

**SECTION 01 26 57  
CHANGE ORDER REQUESTS (COR)**

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19  
20 **PART 1 – GENERAL**

21  
22 **1.1. SUMMARY**

- 23 A. Except in cases of emergency, no changes in the Work required by the Contract Documents may be made  
24 by the General Contractor (GC) without having prior approval of the City Engineer or his representative.  
25 B. The City may at any time, without invalidating the Contract and without Notice to Sureties, order changes in  
26 the Work by written Change Order (CO). Such changes may include additions and/or deletions.  
27 C. Where the City desires to make changes in the Work through use of written Change Order Request (COR), the  
28 following procedures apply:  
29 1. If requested by the City, the GC shall prepare and submit a detailed proposal, including all cost and time  
30 adjustments to which the GC believes it will be entitled if the change proposed is incorporated into the  
31 Contract. The City shall be under no legal obligation to issue a Change Order for such proposal.  
32 2. The parties shall attempt in good faith to reach agreement on the adjustments needed to the Contract to  
33 properly incorporate the proposed change(s) into the Work. In the event that the parties agree on such  
34 adjustments, the City may issue a Change Order and incorporate such changes and agreed to  
35 adjustments, if any.  
36 3. In some instances, it may be necessary for the City to authorize Work or direct changes in Work for which  
37 no final and binding agreement has been reached and for which unit prices are not applicable. In such  
38 cases the following shall apply.  
39 a. Upon written request by the City, the GC shall perform proposed Work  
40 b. The cost of such change may be determined in accordance with this specification.  
41 c. In the event agreement cannot be accomplished as contemplated herein, the City may authorize  
42 the Work to be performed by City forces or to hire others to complete the Work. Such action on  
43 the part of the City shall not be the basis of a claim by the GC for failure to allow it to perform the  
44 changed Work.  
45 D. Where changes in the Work are made by the City through use of a force account basis, the GC shall as soon as  
46 practicable, and in no case later than ten (10) working days from the receipt of such order, unless another time  
47 period has been agreed to by both parties, give the City written Notice, stating:  
48 1. The date, circumstances and source of the extra work; and,  
49 2. The cost of performing extra work described by such Order, if any; and,  
50 3. Effect of the order on the required completion date of the Project, if any.  
51 E. The giving of each Notice by the GC as prescribed by this specification, shall be a requirement to liability of the  
52 City for payment of any additional costs incurred by the GC in implementing changes in the Work. Under this  
53 specification, no order or statement of the City shall be treated as a Change Order, or shall entitle the GC to an  
54 equitable adjustment of the terms of this Contract or damages for costs incurred by the GC on any activity for  
55 which the Notice was not given.  
56 F. In the event Work is required due to an emergency as described in this specification the GC must request an  
57 equitable adjustment as soon as practicable, and in no case later than ten (10) working days of the  
58 commencement of such emergency.

- 1 G. All GC requests for equitable adjustment shall be submitted to the CPM per the specifications below. Such
- 2 requests shall set forth with specificity the amount of and reason(s) for the proposed adjustment and shall be
- 3 accompanied by supporting information and documents.
- 4 H. No adjustment of any kind shall be made to this Contract, if asserted by the GC for the first time, after the date
- 5 of final payment.
- 6 I. This specification shall be used by the GC when preparing documentation for any COR to ensure each has been
- 7 properly and completely filled out as required by the City of Madison.
- 8 J. All COR documentation will be processed through the Construction Administration-Change Order Request
- 9 Library on the Project Management Web Site (PMWS).

10  
11 **1.2. RELATED SPECIFICATION SECTIONS**

- 12 A. NOT USED
- 13 B. NOT USED
- 14 C. Section 01 26 63 Change Order (CO)
- 15 D. NOT USED
- 16 E. Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public
- 17 Works Construction".
  - 18 1. Use the following link to access the Standard Specifications web page:
  - 19 <http://www.cityofmadison.com/business/pw/specs.cfm>
  - 20 a. Click on the "Part" chapter identified in the specification text. For example if the specification
  - 21 says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II
  - 22 PDF will open.
  - 23 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you
  - 24 to the referenced text.

25  
26 **1.3. DEFINITIONS AND STANDARDS**

- 27 A. LABOR: The amount of time and cost associated with the performance of human effort for a defined scope of
- 28 Work. Labor is further defined as follows:
  - 29 1. Labor rate is the total hourly rate which includes the basic rate of pay, fringe benefits plus each
  - 30 company's cost of required insurance, also referred to as a reimbursable labor rate.
  - 31 2. Unit labor is the labor hours anticipated to install the corresponding unit of material.
  - 32 3. Labor cost is the labor hours multiplied by the hourly labor rates.
- 33 B. MATERIAL: Actual material cost is the amount paid, or to be paid, by the GC for materials, supplies and
- 34 equipment entering permanently into the Work, including cost of transportation and applicable taxes. The cost
- 35 shall not exceed the usual and customary cost for such items available in the geographical area of the project
- 36 C. LARGE TOOLS AND MAJOR EQUIPMENT: Large tools and major equipment are those with an initial cost greater
- 37 than \$1,500, whether from the GC or other sources.
  - 38 1. Tool and equipment use and time allowed is only for extra work associated with change orders.
    - 39 a. Rental Rate is the machine cost associated with operating a piece of equipment for a defined
    - 40 length of time (hour, day, week, or month) and shall not exceed the usual and customary amount
    - 41 for such items available in the geographical area of the project.
    - 42 b. Rental cost is the rental rate multiplied by the anticipated duration the equipment shall be
    - 43 required.
  - 44 2. The GC shall provide a breakdown of all rental rates to indicate what items and costs are associated with
  - 45 the rate. Examples of items to include in the breakdown would be fuel consumption, lubrication,
  - 46 maintenance and other similar expenses but not including profit and overhead.
  - 47 3. When large tools and equipment needed for Change Order work are not already at the job site, the
  - 48 actual cost to get the item there is also reimbursable.
- 49 D. BOND COST: The cost shall be calculated at 1% of the total proposed change order.
- 50 E. SUB-CONTRACTOR COSTS: Sub-contractor costs are for those labor, material, and equipment costs required by
- 51 subcontracted specialties to complete the Change Order work including allowable markups as outlined within
- 52 this specification.
- 53 F. OVERHEAD AND PROFIT Markup: The allowable markup percentage to a COR by the GC and Sub-contractors for
- 54 overhead and profit. All of the following are expenses associated with overhead and profit and shall not be
- 55 reimbursable as individual items on any COR:
  - 56 1. CHANGE ORDER PREPARATION: All costs associated with the preparing and processing of the change
  - 57 order.

- 1                    2.    DESIGN, ESTIMATING, AND SUPERVISION: All such efforts, unless specifically requested by Owner as
- 2                           additional Work to be documented as a COR or portion thereof.
- 3                    3.    INSTALLATION LAYOUT: The layout required for the installation of material and equipment, and the
- 4                           installation design, is the responsibility of the GC.
- 5                    4.    SMALL TOOLS AND SUPPLIES: The cost of small hand tools with an initial cost of \$1,500 or less, along
- 6                           with consumable supplies and expendable items such as drill bits, saw blades, gasoline, lubricating or
- 7                           cutting oil, and similar items.
- 8                    5.    GENERAL EXPENSE: The general expense, which is those items that are a specific job cost not associated
- 9                           with direct labor and material such as job trailers, foreman truck, and similar items.
- 10                  6.    RECORD DRAWINGS: The preparation of record or as-built drawings.
- 11                  7.    OTHER COSTS: Any miscellaneous cost not directly assessable to the execution of the Change Order
- 12                         including but not limited to the following:
- 13                         a.    All association dues, assessments, and similar items.
- 14                         b.    All education, training, and similar items.
- 15                         c.    All drafting and/or engineering, unless specifically requested by Owner as additional Work to be
- 16                         documented as a Change Order proposal or portion thereof.
- 17                         d.    All other items including but not limited to review, coordination, estimating and expediting, field
- 18                         and office supervision, administrative work, etc.
- 19                  G.    Contract Extension: The necessary amount of time to be added to the contract deadlines for the completion of a
- 20                         change order.

