

CITY OF ANN ARBOR  
INVITATION TO BID



Fuller Park Structures Exterior Finish Repair and Restoration

ITB No. 4480

Due Date: Monday, March 20, 2017 at 2:00 p.m. (local time)

Community Services Area  
Parks and Recreation Services  
Administering Service Area/Unit

Issued By:

City of Ann Arbor  
Procurement Unit  
301 E. Huron Street  
Ann Arbor, MI 48104

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## ATTACHMENTS

*City of Ann Arbor Prevailing Wage Declaration Form*  
*City of Ann Arbor Living Wage Forms*  
*City of Ann Arbor Vendor Conflict of Interest Disclosure Form*  
*City of Ann Arbor Non-Discrimination Ordinance Notice and Declaration Form*

## **NOTICE OF PRE-BID CONFERENCE**

A pre-bid conference for this project will be held on **Wednesday, March 8 at 10:00 a.m.** at Fuller Park pool, 1519 Fuller Rd, Ann Arbor, MI 48105.

Attendance at this conference is highly recommended. Administrative and technical questions regarding this project will be answered at this time. The pre-bid conference is for information only. Any answers furnished will not be official until verified in writing by the Financial Service Area, Procurement Unit. Answers that change or substantially clarify the bid will be affirmed in an addendum.

# INSTRUCTIONS TO BIDDERS

## General

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

Any Bid which does not conform fully to these instructions may be rejected.

## Preparation of Bids

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid. No alternative bid will be considered unless alternative bids are specifically requested. If alternatives are requested, any deviation from the specification must be fully described, in detail on the "Alternate" section of Bid form.

Each person signing the Bid certifies that he/she is the person in the Bidder's firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participated in any action contrary to the terms of this provision.

## Questions or Clarification on ITB Specifications

All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be due on or before **Monday, March 13 by 9 a.m.** and should be addressed as follows:

Specification/Scope of Work questions emailed to [mborys@mitchellandmouat.com](mailto:mborys@mitchellandmouat.com)  
and [akuras@a2gov.org](mailto:akuras@a2gov.org)

Bid Process and Compliance questions emailed to [cspencer@a2gov.org](mailto:cspencer@a2gov.org)

Any error, omissions or discrepancies in the specification discovered by a prospective contractor and/or service provider shall be brought to the attention of Amy Kuras at [akuras@a2gov.org](mailto:akuras@a2gov.org) after discovery as possible. Further, the contractor and/or service provide shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

## Addenda

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) and/or City of Ann Arbor web site [www.A2gov.org](http://www.A2gov.org) for all parties to download.

Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it

has received, but the failure of a Bidder to receive, or acknowledge receipt of; any addenda shall not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

## Bid Submission

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before **Monday, March 20, 2017 by 2:00 p.m. EST.** Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and **two (2)** Bid copies in a sealed envelope clearly marked: **ITB No. 4480, Fuller Park Structures Exterior Repair and Renovations**

### **Bids must be addressed and delivered to:**

City of Ann Arbor  
Procurement Unit,  
c/o Customer Services, 1<sup>st</sup> Floor  
301 East Huron Street  
Ann Arbor, MI 48107

All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

**The following forms provided within this ITB Document must be included in submitted bids.**

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

**Bids that fail to provide these completed forms listed above upon bid opening will be rejected as non-responsive and will not be considered for award.**

Hand delivered bids will be date/time stamped/signed by the Procurement Unit at the address above in order to be considered. Normal business hours are 9:00 a.m. to 3:00 p.m. Monday through Friday, excluding Holidays. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines in its sole discretion that circumstances warrant it.

## Award

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved

for the City. For unit price bids, the Contract will be awarded based upon the unit prices and the lump sum prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing Bids, the City will give consideration to alternate Bids for items listed in the bid forms. All key staff and subcontractors are subject to the approval by the City.

## Official Documents

The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on [www.MITN.info](http://www.MITN.info) and obtain an official Bid.

## Bid Security

Each bid must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

## Withdrawal of Bids

After the time of opening, no Bid may be withdrawn for the period of sixty (60) days

## Contract Time

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-2, Article III of the Contract. If these time requirements can not be met, the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

## Liquidated Damages

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

## Human Rights Information

All contractors proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate as outlined in Section 5, beginning at page GC-3 shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor's Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

## Wage Requirements

Section 4, beginning at page GC-2, outlines the requirements for payment of prevailing wages and for payment of a "living wage" to employees providing service to the City under this contract. The successful bidder and its subcontractors must comply with all applicable requirements and provide documentary proof of compliance when requested.

For laborers whose wage level are subject to federal, state and/or local prevailing wage law the appropriate Davis-Bacon wage rate classification is identified based upon the work including within this contract. **The wage determination(s) current on the date 10 days before bids are due shall apply to this contract.** The U.S. Department of Labor (DOL) has provided explanations to assist with classification in the following resource link: [www.wdol.gov](http://www.wdol.gov)

## Conflict Of Interest Disclosure

The City of Ann Arbor Purchasing Policy requires that prospective Vendors complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected Vendor unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Vendor Conflict of Interest Disclosure Form is attached.

## Major Subcontractors

The Bidder shall identify on Bid Form Section 4 each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the City.

## Debarment

Submission of a Bid in response to this ITB is certification that the Bidder is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

## Disclosures

After bids are opened, all information in a submitter's bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) known as the "Freedom of Information Act." The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

## Bid Protest

All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the award action. The bidder must clearly state the reasons for the protest. If a bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Agent. The Purchasing Agent will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

## Cost Liability

The City of Ann Arbor assumes no responsibility or liability for costs incurred by the Bidder prior to the execution of a contract with the City. By submitting a bid, a bidder agrees to bear all costs incurred or related to the preparation, submission and selection process for the bid.

## Reservation of Rights

The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.



# INVITATION TO BID

City of Ann Arbor  
Guy C. Larcom Municipal Building  
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, Instructions to Bidders, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered \_\_\_\_\_, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2017.

\_\_\_\_\_  
Bidder's Name

\_\_\_\_\_  
Authorized Signature of Bidder

\_\_\_\_\_  
Official Address

\_\_\_\_\_  
(Print Name of Signer Above)

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Email Address for Award Notice

**LEGAL STATUS OF BIDDER**

(The Bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

\* A corporation organized and doing business under the laws of the State of \_\_\_\_\_, for whom \_\_\_\_\_, bearing the office title of \_\_\_\_\_, whose signature is affixed to this Bid, is authorized to execute contracts.

**NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority**

• A limited liability company doing business under the laws of the State of \_\_\_\_\_, whom \_\_\_\_\_ bearing the title of \_\_\_\_\_ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

\* A partnership, organized under the laws of the state of \_\_\_\_\_ and filed in the county of \_\_\_\_\_, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):

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\* An individual, whose signature with address, is affixed to this Bid: \_\_\_\_\_ (initial here)

**Authorized Official**

\_\_\_\_\_ **Date** \_\_\_\_\_, 2017

(Print) Name \_\_\_\_\_ Title \_\_\_\_\_

Company: \_\_\_\_\_

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

Contact Phone ( ) \_\_\_\_\_ Fax ( ) \_\_\_\_\_

Email \_\_\_\_\_

# BID FORM

## Section 1 – Schedule of Prices

Company: \_\_\_\_\_

Project: Fuller Park Structures Exterior Finish Repair and Restoration, ITB 4480

### **Base Bid**

For the entire work outlined in these documents for **Fuller Park Structures Exterior Finish Repair and Restoration** complete as specified, using equipment and materials only of the type and manufacturers where specifically named.

\_\_\_\_\_ (\$ \_\_\_\_\_)  
Use words Use numbers

### **Informative Prices**

Provide a unit cost per square foot (SF) to Remove and Replace an area of Acrylic Veneer. This cost will apply to increasing/decreasing areas of refinishing as required by site conditions.

UNIT COST \$ \_\_\_\_\_ per SF

### **Alternates**

**ALTERNATE #1** - Provide the Add cost to paint with any of the “high-build elastomeric exterior, acrylic coatings” as specified and noted in the Product lines for the Section 09900 – Painting, Section 2.03.B.2.b.

ADD COST \_\_\_\_\_ (\$ \_\_\_\_\_)

**ALTERNATE #2** - Provide the Deduct cost to eliminate applying any sealants and the complete Painting and required preparation for painting as required/included in the Complete Base Bid.

DEDUCT COST \_\_\_\_\_ (\$ \_\_\_\_\_)

# BID FORM

## Section 2 - Material and Equipment Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
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If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_ Date \_\_\_\_\_

# BID FORM

## Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_ Date \_\_\_\_\_

# BID FORM

## Section 4 - Major Subcontractors

For purposes of this Contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of Contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision to Section 4 of the General Conditions covering subcontractor's employees who perform work on this contract.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
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If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_ Date \_\_\_\_\_

# BID FORM

## Section 5 – References

Include a minimum of 3 references from similar project completed within the past 5 years.

**[Refer also to Instructions to Bidders for additional requirements, if any]**

1) \_\_\_\_\_  
Project Name Cost Date Constructed

\_\_\_\_\_  
Contact Name Phone Number

2) \_\_\_\_\_  
Project Name Cost Date Constructed

\_\_\_\_\_  
Contact Name Phone Number

3) \_\_\_\_\_  
Project Name Cost Date Constructed

\_\_\_\_\_  
Contact Name Phone Number



# SAMPLE STANDARD CONTRACT

*If a contract is awarded, the selected contractor will be required to adhere to a set of general contract provisions which will become a part of any formal agreement. These provisions are general principles which apply to all contractors of service to the City of Ann Arbor such as the following:*

## CONTRACT

THIS AGREEMENT is made on the \_\_\_\_\_ day of \_\_\_\_\_, 2017, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 East Huron Street, Ann Arbor, Michigan 48104 ("City") and \_\_\_\_\_ ("Contractor")

\_\_\_\_\_  
(An individual/partnership/corporation, include state of incorporation)

\_\_\_\_\_  
(Address)

Based upon the mutual promises below, the Contractor and the City agree as follows:

### ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled [Insert Title of Bid and Bid Number] in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Non-discrimination and Living Wage  
Declaration of Compliance Forms (if  
applicable)  
Vendor Conflict of Interest Form  
Prevailing Wage Declaration of  
Compliance Form (if applicable)  
Bid Forms  
Contract and Exhibits  
Bonds

General Conditions  
Standard Specifications  
Detailed Specifications  
Plans  
Addenda

### ARTICLE II - Definitions

Administering Service Area/Unit means Community Services Area, Parks and Recreation Services

Project means **Fuller Park Structures Exterior Surfaces Repair and Renovation, ITB 4480**

### ARTICLE III - Time of Completion

- (A) The work to be completed under this Contract shall begin immediately on the date specified in the Notice to Proceed issued by the City.
- (B) The entire work for this Contract shall be completed within Thirty (30) consecutive calendar days.
- (C) Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$250.00 for each calendar day of delay in the completion of all the work.

If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

**ARTICLE IV - The Contract Sum**

- (A) The City shall pay to the Contractor for the performance of the Contract, the lump sum price as given in the Bid Form in the amount of:

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

- (B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

**ARTICLE V - Assignment**

This Contract may not be assigned or subcontracted any portion of any right or obligation under this contract without the written consent of the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under this contract unless specifically released from the requirement, in writing, by the City.

**ARTICLE VI - Choice of Law**

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

**ARTICLE VII - Relationship of the Parties**

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

**ARTICLE VIII - Notice**

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

**ARTICLE IX - Indemnification**

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney’s fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor’s behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City’s sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

**ARTICLE X - Entire Agreement**

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party’s invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party’s failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

**FOR CONTRACTOR**

By \_\_\_\_\_

Its: \_\_\_\_\_

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_  
Christopher Taylor, Mayor

By \_\_\_\_\_  
Jacqueline Beaudry, City Clerk

[signatures continue on next page]

**Approved as to substance**

By \_\_\_\_\_  
Howard Lazarus, City Administrator

By \_\_\_\_\_  
Derek Delecourt, Community  
Services Area Administrator

**Approved as to form and content**

\_\_\_\_\_  
Stephen K. Postema, City Attorney

**PERFORMANCE BOND**

- (1) \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for \$ \_\_\_\_\_, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City dated \_\_\_\_\_, 201\_, for: \_\_\_\_\_ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.
- (3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:
- (a) complete the Contract in accordance with its terms and conditions; or
  - (b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.
- (4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.
- (5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 201\_.

\_\_\_\_\_  
(Name of Surety Company)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

\_\_\_\_\_  
(Name of Principal)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

Approved as to form:

Name and address of agent:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

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

**LABOR AND MATERIAL BOND**

- (1) \_\_\_\_\_  
of \_\_\_\_\_(referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ \_\_\_\_\_, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City, dated \_\_\_\_\_, 201\_, for \_\_\_\_\_; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 201\_

\_\_\_\_\_  
(Name of Surety Company)

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Approved as to form:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

\_\_\_\_\_  
(Name of Principal)

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Name and address of agent:

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

# **GENERAL CONDITIONS**

## **Section 1 - Execution, Correlation and Intent of Documents**

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

## **Section 2 - Order of Completion**

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

## **Section 3 - Familiarity with Work**

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

## **Section 4 - Wage Requirements**

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen,

mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section."

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

If the Contractor is a "covered employer" as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

## **Section 5 - Non-Discrimination**

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of Title IX of the Ann Arbor City Code, and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

## **Section 6 - Materials, Appliances, Employees**

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

## **Section 7 - Qualifications for Employment**

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.



## **Section 8 - Royalties and Patents**

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

## **Section 9 - Permits and Regulations**

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

## **Section 10 - Protection of the Public and of Work and Property**

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

## **Section 11 - Inspection of Work**

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for

inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

## **Section 12 - Superintendence**

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

## **Section 13 - Changes in the Work**

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

## **Section 14 - Extension of Time**

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;

- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

## **Section 15 - Claims for Extra Cost**

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section I3. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;
- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute

its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;

- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

## **Section 16 - Progress Payments**

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

## **Section 17 - Deductions for Uncorrected Work**

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

## **Section 18 - Correction of Work Before Final Payment**

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

## **Section 19 - Acceptance and Final Payment**

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

## **Section 20 - Suspension of Work**

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

## **Section 21 - Delays and the City's Right to Terminate Contract**

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the

work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

## **Section 22 - Contractor's Right to Terminate Contract**

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

## **Section 23 - City's Right To Do Work**

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

## **Section 24 - Removal of Equipment and Supplies**

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

## **Section 25 - Responsibility for Work and Warranties**

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. The Contractor shall assign all manufacturer or material supplier warranties to the City prior to

final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

## **Section 26 - Partial Completion and Acceptance**

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

## **Section 27 - Payments Withheld Prior to Final Acceptance of Work**

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

## **Section 28 - Contractor's Insurance**

- (1) The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself and the City from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. In the case of all contracts involving on-site work, the Contractor shall provide to the City, before the commencement of any work under this contract, certificates of insurance and other documentation satisfactory to the City demonstrating it has obtained the policies and endorsements required on behalf of itself,



and when requested, any subcontractor(s). The certificates of insurance endorsements and/or copies of policy language shall document that the Contractor satisfies the following minimum requirements.

- (a) Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

Bodily Injury by Accident - \$500,000 each accident  
Bodily Injury by Disease - \$500,000 each employee  
Bodily Injury by Disease - \$500,000 each policy limit

- (b) Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98 or current equivalent. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements specifically for the following coverages: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further there shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. The following minimum limits of liability are required:

\$1,000,000	Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.
\$2,000,000	Per Job General Aggregate
\$1,000,000	Personal and Advertising Injury
\$2,000,000	Products and Completed Operations Aggregate

- (c) Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

- (d) Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.

- (2) Insurance required under subsection (1)(b) and (1)(c) above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.
- (3) Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be

approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.

- (4) Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.
- (5) City reserves the right to require additional coverage and/or coverage amounts as may be included from time to time in the Detailed Specifications for the Project.
- (6) The provisions of General Condition 28 shall survive the expiration or earlier termination of this contract for any reason.

## **Section 29 - Surety Bonds**

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company authorized to transact business in Michigan and satisfactory to the City Attorney.

## **Section 30 - Damage Claims**

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

## **Section 31 - Refusal to Obey Instructions**

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

## **Section 32 - Assignment**

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

## **Section 33 - Rights of Various Interests**

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

## **Section 34 - Subcontracts**

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

## **Section 35 - Supervising Professional's Status**

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

## **Section 36 - Supervising Professional's Decisions**

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

## **Section 37 - Storing Materials and Supplies**

Materials and supplies may be stored at the site of the work at locations agreeable to the City

unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

### **Section 38 - Lands for Work**

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

### **Section 39 - Cleaning Up**

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

### **Section 40 - Salvage**

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

### **Section 41 - Night, Saturday or Sunday Work**

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

### **Section 42 - Sales Taxes**

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

## Section 43

### CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period \_\_\_\_\_, 20\_\_\_\_, to \_\_\_\_\_, 20\_\_\_\_, performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled \_\_\_\_\_, for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Date

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Past due invoices, if any, are listed below.



