Porcelain Enamel Coated Metal:

Surface

Preparation: Surface must be clean and dry, free from dust, grease, wax, oil, loose paint, dirt and other surface contaminants.

Primer:

XIM 400 Primer Sealer – recommended dry film thickness 0.75-1.25 mils.

Finish Coats:

Gloss, Multi-Surface Acrylic, 2 coats. Total dry film thickness of not less than 1.5 mils.

B. Interior Paint Schedule:

1. Woodwork

Surface

Preparation: SPG 5-E.

Primer:

Alkyd- or acrylic-latex-based, interior wood primer as recommended by the manufacturer of this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.4 mils (0.036 mm).

Finish Coats:

Low-Luster, Acrylic-Latex, Interior Enamel, 2 coats. Total dry film thickness of not less than 2.8 mils (0.071 mm).

3.7 PAINTS AND COATINGS SCHEDULE

- A. Application: Materials shall be applied to the following surfaces and areas in accordance with the specification guidelines.
1. Paint existing exterior metal fascia panels as indicated on the drawings.
 2. Paint new interior woodwork as indicated on the drawings.
 3. Touch-up paint on existing interior concrete masonry walls as necessary where new windows have been installed. Color and sheen to match existing.

END OF SECTION