21  
22    **1.4. CONTRACT EXTENSION**

- 23    A.    The GC shall not assume that every COR will require a Contract Extension. If the GC feels a contract extension is
- 24           warranted he/she shall provide sufficient scheduling information that shows how the COR being requested
- 25           impacts the critical path of the project.
- 26    B.    The City of Madison strongly encourages the GC to explore alternative methods and practices prior to submitting
- 27           a COR with a request for contract extension.

28  
29    **1.5. OVERHEAD AND PROFIT MARKUP**

- 30    A.    Pursuant to the City of Madison Standard Specifications for Public Works Construction, Section 104.7, Extra
- 31           Work, the following maximum allowable markups shall be strictly enforced on all change orders associated with
- 32           the execution of this contract.
- 33           1.    The total maximum overhead and profit shall not exceed fifteen percent (15%) of the total costs.
- 34           2.    The total maximum overhead and profit shall be distributed as follows:
- 35                  a.    For work performed and materials provided solely by the General Contractor, fifteen percent
- 36                  (15%) of the total costs.
- 37                  b.    For work performed and materials provided solely by Sub-contractors and supervised by the
- 38                  General Contractor:
- 39                      i.    Supervision of the GC, five percent (5%) of the total Sub-contractor cost.
- 40                      ii.   Sub-contractors work and materials ten percent (10%) of the total Sub-contractor cost.

41  
42    **1.6. PERFORMANCE REQUIREMENTS**

- 43    A.    The GC shall become thoroughly familiar with this specification as it will identify procedures and expenses that
- 44           are or are not allowed under the Change Order and Change Order Request process.
- 45    B.    The GC shall be responsible for all of the following:
- 46           1.    Carefully reviewing the CB that is associated with the COR.
- 47           2.    Collecting required supporting documentation from all contractors that quantify the need for a COR.
- 48                  a.    Labor hours and wage rates
- 49                  b.    Material costs
- 50                  c.    Equipment costs
- 51    C.    The following shall apply to establishing prices for labor, materials, and equipment costs:
- 52           1.    Where Work to be completed has previously been established by individual bid items in the contract bid
- 53           proposal the GC shall use the unit bid prices previously established.
- 54           2.    Where Work to be completed was bid as a Lump Sum without individual bid items the GC shall provide a
- 55           breakdown of all labor, materials, equipment including unit rates and quantities required.
- 56    D.    The completion date is determined by Owner. The schedule, however, is the responsibility of the GC. Time
- 57           extensions for extra Work will be considered when a schedule analysis of the critical path shows that the Change
- 58           Order Request places the Work beyond the completion date stated in the Contract.

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2 **1.7. QUALITY ASSURANCE**

- 3 A. The GC shall be responsible for ensuring that all COR supporting documentation meets the following  
4 requirements prior to completing the COR form on the Project Management Web Site:  
5 1. Sufficiently indicates labor, material, and other expenses related to completing the intent of the CB.  
6 2. No costs exceed the usual and customary amount for such items available in the geographical area of the  
7 project, and no costs exceed those established under the contract.  
8 B. The Project Architect (PA), City Project Manager (CPM), other members of the consulting staff, and city staff shall  
9 review all COR requests to ensure that the intent of the CB will be met under the proposal of the COR or request  
10 additional information as necessary.  
11

12 **PART 2 – PRODUCTS**

13  
14 **2.1. CHANGE ORDER REQUEST FORM**

- 15 A. The COR form is located on the Project Management Web Site. The GC shall click the link in the left margin of  
16 the project web site opening a new form. Follow additional instructions below in the execution section for filling  
17 out the form.  
18

19 **PART 3 - EXECUTION**

20  
21 **3.1. ESTABLISHING A CHANGE ORDER REQUEST**

- 22 A. Upon receipt of a Construction Bulletin (CB) where the GC believes a significant change in contract scope  
23 warrants the submittal of a COR the GC shall do all of the following within ten (10) working days after receipt of  
24 the CB:  
25 1. Review the CB with all necessary trades and sub-contractors required by the change in scope.  
26 a. Additions or deletions to the contract scope shall be as directed within the CB.  
27 b. Additions or deletions of labor and materials shall be determined by the GC based on the  
28 directives of the CB.  
29 2. Assemble all required back-up documentation for additions and deletions of materials, labor and other  
30 related contract costs as previously outlined in this specification.  
31 3. Submit a COR request form on the Project Management Web Site.  
32 B. Submitting a COR does not obligate the GC to complete the work associated with the COR nor does it obligate  
33 the Owner to approve the COR as a change to the contract.  
34

35 **3.2. SUBMIT A CHANGE ORDER REQUEST FORM**

- 36 A. This specification shall provide a subject overview only. In depth instructions shall be provided to the awarded  
37 Contractor in a PDF Instructional Manual.  
38 B. The GC shall select the "Submit a COR" link on the Project Management Web Site.  
39 C. The software will open a new COR form and the GC shall provide all of the following information:  
40 1. DO NOT perform any calculations on this worksheet, only provide the raw data as requested below. All  
41 calculations, totals, and markups shall be computed as described within this specification.  
42 2. Provide a summary description of the COR request, and justification for any requested time extension to  
43 the contract, indicate the number of calendar days being requested for the extension and add any  
44 attachments to the form as needed.  
45 3. Provide all GC self performance data including all of the following:  
46 a. Materials description, quantities, and unit costs.  
47 b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.  
48 c. Equipment descriptions, quantities, unit costs and rates.  
49 4. Provide all Sub-contractor data including all of the following:  
50 a. Materials description, quantities, and unit costs.  
51 b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.  
52 c. Equipment descriptions, quantities, unit costs and rates.  
53 5. Ensure all calculations performed by the form have been completed correctly. Contact the CPM directly  
54 if you suspect an error before hitting the save button.  
55 C. At any time after creating a COR you must at a minimum click "Save as Draft" to save your work.  
56 D. When all data has been entered and verified click on the "Submit COR" button. This will kick off the COR Review  
57 and Approval process.  
58

1 **3.3. CHANGE ORDER REQUEST REVIEW, APPROVAL, AND PROCESSING**

- 2 A. The PA and CPM shall review all CORs submitted by the GC.  
3 1. Additional consulting staff and city staff having knowledge of the components of the COR shall review  
4 and advise the PA and CPM as to the accuracy of the items, quantities, and associated costs of the COR as  
5 directed by the CB.  
6 2. The CPM shall review the COR with the Owner.  
7 B. If required the PA and CPM, shall in good faith, further negotiate the COR with the GC as necessary. All  
8 amendments to any COR shall be documented within the Project Management Web Site software.  
9 C. After final review of the COR the CPM and Owner may accept the COR.  
10 D. The CPM shall prepare the COR in the form of an official Board of Public Works Change Order for final review and  
11 approval as outlined in Section 01 26 63 Change Order (CO).  
12 E. The GC shall not act upon any accepted COR until it has received final approval through the Public Works process  
13 as an official CO to the Work unless instructed to do so by the CPM. Proceeding without the final approval of a  
14 fully authorized Change Order is at the GC's own risk.  
15

16 **3.4. EMERGENCY CHANGE ORDER REQUEST**

- 17 A. In the event Work is required due to an emergency as described in the Contract Documents, the GC must  
18 request an equitable adjustment as soon as practicable, and in no case later than ten (10) working days of the  
19 commencement of such emergency.  
20 B. The GC shall provide full documentation of all labor, materials and equipment used during the period of  
21 emergency as part of the COR submittal.  
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**END OF SECTION**