## **STANDARD SPECIFICATIONS**

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Bid. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

Standard Specifications are available online:

<http://www.a2gov.org/departments/engineering/Pages/Engineering-and-Contractor-Resources.aspx>

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## **PROJECT PARTICIPANTS**

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**Project:** **Fuller Park – Exterior Finishes Renovation**  
1519 Fuller Road  
Ann Arbor, Michigan

**Owner/Management:** **Ann Arbor Parks & Rec and  
Community Action Network**  
Ann Arbor, Michigan  
**aKuras@a2Gov.org**  
734-794-6230

**Architect:**   
113 South Fourth Avenue Ann Arbor, Michigan 48104  
734-662-6070 FAX 734-662-3802 MaMA@MitchellandMouat.com  
**mBorys@MitchellandMouat.com**

**MaMA Job Number:** **Job 1623**

**SECTION 00105 – Supplement A – Request for Information Form**

**PART 1 - GENERAL**

1.01 **INTERPRETATION OF DOCUMENTS:**

- A. Attached is the Request for Information form to be used by Bidding Contractors and Bidding Subcontractors during the bidding period of the project.
- B. Requests for Information will be answered by Addendum only, but some clarifications may be made to Bidding Contractors by phone, at the discretion of the Architect. Refer to Section 00100 Instructions to Bidders for further information.
- C. All sections of the Request for Information form must be filled out, in their entirety.
- D. Bidding Contractors may use their own in-house Request for Information forms, provided the in-house form includes the same or more information as the enclosed form.

END OF SECTION 00105



**ATTENTION:**

## **Request for Information**

Name:

Company Name:

Phone:

Fax:

Date:

---

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**RFI # \_\_\_\_\_**

**ISSUE:**

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**RESPONSE:**

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SIGNED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

**SECTION 00910 - UNIT PRICES**

**PART 1 – SCOPE OF WORK:**

- A. The Owner/Architect is requesting **Unit Pricing** for the following items listed below under Part 3 - UNIT PRICE SCHEDULE.
- B. Each request shall have an associated Unit Price, which shall be attached to the Bid Form.

**PART 2 – GENERAL:**

- A. **Unit Pricing may be used for the following situations:**
  - 1. Unit pricing is requested for Project Work that may/may not occur, or be modified as to scope or quantity after the contract has been awarded.
  - 2. Unit Pricing shall include all additional costs of labor, materials, overhead, profit, fees and such other costs necessary for the work described.
  - 3. Unit Prices may be used for items already indicated on the Drawings and in the Specifications, and as installation costs for items whose quantity is yet to be determined. Unit Prices may also be used to repair Work, the scope of which may vary.
  - 4. Unit Prices may be used for items that are found to be unacceptable during field surveys and inspections after the Contract has been awarded and prior to performing the actual work.

**PART 3 – UNIT PRICE SCHEDULE:**

- A. All **Unit Price** items listed below shall be quoted. This **Schedule is included in the City’s Invitation to Bid in the Bid Form documentation under “Unit Price Bid” as additional information to the Lump Sum Bid requested.**
  - 1. **Provide a unit cost per square foot (SF) to Remove and Replace an area of Acrylic Veneer. This cost will apply to increasing/decreasing areas of refinishing as required by site conditions during Construction.**

UNIT COST \$\_\_\_\_\_ per SF

**End of Unit Price Schedule**

END OF SECTION 00910

**SECTION 00920 - ALTERNATES****PART 1 - GENERAL**

- A. An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain items that may be added to or deducted from Base Bid amount if the Owner decides to accept the corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.
- B. All Alternates listed below shall be quoted. This Schedule is included in the City's Invitation to Bid in the Bid Form documentation under "Section 1 - Schedule of Prices" as additional information to the Lump Sum Bid requested.**
- C. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the Project.
- D. Notification: Immediately following Contract award, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates if applicable.
- E. Schedule: An "**Alternate Schedule**" is included at the end of this Section.
  - 1. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the alternate.
  - 2. Specification Sections may be referenced in the Schedule and may contain requirements for materials and methods necessary to achieve the Work described under each alternate.

**PART 2 - EXECUTION**

- A. The Contract Work may include any or all Alternates, which are listed below. All Alternates shall be appropriately included and noted separately with the Base Bid and submitted as part of the complete scope of Work as described below.**
- B. Provide all of the requested **Alternate** pricing.
  - 1. **Alternate** pricing shall be used to allow the **Owner** the option to add/delete work to the base construction pricing noted as Base Bid.
  - 2. The **Alternate** pricing shall be included in the Contract at the sole discretion of the **Owner** after the review of the budget and before awarding the contract.
  - 3. **Included in the Alternate Bid shall be: labor, materials, equipment, services, facilities and all items required to complete the Work and/or as further indicated on the drawings and in the specifications.**
- C. **Alternates Schedule follows on the next page. All ALTERNATE items shall be quoted and included as noted above in Part 1 – General line B.**

**PART 3 - ALTERNATES SCHEDULE:** All **Alternates** listed below shall be quoted.

**ALTERNATE #1** - Provide and paint with any of the “high-build elastomeric exterior, acrylic coatings” as specified and noted in the Product lines for the Section 09900 – Painting, Section 2.03.B.2.b.

ADD COST \$ \_\_\_\_\_

**ALTERNATE #2** - Provide the Deduct cost to eliminate applying any sealants and the complete Painting and required preparation for painting as required/included in the Complete Base Bid.

DEDUCT COST \$ \_\_\_\_\_

**End of Alternate Schedule**

END OF SECTION 00920

**SECTION 01010 - SUMMARY OF THE WORK****PART 1 - GENERAL****1.01 DESCRIPTION OF THE PROJECT:**

- A. Provide all material and labor to complete the construction of the Fuller Park – Exterior Finishes Renovation as described and intended by the complete body of work represented in these Contract Documents – including:
1. New Textured Acrylic Finish System in areas of delamination.
  2. Misc. Construction Repairs as noted.
  3. Repainting of all four (4) Building's exteriors.

**1.02 DESCRIPTION OF CONTRACT REQUIREMENTS**

- A. Summary by Reference
1. The work can be summarized by reference to the requirements of the various Contract Documents, which in turn make reference to the requirements of other applicable provisions which control or influence the work; and these references can be summarized but are not necessarily limited to the following:
    - a. The Executed Owner-Contractor Agreement (typically not bound herewith).
    - b. The General and Supplementary Conditions - which are bound herewith or included by reference in this project Manual.
    - c. The Drawings - which are listed in the "Drawing Sheets" as of the date of these Contract Documents are attached.
    - d. The Specification Sections - that are listed in the "Table of Contents" and bound herewith in this Project Manual.
    - e. Any Addenda or Modifications to the Contract Documents, which may have been bound herewith (in this Project Manual) or distributed by transmittal subsequent to the binding hereof.
    - f. Submittals (of every kind), copies of which are retained by the Contractor at the site.

**PART 2 - SPECIAL CONSIDERATIONS:****2.01 GENERAL:**

- A. All products incorporated into the building construction shall be asbestos free. Construction managers and/or contractors shall submit a signed and notarized statement to the Owner to this effect for incorporation into the asbestos management plan.
- B. All painted/coated products incorporated into the building construction shall be lead free.

**2.02 OCCUPANCY BY CONTRACTOR AND OWNER**

- A. The Contractor shall have full access to the Site for this Project until May 26th, 2017. No work shall be done during the Memorial Day Holiday weekend. After May 30th, 2017 the Contractor shall be allowed to continue working as required to complete the Work, but will take care to protect all Pool Patrons from interfacing with the work, and will install barriers as required to safeguard all occupants.**
- B. The Contractor shall work with the Ann Arbor Parks & Rec. staff to phase the work to minimize interference with patrons after May 26<sup>th</sup>.**

**2.03 WORK SEQUENCE and COORDINATION WITH OTHERS:**

- A. Outline Schedule:
1. This Project is anticipated to consist of a single phase.
  2. All Bidders are to maintain a Construction Schedule that will meet the start and end dates noted herein.

END OF SECTION 01010



**SECTION 01045 - CUTTING AND PATCHING****PART 1 - GENERAL****1.01. DESCRIPTION OF REQUIREMENTS**

- A. "Cutting and Patching" is hereby defined to include, but is not necessarily limited to, the cutting and patching of nominally completed and/or previously existing work, in order to:
- accommodate the coordination of new or revised work;
  - the installation of other work;
  - to uncover other work for access or inspection;
  - to obtain samples for testing or for similar purposes;
  - and is defined to exclude integral cutting and patching during the manufacturing, fabricating, erecting and installing process for individual units of work which may be defined in other areas of these specifications.
1. Drilling the work to install fasteners and similar operation are excluded from the definition of cutting and patching, but may have similar requirements.
  2. Alteration work as specified for existing work in order to accomplish revisions or to accommodate new work is specified separately, and may require cutting and patching but is not specified primarily as cutting and patching work.
  3. Restoring or removing and replacing non-complying work is specified separately from cutting and patching, but may require cutting and patching operations as specified herein.
- B. Refer to other sections of these Specifications, including Divisions 15 and 16, for additional cutting and patching requirements and limitations applicable to individual parts of the Work.
- C. **Notwithstanding additional directions, no other reference to 'Cutting and Patching' herein included shall exclude or modify the fact that the required Work shall be done by tradesmen skilled in dealing with the particular material/installation process requiring the Work.**

**1.02. QUALITY ASSURANCE**

- A. The Contractor is responsible to maintain all systems/structures required for the continuation, reuse or future use of the system/structure, as inferred by the Documents. Failure to coordinate these elements during 'cutting and patching' will not relieve the contractor from the responsibility and cost of repairing to acceptable use.
- B. Requirements for Structural Work:
1. Do not cut and patch structural work in a manner resulting in a reduction of load carrying capacity or load/deflection ratio.
  2. Prior to cutting and patching the following categories of work, obtain Architect's/Engineer's approval to proceed.
    - a. Major structural members including trusses, beams and columns.
    - b. Miscellaneous structural members, including lintels, equipment supports and similar categories or work.
    - c. Bearing walls.
- C. Operational and Safety Limitations:
1. Do not cut and patch operational elements or safety related components in a manner other than intended (including energy performance), in decreased operational life, in increased maintenance, or in decreased safety.
  2. Prior to cutting and patching the following categories of work and similar categories where directed, obtain Architect's/Engineer's approval to proceed with cutting and patching as proposed in submittal by Contractor:
    - a. Primary operational systems and equipment
    - b. Control, communication, conveying, and electrical wiring systems
- D. Visual Requirements:
1. Do not cut and patch work exposed on the building's exterior or in the building's occupied spaces in a manner that would, in the Architect's opinion, result in lessening the building's aesthetic qualities. Do not cut and patch work in a manner that would result in

substantial visual evidence of cut and patch work. Remove and replace work judged by the Architect to be cut and patched in a visually unsatisfactory manner.

1.03. SUBMITTALS:

- A. Proposals for Cutting and Patching: Where prior approval of cutting and patching is required, submit proposal well in advance of time work will be performed, and request approval to proceed. Include the following information, as applicable, in the proposal:
1. Describe the nature of the work and how it is to be performed, indicating why cutting and patching is called for. Describe anticipated results of the work in terms of changes to existing work. Where applicable, include cost proposal and suggested alternatives to proposed cutting and patching procedure.
  2. List products to be used and firms/tradesmen to perform the work.
  3. Provide dates when work is expected to be performed.
  5. Where cutting and patching of structural work involves major structural members including trusses, beams and columns; miscellaneous structural members, including lintels, equipment supports and similar categories or work; bearing walls or the addition of or removal of reinforcement; submit details and engineering calculations to show how the cutting and patching is integrated with original structure to satisfy requirements.
  6. Architect's approval of cutting and patching work proposal does not waive the Architect's right to require subsequent complete removal and replacement of work found to be cut and patched in an unsatisfactory manner.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. General: Except as otherwise indicated, such directed by these Specifications or directed by the Project Architect, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal-or-better performance characteristics.
1. Obtain approval of the Architect before using materials other than original or specified for patching and repairing.

PART 3 - EXECUTION

3.01 INSPECTION:

- A. Before cutting, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding if unsafe or unsatisfactory conditions are encountered.
- B. Pre-Cutting and Patching Coordination Meeting: Before the start of cutting work, meet at the work site with all parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict between the various trades. Coordinate layout of the work and resolve potential conflicts before proceeding with the work.

3.02 PREPARATION:

- A. Temporary Support:
1. Provide adequate temporary support for work to be cut to prevent any form of structural failure. Do not endanger other work. It is the contractor's responsibility to have a qualified Engineer review/approve all shoring required to maintain the existing construction.
- B. Protection:
1. **Provide adequate protection of other work and existing construction during cutting and patching to prevent damage.**

2. **Provide enclosures to limit exposure of adjacent areas to all debris – air-borne and solid. Keep adjacent areas, not a part of the Work, protected from all associated debris.**
3. **Provide protection of exterior work from adverse weather exposure.**
4. **Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas during normal work hours.**

3.02 PERFORMANCE:

- A. General: Employ skilled trades people to perform cutting and patching. Except as otherwise indicated or approved by Architect/Engineer, proceed with cutting and patching at earliest feasible time in each instance, and complete work without delay.
- B. Cutting:
  1. Cut work/existing construction by methods least likely to damage work/existing construction to be retained and work/existing construction adjoining. Review proposed procedure with original installer where possible, and comply with their recommendations.
  2. In general, where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Cut holes and slots to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Coordinate with other Sections of these Specifications for specialized cutting relative to particular material and installations.
  3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or a diamond core drill, unless required to tooth in other Sections of the Documents.
  4. Comply with requirements of applicable sections of Division 2 where cutting and patching requires excavating and backfilling.
  5. Before cutting, by-pass utility services such as pipe or conduit where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions shall be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
- C. Patching:
  1. Patch with seams that are durable and as invisible as possible. Comply with specified tolerances for the Work.
  2. Where feasible, inspect and test patched areas to demonstrate integrity of installation.
  3. Restore exposed finishes of patched areas; extend, where necessary, finish restoration to retained adjoining work/existing construction in a manner that will eliminate evidence of patching and refinishing.
    - a. **Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch, after the patched area has received primer and second coat to a natural termination point or corner.**
  4. Patch, repair or re-hang existing ceilings, scheduled to remain, as necessary to provide an even plane surface of uniform appearance against area of patch.
- D. Cleaning:
  1. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit and similar features before painting or finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01045

**SECTION 01120 – PROJECT ALTERATION PROCEDURES****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK:**

- A. Making all material, installations, alterations, relocations and temporary installations come together with existing construction.
- B. Removing or altering existing construction as indicated or required to complete the Work intended on the Documents.
- C. Providing “seamless matching” of existing construction with new installations.
- D. Providing temporary controls or barriers to protect personnel and property during construction
- E. Coordinate with **Section 01045 – Cutting and Patching** for additional information and more specifics of patching materials and Work.

**1.02 SECTION INCLUDES:**

- A. Products and installation for patching and extending Work.
- B. Transition and adjustments.
- C. Repair of damaged surfaces, finishes, and cleaning.
- D. Revision to existing Work as part of a Renovation.
- E. Temporary installations – dust partitions, fire separations, etc. – to be removed prior to occupancy.

**1.03 RELATED SECTIONS:**

- A. Section 01010 – Summary of Work
- B. Section 01039 – Project Coordination
- C. Section 01045 – Cutting and Patching

**1.04 DEFINITIONS OF REQUIREMENTS:**

- A. The following are definitions and examples of terms used herein and in the Construction Documents to describe construction procedures noted on the Documents.
- B. Removals:
  1. Removals shall be as indicated and as specified herein and in other sections of these Specifications and shall be performed in a neat and workmanlike manner to limits indicated or specified, or to minimum extent necessary or required for proper removal of existing material and installation of new work. Existing surfaces remaining after demolition, to which new work is to be applied, shall be left in a condition suitable for application of new work.
  2. Removals shall be performed without damage to adjacent retained work; however, where such work is damaged, Contractor shall patch, repair or otherwise restore same to its original or better condition in terms of performance characteristics and visual effect. In all cases the repair shall blend with the requirements of the new construction.
  3. All existing materials, fixtures, and equipment which have been removed or disconnected, but which are not indicated or specified for reuse in new work or called for to be turned over to Owner shall become property of Contractor and shall be removed from site by Contractor at his expense and legally disposed of. On-site storage or sale of salvaged items not designated for Owner reuse will not be permitted.
- C. Demolition:
  1. Demolition shall be the partial or complete elimination of existing construction.
  2. Whereas the Documents may show the limits of demolition, the contractor shall be responsible to determine the exact extent to complete the intent of the Documents and complete all Work required.
- D. Salvage:
  1. To be removed from present location with the intent of re-installation of the material/assembly in the Project at another location.
  2. The Contractor shall take care in the removal and shall store/preserve the material/assembly in its present state until re-installation.

3. Any material that is scheduled to be salvaged and will not allow reuse shall be immediately brought to the attention of the Architect for direction.
- E. Salvage/Turn over to Owner:
  1. The Contractor shall take care in the removal and shall store/preserve the material/assembly in its present state until it is claimed by the Owner.
  2. Coordinate with Owner for location of storage or if material should be immediately turned over to the Owner.
- F. Debris:
  1. Debris is the remains of a demolition, relocation or temporary installation procedure.
  2. Debris shall be placed in approved containers to prevent the spread and accumulation of dust and dirt. Debris shall be removed from the area of work as often as necessary, but not less than at least once at end of each work day. All such debris shall be removed from site by Contractor and legally disposed of.
  3. Construction areas, interior and exterior, must be kept in a neat and orderly fashion. Trash, debris and all unusable items must be removed from the site daily. Removal must be supervised.
- G. Protection:
  1. Contractor shall take all necessary precautions to adequately protect personnel, and public and private property in the areas of work. Approved barriers and warning signs shall be provided to reroute personnel around areas of dangerous work.
  2. Temporary partitions (noted below) may be required of proper protection methods.
  3. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- H. Dust Control:
  1. Dust resulting from removals shall be controlled so as to prevent its spread to occupied portions of the building and to avoid creation of a nuisance in surrounding areas.
  2. Existing spaces occupied by Owner's personnel shall be isolated from removal operations by means of temporary dust-tight barriers. Dust seals shall be installed on doors entering spaces of human occupancy. Gaskets or other means may be used provided whatever method is used will not impede the use of these exits in any manner during an emergency.

## PART 2 -PRODUCTS

### 2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK:

- A. New Materials: As typically specified in product sections; match existing Products and Work by patching and extending work in a uniform way.
  1. Particular Specifications Sections may be included only for reference for material patching requirements, and should be used as needed.
- B. Type and Quality of Existing Products: Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

## PART 3 -EXECUTION:

### 3.01 EXAMINATION:

- A. Coordinate with the existing construction and material to establish schedule and/or requirements of new installations.
- B. Verify that demolition/renovation is complete and areas are ready for installation of new Work if demolition is carried out by separate contractor.
- C. Beginning of alteration/restoration Work means acceptance of existing conditions.
- D. General:
  1. See Drawings for notes, schedules, details, plans, etc. and see other Sections of these specifications to establish full extent of removal work required.

2. It is the Contractor's responsibility to coordinate the exact extent of modification with the intent of the Documents.

3.02 PREPARATION:

- A. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified or required for finished Work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
- E. Close openings in exterior surfaces to protect existing work [and salvage items] from weather and extremes of temperature and humidity. Insulate duct work and piping to prevent condensation in exposed areas.

3.03 REMOVALS:

- A. General – removing Work or materials from present construction:
  1. See Drawings for notes, schedules, details, plans, etc. and see other Sections of these specifications to establish full extent of removal work required.
- B. Masonry Walls and Portions of Masonry Walls for New Openings:
  1. See Section 3.01.E – above – for requirements of masonry work.

3.04 INSTALLATION:

- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate continued Owner occupancy.
- B. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to original or specified condition in accordance with Section 01045 – Cutting and Patching.
- C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes in accordance with Section 01045 – Cutting and Patching.
- D. Project work areas: Complete including operational mechanical and electrical work and related services.
- E. In addition to specified replacement of equipment and fixtures, restore existing plumbing, heating, ventilation, air conditioning, electrical, and related systems to full operational condition.
- F. Re-cover and refinish Work that exposes mechanical and electrical work exposed accidentally during the work.
- G. Install Products as specified in individual sections.
- H. **See Section 01045 – Cutting and Patching for additional requirements.**

3.05 TRANSITIONS:

- A. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line and at a natural line of division, and make recommendation to Architect/Engineer.

3.06 ADJUSTMENTS TO EXISTING CONSTRUCTION:

- A. Where removal of partitions, bulkheads, walls and or other material results in adjacent spaces becoming one: rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition for Architect/Engineer review.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.

D. Fit work at penetrations of surfaces as specified in Section 01045.

3.07 REPAIR OF DAMAGED SURFACES:

- A. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing other imperfections due to the installation or modifications of the Construction Manager.
- B. Repair substrate prior to patching finish.
- C. Where removals leave holes or otherwise damaged surfaces that will be exposed in the finished work, these holes and damaged surfaces shall be patched and repaired with materials and by methods which will result in equal or better work than the work being patched, both in performance characteristics and visual affect. Where work is to be applied to existing surfaces, removals and patching shall produce surfaces that are suitable for the provision of the new work. Patching shall be performed by workmen skilled in the trade involved and shall be performed in a neat and workmanlike manner. Finished surfaces of patched area shall match the existing adjacent surfaces as closely as possible as to texture and finish.
  - 1. **See Section 01045 – Cutting and Patching for additional requirements.**

3.08 FINISHES:

- A. Finish surfaces as specified in individual Product sections.
- B. Specification sections may be included for reference only providing information for finishing of existing materials or surfaces.
- C. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest natural intersection, transition to different material or terminus.

3.09 PATCHING

- A. Where removals leave holes or otherwise damaged surfaces that will be exposed in the finished work, these holes and damaged surfaces shall be patched and repaired with materials and by methods which will result in equal or better work than the work being patched, both in performance characteristics and visual affect. Where work is to be applied to existing surfaces, removals and patching shall produce surfaces that are suitable for the provision of the new work.
- B. Patching shall be performed by workmen skilled in the trade involved and shall be performed in a neat and workmanlike manner.
- C. Finished surfaces of patched areas shall match the existing adjacent surfaces as closely as possible as to texture and finish.
- D. **See Section 01045 – Cutting and Patching for additional requirements.**

3.10 MAINTAINING ACCESS TO SITE AND BUILDINGS:

- A. **The premises may be occupied during part of the period of alteration and renovation work. Contractor shall not restrict access to building or site by employees, students, delivery operations, etc.**
- B. Access may be restricted as needed, but all barriers shall be coordinated with the Owner for required occupancies and shall not restrict the emergency egress pathways required for occupancy.

END OF SECTION 01120

**SECTION 01200 - PROJECT MEETINGS****PART 1 – GENERAL****1.01 SECTION INCLUDES:**

- A. Preconstruction conference
- B. Site mobilization conference
- C. Progress meetings

**1.02 CONTRACTOR RESPONSIBILITIES:**

- A. It is the responsibility of the Contractor to:
  - 1. Establish an appointment for all meetings during the Construction period.
  - 2. Coordinate with the required participants for their availability
  - 3. Provide a location or venue for each meeting.
  - 4. Provide an agenda and distribute same prior to meeting to all participants.
  - 5. Take notes and publish Meeting Notes to all present.

**1.03 PRE-CONSTRUCTION CONFERENCE:**

- A. Owner/Architect will schedule a conference after Notice of Award and prior to start of construction activities.
- B. Attendance Required: Owner, Architect, Contractor's Superintendent, subcontractor's superintendent, and, optionally - any other suppliers, manufacturers, and other concerned parties shall be represented by persons authorized to conclude matters relating to the Work.
- C. Typical Agenda:
  - 1. Submission of executed bonds and insurance certificates
  - 2. Distribution of Contract Documents
  - 3. Provide submission of list of subcontractors. Review list of products, Schedule of Values, and progress schedule.
  - 4. Designation of personnel representing the parties in contract and the Architect
  - 5. Procedures and processing of field decisions, submittals, substitutions, applications, Applications for Payments, proposal requests, Change Orders and contract closeout procedures
  - 6. Scheduling and work sequence.
  - 7. Submission of submittal schedule
- D. The Contractor shall prepare resolutions to a number of Agenda items noted above for discussion during the Pre-Construction Meeting.

**1.04 SITE MOBILIZATION CONFERENCE:**

- A. Owner will schedule a conference at the project site prior to contractor occupancy or include as part of the Pre-Construction Meeting.
- B. Attendance required: Owner, Architect, Contractor, Contractor's superintendent
- C. Typical Agenda:
  - 1. Use of premises by Owner and Contractor
  - 2. Owner's requirements and continued occupancy.
  - 3. Construction facilities and controls provided by Contractor.
  - 4. Temporary utilities provided by owner.
  - 5. Security and housekeeping procedures
  - 6. Schedules
- D. The Contractor shall prepare resolutions to a number of Agenda items noted above for discussion during the Pre-Construction Meeting.

**1.05 PROGRESS MEETINGS:**

- A. Contractor will schedule and administer meetings throughout progress of work at minimum of once-per-month intervals.



1. Contractor will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes and distribute copies within three (3) days to Architect, Owner, participants and those affected by decisions made.
- B. Attendance required: Job superintendent, major subcontractors and suppliers, Owner and Architect as appropriate to agenda topics for each meeting.
- C. Typical Agenda: Review minutes of the previous Progress Meeting. Review significant items that could affect progress. Include topics appropriate to the current status of the Project including, but not limited to:
  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.
  7. Maintenance of progress schedule
  9. Planned progress 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. Review documentation for future payment requests.
  14. Other business relating to work
- D. Construction Schedule: Review progress since last meeting. Determine where each activity is in relation to the Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
  1. Review the present and future needs of each entity present, including such items as:
    - a. Time
    - b. Sequences
    - c. Deliveries
    - d. Shop Drawing Logs
    - e. Quality and work standards
    - f. Change Orders.
- E. No later than three (3) days after each Progress Meeting, the Contractor will distribute copies of minutes of the Meeting to each party present and to parties who should have been present.

1.06 SPECIAL INSTALLATION MEETINGS:

- A. Pre-installation meeting: Conduct a meeting before each activity that requires special coordination with other construction. The installer and representative of manufacturers and fabricators involved in the installation, and coordination or integration with other materials and installations that have preceded or will follow - shall attend. Advise the Architect/Engineer of scheduled meeting dates four days in advance.
  1. Review progress of other activities and preparations for the activities under consideration at each conference, including time schedules, manufacturer's recommendations, weather limitations, substrate acceptability, compatibility problems and inspection and testing requirements.
  2. Record proceedings of each meeting, along with the approved schedule. Promptly distribute the meeting record to everyone concerned, including the Owner and Architect/Engineer.
  3. Do not proceed if the meeting cannot be successfully concluded. Resolve impediments and reconvene the meeting at the earliest feasible date.
- B. Inspection of Conditions: The Installer of each component shall inspect the substrate and conditions under which Work is performed. The Installer shall report all unsatisfactory conditions in writing to the Contractor. Do not proceed with the Work until unsatisfactory conditions have been corrected.

- C. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in the Contract Documents.
- D. Inspection of Material: Inspect material immediately upon delivery and again prior to installation. Reject damaged and defective items.
- E. Provide attachment and connection devices and methods necessary for securing each construction element. Secure each construction element true to line and level, and within recognized industry tolerances. Allow for expansion and building movement.
- F. Visual Effect: Provide uniform joint widths in exposed Work. Arrange joints to obtain the best visual effect. Refer questionable choices to the Architect/Engineer for final decision.
- G. Recheck measurements and dimensions of the Work before starting installation.
- H. Install each component during weather conditions and project status that will ensure the best possible results in coordination with the entire Work. Isolate incompatible work and materials as necessary to prevent deterioration.
- I. Coordinate temporary enclosures with inspections and tests, to minimize uncovering completed construction for that purpose.
- J. Mounting Heights: Where mounting heights are not indicated, install components at industry recognized standard heights for the application indicated. Refer questionable mounting height choices to Architect/Engineer for final decision.

END OF SECTION 01200

**SECTION 01300 - SUBMITTALS****PART 1 - GENERAL**1.01 **SECTION INCLUDES:**

- A. Construction progress schedules
- B. Product Submittal Procedures and Schedules
- C. Shop Drawings
- D. Dimensions
- E. Proposed Products list
- F. Samples
- G. Manufacturers' instructions

1.02 **RELATED SECTIONS:**

- A. Section 01400 - Quality Control: Manufacturers' field services and reports.
- B. Section 01600 - Material and Equipment: For Product substitutions.
- C. Section 01700 - Contract Closeout: Contract warranty and manufacturer's certificates and closeout submittals.

1.03 **CONSTRUCTION PROGRESS SCHEDULES:**

- A. Submit initial progress schedule in duplicate within 15 days after date of Owner-Contractor Agreement for Architect review.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with a separate line for each major section of work or operation, identifying first workday 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.
- H. Indicate key dates for coordination of vacation of contract limits, removal of existing building components designated as the responsibility of the Owner, and other milestones affecting construction progress which require coordination with the Owner's operation.

1.04 **PRODUCT/SHOP DRAWING SUBMITTAL PROCEDURES:**

- A. Prepare Submittal and Shop Drawing Schedule and submit to the Architect/Engineer for review within 15 days after date of Owner-Contractor Agreement. Schedule shall include a tabular breakdown, by specification Section, of all required submittals as listed in each Section, the anticipated submittal date of each item, and when return is required in order to meet construction schedules.
- B. **Allow a minimum of ten (10) working days for Architect/Engineer review of submittals.**
- C. Transmit each submittal with AIA Form G810, or Contractor's standard transmittal form as acceptable to Architect.
  - 1. Transmit the Submittal/Product sample directly to the responsible party. Example - If the submittals are Mechanical, send directly to the Mechanical Engineer with a copy transmitted to the Architect for their record/file. This procedure shall be similar for all other consulting parties. Subsequently, the Engineer shall transmit all reviewed Submittals to the Architect for their review/comment and final transmittal to the Contractor. This shall be the normal procedure for all Product Submittals. Coordinate with the Architect for products that do not have a clearly defined responsibility.
  - 2. Submit two (2) copies of each shop drawing submitted, plus one original that will be used as a master to be copied and distributed by the Contractor to all pertinent parties. The

Contractor shall be responsible for duplications so that the Architect/Engineer/Owner has appropriate information.

3. **Electronic files are preferred for Shop Drawing Review Submittals.**
    - a. Submit an electronic file in the form of a .PDF file or a series of .DPF files.
    - b. If the particular Shop Drawing is the responsibility of an Architect's consultant, transmit to consultant and simultaneously to the Architect for record.
    - c. Transmit an electronic copy of a transmittal with all information similar to AIA G810.
    - d. The contractor shall have "stamped and noted" all of his responsibilities on the electronic version of the document.
    - e. The Architect will make all notes, comments and stamps electronically in the .PDF file.
    - f. The Contractor shall receive and subsequently transmit to appropriate subcontractors the Shop Drawings in paper or electronic form as required.
  - D. Sequentially number the transmittal forms. Resubmittals shall have original number with an alphabetic suffix.
    1. Revise and resubmit submittals as required, identify all changes made since previous submittal. Renumber the subsequent submittals accordingly.
  - E. Identify project, Contractor, subcontractor or supplier; pertinent drawing sheet and detail number(s), and specification Section number, as appropriate.
  - F. **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. Submittals not marked "Reviewed and Approved" and stamped by the Contractor prior to delivery to the Architect shall be returned unreviewed.**
  - G. Schedule submittals to expedite the project, and deliver to the appropriate business address. As agreed to by the Architect/Contractor – send Review copies directly to the Engineer and a transmittal/record copy to the Architect. Coordinate submission of related items.
  - H. Provide space for Contractor and Architect/Engineer review stamps.
  - I. Identify variations from contract documents and product or system limitations that may be detrimental to successful performance of the completed work.
  - J. Distribute copies of reviewed submittals to concerned subcontractors/Owner. Instruct parties to promptly report any inability to comply with provisions.
- 1.05 SHOP DRAWINGS RESPONSIBILITIES:
- A. The Architect is limited in responsibility of Shop Drawing Review as stated in AIA Document A201-2007 – General Conditions of the Contract for Construction, as herein stated, and referenced elsewhere in these Specifications.
  - B. **The Architect will not accept Shop Drawings unless properly reviewed by the subcontractor/supplier and the General Contractor/Construction Manager. The Architect is responsible for design concept as expressed in the Contract Documents. The Contractors are responsible for installation means and integration into other work of the Project. The Architect will not review submitted Shop Drawings unless the Contractor has Approved and stamped each submittal, and noted their responsibility to 'Field Verify' dimensions where applicable, prior to submission to the Architect.**
  - C. Refer to Section 01600 – Product Substitutions for proper procedures regarding Substitution Requests.
  - D. Prior to and after review, reproduce and distribute in accordance with Article on Product Submittal Procedures noted above and for Record Documents described in Section 01700 - Contract Closeout.
- 1.06 DIMENSIONS:
- A. The Contractor shall be solely responsible to field measure project conditions prior to submitting Shop Drawings and shall be solely responsible to ensure that dimensions noted on Shop Drawings will be properly accommodated by related construction that takes place after Shop Drawings have been approved.

- B. Any dimensions noted by the Architect on any Shop Drawings shall be determined to be a requirement of the particular detail or installation and shall be coordinated with Field Conditions by the Contractor to be sure that all dimensions and material fit. Any required changes shall be noted to the Architect immediately.
- C. The Architect shall not be requested to fill in dimensions that should be associated with Field Conditions. This is the responsibility of the Contractor.

1.07 PROPOSED PRODUCTS LIST:

- A. Within 15 days after date of Owner-Contractor Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.08 SAMPLES:

- A. Submit samples to illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples of finish from the full range of manufacturers' standard colors (unless noted otherwise in individual section), textures, and patterns for Architect's selection.
- C. Include identification on each sample, with full project information.
- D. Submit the number or samples specified in individual specification sections; one of which will be retained by Architect/Engineer.
- E. Reviewed samples that may be used in the work are indicated in individual specification sections.

1.09 MANUFACTURER'S INSTRUCTIONS:

- A. When specified in individual specification sections, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for product data.
- B. The Contractor shall identify conflicts between manufacturer's instructions and contract documents.

END OF SECTION 01300

**SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS****PART 1 - GENERAL**1.01 **SECTION INCLUDES:**

- A. Temporary Utilities: Electricity, water and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, protection of the work and water control.

1.02 **TEMPORARY ELECTRICITY:**

- A. Connect to existing power service. Power consumption shall not disrupt Owner's need for continuous service.
- B. Provide temporary electric feeder from existing building electrical service at location as directed. Power consumption shall not disrupt Owner's need for continuous service.
- C. Owner will pay cost of energy used. Exercise measures to conserve energy.
- D. Permanent convenience receptacles may be utilized during construction.
- E. Provide adequate distribution equipment, wiring and outlets to provide single-phase branch circuits for power and lighting
- F. If available electrical service is not adequate for Contractor's equipment, the Contractor shall provide temporary power sources and devices on site for his equipment at no cost to the Owner.

1.03 **TEMPORARY LIGHTING:**

- A. Provide and maintain lighting for construction operations.
- B. Provide and maintain 1 watt/sq. ft. lighting to exterior staging and storage areas after dark for security purposes.
- C. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- D. Maintain lighting and provide routine repairs.
- E. Permanent building lighting may be utilized during construction.

1.04 **TEMPORARY HEAT:**

- A. Provide temporary, localized heat as required to maintain Owner's Schedule during the acrylic finish installation.