**SECTION 01 26 63  
CHANGE ORDER (CO)**

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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 17 A. Except in cases of emergency, no changes in the Work required by the Contract Documents may be made  
18 by the General Contractor (GC) without having prior approval of the City Project Manager (CPM).  
19 B. The City may at any time, without invalidating the Contract and without Notice to Sureties, order changes in  
20 the Work by written Change Order. Such changes may include additions and/or deletions.  
21 C. The Change Order (CO) is a Board of Public Works (BPW) form that is reviewed and approved by a specific  
22 process.  
23 D. The CO form is typically made up of multiple Change Order Requests (CORs) and/or Bid Items as appropriate  
24 depending on the type of project and how the contract was bid.  
25 E. All CO documentation shall be processed through the Construction Administration-Change Order Library and  
26 digital workflow on the Project Management Web Site (PMWS).  
27

**1.2. RELATED SPECIFICATION SECTIONS**

- 28 A. NOT USED  
29 B. NOT USED  
30 C. Section 01 26 63 Change Order Request (COR)  
31 D. NOT USED  
32

**1.3. BOARD OF PUBLIC WORKS PROCEDURE**

- 34 A. The Board of Public Works has a very explicit procedure for the review and approval of all change orders  
35 associated with any Public Works Contract as follows:  
36 1. The Supervisory Chain of the CPM shall review and approve any CO under \$10,000 provided it does not  
37 include either of the following:  
38 a. The CO does not request a time extension to the contract.  
39 b. The CO does not cause the contract contingency sum to be exceeded.  
40 2. The Board of Public Works shall review and approve any CO that requires any of the following:  
41 a. Any CO over \$10,000.  
42 b. Any CO requesting a time extension to the contract regardless of the monetary value of the CO.  
43 c. Any CO that that causes the contract contingency sum to be exceeded.  
44 B. The Board of Public Works generally meets every other week and only once in August and December. The GC is  
45 cautioned that, under normal scheduling, a CO requiring a BPW review will take a minimum of two (2) weeks to  
46 achieve final approval.  
47 1. The City shall not be responsible for additional delays to the Work caused by the scheduling constraints  
48 of the Board of Public Works.  
49 C. **SPECIAL NOTE:** The GC is cautioned to never proceed unless told to do so by the CPM. Only in rare instances  
50 may the CPM give a written notice to proceed on a COR without an approved CO. Proceeding without the  
51 written notice of the CPM or an approved CO is at the GC's own risk.  
52  
53

1 **PART 2 – PRODUCTS**  
2

3 **2.1. CHANGE ORDER FORM**

- 4 A. The CO form is located on the Project Management Web Site. The CPM shall click the link in the left margin of  
5 the project web site opening a new form. Project information is pre-loaded, the CPM only needs to enter  
6 information and make attachments as needed to complete the form.  
7

8 **PART 3 - EXECUTION**  
9

10 **3.1. PREPARATION OF THE CHANGE ORDER**

- 11 A. The CPM shall prepare the required CO forms in the Construction Administration-Change Order Library on the  
12 Project Management Web Site as follows:  
13 1. Provide information for all contract information.  
14 2. Provide a general description of the items described within the change order.  
15 3. Provide detailed information for each Item on the CO form. At the option of the CPM he/she may include  
16 multiple Change Order Requests each as their own item.  
17 4. Provide required pricing and accounting information as needed for the item.  
18 5. Insert attachments of contractor/architect provided information that clarifies and quantifies the CO.  
19 Attachments may include but not be limited to material lists, estimated labor, revised details or  
20 specifications, and other documents that may be related to the requested change.  
21 6. Save the final version of the completed CO.  
22

23 **3.2. EXECUTION OF THE CHANGE ORDER**

- 24 A. Upon saving the CO as described in section 3.1 above the software associated with the Project Management  
25 Web Site shall notify the GC that the CO has been drafted and is ready for review. The GC shall do the following:  
26 1. Open the appropriate CO form in the Construction Administration-Change Order Library and review all  
27 items on the form.  
28 2. The GC shall notify the CPM immediately of any errors or discrepancies on the form and shall not sign or  
29 save it.  
30 a. The CPM shall make any corrections as needed, re-save the form, and notify the GC.  
31 3. If/when the GC concurs with the CO form as drafted the GC shall digitally sign the form and click SAVE.  
32 B. After the GC digitally signs/saves the CO it shall be routed through the Project Management Web Site for  
33 additional review and/or approvals. The CPM shall do the following:  
34 1. Monitor the review process to ensure the software is working properly at each review step.  
35 2. Ensure that proper BPW procedures are executed as needed by the CO approval process.  
36 a. Schedule the CO on the next available BPW agenda if required.  
37 i. Attend the BPW meeting to speak on the CO to board members and answer questions.  
38 ii. The GC and/or PA may be required to attend the BPW meeting to address specific  
39 information as it relates to the Work and/or materials associated with the CO.  
40 3. Monitor final approval and distribution of the CO.  
41 4. Notify the GC that the CO has been completed.  
42 5. Ensure that the CO is posted to the next Public Works payment schedule.  
43 6. Verify that the GC's next Progress Payment-Schedule of Values show the CO as part of the contract sum.  
44 C. Upon final approval of the CO the GC may proceed with executing the Work associated with the CO.  
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48

**END OF SECTION**

**SECTION 01 29 73  
SCHEDULE OF VALUES**

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15

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19 A. The Schedule of Values (SOV) is a Contractor provided statement that allocates portions of the total contract  
20 sum to various portions of the contracted work and shall be the basis for reviewing the Contractors Progress  
21 Payment Requests.  
22 B. AIA Document G702 – Application and Certificate for Payment and AIA Document G703 Continuation Sheet shall  
23 be filled out in sufficient detail to be used as a guideline in determining work completed and materials stored on  
24 site when verifying Progress Payment Requests.  
25 C. The General Contractor shall be responsible for filling out, updating, and providing these work sheets with each  
26 Progress Payment Request.  
27

**1.2. RELATED SPECIFICATIONS**

- 29 A. Section 01 26 63 Change Order (CO)  
30 B. Section 01 29 76 Progress Payment Procedures  
31 C. NOT USED  
32 D. NOT USED  
33 E. NOT USED  
34 F. Parts of this specification will reference articles within “The City of Madison Standard Specifications for Public  
35 Works Construction”.  
36 1. Use the following link to access the Standard Specifications web page:  
37 <http://www.cityofmadison.com/business/pw/specs.cfm>  
38 a. Click on the “Part” chapter identified in the specification text. For example if the specification  
39 says “Refer to City of Madison Standard Specification 210.2” click the link for Part II, the Part II  
40 PDF will open.  
41 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you  
42 to the referenced text.  
43

**1.3. RELATED DOCUMENTS**

- 45 A. The following documents shall be used as the basis for initiating and maintaining the SOV worksheets throughout  
46 the execution of this contract.  
47 1. Drawing documents and specifications (including general provisions) as provided with the bid set  
48 documents and any published addendums.  
49 2. Documents associated with revisions or clarifications to number 1 above after awarding of the contract,  
50 including but not limited to:  
51 a. Construction Bulletins  
52 b. Request for Information  
53 c. Approved Change Orders  
54 3. The latest daily/weekly Construction Progress Report  
55 4. Other specifications as identified in Section 1.2 above



1  
2 **1.4. BASIS OF VALUES**

- 3 A. The Contractor shall provide a breakdown of the Contract Sum in sufficient detail to assist the Architect and City  
4 Project Manager in evaluating Progress Payment Requests. The breakdown detail may require a labor and  
5 material breakdown for each division of work or trade or as directed by the CPM.  
6 B. The total sum of all items shall equal the Contract Sum.  
7