1.05 **TEMPORARY WATER SERVICE:**

- A. Connect to existing water source for construction operations.
- B. Owner will pay cost of water used. Exercise measures to conserve water.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

**PART 2 - CONTROLS**2.01 **BARRIERS:**

- A. Provide 4 foot high construction barrier around the immediate work of the facility is occupied by others than the construction crew.

2.02 **PROTECTION OF INSTALLED WORK:**

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

2.03 **PROGRESS CLEANING:**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- C. Remove waste materials, debris, and rubbish from site periodically and dispose off-site.

2.04 SECURITY:

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

PART 3 - FACILITIES

3.01 PARKING

- A. Coordinate with the Owner for availability of existing parking on-site.

END OF SECTION 01500

**SECTION 01600 - PRODUCT SUBSTITUTION REQUESTS****PART 1 - GENERAL**

- A. **Product Substitution Requests** proposed by the Contractor **after award of the Contract** for deviation from specified products, materials, equipment, and/or methods of construction required by Contract Documents are considered **"substitution" requests**.
- B. A Contractor's **"Substitution Request Form"** (attached herein) may be considered and Approved by the Architect when one or more of the following conditions are satisfied, as determined by the Architect. If none apply, **Product Substitution Requests** will be returned without action except to record noncompliance with Contract Documents. The Product/Installation substituted will only be considered if:
1. Extensive revisions to Contract Documents are not required.
  2. Proposed changes are in keeping with the general intent of Contract Documents.
  3. The request is timely, fully documented and properly submitted.
  4. The specified product or method of construction cannot be provided within the Contract Schedule as previously established. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
  5. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
  6. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate contractors, and similar considerations.
  7. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
  8. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
  9. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution shall provide the required warranty.
- C. **Substitution Requests** are permitted under the following terms:
1. All substitution requests must be made directly by the General Contractor / Construction Manager (GC/CM) to the Architect. No substitution requests will be accepted from sub-contractors.
  2. All substitution requests must be accompanied by a signed, fully completed "Substitution Request Form" found at the end of this Section.
    - a. Submit 3 copies of the "Substitution Request Form" completely filled out.
    - b. In addition, provide the following information, as appropriate:
      - i. **Samples, where applicable or requested.**
      - ii. **A statement indicating the substitution's effect on the Construction Schedule compared to the Schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.**
      - iii. **Contractor's waiver of rights to additional payment or time that may be necessary because of the substitution's failure to perform adequately.**
  3. The General Contractor/Construction Manager has reviewed the Request and feels it is necessary or preferable for the completion of the Project, and the GC/CM confirms that the schedule will not be negatively impacted.
  4. Requests for substitution will be considered if received within 60 days after commencement of the Work. Requests received more than 60 days after commencement of the Work may be considered or rejected at the discretion of the Architect.
  5. Comply with the requirements of this Specification for all Submittals which are intended to represent an *'or approved equal'* clause wherever individual Specification Sections allow such for specified products and/or methods.
  6. **In all cases where a Submittal does not represent an *'or approved equal'* substitution, except where the substitution is required due to the Architect's responsibilities, the Architect shall be compensated for the time involved in evaluating the Substitution**



**Request and for any and all revisions to the Documents required by the aforementioned change. The rate of compensation shall be: \$100/hr per staff time involved.**

- D. Architect's Actions:
1. Within one week of receipt of the Substitution Request Form, the Architect may request additional information necessary for evaluation.
  2. Within 2 weeks of receipt of the request, or one week of receipt of additional information, which ever is later, the Architect will notify the Contractor of acceptance or rejection.
  3. **If a decision on use of a substitute cannot be made within the time allocated, the product specified shall be incorporated into the Work.**
  4. Acceptance of the **Substitution Request Form** will be in the form of a Change Order issued by the GC/CM after incorporation into the Work if the Contract amount is affected and Contracts have been finalized.
- E. The following are **not** considered substitutions:
1. When an item or material is generic and the Contractor's proposed item is different only in its name, size, color, etc., and not specifically required to comply with an 'or equal' standard.
  2. Substitutions requested made during the bidding period or included with the Bid Form on the Bid Due Date, and accepted prior to award of Contract. See Section 00100 – Instructions to Bidders for additional information.
  3. Revisions to Contract Documents requested by the Owner or Architect.
  4. Specified options of products and construction methods included in Contract Documents.
  5. Compliance with governing regulations and orders issued by governing authorities.
- F. **The Contractor's submittal and, if applicable, the Architect's acceptance of Shop Drawings, Product Data, and/or or Samples which do not comply with the Specifications, does not constitute an acceptable or valid request for substitution, nor does it transfer responsibility for meeting all provisions set forth in these Contract Documents from the Contractor to the Architect.**
- G. **The Architect/Owner maintains the right to reject any and all Substitution Requests at their own discretion.**

END OF SECTION 01600

**“Substitution Request Form” follows on pages 3 and 4.**

**PRODUCT SUBSTITUTION REQUEST FORM**

The General Contractor or Construction Manager (GC/CM): \_\_\_\_\_ shall initially review this Substitution Request and, if believing it to be relevant, forward it for review by the Architect.

Project: \_\_\_\_\_

**The Sub-Contractor - \_\_\_\_\_ hereby submits for your consideration the following Product/Installation Substitution instead of the specified product of means of installation for the above noted Project:**

<u>Spec. Section</u>	<u>Section Paragraph</u>	<u>Original Product</u>
_____	_____	_____

**Proposed Substitution:** (explain using attachments as needed): \_\_\_\_\_

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

Attach complete **technical data** including laboratory tests, if applicable. Include complete information for modification(s) to Documents and/or Specifications required for proper installation as made necessary by proposed Substitution.

Provide the following information, using additional sheets if necessary **FOR POST-BID SUBSTITUTION REQUESTS ONLY:**

A. If the substitution request is accepted, will the Contractor proposing the substitution pay for any and all changes to the building design, including engineering, detailing, and plan review / permit costs, etc. created by the acceptance of the proposed substitution?

**signify:** Yes ( ) or No ( ) – comments: \_\_\_\_\_

B. Does the GC/CM and Contractor understand that, should the proposed substitution item(s) fail to meet or exceed all the requirements of the specified item(s), the substitution may be rejected at the Architect’s discretion and, if so, the GC/CM and/or Contractor will still be required to reimburse the Architect directly, on a \$100.00/hr. basis, for the time taken to review the rejected substitution?

**signify:** Yes ( ) or No ( ) – comments: \_\_\_\_\_

C. Does the substitution affect dimensions or material fit shown or implied in the drawings?

**signify:** Yes ( ) or No ( ) – comments: \_\_\_\_\_

D. What effect does the substitution have on other trades?

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

E. What are the differences between the proposed substitution and specified items?

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

F. Is there a material/time benefit to the Owner or Project if this substitution is accepted?

**signify:** Yes ( ) or No ( ) – comments: \_\_\_\_\_

G. Does the proposed substitution represent a cost savings to the Owner or Project?

**signify:** Yes ( ) or No ( ) – comments: \_\_\_\_\_

If so, what is the savings? \_\_\_\_\_

H. Manufacturer’s guarantees of proposed and specified items are:

Same ( ) Different ( ) (explain on attachment if necessary)

The GC/CM states that the function, appearance, and quality of the substitution item(s) is/are equivalent or superior to the specified item and that items A through H above are correct and binding. The GC/CM shall affirm by signature below:

Submitted By:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone

---

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For use by Architect or Consultant:

Accepted

Accepted as noted

Rejected

Received too late

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

Date: \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 01700 CONTRACT CLOSEOUT****PART 1 - GENERAL**

- 1.01 **SECTION INCLUDES:**
- A. Final Acceptance
  - B. Record Documents
  - C. Warranties

**PART 2 – FINAL ACCEPTANCE**

- 2.01 **SECTION INCLUDES:**
- A. Substantial Completion
  - B. Final Inspection

2.02 **SUBSTANTIAL COMPLETION**

- A. Before requesting inspection for certification of Substantial Completion, the Contractor shall complete the following:
  - 1. In the Application for Payment that coincides with the date for which Substantial Completion is claimed, show 100% completion for the portion of the Work claimed substantially complete.
  - 2. Submit specific warranties and similar documents.
  - 3. Submit record drawings and similar record information.
  - 4. Complete final clean-up.
- B. When contractor considers that the work is substantially complete, he shall prepare for the Architect a list of items to be complete or corrected.
- C. Upon request by the Owner, the Architect will make an inspection to determine the status of completion.
- D. When the Architect, on basis of inspection, concurs that the work is substantially complete, he will:
  - 1. Prepare a Certificate of Substantial Completion of AIA Form G704, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Architect.
  - 2. Submit the Certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

2.03 **PROJECT COMPLETION REQUIREMENTS:**

- A. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions. Administrative actions and submittals that precede or coincide with this application include:
  - 2. Warranties and maintenance agreements
  - 4. Maintenance instructions
  - 7. Final cleaning
  - 8. Application for reduction of retainage, and consent of surety
- B. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final payment application include:
  - 1. Completion of Project closeout requirements
  - 2. Completion of items specified for completion after Substantial Completion.
  - 3. Transmittal of required Project construction records to Owner.
  - 4. Proof that tax, fees and similar obligations have been paid.

2.03 **FINAL INSPECTION**

- A. Before requesting inspection for certification of final acceptance and final payment, the Contractor shall submit the following to the Architect:
  - 1. Guarantees and warranties as required by other sections.

2. Evidence of payment and release of liens, per all requirements stated in the General and Supplementary Conditions.
  3. A final statement, accounting for changes to the Contract Sum.
  4. A copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.
  5. Consent of surety to final payment.
  6. Evidence of continuing insurance coverage complying with insurance requirements.
- B. When the Contractor considers that the work is complete, he shall submit written notice to the Architect that the Work is ready for final inspection and acceptance, and also include a final Application for Payment.
- C. The Architect will make an inspection to verify the status of completion with reasonable promptness.
- D. When the Architect finds the Work acceptable under the Contract Documents, he will issue a Project Certificate for Payment that will approve the final payment due the Contractor.

#### PART 4 – “AS-BUILT” DOCUMENTS

##### 4.01 REQUIREMENTS OF RECORD DOCUMENTS:

- A. Record Drawings are required to establish the location of concealed work which may deviate from details or dimensions indicated on the Contract Documents. Record Drawings are required for information only, but are intended to provide complete information for “As-Built” drawings.
- B. The General Contractor shall:
1. Be responsible to collect drawings and documents of all concealed work to indicate locations when not directly observable.
  2. Compile all information in “As-Built” Documents and provide same to the Owner in the format and media noted below:
    - a. Provide a hard, paper-copy of all mark-ups and changes in the Work.
    - b. Provide all information in “.PDF” format written on a computer disk – CD or DVD.

#### PART 6 - WARRANTIES

##### 6.01 SECTION INCLUDES:

- A. Preparation and submittal of warranties.
- B. Time and schedule of initial operation of equipment

##### 6.02 RELATED SECTIONS:

- A. General Conditions - AIA Document A201 or A201-C/M: Warranties and correction of work
- B. Section 01019 – Contract Considerations
- C. Individual Specifications Sections: Warranties required for specific Products or Work.

##### 6.03 FORM OF WARRANTY SUBMITTALS:

- A. Bind in commercial quality 8-1/2 x 11 inches, three D side ring binders with durable covers.
- B. Cover: Identify each binder with typed or printed title WARRANTIES with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of Product or work item.
- D. Separate each warranty with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

##### 6.04 PREPARATION OF SUBMITTALS:

- A. Obtain warranties executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties until time specified for submittal.

END OF SECTION 01700

**SECTION 04050 - MASONRY PROCEDURES****PART 1 – GENERAL****1.01 WORK INCLUDED:**

- A. All masonry installations shall conform to the **Brick Industry Association – Technical Notes** for best practices which shall be considered the standard for all installations.
- B. Installation Requirements of misc. masonry accessories specified in Divs. 4 & 7, and other material specified in other Divisions of these specifications.
- C. Coordination between masonry and other equipment which may be installed in the masonry, or require masonry openings.
- D. **See Section 04150 – Masonry Accessories for masonry cleaning materials and procedures.**
- E. **See Section 07600 – Sheet Metal Flashings and Trim for other flashing work specified therein that might be included for installation in the work of this Section.**

**1.02 RELATED WORK SPECIFIED ELSEWHERE:**

- A. Section 04100 – Mortar and Grout.
- B. Section 04150 - Masonry Accessories.
- C. Section 07250 - Exterior Insulation Finish System.
- D. Section 07900 - Joint Sealants.

**1.03 QUALITY ASSURANCE:**

- A. **Refer to Brick Industry Association – Technical Notes for additional information, procedures standards for the installation of masonry units and the proper detailing of masonry systems - typical.**
- B. Single source responsibility for Masonry Units: Obtain exposed masonry units of uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from one manufacturer for each different product relied for each continuous surface or visually related surfaces.
- C. Single Source responsibility for Mortar Materials: Obtain Mortar ingredients of uniform quality, including color for exposed masonry, from one manufacturer for each cementitious component and from one source and producer for each aggregate.
- D. Temporary Bracing: Comply with Mason Contractors Association of America's Standard Practice for Bracing Masonry Walls Under Construction, and Masonry Wall Bracing Design Handbook, published by the Masonry Contractors Association of America.

**PART 2 - PRODUCTS****2.01 MATERIAL:**

- A. See **other** Masonry Sections in this Specification for all material and products associated with Masonry Installations and related herein to the Masonry Procedures and Instructions that follow.

**PART 3 - EXECUTION****3.01 ENVIRONMENTAL REQUIREMENTS:**

- A. Cold weather requirements: IMIAC-Recommended Practices and Guide Specifications for Cold Weather Masonry Construction. When the mean daily temperature falls below 40°F follow the cold weather requirements specified below. Prior to implementation of these procedures, conduct a meeting of all involved parties to detail the practical institution of these requirements.
- B. On bearing surfaces covered with ice or snow, apply heat to surfaces until surfaces are dry. Remove previously installed masonry damaged due to cold weather.

- C. Install dry masonry units that are at least 20°F. If specifically approved by the Engineer, use Type III Portland cement and/or mortar setting. Use mortar at a temperature of between 40°F and 120°F. If possible, use 70°F mortar. Mix mortar so that successive batches vary in temperature by no more than 30 degree F.
- D. Air temperature 40°F to 32°F heat sand or mixing water to achieve specified mortar temperature at point of use.
- E. Air temperature 32° F to 25° F:
  - 1. Heat sand and mixing water to at least 50°F. prior to mixing. Provide continuous auxiliary heat to mortar boards as necessary to ensure specified mortar temperature at point of use.

3.02 MORTAR BEDDING AND JOINTING:

- A. Maintain joints widths shown, except for minor variations required to maintain bond alignment. If not indicated – all joints shall be 3/8”.
- B. Tool exposed joints flush for block including scored joint using a jointer larger than joint thickness, unless otherwise noted.**
- C. Do not pound corners or jambs to shift adjacent stretcher units which have been set in position. If adjustments are required, remove units, clean off mortar and reset in fresh mortar.

3.03 CONTROL AND EXPANSION JOINTS:

- A. Refer to Section 04200 – Concrete Unit Masonry and Section 04210 – Brick Veneer Masonry for additional information on Control/Expansion Joints.
- B. Provide a brick expansion joint and/or a block control joint within 32” of a corner of masonry construction where the wall length in either direction is in excess of 24 feet. Provide a joint in-line with normal head coursing (cut brick as required) and provide backer-rod and sealant as noted elsewhere in this Specification.
- C. General: Provide vertical and horizontal expansion, control and isolation joints in masonry where shown on Documents, specified in other Sections of these Specifications, or as recommended by the Masonry Institute and the Brick Industry Association.

3.04 FLASHING OF MASONRY WORK:

- A. General: Provide concealed flashing in masonry work at, or above, shelf angles, lintels, ledges and other obstructions to the downward flow of water in the wall so as to divert such water to the exterior. Prepare masonry surfaces smooth and free from projections which could puncture flashing. Place through-wall flashing on sloping bed of mortar and cover with mortar. Seal penetrations in flashing with mastic before covering with mortar. Extend flashings through exterior face of masonry and turn down to form drip. Do not allow any penetrations in flashings.
- B. Extend flashing the full length of lintels and shelf angles and minimum of 4” into masonry each end. Extend flashing from exterior face of outer wythe of masonry, through the other wythe, turned up a minimum of 4”, and through the inner wythe to within ½” of the interior face of the wall in exposed work. Where interior surface of inner wythe is concealed by furring, carry flashing completely through the inner wythe and turn up approximately 2”. At heads and sills turn up ends not less than 2” to form a pan/end dam.
- C. Fabricate through-wall metal flashings embedded in masonry with ribs formed in sawtooth pattern at 3-inch intervals along length of flashing to provide a 3-way integral mortar bond and weep hole drainage above each lintel.
- D. Interlock and joints of deformed metal flashings by over-lapping deformation not less than 1-1/2” and seal lap with elastic sealant.
- E. Install flashing to comply with manufacturer’s instructions.
- F. Install single-wythe CMU flashing system to comply with manufacturer’s instructions.
- G. Provide weep holes for all lintels and flashing as specified in Section 04150 – Masonry Accessories.
- H. Install reglets and nailers for flashing and other related work where shown to be built into masonry work.