8 **PART 2 – PRODUCTS – THIS SECTION NOT USED**

9  
10 **PART 3 - EXECUTION**

11  
12 **3.1. AIA DOCUMENT G702 – APPLICATION AND CERTIFICATE FOR PAYMENT**

- 13 A. The Contractor shall use AIA Document G-702 Application and Certificate for Payment with each Progress  
14 Payment Request.  
15 B. Completely fill out the Project Information section as follows:  
16 1. TO OWNER; provide all owner related information as provided in the contract documents.  
17 2. PROJECT; provide all contract information including contract number, title and address.  
18 3. FROM CONTRACTOR; provide all contractor related information.  
19 4. VIA ARCHITECT; provide all the architect's related information including the architect's project reference  
20 number if different from the owners.  
21 5. Indicate the current APPLICATION NO., PERIOD TO date, and CONTRACT DATE.  
22 C. Completely fill out the Contractors Application for Payment section.  
23 1. Fill out lines 1 through 9 to reflect the current status of the contract through the payment date being  
24 requested.  
25 2. The City of Madison calculates retainage on Public Works Contracts as follows:  
26 a. In general, across the duration of the contract, 2.5% of the total contract sum, including change  
27 orders, is withheld for retainage as referenced from the City of Madison Standard Specification  
28 110.2:  
29 i. Beginning with Progress Payment 1, 5% retainage will be withheld until such time that 50%  
30 of the total contract sum has been paid out.  
31 ii. No additional retainage will be withheld after 50% of the total contract sum has been paid,  
32 unless additional change orders have been approved after the 50% milestone has been  
33 reached. Per City of Madison Standard Specification 110.2, additional retainage up to 10%,  
34 may be held in the event there are holds placed by Affirmative Action or liquidated  
35 damages by BPW.  
36 iii. Retainage for additional change orders after the 50% milestone will be withheld at the rate  
37 of 2.5% of the total cost of the change order.  
38 iv. Retainage is based on the change orders posted to the City's contract worksheet at the  
39 time the progress payment is processed.  
40 D. Completely fill out the Change Order Summary section. Only change orders that have been finalized and posted  
41 to the City of Madison's Application for Partial Payment worksheet may be itemized into the SOV documents.  
42 E. The Contractor shall sign and date the application and it shall be properly notarized.  
43 F. The Contractor shall not fill in any information in the Architects Certificate for Payment section.  
44

45 **3.2. AIA DOCUMENT G703 – CONTINUATION SHEET**

- 46 A. The Contractor shall use AIA Document G-703 Continuation Sheet to itemize his/her SOV for this contract.  
47 Provide additional sheets as necessary.  
48 B. Provide information in Column A (Item No.), Column B (Description of Work), and Column C (Scheduled Value) by  
49 any method that allocates portions of the total contract sum to various portions of the contracted work.  
50 Possible methods include combinations of the following:  
51 1. By division of work  
52 2. By contractor, sub-contractor, sub sub-contractor  
53 3. By specialty item or group  
54 4. Other methods of breakdown as may be requested by the City Project Manager or City Construction  
55 Manager at the pre-construction meeting.  
56 C. Provide total cost of the item/description of work including proportionate shares of profit and overhead related  
57 to the item.  
58

1 **3.3. INITIAL SCHEDULE OF VALUES SUBMITTAL**

- 2 A. The Contractor shall upload his/her initial SOV to the Project Management Web Site, Submittals Library, no later  
3 than five (5) working days after the Pre-construction Meeting.  
4 1. The initial SOV shall provide information in Column A (Item No.), Column B (Description of Work), and  
5 Column C (Scheduled Value) only.  
6 2. The level of detail shall be as described in section 3.2 above.  
7 B. The Project Architect (PA) and the City Project Manager (CPM) shall review the SOV as any other submittal and  
8 may require modifications to reflect additional detail as necessary.  
9 C. The Contractor shall resubmit the SOV as necessary until such time as the PPA and CPM have sufficient detail for  
10 assessing and approving future Progress Payment Applications.  
11 D. Progress Payment Application 1 will not be processed until such time as the Contractor has met this requirement  
12 regardless of the amount of work completed per the application.  
13

14 **3.4. SOV FOR PROGRESS PAYMENT REQUESTS**

- 15 A. The Contractor shall update the initial SOV with each Progress Payment Application as follows:  
16 1. Initial items and values as part of Section 3.3 above will not be adjusted once the original Schedule of  
17 Values submittal has been approved.  
18 2. Change orders shall be added as additional items and values at the bottom of the SOV as they become  
19 approved and posted to the City's contract worksheet. The value for each change order shall be the  
20 value indicated on the SOV and shall stand alone. Values shall not be split out or combined with other  
21 existing items with similar work descriptions on the original SOV.  
22 3. Fill out Columns D, E, F and G to properly reflect the work completed and materials received since the last  
23 Progress Payment Application.  
24 4. Only materials delivered and stored on the project site may be reflected on SOV progress updates.  
25 B. Provide updated G702 and G703 sheets with each Progress Payment application.  
26 C. See Specification 01 29 76 Progress Payment Procedures for additional information on submitting Progress  
27 Payment Applications.  
28  
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**END OF SECTION**

**SECTION 01 29 76**  
**PROGRESS PAYMENT PROCEDURES**

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4 PART 1 – GENERAL ..... 1  
5 1.1. SUMMARY ..... 1  
6 1.2. RELATED SPECIFICATIONS ..... 1  
7 1.3. RELATED DOCUMENTS ..... 1  
8 1.4. PROGRESS PAYMENT MILESTONES ..... 1  
9 1.5. PROGRESS PAYMENT SUBMITTAL ..... 4  
10 PART 2 - PRODUCTS - THIS SECTION NOT USED ..... 4  
11 PART 3 - EXECUTION ..... 4  
12 3.1. GENERAL CONTRACTOR PROCEDURE ..... 4  
13 3.2. PROJECT ARCHITECT PROCEDURE ..... 5  
14 3.3. CITY PROJECT MANAGER PROCEDURE ..... 5  
15

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19 A. The General Contractor (GC) shall review this and all related specifications prior to submitting progress payment  
20 requests.  
21 B. Progress payment requests (Partial Payment-PP) for this contract shall be uploaded digitally by the GC to the  
22 Project Management Web Site  
23 C. The Project Architect (PA) and City Project Manager (CPM) shall review and amend or approve the PP on the  
24 Project Management Web Site.  
25 D. After approval of the PP by the CPM, he/she shall forward the PP to the appropriate agencies for BPW  
26 contractual review and payment processing.  
27

**1.2. RELATED SPECIFICATIONS**

- 29 A. Section 01 26 63 Change Order (CO)  
30 B. Section 01 29 73 Schedule of Values  
31 C. NOT USED  
32 D. NOT USED  
33 E. NOT USED  
34 F. NOT USED  
35 G. NOT USED  
36 H. NOT USED  
37 I. NOT USED  
38 J. NOT USED  
39 K. NOT USED  
40 L. Section 01 78 36 Warranties  
41 M. NOT USED  
42 N. NOT USED  
43 O. NOT USED  
44

**1.3. RELATED DOCUMENTS**

- 46 A. The following documents shall be used when evaluating PP requests.  
47 1. Daily and weekly construction progress reports filed since the last payment request.  
48 2. Contractors Schedule of Values as updated from the last payment request. See Specification 01 29 73.  
49 3. Any document that may be required to be submitted for review and approval, as noted by the  
50 specifications listed in Section 1.2 above, or the Progress Payment Milestone Schedule in Section 1.4  
51 below, to achieve a required bench mark of contract progression or contract requirement.  
52

**1.4. PROGRESS PAYMENT MILESTONES**

- 54 A. City Engineering-Facility Management has developed the Project Payment Milestone Schedule (Section 1.4  
55 below) to assist the GC in providing required construction specific documentation and general contractual  
56 documentation in a timely manner.  
57 B. The Progress Payment Milestone Schedule is not an all inclusive list. Multiple agencies review progress payment  
58 requests and contract closeout requests. Missing, incomplete, or incorrect documentation for any agency may

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- be a cause for not processing progress payments. It shall be the sole responsibility of the Contractor for providing documentation as required or requested to the appropriate agencies.
- C. The milestone schedule is based on the contract total sum and shall be valid for most contracts. Milestone submittals will be required with whatever progress payment hits the percentage of contract total indicated in the schedule.
- D. The CPM shall review the milestone schedule with each progress payment request and at his/her option may elect to hold processing the progress payment until such time as the contractor has met the requirements for providing construction specific documentation.
- E. It shall be the General Contractors responsibility to comply with all BPW Contract Administration requirements and related deadlines as outlined in the Award Letter, Award Checklist, and Start Work Letter.