3.05 REPAIR, POINTING AND CLEANING:

- A. Remove and replace masonry units which are loose, chipped, broken, stained or otherwise damaged, or if units do not match adjoining units as intended. Provide new units to match adjoining units and install in fresh mortar or gout, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge any voids or holes, except weep holes, and completely fill with mortar. Point-up all joints including corners, openings and adjacent work to provide a neat, uniform appearance, prepared for application of sealants.
- C. Final Cleaning: After mortar is thoroughly set and cored, clean masonry as follows:
  - 1. Coordinate with Section 04150 – Masonry Accessories for additional information concerning masonry cleaning material and procedures.
  - 2. Cleaning methods shall be appropriate for each type of brick or other masonry material encountered and shall be non-injurious to said material. Cleaning methods shall be in accordance with Brick Institute of America Technical Notes 20 and comply with best industry standards and practices.
  - 3. Remove large mortar particles by hand with wooden paddles and non-metallic scrape hoes or chisels.
  - 4. Acid cleaning and abrasive cleaning methods will not be permitted.
  - 5. Perform pressurized water jet cleaning (no cleaning solution) at the lowest effective pressures method. If high pressures are required, use a fan-type hose tip of no less than 20 degrees to avoid damage to masonry.
  - 6. Test cleaning methods on sample wall panel; leave ½ panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
  - 7. Saturate wall surfaces with water prior to application of cleaners; remove cleaners promptly by rinsing thoroughly with clear water. Use:
    - a. Detergent
    - b. Acidic cleaner; apply in compliance with directions of cleaner manufacturer.
  - 8. Clean stone trim to comply with stone supplier's written instructions.
    - a. Clean limestone units to comply with recommendations in "Indiana limestone Handbook".
  - 9. Protection: Provide final protection and maintain conditions in a manner acceptable to Installer, which ensures unit masonry work being without damage and deterioration at them of substantial completion.

3.06 TOOLING/DETAILING:

- A. **Coordinate with Architect for type of tooled joint:** Flush.
- B. All Joints shall be formed uniformly to the Architects specifications as noted on the documents, or as specified prior to construction. The Contractor shall coordinate with the Architect for type of joint if not so noted.

END OF SECTION - 04050

**SECTION 04100 - MORTAR and GROUT****PART 1 - GENERAL**1.01 **WORK INCLUDED:**

- A. Mortar/grout for re-tooling joints and repointing as required
- B. Mortar for masonry bedding

1.02 **RELATED WORK SPECIFIED ELSEWHERE:**

- A. Section 04050 - Masonry Procedures

1.03 **REFERENCE STANDARDS:**

- A. ASTM C-5 - Quicklime for Structural Purposes
- B. ASTM C-91 - Masonry Cement
- C. ASTM C 94 – Ready-mix Concrete
- D. ASTM C-144 - Aggregate for Masonry Mortar
- E. ASTM C-150 - Portland Cement
- F. ASTM C-207 - Hydrated Lime for Masonry Purposes.
- G. ASTM C-270 - Mortar for Unit Masonry
- H. ASTM C 404 - Aggregates for Masonry Grout
- I. ASTM C-476 - Mortar and Grout for Reinforced Masonry
- J. ASTM C 1329 – Standard Specification for Mortar Cement.
- K. ACI 530/ASCE 5/TMS 402 – Building Code Requirements for Masonry Structures
- L. ACI 530.1/ASCE 6/TMS 602 – Specification for Masonry Structures
- M. NCMA TR-88 – Hot and Cold Weather Masonry Construction Manual

1.04 **SUBMITTALS:**

- A. Product Data: Submit certified test reports showing that the cementitious components of the mortar mix comply with the specified requirements.
- B. Submit two samples illustrating mortar color and range.
- C. Submit manufacturer's instructions.

1.05 **ENVIRONMENTAL REQUIREMENTS:**

- A. Cold Weather Requirements: Comply with recommendations of IMIAWC (CW).
- B. Hot Weather Requirements: Comply with IMIAWC (HW)

**PART 2 - PRODUCTS**2.01 **MORTAR MATERIALS:**

- A. Portland cement: ASTM C-150, Type I - Normal, except Type III may be used for cold weather.
  - 1. Provide natural color or white cement as required to produce required mortar colors noted below.
- B. Masonry Cement: shall comply with ASTM C-91, Type N typical, or *Types S and/or M as required for special conditions – see Installation required below.*
  - 1. Premixed cement may be acceptable if matching Architect's color sample, as from the line of color samples from:
    - a. Solomon Grind-Chemical Services
    - b. Glen-Gery colored cement
    - c. Or equal
- C. Water: Potable, clean and free from injurious amounts of oil, alkali, acids, organic materials.
- D. Mortar Aggregate: Natural, or as manufactured sand, meeting ASTM C-144.
- E. Grout Aggregate: ASTM C-404.
- F. **Mortar Color Pigment:**

1. High purity, chemically inert, unfading, alkali-fast mineral oxides, finely ground and especially prepared for mortar.
  2. Mineral oxides, compounded for use in mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortar. **Do not add pigments to colored cement products.**
  3. Pigments shall not exceed 10 percent of Portland cement by weight.
  4. Pigments shall meet ASTM C979
- G. Admixtures: Avoid use of accelerants and admixtures (other than colorants) if possible. All Admixtures shall be submitted and authorized by the Architect prior to application.
1. Comply with ASTM C1384
  2. When using a bond enhancer admixture, do not use an air-entraining agent.
  3. Accelerating Admixture: Nonchloride type of use in cold weather
- H. Bonding Agent: Multi-Purpose, Acrylic Latex type. Use per manufacturer's instruction, and only as required for field conditions.

## 2.02 MASONRY CEMENT MORTAR:

- A. Masonry Cement Mortar for Unit Masonry - per ASTM C 270 per system below, unless special conditions are encountered. **Refer to Brick Industry, Technical Notes 8B for additional information.** Typical classifications of mortar mix - for use in various applications are noted below:
1. **Type M Mortar:** Mix to the Property Specifications of ASTM C 270:
    - a. Compressive Strength: 2500 psi, min., at 28 days for laboratory mixed mortar with a flow of 110 plus/minus 5%.
    - b. Water Retention: 75%, Min.
    - c. Air Content: 12% Max.
    - d. Aggregate Ratio: No less than 2.25 and no more than 3.5 times the sum of the separate volumes of cementitious materials.
  2. **Type S Mortar:** Mix to the Property Specifications of ASTM C 270:
    - a. Compressive Strength: 1800 psi, min., at 28 days for laboratory mixed mortar with a flow of 110 plus/minus 5%.
    - b. Water Retention: 75%, Min.
    - c. Air Content: 12% Max.
    - d. Aggregate Ratio: No less than 2.25 and no more than 3.5 time the sum of the separate volumes of cementitious materials.
  3. **Masonry Mortar Mix:** Factory blended masonry cement sand mix proportioned to produce masonry mortar complying with the property specifications in ASTM C 270 for the specified type of masonry mortar.
    - a. Masonry Cement: ASTM C 91, Type M
    - b. Masonry Cement: ASTM C 91, Type S
    - c. Masonry Cement: ASTM C 91, Type N
    - d. Sand: Mason's sand, ASTM C 144
- B. **Typical Mortar Applications shall follow BIA recommendations – unless noted otherwise – similar to:**
1. At or below grade: Use Type M or S
  2. Exterior above grade:
    - a. Reinforced or loadbearing walls: Use Type S or N alt.
    - b. Veneer or non-loadbearing walls: Use Type N or S alt.
    - c. Parapets & Chimneys: Use Type S
  3. Pointing mortar: Use Type N with maximum 2% ammonium stearate or calcium stearate per cement weight
- C. Typical mortar characteristics for information only:
1. Type N mortar - General all-purpose mortar with good bonding capabilities and workability
  2. Type S mortar - General all-purpose mortar with higher flexural bond strength
  3. Type M mortar - High compressive-strength mortar, but not very workable
  4. Type O mortar - Low-strength mortar, used mostly for interior applications and restoration

2.03 GROUT MIXES:

- A. Comply with ASTM C 476, slump of 8 to 10 inches measured per ASTM C 143.
  - 1. Provide fine or coarse grout per ACI 530/ASCE 5/TMS 402, Table 1.15.1, Grout Space Requirements, based upon height and CMU cell size.
  - 2. ASTM C 476 grout mix shall be determined by the following method:
    - a. By specified compressive strength tested in accordance ASTM C 1019, minimum compressive strength of 2,000 psi. – unless noted otherwise.
- B. Bond Beams and Lintels: 3,000 psi strength at 28 days; 8-10" slump; provide premixed type in accordance with ASTM C 94 – unless noted otherwise in Structural Documents
  - 1. Fine grout for spaces with smallest horizontal dimension of 2" or less.
  - 2. Coarse grout for spaces with smallest horizontal dimension greater than 2".
- C. Engineered Masonry: 3,000-psi strength at 28 days; 8-10" slump; provide premixed type in accordance with ASTM C 94 – unless noted otherwise in Structural Documents.
  - 1. Fine grout for spaces with smallest horizontal dimension of 2" or less.
  - 2. Coarse grout for spaces with smallest horizontal dimension greater than 2".

PART 3 - EXECUTION3.01 MIXING OF GROUT and MORTAR:

- A. Mixing of grout (and mortar) shall be done in a mechanical batch mixer, in which all cementitious material shall be mixed for at least 5 minutes with the maximum amount of water. Hand mixing for small jobs is not permitted without the Architect's permission.
- B. Grout (and mortar) shall be used within 2 hours after mixing when air temperature is 80°F, or higher, and within 3-1/2 hours when air temperature is less than 80°F. Retempering during this time to replace water lost by evaporation will be allowed.
- C. Maintain sand uniformly damp immediately before the mixing process.
- D. Mix mortar ingredients in accordance with ASTM C 270.

END OF SECTION - 04100

**SECTION 07250 – DIRECT-APPLIED TEXTURED ACRYLIC FINISH SYSTEM****PART I GENERAL****1.01 SUMMARY**

- A. Provide all labor, material and equipment necessary to properly install the exterior Textured Acrylic Finishing System to an exterior of a building.
- B. This document is to be used in preparing specifications for projects utilizing Textured Acrylic Finishes (TAFS) that is Direct-Applied to a suitable substrate.
- C. **See Section 1.05.B.1 for all substrates that may apply to this Project.**
- D. Alternative Installation Options that are required for differing substrate conditions:
  - 1. **Per Keyed Note #1, Installation Method 1 – a base coat with an embedded reinforcing mesh spanning any substrate cracks and a primer when specified or required with a textured, acrylic finish applied to the masonry substrate.**
  - 2. **Per Keyed Note #2, Installation Method 2 – a primer and textured, acrylic finish direct-applied to a stable substrate.**

**1.02 RELATED SECTIONS:**

- A. Section 07600 – Flexible Sheet Flashing and Trim
- B. Section 07900 – Sealants

**1.03 REFERENCES**

- A. ASTM B 117 (Federal Test Standard 141A Method 6061) Standard Practice for Operating Salt Spray (Fog) Apparatus.
- B. ASTM C 150 Standard Specification for Portland Cement.
- C. ASTM C 578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- D. ASTM D 968 (Federal Test Standard 141A Method 6191) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive.
- E. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
- F. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
- G. ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
- H. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- I. ASTM E 96 Standard Test Method for Water Vapor Transmission of Materials.
- J. ASTM E 2098 (Formerly EIMA Method 105.01) Test Method for Determining Tensile Breaking Strength of Glass Fiber Reinforcing Mesh for Use in Class PB Exterior Insulation and Finish Systems (EIFS) after Exposure to Sodium Hydroxide Solution.
- K. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
- L. ASTM E 2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
- M. ASTM E 2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
- N. ASTM E 2486 (formerly EIMA Std. 101.86) Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
- O. ICC ES AC219 Exterior Insulation and Finish Systems.

**1.04 DEFINITIONS**

- A. Contractor: The contractor that applies materials to the substrate.
- B. Acrylic Polymer Systems – refers to the system and manufacturer of the coating materials.
- C. Lamina: The layer consisting of the reinforced base coat and finish materials.

- D. Finish: An acrylic based finish, available in a variety of textures and colors, which is applied to the prepared wall surface.
- E. Reinforced Base Coat: The layer consisting of fiberglass reinforcing mesh fully embedded in the base coat material applied to the outside surface of the substrate.
- F. Reinforcing Mesh: Glass fiber mesh used to reinforce the base coat.
- G. Substrate: The material to which textured acrylic finishes are applied.

1.05 DESCRIPTION OF THE SYSTEM:

- A. TAFS are exterior architectural coatings and are available in two configurations:
  1. **TAFS Installation Method #1 consists of a base coat, reinforcing mesh, acrylic primer (when specified) and acrylic finish applied to various substrates.**
  2. **TAFS Installation Method #2 consists of an acrylic primer and acrylic finish applied to various stable substrates.**
- B. Design Requirements
  1. Acceptable surfaces for Textured Acrylic Finishes include:
    - a) Masonry units.
  2. Substrate systems shall be designed to meet all local building code requirements and shall be approved for use on this project.
  3. Projecting surfaces shall have a minimum slope of 6:12 and maximum length of 12 in.
  4. The substrate shall be clean, smooth, planar and free of surface imperfections that would interfere with application of a surface coating.
  5. Texture acrylic finishes (TAFS) are limited to above grade uses.
  6. Sealants:
    - a) Shall be manufactured and supplied by others.
    - b) Shall be compatible with TAFS materials. Coordinate with manufacturer.
    - c) The sealant backer rod shall be closed cell.
- C. **Performance Requirements:** As a minimum the materials shall be tested as follows:
  1. Durability:

TEST	TEST METHOD	CRITERIA	RESULTS
<b>Abrasion Resistance</b>	ASTM D 968	No deleterious effects after 528 quarts	No deleterious effects after 1056 quarts
<b>Accelerated Weathering</b>	ASTM G 155 Cycle 1	No deleterious effects after 2000 hours	No deleterious effects after 5000 hours
	ASTM G 154 Cycle 1 (QUV)		No deleterious effects after 5000 hours
<b>Freeze-Thaw</b>	ASTM E 2485	No deleterious effects after 60 cycles	Passed - No deleterious effects after 90 cycles
	ASTM C 67 modified	No deleterious effects after 60 cycles	Passed - No deleterious effects after 60 cycles
	ICC ES Procedure	No deleterious effects after 10 cycles	Passed - No deleterious effects after 10 cycles
<b>Mildew Resistance</b>	ASTM D 3273	No growth during 28 day exposure period	No growth during 60 day exposure period
<b>Moisture Resistance</b>	ASTM D 2247	No deleterious effects after 14 days exposure	No deleterious effects after 42 days exposure
<b>Taber Abrasion</b>	ASTM D 4060	N/A	Passed 1000 cycles
<b>Salt Spray Resistance</b>	ASTM B 117	No deleterious effects after 300 hours exposure	No deleterious effects after 1000 hours exposure
<b>Water Penetration***</b>	ASTM E 331 ICC ES (AC219)	No water penetration beyond the inner-most plane of the wall after 2 hours at 6.24 psf)	Passed
<b>Alkali Resistance of Reinforcing Mesh</b>	ASTM E 2098	> 120 pli retained tensile strength after exposure	Passed

<b>Water Vapor Transmission</b>	ASTM E 96	Vapor permeable	EPS 5 perm-inch Base Coat* 40 perms Finish** 40 perms
<b>Tensile Bond</b>	ASTM C 297/E 2134	Minimum 15 psi – substrate or insulation failure	Minimum 19.1 psi

2. Impact Resistance: In accordance with ASTM E 2486 (formerly EIMA Standard 101.86):

Reinforcing Mesh <sup>1</sup> /Weight oz/yd <sup>2</sup> (g/m <sup>2</sup> )	Minimum Tensile Strengths	EIMA Impact Classificatio n	EIMA Impact Range		Impact Test Results	
			in-lbs (Joules)	(3-6)	in-lbs (Joules)	(4)
Standard - 4.3 (146)	150 lbs/in (27 g/cm)	Standard	25-49	(3-6)	36	(4)
Standard Plus™ - 6 (203)	200 lbs/in (36 g/cm)	Medium	50-89	(6-10)	56	(6)
Intermediate™ - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer® 15 <sup>2</sup> - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 <sup>2</sup> - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh® Short Rolls – 4.3 (146)	150 lbs/in (27 g/cm)	n/a	n/a	n/a	n/a	n/a
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/a	n/a	n/a	n/a

1. It shall be colored blue and bear the Dryvit logo for product identification

2. Shall be used in conjunction with Standard Mesh

Values based on testing over EPS substrate

3. Fire performance:

TEST	TEST METHOD	CRITERIA	RESULTS
<b>Flame Spread</b>	ASTM E 84	All components shall have a Flame Spread Index ≤ 25 Smoke Developed Index ≤ 450	Passed

#### 1.06 SUBMITTALS

- A. Product Data: The contractor shall submit to the owner/architect manufacturer's product data sheets describing products, which will be used on the project.
- B. Samples: The contractor shall submit to the owner/architect two samples of each finish, texture, and color to be used on the project. The same tools and techniques proposed for the actual installation shall be used to prepare the samples. Samples shall be of sufficient size to accurately represent each color and texture to be utilized on the project.
- C. Test Reports: When requested, the contractor shall submit to the owner/architect copies of selected test reports verifying the performance of the system materials.
- D. Shop Drawings
  1. For on-site construction, the Contractor shall submit complete shop drawings showing fabrication and installation of system including plans, elevations, sections, details of components, control/expansion joint locations and details, penetration locations and details, and attachment to supporting construction.
  2. For panelized construction, the Contractor shall submit shop drawings showing panel construction details, panel layout on building, panel-to-building and panel to panel connections, panel lifting points and erection sequence.
- E. Design Calculations
  1. For on-site construction, the Contractor shall submit engineering calculations assessing the requirements for expansion/control joints. Location and design of building expansion/control joints shall be the responsibility of the Contractor. As a minimum, control joints shall be installed at all building expansion joints, at the intersection of

dissimilar substrates or finishing materials, or other major building discontinuities, and at all floor lines in wood frame construction. Casing type control joints shall be installed 20ft. o.c. maximum in both directions on ceilings/soffits.