<b>Progress Payment (PP) Milestone Schedule</b>		
<b>Milestone Description</b>	<b>Due Before</b>	<b>Remarks</b>
BPW Contract Administration Documentation <ul style="list-style-type: none"> <li>• Workforce profiles</li> <li>• Best Value Contracting Documentation</li> <li>• Sub-contractors prequalification approval &amp; Affirmative Action plans</li> <li>• Other as may be required</li> </ul>	PP-1, or start work as applicable	<ul style="list-style-type: none"> <li>• For GC and Sub-contractors before PP-1 regardless of scheduling</li> <li>• Sub-contractors (if applicable), due 10 days before they may start work</li> <li>• Sub-contractors (if applicable), due 10 days before they may start work</li> </ul>
Required Construction Submittals/Administrative Documents <ul style="list-style-type: none"> <li>• Contractors Project Directory</li> <li>• Schedule of Values</li> <li>• Submittals Schedule</li> <li>• Waste Management Plan</li> <li>• Closeout Requirement Checklist</li> <li>• Warranty Checklist</li> </ul>	PP-1	References <ul style="list-style-type: none"> <li>• Specification 01 31 23</li> <li>• Specification 01 29 73</li> <li>• Specification 01 32 19</li> <li>• Specification 01 74 19</li> <li>• Specification 01 77 00</li> <li>• Specification 01 78 36</li> </ul>
Construction Progress Milestones <ul style="list-style-type: none"> <li>• Early submittals, per submittal schedule</li> <li>• Detailed Contract Schedules</li> </ul>	PP-1	See specifications for specific requirements <ul style="list-style-type: none"> <li>• Specification 01 32 19, Examples: concrete mix, structural steel, products with long lead times</li> <li>• See Specification 01 32 16</li> </ul>
General Construction Progress Requirements are all up to date <ul style="list-style-type: none"> <li>• Progress Schedules</li> <li>• Submittals/Re-submittals (ongoing)</li> <li>• Schedule of Values</li> <li>• Progress Reporting</li> <li>• LEED Documentation</li> <li>• Waste Management documentation</li> <li>• QMOs are being addressed and closed</li> <li>• Progress Cleaning</li> <li>• As-Built Drawings</li> </ul>	Each future PP	Verified with each Progress Payment Request <ul style="list-style-type: none"> <li>• Specification 01 32 16</li> <li>• Specification 01 33 23</li> <li>• Specification 01 29 73</li> <li>• Specification 01 32 26</li> <li>• All specifications with LEED documentation requirements</li> <li>• Specification 01 74 19</li> <li>• Specification 01 45 16</li> <li>• Specification 01 74 13</li> <li>• Specification 01 78 39</li> </ul>
<b>* All of the above are being updated on the Project Management Web Site as required</b>		
BPW Contract Administration Documentation <ul style="list-style-type: none"> <li>• Weekly payroll reports</li> <li>• Best Value Contracting Reports</li> </ul>	25% CT or PP 2	See 1.4.E above. <i>This progress payment will be with held by BPW for any missing contractual documentation.</i>

<b>Progress Payment (PP) Milestone Schedule</b>		
<b>Milestone Description</b>	<b>Due Before</b>	<b>Remarks</b>
<ul style="list-style-type: none"> <li>SBE Reports</li> </ul>		
Construction Progress Milestones <ul style="list-style-type: none"> <li>Construction/Contract Closeout Meeting #1</li> <li>Submittals/Re-submittals complete</li> </ul>	50% CT	<ul style="list-style-type: none"> <li>Specification 01 31 19</li> <li>Specification 01 33 23</li> </ul>
Operation and Maintenance (O & M) drafts	60% CT	<ul style="list-style-type: none"> <li>Specification 01 78 23</li> </ul>
Construction/Contract Closeout Meeting #2 <ul style="list-style-type: none"> <li>Construction closeout checklist</li> </ul>	70% CT	<ul style="list-style-type: none"> <li>Specification 01 31 19</li> <li>Specification 01 77 00</li> </ul>
BPW Contract Administration Documentation <ul style="list-style-type: none"> <li>Request Finalization Review from BPW</li> </ul>	80% CT	This is a recommendation to the GC and is not a requirement of this PP. <ul style="list-style-type: none"> <li>Specification 01 77 00</li> </ul>
Construction Progress Milestones <ul style="list-style-type: none"> <li>Operation and Maintenance (O &amp; M) finals, accepted</li> <li>All major QMO issues resolved</li> <li>As-Built Drawings, Division Trades ready for GC review</li> </ul>	80% CT	<ul style="list-style-type: none"> <li>Specification 01 78 23</li> <li>Specification 01 45 16; Items that could prevent occupancy</li> <li>Specification 01 78 39</li> </ul>
All of the following shall be completed for this PP: <ul style="list-style-type: none"> <li>Regulatory Inspections completed</li> <li>All QMO reports closed</li> <li>Demonstration and Training completed</li> <li>Attic Stock completed</li> <li>Final Cleaning</li> </ul>	90% CT	Contractor to determine the proper order of completion: <ul style="list-style-type: none"> <li>Governing ordinances and statutes</li> <li>Specification 01 45 16</li> <li>Specification 01 79 00</li> <li>Specification 01 78 43</li> <li>Specification 01 74 13</li> </ul>
Construction Closeout Procedures: <ul style="list-style-type: none"> <li>Letter of Substantial Compliance sent to BI and DHS as needed</li> <li>Certificate of Occupancy issued</li> <li>As-Built Drawings, finals, accepted</li> <li>City Letter of Substantial Completion</li> <li>Warranty letters dated and issued</li> </ul>	100% CT	<ul style="list-style-type: none"> <li>Specification 01 77 00</li> <li>Generated/Signed by the Architect</li> <li>Building Inspection</li> <li>Specification 01 78 39</li> <li>Signed by the City Engineer</li> <li>Specification 01 78 36</li> </ul>
<b>* Completion of this begins the one year warranty.</b>		
BPW Contract Administration Documentation Contract Closeout Procedures <ul style="list-style-type: none"> <li>Construction Closeout has been completed</li> <li>Contractor requests final payment of retainage upon receiving City Letter of Substantial Completion</li> <li>All BPW contractual requirements are verified</li> </ul>	Final	<ul style="list-style-type: none"> <li>Specification 01 77 00</li> <li>Contractor must provide any missing BPW Contractual Documentation</li> </ul>
<b>* Completion of this closes the contract but not the warranty period/bond.</b>		

**SECTION 01 78 36**  
**WARRANTIES**

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6 1.2. RELATED SPECIFICATIONS ..... 1  
7 1.3. DEFINITIONS ..... 1  
8 1.4. GENERAL CONTRACTORS RESPONSIBILITIES ..... 2  
9 PART 2 – PRODUCTS - THIS SECTION NOT USED ..... 3  
10 PART 3 - EXECUTION ..... 3  
11 3.1. WARRANTY CHECKLIST ..... 3  
12 3.2. LETTERS OF WARRANTY ..... 3  
13 3.3. STANDARD PRODUCT WARRANTY ..... 4  
14 3.4. FINAL WARRANTY SUBMITTAL ..... 4  
15 3.5. WARRANTY NOTIFICATION, RESPONSE, EXECUTION AND FOLLOW-UP ..... 4  
16

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19  
20 A. The purpose of this specification is to provide clear responsibilities and guide lines related to providing all  
21 Warranties and Guarantees related to the Work, workmanship, materials, equipment, and other such items  
22 required by the Construction Documents.  
23 B. Manufacturers’ disclaimers and limitations on product warranties do not relieve any contractor of the warranty  
24 on the Work that includes the product.  
25 C. Manufacturers’ disclaimers and limitations on product warranties do not relieve suppliers, manufacturers and  
26 any contractor required to provide special warranties under the contract documents.  
27

**1.2. RELATED SPECIFICATIONS**

- 28  
29 A. Section 01 29 76 Progress Payment Procedures  
30 B. NOT USED  
31 C. NOT USED  
32 D. NOT USED  
33 E. Other Divisions and Specifications that may address more specifically the requirements for Warranties related to  
34 the installation of all items and equipment installed under the execution of the Work.  
35

**1.3. DEFINITIONS**

- 36 A. NOT USED  
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43 B. Emergency Repair: The Owner or Owner Representative reserves the right to make emergency repairs as  
44 required to keep equipment or materials in operation or to prevent damage to property and injury to persons  
45 without voiding the contractors warranty or bond or relieving the contractor of his/her responsibilities during  
46 the warranty period.  
47 C. Installer: The company or contractor hired to install a finished product that was manufactured and supplied  
48 specifically for the Work within this contract. The Installer may or may not be the same company that supplied  
49 the product. See the definition for supplier.  
50 D. Supplier: Any company that makes a specific finished product for the Work from information within the Contract  
51 Documents. Examples of suppliers would include custom cabinets, steel stairs and railings, etc. A supplier would  
52 not be a company that distributes items manufactured by others such as an electrical or plumbing supplier.  
53 E. Warranty: A written guarantee from the manufacturer to the owner on the integrity of a product and its  
54 installation, and the manufacturers’ responsibility to repair or replace the defective product or components  
55 within a specified time from the date of ownership. Warranty may also be used interchangeably with  
56 Guarantee. The following warranty types may be part of any specification within the Work associated with the  
57 Construction Documents:

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1. Expressed Warranty: A warranty that provides specific repair or replacement for covered components of a product over a specified length of time.
  2. Implied Warranty: A warranty that is not stated explicitly by a seller or manufacturer that the product is merchantable and fit for the intended purpose.
  3. Standard Product Warranty: Preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner. Standard warranties may be for any amount of time but shall not be for anything less than one (1) year from the warranty date.
  4. Special Warranty: A written warranty required by the Contract Documents either to extend the time limit provided under a standard warranty or to provide greater rights to the Owner.
- F. Warranty Date: The effective date that begins all warranty periods required for products, installations, and work-manship associated with the execution of the Work for this contract. The Warranty Date shall be set by the CPM.
- G. Related Damages and Losses: When correcting failed or damaged Warranted Work, remove and reinstall (or replace if necessary) the construction that has been damaged as a result of the failure or the construction that must be removed and replaced to obtain access for the correction of Warranted Work.
- H. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected reinstate the warranty by a new written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation unless specifically noted otherwise in a specification.
- I. Replacement Cost: All costs that may be associated with Work being replaced under warranty including but not limited to the following:
1. Related damages and losses
  2. Labor, material and equipment
  3. Permits and inspection fees
  4. This shall be regardless of any benefit the Owner may have had from the Work through any portion of its anticipated useful service life.
- J. Replacement Work: All materials, products, required labor, and equipment necessary to replace failed or damaged warranted to an acceptable condition that complies with the requirements of the original Construction Documents.
- K. Owners Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, and remedies.
1. Rejection of Warranties: The Owner reserves the right to reject any warranty and to limit the selection of products with warranties not in conflict with the requirements of the contract documents.
  2. Where the Contract Documents require a Special Warranty or similar commitment on the Work or product, the Owner reserves the right to refuse acceptance of the Work until the Contractor presents evidence the entities required to countersign such required commitments have done so.

40 **1.4. GENERAL CONTRACTORS RESPONSIBILITIES**

- 41 A. The General Contractor (GC) shall be responsible to remedy, at his/her expense, any defect in the Work and any  
42 damage to City owned or controlled real or personal property when the damage is a result of:
- 43 1. The GC's failure to conform to Contract Document requirements.
    - 44 a. Any substitutions not properly approved and authorized may be considered defective.
    - 45 2. Any defect in workmanship, materials, equipment, or design furnished by the GC or Sub-contractors.
  - 46 B. All warranties as described in this specification and these Contract Documents shall take effect on the date  
47 established by the CPM, as noted in Section 1.3F above.
    - 48 1. All warranties shall remain in effect for one (1) year thereafter unless specifically stated otherwise in the  
49 Contract Documents or where standard manufacturer warranties are greater.
  - 50 C. The GC's warranty with respect to Work repaired or replaced, including restored or replaced Work due to  
51 damage, will run for one (1) year from the date of Owner Acceptance of said repair or replacement.
    - 52 1. This shall be regardless of any benefit the Owner may have had from the Work through any portion of its  
53 anticipated useful service life.
  - 54 D. Warranty Response
    - 55 1. See Section 3.5 of this specification.

**PART 2 – PRODUCTS - THIS SECTION NOT USED**

**PART 3 - EXECUTION**

**3.1. WARRANTY CHECKLIST**

- A. All contractors shall be responsible for reviewing the drawings and specifications within their Divisions of Work to provide a complete and comprehensive list of all Warranty Requirements to the GC.
- B. Each list shall indicate the title (and plan identifier when applicable) of the warranted item, the associated specification of the warranted item, the terms of the warranty (years), and a column to verify the item has been turned in and completed.
- C. The GC shall be responsible for all of the following:
  - 1. Consolidating all the warranty lists into one master Warranty Checklist.
    - a. The checklist shall be in a tabular data format similar to the sample below.
  - 2. Upload the completed checklist to the Submittal Library on the Project Management Web Site for review.
  - 3. Resubmit the schedule as needed after initial reviews have been completed.
- D. The GC shall work with all contractors to amend the Warranty Checklist throughout the execution of the project based on changes and modifications as necessary.

<u>Title</u>	<u>Specification</u>	<u>Terms</u>	<u>Completed</u>
Overhead Door Operator	08 36 00	MFR 2yr	
Exterior Bench and Trash Receptacles	12 93 00	MFR 3 year warranty on finish	
Kitchen Sink (SK-1)	22 42 00	MFR 5 year	
Disposal (D-1)	22 42 00	MFR 7 year parts and in-home service	
Toilet (WC-1)	22 42 00	MFR 1 year limited	

**3.2. LETTERS OF WARRANTY**

- A. All letters of warranty shall be in a typed letter format and provide the following information:
  - 1. The letter shall be on official company stationary including company name, address, and phone number.
  - 2. Indicate project name, contract number, and contract address the warranty is for on the reference line.
  - 3. Provide a description of the warranty(ies) being provided.
    - a. Include Division, Trade, or Specification information as necessary.
    - b. Only combine warranties of related Divisional Work together. Create new letters for additional Divisions as necessary.
  - 4. Indicate the effective Warranty Date. As noted in Section 1.3.F above, the Warranty Date shall be the date the Certificate of Substantial Completion was signed by the City Engineer.
  - 5. Contractor Letters of Warranty shall only be signed by a principal officer of the company.
  - 6. After signing the letter provide the GC with a high quality color scanned image in PDF format and the original signed letter.
- B. The GC shall be responsible for the Final Warranty submittal as identified in Section 3.4 below.
- C. The GC shall obtain letters of warranty from all of the following:
  - 1. The General Contractor shall provide warranty letters for all Work that was self performed under the contract documents, identify all trades or Divisions of Work.
  - 2. All Sub-contractors shall provide warranty letters for Work performed under the contract documents; identify all trades or Divisions of Work.
  - 3. Suppliers, as required by other specifications within the Construction Documents where the manufacture of a specific product unique to the Work of this contract was required.
    - a. The terms and conditions of the Supplier Letter of Warranty shall be as defined by the specifications associated with the Work but shall not be less than the industry standard of repair, or replace defective materials and workmanship within one (1) year of the warranty date.
    - b. When the supplier is also the installer a single written letter may be submitted identifying both the warranty for the manufacture of the product and the warranty for the installation of the product.
  - 4. Installers as required by other specifications within the Construction Documents where the installation of a specific product unique to the Work of this contract was required.
    - 1. The terms and conditions of the Installer Letter of Warranty shall be as defined by the specifications associated with the Work but shall not be less than the industry standard of repair,



- 1 or replace defective materials and workmanship associated with the installation of the product  
2 within one (1) year of the warranty date.  
3 5. Special Letters of Warranty shall be required from any contractor, supplier, installer or manufacturer who  
4 agrees to provide warranty services required by any Division Specification in excess of their Standard  
5 Product Warranty.  
6