#### 1.07 QUALITY ASSURANCE

##### A. Qualifications

1. Manufacturer:
  - a. Dryvit Systems, Inc.
  - b. Sto Corporation
  - c. Senergy by BASF
  - d. Parex
  - e. Or equal
2. All materials shall be manufactured or sold by one of the approved manufacturers above and shall be purchased from its authorized distributor.
  - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2008 and ISO 14001:2004 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
3. Contractor: Shall be knowledgeable in the installation of the chosen manufacturer's materials and shall be experienced and competent in the application of Textured Acrylic Finishes. Additionally, the contractor shall possess a current trained contractor certificate for any of its Exterior Insulation and Finish Systems.

#### 1.08 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the job site in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.
  1. Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be as follows:
    - a. All finish compounds shall maintain a minimum of 40 °F.
    - b. For other products, refer to specific product data sheets.
  2. Maximum storage temperature shall not exceed 100 °F. NOTE: Minimize exposure of materials to temperatures over 90 °F. Finishes exposed to temperatures over 110 °F for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.
- C. Protect all products from inclement weather and direct sunlight.

#### 1.09 PROJECT CONDITIONS

##### A. Environmental Requirements

1. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
  2. At the time of product application, the air and wall surface temperatures shall be from 40 °F minimum to 100 °F maximum for the following products:
    - a. Primers and finishing materials.
    - b. For other products, refer to specific product data sheets.
  3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours, or until the products are completely dry. Refer to published product data sheets for more specific information.
- B. Existing Conditions: The contractor shall have access to electric power, clean water, and a clean work area at the location where the materials are to be applied.

#### 1.10 SEQUENCING AND SCHEDULING

- A. Installation of the Textured Acrylic Finishes shall be coordinated with other construction trades.



- B. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffold lines, texture variations, etc.

1.11 LIMITED MATERIALS WARRANTY

- A. The manufacturer shall provide a written limited materials warranty against defective materials, upon written request. The manufacturer shall make no other warranties, expressed or implied.
- B. The applicator shall warrant workmanship separately. The manufacturer shall not be responsible for workmanship associated with the installation of the Textured Acrylic Finishes.

1.12 MAINTENANCE

- A. Maintenance and repair shall follow the procedures noted in the manufacturer's product information.
- B. Sealants, flashings and other building envelope components shall be inspected on a regular basis and repairs made as necessary.

PART 2 PRODUCT

2.01 MANUFACTURER

- A. All Textured Acrylic Finishes shall be obtained from an approved manufacturer or its authorized distributors. Substitutions or additions of materials other than those specified and/or approved may void the warranty and it is the responsibility of the Contractor to assure that all products are approved by the Manufacturer of the TAFS.

2.02 MATERIALS

- A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
- B. Water: Shall be clean and free of foreign matter.

2.03 COMPONENTS

- A. Base Coat required with TAFS Installation method #1: Shall be compatible with the substrate and reinforcing mesh.
  - 1. Cementitious: A liquid polymer based material, which is field-mixed in a 1:1 ratio by weight with Portland cement.
    - a. Shall be Primus or Genesis.
  - 2. Ready mixed: A dry blend cementitious, co-polymer based product, field mixed with water.
    - a. May be as required of manufacturer's proprietary materials.
  - 3. Non-cementitious: A factory-mixed, fully formulated, water-based product.
    - a. Coordinate material with particular manufacturer.
- B. Reinforcing Mesh required with TAFS Installation method #1: Shall be a balanced open weave, glass fiber fabric treated for compatibility with other TAFS materials. NOTE: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as listed in Section 1.05.C.2.
  - 1. Mesh may be:
    - a. Standard
    - b. Standard Plus
    - c. Special tensile and thickness requirements
    - d. Special corner meshes as required.
- C. Primers – as required:
  - 1. Color Prime: Pigmented, acrylic based primer used to improve adhesion and uniformity of finish color.
  - 2. Pigmented acrylic based primer with sand to improve adhesion and uniformity of finish color as well as application of trowel-applied finishes.
- D. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:

1. Standard : Water-based, acrylic coating with integral color and texture and formulated with DPR chemistry:
  - a. Medium texture or Fine texture – to match existing adjacent finishes. **Coordinate with existing Construction and with the Architect/Owner to match new finish with the existing finishes.**

### PART 3 EXECUTION

#### 2.01 EXAMINATION

- A. Prior to the installation of the TAFS, the architect or general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the application of the TAFS.
- B. The contractor shall notify the general contractor and/or architect and/or owner of all discrepancies. Work shall not proceed until discrepancies have been corrected.

#### 2.02 SURFACE PREPARATION

- A. The substrates shall be prepared so as to be free of foreign materials such as oil, dust, dirt, form-release agents, efflorescence, paint, wax, water repellents, moisture, frost and any other materials that inhibit adhesion.
- B. Concrete and masonry
  1. Shall be dry and cured so as not to affect the veneer finish.
- C. Painted Surfaces
  1. Shall be cleaned to remove all loose paint, dirt, dust, chalk, and any other materials that may inhibit adhesion.
  2. Glossy surfaces shall be sanded to remove gloss and cleaned.
  3. Test patches, located in inconspicuous areas should be prepared to verify adhesion. A minimum of one test every 500 sq. ft. of wall area is recommended.

#### 2.03 INSTALLATION

- A. **All installation procedures noted below are typical of a Dryvit installation system and may vary according to requirements of the particular manufacturer's installation.**
- B. The surfacing materials shall be mixed and applied in accordance with manufacturer's current printed product data sheets.
- C. Masonry Surfaces:
  1. Apply a continuous layer of TAFS mixture over the entire wall surface to fill voids and provide a smooth level base for primer and finish application. Application thickness shall not exceed 1/8 in in a single pass – unless approved by manufacturer.
  2. **When specified**, a layer of reinforcing mesh is embedded into the wet base coat mixture and troweled smooth.
  3. Allow the base coat mixture to cure a minimum of 24 hours until completely dry. Cool, humid conditions may require longer cure times.
  4. Using a brush, roller, or airless spray equipment, apply a coat of Color Prime or Primer with Sand over the dry base coat surface, and allow to dry.
  5. Apply the specified finish in accordance with the manufacturer's printed installation instructions.
- D. Cement Plaster, Poured in Place and Precast Concrete Surfaces:
  1. When specified, apply a continuous layer of the proprietary mixture required for cementitious surfaces over the entire wall surface to fill small voids and provide a smooth level base for primer and finish application. Application thickness shall not exceed 1/8 in in a single pass.
  2. When specified, a layer of reinforcing mesh is embedded into the wet base coat mixture and troweled smooth.
  3. Allow the base coat to cure a minimum of 24 hours until completely dry. Cool, humid conditions may require longer cure times.

4. Using a brush, roller, or airless spray equipment, apply a coat of Color Prime or Primer with Sand over the dry base coat or cleaned substrate, and allow to dry.
5. Apply the specified finish in accordance with the manufacturer's printed installation instructions for the specific finish being used.
- E. Exterior Cement and Calcium Silicate Boards (without joints):
  1. When specified, apply a continuous layer of proprietary mixture required for cementitious surfaces over the sheathing face and embed a layer of reinforcing mesh into the wet base coat mixture such that the entire surface of the board is covered.
  2. Allow the base coat to cure a minimum of 24 hours until completely dry. Cool, humid conditions may require longer cure times.
  3. **If base coat is not specified or required**, using a brush, roller, or airless spray equipment, apply a coat of Color Prime Color Prime-W, or Primer with Sand over the face of the sheathing board and allow to dry.
  4. Apply the finish in accordance with the manufacturer's printed installation instructions for the specified finish.
- F. Painted Surfaces:
  1. Apply the finish in accordance with the manufacturer's printed installation instructions for the specified finish.

**NOTE: It is not recommended to skim painted surfaces with a cementitious base coat material.**

- G. When specified, the base coat shall be applied such that the overall minimum thickness shall be sufficient to fully embed the mesh. The recommended method is to apply the base coat in two (2) passes.

#### 2.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper application of the TAFS.
- B. The contractor is responsible for coordinating the proper materials and installation methods with the various requirements of differing substrates – as required by the manufacturer. Note any discrepancies to the Architect prior to start of installation.**
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and the manufacturer's recommendations.

#### 2.05 CLEANING

- A. All excess materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where TAFS have been installed, shall be left free of debris and foreign substances resulting from the contractor's work.

#### 2.06 PROTECTION

- A. The TAFS shall be protected from weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.

END OF SECTION 07250

**SECTION 07600 – FLEXIBLE SHEET FLASHING AND TRIM****PART 1 - GENERAL****1.01 SECTION INCLUDES:**

- A. This Section is included as reference for misc. flashings and/or trim that may be required during renovation to flash existing lintels, coping and/or window frames.**
- B. General - The following types of work are specified in this section:**
  - 1. Miscellaneous flashings, building trim and accessories to complete a wall or roof assembly or to make an assembly water-tight. All exposed flashing/coping shall match colors of wall panels. Similar to:
    - a. Flexible flashings to form a continuous water-proofing barrier in a wall or roofing assembly
    - b. Metal counter-flashings over metal or composite base flashings
    - c. Metal or composite base flashings
  - 2. Copings, gravel stops, caps, sills, and other flexible metal fabrications, that can be formed in the field, consistent with wall and/or roof assemblies that are not pre-manufactured.

**1.02 RELATED SECTIONS:**

- A. Section 03300 – Concrete Work
- B. Section 04150 – Masonry Accessories – See this Section for Thru-wall flashings in masonry conditions.
- C. Section 07900 - Joint Sealers
- D. Section 09900 - Painting

**1.03 REFERENCES:**

- A. AISI (American Iron and Steel Institute) - Stainless Steel Uses in Architecture
- B. ASTM A167 - Stainless and Heat-Resisting Chromium Nickel Steel Plate
- C. ASTM A525 - Steel Sheet, Zinc Coated, (Galvanized) by the Hot Dip Process.
- D. ASTM B32 - Solder Metal
- E. ASTM B209 - Aluminum and Alloy Sheet and Plate
- F. ASTM B370 - Copper Sheet and Strip for Building Construction
- G. ASTM B486 - Paste Solder
- H. ASTM D226 - Asphalt Saturated Organic Felt Used in Roofing and Waterproofing
- I. ASTM D4586 - Asphalt Roof Cement, Asbestos-Free
- J. CDA (Copper Development Association) - Contemporary Copper, A Handbook of Sheet Copper Fundamentals, Design, Details and Specifications
- K. CDA - Copper Roofing: A Practical Handbook
- L. FS O F 506 - Flux, Soldering, Paste and Liquid
- M. NRCA (National Roofing Contractors Association) - Roofing Manual
- N. SMACNA - Architectural Sheet Metal Manual

**1.04 PERFORMANCE REQUIREMENTS:**

- A. General: Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failing, rattling, leaking, and fastener disengagement.
- B. Fabricate and install flashings at roof edges to comply with recommendations of FM Loss Prevention Data Sheet 1-49 for the following wind zone:
  - 1. Wind Zone 2: Wind pressures of 31 to 45 psf.**
- C. **Thermal Movements:** Provide sheet metal flashing and trim that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of sheet metal and trim

thermal movements. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (range): 120 deg. F., ambient; 180 deg. F. material surfaces.
- D. Provide sheet metal flashing and trim that does not allow water infiltration to building interior.

#### 1.05 SUBMITTALS:

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate material profile, **jointing pattern**, jointing details, fastening methods, flashings, thicknesses (weights), terminations, and installation details.
  1. All sheet metal runs shall be constructed of the longest length material available and/or to patterns indicated on the Documents.
  2. Note any non-conformance of the material installations with the Documents in the Shop Drawings.
- C. Samples: Submit samples illustrating typical material and finish.
- D. Provide information on: thicknesses, weight, gauge and finish characteristics.

### PART 2 - PRODUCTS

#### 2.01 METAL TRIM MATERIALS:

- A. Aluminum Sheet:
  1. Unfinished Aluminum Sheet Stock: ASTM B 209, alloy 3003-H16; 0.032" min. thickness (approx. 20 ga.) 0.040" min. thickness (approx. 18 ga.), mill finish when not a part of the wall or roof system. To match wall system or window system if not noted otherwise.
  2. Extruded Aluminum: ASTM B221, alloy 6063-T52, thickness of 0.080" min. (12 ga.)
  3. Prefinished (Brake Metal) Aluminum: ASTM B209; 0.032 inch thick (20 ga.) ; plain finish shop pre-coated with Kynar 500 coating of color as selected by Architect, to match wall or roof panel system.

#### 2.02 FLEXIBLE SHEET MATERIALS:

- A. Aluminum Sheet:
  1. ASTM B 209, alloy 3003-H16; 0.040" min. thickness (approx. 18 ga.), mill finish when not a part of the wall or roof system. **To match wall system or window system if not noted otherwise.**
  2. Extruded Aluminum: ASTM B221, alloy 6063-T52, thickness of 0.080" min. (12 ga.)
  3. Prefinished Aluminum: ASTM B209; 0.032 inch thick; plain finish shop pre-coated with Kynar 500 coating of color as selected by Architect, to match wall or roof panel system.
  4. Provide 0.040" min. thickness (approx. 18 ga.) for panels more than 12" in any dimension and/or where noted on the Documents.
- B. Fully adhered metal composite flexible flashing type:
  1. Product standard of quality: York Manufacturing, Inc.; York Seal.
  2. Characteristics:
    - a. Type: 40 mil minimum thickness by manufacturer standard roll lengths and made of high density four plies cross laminated polyethylene film and asphalt.
    - b. Termination mastic and surface conditioner/primer: Flashing manufacturer's standard products recommended for use with flashing material.
    - c. Termination bar option: Manufacturer's standard continuous length complete with fasteners.
    - d. Exposed edge metal: 28 gauge stainless steel, #4 finish
    - e. Provide flashing manufacturer's preformed end dams; material compatible with flashing material
- C. Sheet plastic type:
  1. Product standard of quality: York Manufacturing, Inc.; Wascoseal.
  2. Characteristics:
    - a. Type: 20 mil minimum thickness by manufacturer standard roll lengths, non-reinforced, homogeneous vinyl sheet; widths required.

- b. Adhesive: Flashing manufacturer's adhesive recommended for use with flashing material.
  - c. Exposed edge metal: 28 gauge stainless steel, #4 finish.
  - d. Termination bar: Manufacturer's standard continuous length complete with fasteners.
  - e. Provide flashing manufacturer's preformed end dams; material compatible with flashing material.
- D. Butyl rubber flashing type: Product standard of quality: Carlisle Syntec Systems, Inc.- or equal; Butyl Rubber Sheet.
2. Characteristics:
- a. Type: 60 mil minimum thickness by manufacturer standard roll lengths, butyl rubber compound.
  - b. Termination bar: Manufacturer's standard continuous length complete with fasteners.
  - c. Termination mastic and surface conditioner: Flashing manufacturer's standard products recommended for use with flashing material.
  - d. Provide flashing manufacturer's preformed end dams; material compatible with flashing material
- 2.03 UNDERLAYMENT MATERIALS:
- A. Polyethylene Sheet: 6-mil (min.) thick polyethylene sheet complying with ASTM D 4397.
  - B. Felts: ASTM D 226, Type II, asphalt-saturated organic felt, non-perforated.
  - C. Slip Sheet: Rosin-sized paper, minimum 3 lb/100 sq. ft.
- 2.04 MISCELLANEOUS MATERIALS:
- A. General material:
    - 1. Provide type solder and fasteners recommended by producer of metal sheets, for fabrication and installation.
  - B. Splice plates:
    - 1. Provide splice plates of similar material behind coping/fascia with a bead of sealant each side of open joint.
    - 2. Do not set joint with sealant.
    - 3. Maintain open joint 1/8" – 1/4" to allow for expansion of stock.
  - C. Roofing Cement:
    - 1. FS SS-C-153, Type I, asphaltic base.
  - D. Fasteners: Nails and Screws
    - 1. Annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
    - 2. Exposed Fasteners: Same material as flashing sheet, or other as recommended by manufacturer of flashing sheet.
    - 3. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with hex washer heads.
  - E. Solder for Stainless Steel: ASTM B 32, grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
  - F. Sealing Tape: provide pressure-sensitive, 100 percent solids, and polyisobutylene compound sealing tape. P Provide permanently elastic, non-sag and non-toxic tape.
  - G. Butyl Sealant: per ASTM C 1311, single-component, solvent-release butyl rubber sealant for hooked-type expansion joints with limited movement.
  - H. Cleats: Same metal and gauge as sheet being anchored, 2" wide (min.), punched for 2 anchors.
  - I. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- 2.05 ACCESSORIES:
- A. Underlayment: ASTM D226, No. 15 asphalt saturated roofing felt.
  - B. Primer: Zinc chromate type.
  - C. Protective Backing Paint: Zinc chromate alkyd or Bituminous.

- D. Sealant: Acrylic type, specified in Section 07900.
- E. Bedding Compound: Rubber asphalt type.
- F. Plastic Cement: ASTM D4586, Type I.
- G. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.
- H. Solder: ASTM B32; 50/50 type.
- I. Flux: FS O F 506.

### PART 3 - EXECUTION

#### 3.01 PREPARATION:

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.
- C. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
- D. Select thicknesses of sheet metal flashing and trim to install without oil canning, buckling and tool marks, with exposed edges folded back to form hems. Form sections true to shape, accurate in size, square, and free from distortion or defects. Form pieces in longest possible lengths.