7 **3.3. STANDARD PRODUCT WARRANTY**

- 8 A. All contractors shall be responsible for collecting and providing copies of all standard product warranties for  
9 commercially available products purchased and installed under this contract.  
10 B. Only one copy of the manufacturers' standard warranty needs to be submitted as representative for all  
11 quantities of the same model number used throughout the Work.  
12 C. Provide the manufacturers certificate, letter, or other standard documentation for each Standard Product  
13 Warranty submitted as follows:  
14 1. Whenever possible a PDF version of the document shall be used.  
15 a. If a PDF version is used all additional information shall be completed using simple PDF editing  
16 tools such as text boxes, highlight, etc.  
17 b. If a PDF version is not available and an original document is furnished the additional information  
18 shall be neatly hand written and highlighted on the document in such a fashion so that it does not  
19 obscure any part of the written warranty.  
20 2. Provide the following additional information on each warranty document:  
21 a. Contract warranty date.  
22 b. Provide the manufacturer name and model number of the product if not specified within the  
23 warranty.  
24 i. Where the manufacturer name and model number is specified within the warranty it shall  
25 be highlighted for visibility.  
26 c. Provide the plan identifier (LAV-1, WC-2, etc) when applicable.  
27 D. Each completed warranty shall be saved as a digital PDF. The file shall be named using the specification number  
28 and item description. I.E. 22 42 00 Toilet (WC-1).pdf  
29 a. Where an original certificate was furnished provide a high quality colored scan of the completed  
30 document with the additional information. Save the scanned image in PDF format and use the  
31 same naming convention as indicated above.  
32 E. Provide all PDF files and any original documents to the GC for final consolidation to be provided to the Owner.  
33

34 **3.4. FINAL WARRANTY SUBMITTAL**

- 35 A. The GC shall receive all required warranties (digital PDF and any original documents) from all contractors,  
36 suppliers, installers and manufacturers.  
37 B. The GC shall inventory all received warranties with the Warranty Submittal List to ensure all required warranties  
38 have been received and all warranty periods are correct according to the specifications.  
39 C. Provide with each Operation and Maintenance Manual a complete copy of any associated warranty.  
40 D. Scan all warranties into a single organized electronic PDF file as follows:  
41 1. Organize the PDF file into an orderly sequence based on the table of contents of the Specifications.  
42 2. Provide a typed Table of Contents for the entire file at the front of the document.  
43 3. Provide bookmarks and links to each individual PDF to enable quick navigation through the PDF  
44 document.  
45 E. Upload the warranty submittal to the appropriate document library on the Project Management Web Site for  
46 review by the PA and CPM.  
47 F. Correct any deficiencies or omissions and resubmit as necessary.  
48

49 **3.5. WARRANTY NOTIFICATION, RESPONSE, EXECUTION AND FOLLOW-UP**

- 50 A. Warranty Notification:  
51 1. The City of Madison, Project Management Web Site, uses an email notification system for all warranty  
52 related issues. The GC will be required to provide, and keep current during the warranty period, a  
53 minimum of two (2) email addresses and phone numbers of current employees to receive email  
54 notifications and provide response regarding Work associated with these construction documents.  
55 a. In the event a Warranty Issue is deemed by the City of Madison to be an emergency, the GC shall  
56 first receive a phone call with a follow-up email from the Project Management Web Site.  
57 b. The Contract Closeout-Warranty Issue Library on the Project Management Web Site uses a form  
58 for each warranty issue that is logged into the system.

- 1 i. The GC shall open each warranty issue form, review the issue description and any attached
- 2 documentation or photos.
- 3 ii. The GC shall also notify any other sub-contractor, supplier, or installer that may be
- 4 required to review the warranty issue.
- 5 B. Warranty Response:
- 6 1. The GC shall upon notification by the City of Madison provide warranty response as follows:
- 7 a. Critical Systems or equipment: Where damage to equipment and other building components, or
- 8 injury to personnel is probable provide immediate emergency shut-down information and an on-
- 9 site response team as soon as possible but in no case shall on-site response exceed 24 hours.
- 10 b. For non-critical responses where damage or injury is unlikely provide on-site response no later
- 11 than the next business day.
- 12 c. Where Technical Assistance support is part of the written warranty provide all assistance
- 13 necessary via phone, text, or internet systems as indicated by the warranty. If issues cannot be
- 14 resolved provide on-site response no later than the next business day.
- 15 d. If the request cannot be supported in sufficient time as outlined above the Owner (or Owner
- 16 Representative) reserves the right to contact other contractors or service companies having
- 17 similar capability to expedite the repair or replacement and shall invoice all associated costs to
- 18 the Owner back to the GC.
- 19 C. Warranty Execution:
- 20 1. The GC shall provide all repairs or replacements as necessary to restore broken or damaged Work to the
- 21 original level of acceptance as intended by the Contract Documents.
- 22 a. Provide all materials, equipment, products, and labor necessary to complete the repair or
- 23 replacement associated with the Warranty Issue.
- 24 b. Provide all cleaning services as may be required before, during, and after the repair or
- 25 replacement
- 26 c. Provide any protection necessary for existing construction as per Specification 01 76 00 Protecting
- 27 Installed Construction
- 28 d. Provide new letters of warranty when required.
- 29 D. Warranty Follow-up:
- 30 1. Logged Warranty Issues:
- 31 a. The GC shall provide complete documented responses of all logged Warranty Issues. Responses
- 32 shall provide a description of work completed, by who, inclusive dates, and photos of completed
- 33 or repaired work.
- 34 i. Provide call back response if work is not acceptable.
- 35 b. The City Project Manager shall review the submitted response documentation and do a field
- 36 inspection if necessary.
- 37 i. If work is not acceptable, contact GC to review details and expectations of the repair as
- 38 needed.
- 39 ii. If work is acceptable close the Warranty Issue.
- 40 2. Quarterly Warranty Reviews:
- 41 a. The GC shall be responsible for scheduling quarterly on-site review with all of the following:
- 42 i. City Project Manager, and other City staff as needed
- 43 ii. Owner and Owner Tenant Representative
- 44 iii. Plumbing, Heating, Electrical Sub-contractors
- 45 iv. Other Sub-contractors that may be responsible for open Warranty issues
- 46 b. Quarterly reviews shall be scheduled at 3 months, 6 months, and 11 months after the effective
- 47 date of the warranty. The review meetings shall:
- 48 i. Review the status of all open Warranty Issues, determine course of action and estimated
- 49 date of completion.
- 50 ii. In the appropriate quarter, provide shut-down, start-up, testing, and training of off-season
- 51 equipment as required by the contract documents.
- 52 iii. The 11th month review shall review all open Warranty Issues, final plan for resolution, and
- 53 all Warranty Issues where a new letter of warranty may have been issued.
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**END OF SECTION**

**SECTION 07 92 00  
 JOINT SEALANTS**

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**PART 1 – GENERAL**

**1.1. RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2. SUMMARY**

- A. Section includes
1. Silicone joint sealants
  2. Existing perimeter caulking at Historic windows is considered a Category II Non-Friable ACM and must be in good condition. Therefore it cannot be subjected to sanding, grinding or abrading by mechanical methods.
  3. Workers removing ASBESTOS CONTAINING CAULK AT EXISTING HISTORIC WINDOWS ON THIS PROJECT SHALL BE FULL ASBESTOS CERTIFIED ONLY. THE CONTRACTOR SHALL ALSO COORDINATE DIRECTLY WITH ANY AND ALL REGULATORY AGENCIES HAVING JURISDICTION OVER THE LICENSING, REMOVAL, PERMITTING, INSPECTION AND DISPOSAL OF ASBESTOS WASTE MATERIALS.

**1.3. PREINSTALLATION MEETINGS**

- A. Preinstallation Conference: Conduct conference at Project site.