#### 3.02 FABRICATION:

- A. Fabricate non-moving seams with flat-lock seams. Back seams with epoxy seam sealer.
- B. Fabricate cleats of same material as sheet, interlockable with sheet.
- C. Hem exposed edges on underside 1/2 inch typical; miter and seam corners. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip – unless indicated otherwise.
- D. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
- E. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.

#### 3.03 INSTALLATION OF METAL WORK:

- A. General:
  - 1. Comply with details and profiles shown, and comply with SMACNA “Architectural Sheet Metal Manual” recommendations for installation of work.
  - 2. Separate dissimilar metals from each other by painting area of contact with heavy application of bituminous coating.
  - 3. Conceal fasteners and expansion provisions wherever possible. Fold back edges on concealed side of exposed edges to form a hem.
  - 4. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
- B. Aluminum Work:
  - 1. Bed base members in roofing cement. Anchor and seal in accordance with manufacturer’s instructions. Clean exposed surfaces promptly to prevent start of non-uniform oxidation or electrolytic action.
  - 2. Apply 15-mil dry film thickness bituminous coating to concealed aluminum surfaces that will be in contact with cementitious surfaces, dissimilar metals, wood or other absorptive substrates.
  - 3. Rivet or weld joints in uncoated aluminum where necessary for strength.
- C. Expansion Provisions:
  - 1. Provide for thermal expansion of all exposed sheet metal work exceeding 15’-0” running length, at 10’-0” maximum spacing, and located 2’-0” from corners and intersections.

2. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
  - D. Elastomeric Sealed Joints:
    1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant.
    2. Do not install sealant-type joints at temperatures below 40 deg. F.
  - E. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2" except where pre-tinned surface would show in finished Work.
    1. Do not solder aluminum sheet.
    2. Stainless-Steel Soldering: Pre-tin edges of uncoated sheets to be soldered using solder recommended for stainless steel and phosphoric acid flux. Promptly wash off acid flux residue from metal after soldering.
    3. Do not use open-flame torches for soldering. Heat surfaces to receive solder and flow solder into joints. Fill joints completely. Remove flux and spatter from exposed surfaces.
- 3.04 GENERAL INSTALLATION REQUIREMENTS:
- A. Comply with manufacturer's instructions and recommendations for handling and installation of flashing and prefabricated products.
  - B. Coordinate the work with other work for correct sequencing. It is required that flashing be permanently water tight and not deteriorate in excess of manufacturer's published limitations.
  - C. Conform to details included in the AISI, SMACNA, and NRCA manual.
  - D. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
  - E. Apply plastic cement compound between metal flashings and felt flashings.
  - F. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
  - G. Seal metal joints watertight.
- 3.05 ROOF FLASHING INSTALLATION:
- A. Pipe or Post Counterflashing: install counterflashing umbrella with close-fitting collar with top edge flared but butyl sealant. Extend a minimum of 4 inches over base flashing, install stainless-steel draw band and tighten.
  - B. Counterflashing: Coordinate installation with installation of base flashing. Insert in reglets or receivers and fit tightly to base flashing. Extend 4 inches over base flashing. Lap joints a minimum of 4 inches and bed with elastomeric sealant.
  - C. Roof penetration flashing: coordinate flashing with installation of roofing and other items penetrating roof. Install as follows:
    1. Seal with butyl sealant and clamp flashing to pipes penetrating roof.
- 3.06 FIELD QUALITY CONTROL:
- A. Field inspection will be performed under provisions of Section 01400.
  - B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION 07600



**SECTION 07900 - JOINT SEALANTS****PART 1 – GENERAL**1.01 **DESCRIPTION OF WORK:**

- A. Providing and installing a material to close joints between dissimilar materials.
- B. A ‘soft joint’ material such as caulk or sealant shall be installed between dissimilar materials wherever expansion/contraction or movements in adjacent materials may occur. Coordinate these joint materials with the Architect for colors.**
- C. The Contractor shall be responsible for coordinating appropriate joint material with substrates and movement characteristics.**
- D. Providing and installing a material to close joints required because of construction techniques and/or expansion/contraction requirements.
- E. Providing and installing all required back-up rods and accessories for caulking/sealant materials.
- F. This Section may include joint sealants as noted on the Documents and for the following locations that may occur:**
  - 1. Exterior Joints in vertical and non-traffic horizontal surfaces:
    - a. Control and expansion joints in masonry, cast-in-place concrete or stone
    - b. Joints in stonework not set with mortar, or as noted
    - c. Other locations as noted or required

1.02 **PERFORMANCE REQUIREMENTS:**

- A. Provide exterior joint sealants that have been produced and installed to create and maintain a watertight, continuous seal without staining or deteriorating the substrates adhered to.
- B. Provide interior joint sealants (typically called as caulk) that have been produced and installed to maintain a continuous, water resistant seal and cause no staining of the substrates adhered to. Under most situations, caulks shall be paintable unless noted otherwise or matching the particular substrate in color.

1.03 **RELATED WORK SPECIFIED ELSEWHERE:**

- A. Section 09260 - Gypsum Board Systems
- B. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to the work of this section.

1.04 **QUALITY ASSURANCE:**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum ten (10) years documented experience.
- B. Installer Qualifications: Firm with not less than five (5) years documented experience in successful installation of the work of this section and on projects similar in scope and type. Installer must be capable of tooling joints per the “Typical Caulk/Sealant Joints” detail found in the Drawings.

1.05 **SUBMITTALS:**

- A. Product Data: Submit manufacturer’s product indicating sealant specifications, handling/installation/curing instructions and performance test data sheets, limitations and color charts.
  - 1. Submit descriptive data listing back-up material, bond-preventative material, primer for each type of surface, solvents, cleaning agents, and wetting agents as recommended by sealing compound Manufacturer.
  - 2. Manufacturer's printed instructions for each type of sealing compound to be used in the work covering surface preparation, mixing, recommended joint dimensions and sealing compound application.
- B. The contractor shall be responsible for coordinating the choice of manufacturer, with available colors choices, to meet the color requirements of the Project. **Therefore, the**

**Architect shall be allowed to choose a manufacturer whose color is compatible for the particular Project and installation requirements.**

- C. Samples: **Provide accurate, material samples to the Architect for choice of sampling colors. Paper sample are not allowed.**
  - D. Field Mock-up: Submit two (2) samples 6" long, minimum, illustrating a sample of the material (cured) in each color selected and specified tooling requirements. **Have at least two (2) samples prepared for each sealant color and condition** for approval by the Architect prior to installation. Provide a textured finish of sealant when specified.
  - E. For exterior conditions: Install a sampling (mock-up) of at least two sealant colors for each application requirement as part of the Project.
- 1.06 PROJECT CONDITIONS:
- A. Weather Conditions: Do not proceed with installation of liquid sealants under unfavorable weather conditions. Install elastomeric sealants when temperature is in lower third of temperature range recommended by manufacturer for installation.
  - B. Where possible, maintain temperature and humidity levels recommended by manufacturer during and after installation.
  - C. Do not install solvent curing sealants in enclosed building spaces.
- 1.07 GUARANTY-WARRANTY:
- A. This Contractor shall and hereby does warrant, shall and hereby does guarantee all caulking work in this division against defective materials and workmanship for a specified period:
    - 1. Warranty period: **(2) years** from date of Substantial Completion.
  - B. Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those failing in performance within warranty period.
    - 1. Warranty period: **20 years from date of Substantial Completion.**
  - C. Issuance of final certificate of payment is contingent upon delivery to architect of said written Guaranty-Warranty.

## PART 2 - PRODUCTS

- 2.01 MANUFACTURER:
- B. Acceptable Manufacturers - Subject to compliance with the following requirements, provide products by one of the following Manufacturers:
    - 1. Tremco, Inc.
    - 2. Dow Chemical
    - 3. Sika Corporation
    - 4. Polymeric Systems, Inc.
    - 5. Sonneborn Building Products Div., ChemRex, Inc.
    - 6. Pecora Corp.
    - 7. Or Architect approved substitution.
  - C. Provide joint sealants, fillers and related materials that are compatible with one another and with the particular substrates, conditions of service and applications – as specified by sealant manufacturer based on testing and field experience.
  - D. Proprietary names used below are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other accepted manufacturers.
- 2.02 EXTERIOR SEALANTS - TYPICAL:
- A. General: Provide manufacturer's standard, chemically curing elastomeric sealants as required for the particular type of installation and environmental conditions, and that comply with ASTM C 920 and other requirements indicated on each Joint Sealant Data Sheet for application use.

1. Coordinate with the Manufacturer for the most appropriate material for the type of installation noted below.
  2. **The contractor shall be responsible for providing Data Sheets for each sealant choice for the various material/condition/environment conditions applicable.**
- B. **Typical sealant conditions are noted below and shall use the materials following unless additional requirements are specified in the Documents:**
1. **Masonry, mortar or glazing sealant or in contact with structural elements** (requiring the maximum elasticity) shall be a silicone Type S, Grade – NS (non-sag), Class 50 min. (medium modulus of elasticity allowing 50% + movement) **silicone sealant** similar to:
    - a. Dow Corning No. 795 - or equal
    - b. Tremco 'Spectrem 2' medium-modulus, Type S, Grade-NS, Class 50 - or equal.
    - c. Tremco 'Spectrem 3' Type S, Grade-NS, Class 50, or equal
    - d. Provide primers for particular substrates as required by manufacturer
  2. **General Construction** sealants shall be similar to:
    - a. Tremco 'Spectrem 3' Type S (single component), Grade-NS (non-sagging) or equal
    - b. Similar products of Dow Corning, Sika or DAP
- 2.03 CELLULAR/FOAM JOINT FILLERS AND SEALANT BACKERS:
- A. Provide sealant backing of material and type that are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers.
- B. Typical materials are as follows. The contractor is responsible to coordinate with particular sealants and installation conditions:
1. Closed-Cell Synthetic Rubber Joint Filler: Expanded synthetic rubber complying with ASTM D1056, Class SC-E (oil-resistant and medium swell), of 2 to 5 psi compression deflection (Grade SCE 41); except provide 13 to 17 psi compression deflection (Grade SCE 44) where filler is applied under sealant exposed to traffic. Provide as needed.
  2. Closed-Cell PVC Joint Filler: Flexible expanded polyvinyl chloride complying with ASTM D1667, Grade VE 41 BL (3.0 psi compression deflection); except provide higher compression deflection grades as may be necessary to withstand installation forces and provide proper support for sealants, if any. Provide as needed.
  3. Closed-Cell Semi-Rigid Plastic Joint Filler: Semi-rigid, compressible non-staining, closed-cell plastic joint filler, recommended by manufacturer where low modulus of elasticity is required, but suitable for retaining poured concrete. Provide as needed.
  4. Open-cell polyurethane foam
  5. Closed-cell polyethylene foam
- 2.04 ACCESSORIES:
- A. Joint Primer/Sealer: Non-staining type primer/sealer shall be as recommended by the sealant manufacturer for use on the type of substrate material encountered, and shall have been tested for staining, durability, and dirt pick-up on the surfaces to be primed or sealed.
- B. Joint Cleaner: Non-corrosive and non-staining type as recommended by sealant manufacturer; shall be compatible with joint forming materials.
- C. Bond Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer to suit application. To be applied to sealant-contact surfaces where bond to substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape where applicable.
- D. Compression Seals: Manufacturer's standard, preformed, pre-compressed, open-cell foam sealant. It shall be a high-density urethane foam impregnated with a non-drying, water repellent agent in a factory produced pre-compressed size to fit joint widths required.
1. Density: 9-10 lb./cu. ft
  2. Backing: pressure sensitive adhesive, factory applied to one side, with protective wrapping.
  3. Color: Manufacturer's standard gray at building expansion joint, unless otherwise noted.
  4. Acceptable manufacturers:
    - a. Will-Seal Expanding Foam Sealant Tapes
    - b. Thermal Products, Inc.

c. or equal

2.05 COLOR SELECTION:

- A. Unless otherwise noted, color of sealant/caulk shall be selected by the Architect from each manufacturer's full range of available colors, **including custom sealant colors for matching adjacent materials when noted.**
- B. **Provide accurate, material samples to the Architect for choice of sampling colors. Paper sample are not allowed.**
- C. **Have at least two (2) samples prepared for each sealant color and condition** for approval by the Architect prior to installation. Sealant shall be applied to sample panel/wall when requested by Architect.
- D. Provide a textured finish of sealant when specified.

PART 3 - EXECUTION

3.01 INSPECTION:

- A. Installer shall verify that surfaces, substrates, joint openings and conditions under which joint sealer work is to be performed are satisfactory and ready to receive work. Installer shall notify Contractor in writing of unsatisfactory conditions. Do not proceed with joint sealer work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
- B. Beginning of installation means Installer accepts existing surfaces and conditions.

3.02 PREPARATION:

- A. The surface of joints to be sealed with gaskets, sealants or caulking compound shall be cleaned free of loose particles, oil, grease, water, frost, surface dust, coatings, and other foreign matter which might impair performance of joint sealing materials.
  - 1. Porous materials such as masonry and concrete shall be cleaned by sandblasting, mechanical abrading, acid washing, or a combination of these methods, as required to provide a clean, sound surface free of laitance, coatings and loose particles. When acid washing method is used, all traces of acid shall be removed from the surface of porous materials by immediately washing with fresh water and all metal and glass in adjacent construction shall be protected from the acid. Methods used shall be compatible with sealant materials and comply with manufacturer's recommendations.
- B. Prime or seal joint surfaces where required and where recommended by sealant manufacturer. Confine primer/sealant to areas of sealant bond. Do not allow spillage or migration onto adjoining surfaces.
- C. Verify that joint backing and release tapes are compatible with sealants.
- D. Measure joint dimensions and verify that joint filler and backer materials are sized to achieve joint width/depth ratios required by sealant manufacturer.

3.03 PROJECT CONDITIONS:

- A. Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.
- B. Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.
- C. Comply with manufacturer's printed instructions for sealant and sealant accessory preparation and installation, except where more stringent requirements are shown or specified or where appearance of joints is governed by the "Typical Caulk/Sealant Joints" detail found in the Drawings.
- D. Apply sealant within manufacturer's recommended temperature and humidity ranges. Exterior sealing compounds shall not be applied in damp or rainy weather nor until the surfaces of joints to be sealed have thoroughly dried from the effects of such weather. Condensation shall not be allowed to form on the joint surfaces to receive sealing compounds. Ventilation shall be provided as required to prevent the formation of condensation on such surfaces.

3.04 INSTALLATION:

- A. All interior joints shall be caulked with acrylic latex, except control joints and expansion joints in masonry wall; such joints shall be caulked with exterior type sealant. All exterior joints shall be sealed with exterior type sealant.
- B. Install bond breaker where joint backing is not used.
- C. Employ only proven installation techniques which will ensure that sealants are: deposited in uniform, continuous ribbons forced solidly into joint cavities so that full adhesion is achieved against contact faces of joint backing and joint faces; free from gaps, cracks, air pockets and foreign matter. For gun applications, select nozzle size to match joint width. **Except as otherwise indicated, finished sealant surfaces shall be struck flat no less than 1/8" below adjoining surfaces.** Where horizontal joints are between a horizontal and vertical surface, install joint to form a slight cove, so that joint will not trap moisture and dirt.
- D. Do not overheat or reheat hot-applied sealants. Discard overheated material.
- E. Install liquid-applied sealant to depths as shown, or, if not shown, as recommended by sealant manufacturer but within the following general limitations, measured at center (thin) section of beads (not applicable to sealants in lapped joints):
  - 2. For sidewalks, pavements and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures: fill joints to a depth equal to 75% of joint width, but neither more than 5/8" deep nor less than 3/8" deep.
  - 3. For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2" deep nor less than 1/4" deep.
  - 4. For joints sealed with non-elastomeric sealants and caulking compounds, fill joints to a depth in the range of 75% to 125% of joint width.
- F. Do not allow sealants/caulks to overflow from confines of joints, to spill onto adjoining work, or to migrate into voids of exposed finishes. Clean adjoining surfaces by appropriate means necessary to eliminate evidence of spillage.
  - 1. Paper pressure-sensitive masking tape shall be placed on the finish surface on one or both sides of a joint cavity to protect adjacent finish surfaces from primer and sealing compound smears. Masking tape shall be removed within ten (10) minutes after the joint has been filled.
- G. All materials that have been over-applied in exposed-to-view locations or in locations being further treated by other trades shall be neatly trimmed with a knife edge or other trimming tool.

3.05 JOINT SHAPE:

- A. Tooling:
  - 1. Provide concave joint configuration per Figure 5A in ASTM C 962, unless otherwise noted.
  - 2. Provide flush joint configuration per Figure 5B in ASTM C 962, where indicated.
- B. Tolerances:
  - 1. Set joint filler units at depth or position in joint as required coordinating with other work, including installation of bond breakers, backer rods and sealants. Do not leave voids or gaps between ends of joint filler units.
  - 2. As measured from any adjacent material face, edge, or line, tooled sealant/caulk joints shall not vary in depth by more than 1/16" in 1'-0".
  - 3. Exposed face of sealant/caulk shall be smooth and free of irregularities.

3.06 CLEANING AND ADJUSTMENT:

- C. At conclusion of caulking and when directed, clean off all excess material from adjoining surfaces and materials. Repair or replace all defaced or disfigured finishes caused by work of this section. Leave entire installation in perfect condition.

3.07 CURING AND PROTECTION:

- A. Cure sealants and caulking compounds in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability.
- B. Implement procedures required for cure and protection of joint sealers during construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at time of substantial completion. Cure and protect sealants in a manner that will minimize increases in modulus of elasticity and other accelerated aging effects. Replace or restore sealants that are damaged or deteriorated during construction period.

END OF SECTION 07900

**SECTION 09900 - PAINTING****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. General: The terms “**finishing**”, “**paint**” or “**painting**” as used in the Drawings and this Section are general terms which shall include surface preparations required for the application of all finishes noted herein, and the installation/application of fillers, sealers, primers, stains, paints, varnishes and/or other surface materials.
- B. Preparation of all surfaces and materials to receive finish.
- C. Painting of all surfaces noted on the Documents.

**1.02 RELATED SECTIONS:**

- A. Section 04100 – Mortar and Grout
- B. Section 07600 – Flexible Sheet Flashing
- C. Section 07250 – Direct-Applied Textured finish System
- D. Section 00790 – Sealants

**1.03 COLOR SCHEDULES AND SAMPLE FINISHES:**

- A. The Owner will select up to 3 colors for this Project – at most one color per building.
- B. Notify the Architect prior to mobilizing for painting so samples of colors and/or finishes may be requested.
- C. When requested by the architect, before paint materials are delivered to the jobsite, furnish 12" x 12" samples of colors and/or **finishes** applied on materials similar to those to which paint will be applied on the project. After 12"x12" samples have been approved by the Architect/Owner and -
  - 1. Before beginning work, the painting contractor shall apply a sample area of each of the types of finish on each type of [wall] surface for the architect's review. Sample area shall be approximately 6' x 6', with each successive coat covering an area 12" smaller than the coat before it, allowing the architect to inspect a minimum 12" strip of successive coats.
- D. The Architect reserves the right to select colors from Manufacturer's standard or premium price groups, including deep tone colors for both interior and exterior products.

**1.04 ATTIC STOCK:**

- A. Leave on premises, one unopened gallon of each color of each type of paint or finish used.
- B. Containers to be unopened after preparation at the factory, tightly sealed, bearing manufacturer's name, type of paint, brand name, color designation, and instructions for mixing and/or reducing.

**1.05 SUBMITTALS:**

- A. Within thirty (30) days after an award of bid, the painting contractor shall submit a statement to the architect indicating both the manufacturer of paint of finish products to be used on the job, and the specific brand name for each usage specified.
- B. The architect reserves the right to request and receive copies of invoices for material purchased for this project from the various manufacturers and/or dealers.
- C. The painting contractor shall provide the architect with (2) complete and current color decks from the select manufacturer to select colors from. One color deck will be retained by the Architect.

**1.06 MIXING, THINNING, AND STORAGE:**

- A. Store and mix paints only in areas designated and provided with proper protection for floors and walls.
- B. Mix and thin paints in strict accordance with Manufacturer's recommendations.
- C. Deliver and store paints and related flammable materials in the Manufacturer's original unopened containers, as far as practicable. Keep partially used materials in tightly closed containers.

1.07 ENVIRONMENTAL CONDITIONS:

- A. A minimum interior temperature of 65 degree F shall be maintained during the actual application and drying of the paint and until occupancy of the building occurs. Adequate ventilation shall be maintained at all times to control excessive humidity that will adversely affect the curing of coatings. The general contractor is solely responsible for maintaining suitable temperatures and ventilation.
- B. No exterior painting shall be undertaken if air or surface temperatures are below 50 degree F, or if the temperature is expected to drop below that mark before the coating has dried. Do not paint during or immediately after foggy, rainy, or frosty weather, or until frost, dew or condensation has evaporated. Ambient air temperature and surface temperature must be minimum 5 degree F above dew point.
- C. Surfaces shall be dry before any coating is applied. New plaster, masonry and concrete work shall not be primed until it has been determined these substrates have dried sufficiently and are of suitable Ph to safely accept paint. A reliable electronic moisture meter shall be used to make the determination pertaining to moisture.
- D. Do not commence work in spaces until all other trades other than finish work trades have completed their work within the space.

1.08 PROTECTION:

- A. Close off the various spaces while painting and exclude dust until finish is dry.
- B. Adequately protect adjacent surfaces from paint and damage. Repair damage as a result of inadequate or unsuitable protection.
- C. Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or droppings from fouling surfaces not being painted and in particular, surfaces within storage and preparation area.
- D. Remove surface hardware, fittings and fastenings, prior to painting operations. These items are to be carefully stored, cleaned and replaced on completion of work in each area. When cleaning hardware, do not use solvent that may remove permanent lacquer finish.

1.09 QUALITY ASSURANCE:

- A. General: Work shall be performed by tradesmen with at least (5) five years experience with similar types of preparation and application as required by this Project.
- B. Refinishing and/or refurbishing woodwork: Work shall be performed by tradesmen with at least (5) five years experience, and who are capable of evaluating wood surfaces, stripping, fine sanding, and refinishing hardwood and softwood surfaces.

PART 2 - PRODUCTS2.01 ACCEPTABLE MANUFACTURERS:

- A. All **paint** (opaque coatings) materials shall be products of:
  - 1. Benjamin Moore
  - 2. Sherwin-Williams
  - 3. Pratt & Lambert
  - 4. ICI Dulux
  - 5. Pittsburgh Paint Company
  - 6. Substitutions shall not be made without the architect's prior approval.
- B. All materials used on the job shall be the manufacturer's highest quality product for each usage specified. **The contractor shall provide the most current product for the application noted, and/or the product replacement when products noted have been discontinued.**

2.02 MATERIAL COORDINATION:

- A. **All new TAFS veneer shall be primed prior to the top-coat being applied.**



- B. **All existing veneers shall be primed as required to provide proper adhesion for final top-coats.**
- C. Furnish specified Manufacturer's top quality, first line material, delivered to the job-site in original, unopened, labeled containers.
- D. Acceptance of materials is conditional upon demonstration of washability and abrasion resistance of specified test patch.
- E. Tinted primer shall be used whenever deep tone colors are specified.
- F. All primers/first-coats shall be compatible with final top-coats.
  - 1. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

### 2.03 PRODUCTS:

- A. The following requirements are for material and specific applications noted below. **Should one or more of the specified products no longer be produced by the manufacturer (due to a change in product line, for example), the Contractor shall use another similar product from the same manufacturer(s) providing the product and warrant is substantively similar to the specified product and intended for the application noted.**
- B. **Exterior Finishes:**
  - 1. New and Previously Painted Acrylic Polymer Finish – Base Bid:
    - a. First Coat:
      - 1) Benjamin Moore Moorcraft Latex Exterior Primer 169
      - 2) Pittsburgh Paints 6-603 Speedhide acrylic Alkali Primer
      - 3) Pratt & Lambert Latex Suprime 3
      - 4) Sherwin-Williams Exterior Latex Wood Primer B42W8041
      - 5) Or equal
    - b. Second and Third Coats shall be a high-build exterior, acrylic paint:
      - 1) Benjamin Moore Regal Select High Build Finish N400 w/ mildewcide additive
      - 2) Pittsburgh Paints Regency Flat Latex – RGP66-xx w/ mildewcide additive
      - 3) Sherwin-Williams - Duration Exterior Acrylic Latex w/ mildewcide additive
  - 2. New and Previously Painted Acrylic Polymer Finish – **Alternate #1:**
    - a. First Coat:
      - 1) Benjamin Moore Moorcraft Latex Exterior Primer 169
      - 2) Pittsburgh Paints 6-603 Speedhide acrylic Alkali Primer
      - 3) Pratt & Lambert Latex Suprime 3
      - 4) Sherwin-Williams Exterior Latex Wood Primer B42W8041
      - 5) Or equal
    - b. Second and Third Coats shall be a high-build elastomeric exterior, acrylic coating:
      - 1) Dryvit – Weatherlastic Smooth, flexible, waterproof Elastomeric Coating
      - 2) Sto – StoSilco Lastic, Silicone Modified Acrylic Elastomeric Coating
      - 3) Or equal as approved by Architect
  - 3. Exterior Structural Steel (exposed to view):
    - a. Finish Coat:
      - 1) TNEMEC Series 74 Endure-Shield @ 2.0 to 5.0 mils DFT
      - 2) PPG Industries 95-812 Series, Pitthane Low Gloss Urethane Enamel @ 2.0 to 3.0 mils DFT
      - 3) Sherwin-Williams Acrolon 218 HS Polyurethane B65W611

## PART 3 - EXECUTION

### 3.01 GENERAL:

- A. The painting contractor shall be wholly responsible for the quality of the work and is not to commence any part of it until each surface is in proper condition. All surfaces are to be clean. If for any reason the surface cannot be cleaned, this condition shall be promptly reported to the General Contractor and the Architect prior to commencing with the work.

1. Surfaces shall be properly prepared, dry, and free of any foreign materials such as dirt, dust, oil, grease, rust, scale, mildew, algae, mold, effervescence, release agents, etc., which will adversely affect adhesion or appearance of applied coating.
- B. Examine each surface scheduled to be painted or finished prior to commencing with the work. Report any condition that may potentially affect proper application. **Application of first coat constitutes acceptance of surface as being in fit condition to receive paint.**
- C. To prevent contamination of the substrate, apply the prime coat to each surface as soon as possible after surface preparation has been completed.
- D. Test shop applied primer for compatibility with subsequent cover materials. Report adverse conditions, if any, to the Architect prior to continuing with the work.
- E. Test moisture content of each surface using a properly calibrated electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
  1. Plaster and Gypsum Wallboard: 12 percent.
  2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
- F. Do not apply paints when the temperature of or on the substrate or the temperature of the air in the vicinity of the painting work is below 45 degrees or above 95 degrees Fahrenheit. Application shall proceed only when relative humidity is between 20 and 80 percent. Exterior and interior latex paints shall not be applied below 50 degrees Fahrenheit unless so authorized in writing by the manufacturer. Epoxy paints and other sophisticated coating shall not be applied below 50 degrees Fahrenheit unless otherwise noted on the manufacturer's printed instructions.
- G. Test Ph of plaster, masonry, and concrete surfaces. Neutralize where required.
- H. Seal all marks that may bleed through surface finishes with appropriate stain-stopping coating.
- I. **Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry. Follow manufacturer's recommendations for final preparation.**
- J. **Power wash all surfaces to remove all mildew and surface contaminations prior to applying any new finishes.**
- K. **All new finishes shall receive a primer. Existing surfaces shall be primed to assure adhesion of new top-coats.**

### 3.02 PREPARATION OF SURFACES (PREVIOUSLY PAINTED or EXISTING)

- A. **Comply with requirements as specified for preparation of new construction surfaces as well as the following:**
  1. Scrub clean existing surfaces with a stiff brush and a solution of clean water and mild detergent.
  2. Fill cracks, holes, voids, and defects, and leave a smooth surface ready for application of primer.
  3. **Verify with manufacturer of new finish and prime existing surfaces as required for complete adhesion between existing surfaces and new finishes.**
  4. Prepare a 36" x 36" minimum test area to see if a reaction occurs between existing and new finishes prior to proceeding with the specified work. If a reaction occurs, alert the Architect with a proposed solution prior to proceeding with work.
- B. **Existing Acrylic Veneer Finish:**
  1. Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
  2. Feather all edges of the patch to blend in with the surrounding surfaces. Be sure the patched area is thoroughly dry.
  3. Spot prime with an alkali-resistant primer, or as recommended by paint manufacturer. Before painting the entire wall, the patched areas shall be spot-coated over the primer, using the same paint as finish coat. This will enable the patch to give better "hold-out" and provide a uniform appearance to the top coat.

### 3.03 APPLICATION AND FINISHING REQUIREMENTS

- A. All specified products shall be applied at the minimum wet film thickness rate as recommended by the manufacturer.
- B. The number of coats scheduled are minimums. Provide paint finishes free from cloudy or mottled surfaces and with complete coverage of even, uniform color. Spot prime or undercoat as necessary for complete coverage.
- C. Do not apply succeeding coats until undercoats are thoroughly dry.
- D. After completion of work, do all necessary touching up of all the Painting and Finishing and leave the work in perfect condition.
- E. Additional coats will be required where finished work is not in complete compliance with all requirements of these specifications, or if complete coverage is not accomplished in the specified number of coats.
- F. Coverage and hide shall be complete. When color, stain, dirt or undercoats show through final coat of paint, the surface shall be covered by additional coats until the paint film is of uniform finish, color, appearance and coverage, at no additional cost to the owner.

### 3.04 WORKMANSHIP

- A. All painting and finishing work shall be done by thoroughly experienced, skilled, competent mechanics and smoothly flowed on without runs, sags, streaks, wrinkles, shiners, or bush marks. Apply proprietary paint products in strict accordance with manufacturer's instructions.
- B. Execute all painting and finishing work strictly as per approved color and finish samples. Commencing work before obtaining said approvals is at the contractor's risk.
- C. Comply with manufacturer's printed directions on labels of all product containers. Primer and finish coats shall be products of the same manufacturer.
- D. The architect reserves the right to inspect each coat of paint or other finish before application of succeeding coat or else no credit for said coat will be given and the painting contractor automatically assumes responsibility for recoating work in question. Notify architect when each coat is ready for inspection.

### 3.05 CLEANING:

- A. At conclusion of work and/or when directed, examine all painting and finishing work. Clean paint spots off glass, plaster, metal, fabric wall coverings, wood and other surfaces. Clean and repair paint finish where dark spots, fingerprints, and similar imperfections appear. Said retouching shall exactly match surrounding surfaces. Refinish entire surface in question in order to attain this result if necessary. Leave all painting and finishing in perfect condition.
- B. During progress of the work keep premises free from accumulations of tools, equipment, surplus materials and debris. At completion of work leave premises neat and clean.

### 3.06 SCHEDULE - EXTERIOR SURFACES

- A. Existing Acrylic Veneer Surfaces:
  - 1. One coat of primer sealer (tinted), as required to assure adhesion of top-coats.
  - 2. Two coats of flat top-coat paint
- B. New Acrylic Veneer Surfaces:
  - 1. One coat of primer sealer (tinted).
  - 2. Two coats of flat top-coat paint
- C. Ex. exposed Steel (previously painted):
  - 1. Touch-up with zinc chromate primer.
  - 2. One coat of satin/low-gloss paint

END OF SECTION 09900

# APPENDIX

# CITY OF ANN ARBOR PREVAILING WAGE DECLARATION OF COMPLIANCE

The "wage and employment requirements" of Section 1:320 of Chapter 14 of Title I of the Ann Arbor City Code mandates that the city not enter any contract, understanding or other arrangement for a public improvement for or on behalf of the city unless the contract provides that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. Where the contract and the Ann Arbor City Code are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used. Further, to the extent that any employees of the contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with section 1:320 of Chapter 14 of Title I of the Code of the City of Ann Arbor, employees shall be paid a prescribed minimum level of compensation (i.e. Living Wage) for the time those employees perform work on the contract in conformance with section 1:815 of Chapter 23 of Title I of the Code of the City of Ann Arbor.

At the request of the city, any contractor or subcontractor shall provide satisfactory proof of compliance with this provision.

The Contractor agrees:

- (a) To pay each of its employees whose wage level is required to comply with federal, state or local prevailing wage law, for work covered or funded by this contract with the City,
- (b) To require each subcontractor performing work covered or funded by this contract with the City to pay each of its employees the applicable prescribed wage level under the conditions stated in subsection (a) or (b) above.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the wage and employment provisions of the Chapter 14 of the Ann Arbor City Code. The undersigned certifies that he/she has read and is familiar with the terms of Section 1:320 of Chapter 14 of the Ann Arbor City Code and by executing this Declaration of Compliance obligates his/her employer and any subcontractor employed by it to perform work on the contract to the wage and employment requirements stated herein. The undersigned further acknowledges and agrees that if it is found to be in violation of the wage and employment requirements of Section 1:320 of the Chapter 14 of the Ann Arbor City Code it shall has been deemed a material breach of the terms of the contract and grounds for termination of same by the City.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature of Authorized Representative                          Date

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Address, City, State, Zip

\_\_\_\_\_  
Phone/Email address

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500



**CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE**

**RATE EFFECTIVE APRIL 30, 2016 - ENDING APRIL 29, 2017**

**\$12.93 per hour**

If the employer provides health care benefits\*

**\$14.43 per hour**

If the employer does **NOT** provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

## **ENFORCEMENT**

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

\* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

**The Law Requires Employers to Display This Poster Where Employees Can Readily See It.**

**For Additional Information or to File a Complaint Contact:  
Colin Spencer at 734/794-6500 or [cspencer@a2gov.org](mailto:cspencer@a2gov.org)**



## Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	<input type="checkbox"/> Relationship to employee <hr/> <input type="checkbox"/> Interest in vendor's company <input type="checkbox"/> Other (please describe in box below)

\*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
Vendor Name	Vendor Phone Number	
Signature of Vendor Authorized Representative	Date	Printed Name of Vendor Authorized Representative





## CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below. You can review the entire ordinance at [www. a2gov.org/departments/city-clerk](http://www.a2gov.org/departments/city-clerk)

**Intent:** It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

**Discriminatory Employment Practices:** No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

**Discriminatory Effects:** No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

**Nondiscrimination by City Contractors:** All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

**Complaint Procedure:** If any individual has a grievance alleging a violation of this chapter, he/she has 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the alleged discriminatory action to file a complaint with the city's Human Rights Commission. If an individual fails to file a complaint alleging a violation of this chapter within the specified time frame, the complaint will not be considered by the Human Rights Commission. The complaint should be made in writing to the Human Rights Commission. The complaint may be filed in person with the City Clerk, by e-mail ([hrc@a2gov.org](mailto:hrc@a2gov.org)), by phone (734-794-6141) or by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107). The complaint must contain information about the alleged discrimination, such as name, address, phone number of the complainant and location, date and description of the alleged violation of this chapter.

**Private Actions For Damages or Injunctive Relief:** To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter

THIS IS AN OFFICIAL GOVERNMENT NOTICE AND  
MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.