**1.4. ACTION SUBMITTALS**

- A. Product Data: For each joint-sealant product.  
 B. Sustainable Design Submittals:
1. Product Data: For sealants, indicating VOC content.
  2. Laboratory Test Reports: For sealants, indicating compliance with requirements for low-emitting materials.
- C. Samples: For each kind and color of joint sealant required.  
 D. Joint-Sealant Schedule: Include the following information:
1. Joint-sealant application, joint location, and designation.
  2. Joint-sealant manufacturer and product name.
  3. Joint-sealant formulation
  4. Joint-sealant color

1 **1.5. INFORMATIONAL SUBMITTALS**

- 2 A. Product test reports  
3 B. Preconstruction laboratory test reports.  
4 C. Preconstruction field-adhesion-test reports  
5 D. Field-adhesion-test reports.  
6 E. Sample warranties.  
7

8 **1.6. QUALITY ASSURANCE**

- 9 A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.  
10

11 **1.7. PRECONSTRUCTION TESTING**

- 12 A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples  
13 of materials that will contact or affect joint sealants.  
14 1. Adhesion Testing: Use ASTM C 794 to determine whether priming and other specific joint preparation  
15 techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.  
16 2. Compatibility Testing: Use ASTM C 1087 to determine sealant compatibility when in contact with glazing  
17 and gasket materials.  
18 3. Stain Testing: Use ASTM C 1248 to determine stain potential of sealant when in contact with stone and  
19 masonry substrate.  
20 B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint  
21 substrates Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1.1  
22 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.  
23

24 **1.8. WARRANTY**

- 25 A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with  
26 performance and other requirements specified in this Section within specified warranty period.  
27 1. Warranty Period: Two years from date of Substantial Completion.  
28 B. Special Manufacturer's Warranty: Manufacturers agrees to furnish joint sealants to repair or replace those joint  
29 sealants that do not comply with performance and other requirements specified in this Section within specified  
30 warranty period.  
31 1. Warranty Period: Five years from date of Substantial Completion.  
32

33 **PART 2 - PRODUCTS**

34  
35 **2.1. JOINT SEALANTS, GENERAL**

- 36 A. VOC Content: Sealants and sealant primers shall comply with the following:  
37 1. Architectural sealants shall have a VOC content of 250 g/L or less.  
38 2. Sealants and sealant primers for nonporous substrates shall have a VOC content of 250 g/L or less.  
39 3. Sealants and sealant primers for porous substrates shall have a VOC content of 775 g/L or less  
40 B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.  
41

42 **2.2. NONSTAINING SILICONE JOINT SEALANTS**

- 43 A. Nonstaining Joint Sealants: No staining of substrates when tested according to ASTM C 1248  
44 B. Silicone, Nonstaining, S, NS, 50, NT: Nonstaining, single-component, nonsag, plus 50 percent and minus 50  
45 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grad NS,  
46 Class 50, Use NT.  
47 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that  
48 may be incorporated into the Work include, but are not limited to the following:  
49 a. Dow Corning Corporation  
50 b. Pecora Corporation  
51 c. Sika Corporation; Joint Sealants.  
52 d. Tremco Incorporated.  
53

54 **2.3. JOINT-SEALANT BACKING**

- 55 A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and  
56 density to control sealant depth and otherwise contribute to producing optimum sealant performance.  
57 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that  
58 may be incorporated into the Work include, but are not limited to the following:

- 1 a. Alcot Plastics Ltd.
- 2 b. BASF Corporation; Construction Systems.
- 3 c. Construction Foam Products; a division of Nomaco, Inc
- 4 B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.
- 5 C. Preformed Expanding Foam Sealant (JS-EXP): Backerseal (Greyflex) by Emseal.
- 6 1. Secondary Seal and Backer for Sealant: Size and application as indicated.
- 7 2. Refer to Drawings for application and installation notes.
- 8

9 **2.4 MISCELLANEOUS MATERIALS**

- 10 A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint
- 11 substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- 12 B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing
- 13 materials.
- 14 C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to
- 15 joints.
- 16

17 **PART 3 - EXECUTION**

18

19 **3.1. PREPARATION**

- 20 A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-
- 21 sealant manufacturer's written instructions and the following requirements:
- 22 1. Remove laitance and form-release agents from concrete.
- 23 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm
- 24 substrates, or leave residues capable of interfering with adhesion.
- 25 B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by
- 26 preconstruction joint-sealant-substrate tests or prior experience.
- 27 C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.
- 28

29 **3.2. INSTALLATION OF JOINT SEALANTS**

- 30 A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instruction for products
- 31 and applications indicated, unless more stringent requirements apply.
- 32 B. Install sealant backings of kind indicated to support sealants during application and at position required to
- 33 produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum
- 34 sealant movement capability.
- 35 C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of
- 36 joints.
- 37 D. Preformed Expanding Foam Sealant:
- 38 1. For installation behind liquid-sealant and backer-rod:
- 39 a. Set backerseal sufficiently deep into joint to allow for installation of properly sized backer-rod set
- 40 at its appropriate depth.
- 41 2. For installation behind directly-applied sealant:
- 42 a. Set backerseal back from the face of the joint to maintain effective joint geometry of 1 to 2.
- 43 b. Before applying primary wet sealant, ensure that backerseal is firmly expanded in the joint.
- 44 c. Primary sealant shall be well tooled against backerseal.
- 45 E. Install sealants using proven techniques that comply with the following and at the same time backings are
- 46 installed:
- 47 1. Place sealants so they directly contact and fully wet joint substrates.
- 48 2. Completely fill recesses in each joint configuration.
- 49 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant
- 50 movement capability.
- 51 F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool
- 52 sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in
- 53 writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
- 54 1. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.
- 55

56 **3.3. FIELD QUALITY CONTROL**

- 57 A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
- 58 1. Extent of Testing: Test completed and cured sealant joints as follows:

- 1 a. Perform 5 tests for the first 1000 feet of joint length for each kind of sealant and joint substrate.
- 2 2. Test Method: Test joint sealants according to Method A, Field-applied Sealant Joint Hand Pull Tab, in
- 3 Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
- 4 B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or
- 5 noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to
- 6 adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until
- 7 test results prove sealants comply with indicated requirements.

8 **3.4. JOINT-SEALANT SCHEDULE**

- 9 A. Joint-Sealant Application: Exterior joints at perimeter of historic windows:
- 10 1. Joint Locations:
- 11 a. Joints between stone or masonry exterior window and frames and/or subframes.
- 12 2. Joint-Sealant: Silicone, nonstaining, S, NS, 50, NT.
- 13 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
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**END OF SECTION**

**SECTION 09 91 13  
EXTERIOR PAINTING**

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19

**PART 1 – GENERAL**

**1.1. RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2. SUMMARY**

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
1. Historic Windows
  2. Chimney Grilles

**1.3. DEFINITIONS**

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.  
B. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.  
C. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.  
D. MPI Gloss Level 5: 35-70 units at 60 degrees, according to ASTM D 523.  
E. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.  
F. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

**1.4. ACTION SUBMITTALS**

- A. Product Data: For each type of product, include preparation requirements and application instructions.  
1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.  
B. Sustainable Design Submittals:  
1. Product Data: For paints and coatings, indicating VOC content.  
C. Samples: For each type of paint system and each color and gloss of topcoat.

**1.5. QUALITY ASSURANCE**

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standard for materials and execution.  
1. Architect will select one surface to represent surfaces and conditions for application of each paint system.  
a. Vertical and Horizontal surfaces: Provide samples of at least 1 sq. ft.  
b. Other Items: Architect will designate items or areas required.  
2. Final approval of color selections will be based on mockups.  
a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.

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**PART 2 - PRODUCTS**

**2.1. MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work:
  - 1. Benjamin Moore & Co.
  - 2. Hallman Lindsay Paints, Inc.
  - 3. PPG: including their Dulux/ICI Paints, AkzoNobel.
  - 4. Sherwin-Williams Company (The), including their Valspar range.
- B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Exterior Painting Schedule for the paint category indicated.

**2.2. PAINT, GENERAL**

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:
  - 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  - 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. VOC Content: For field applications, paints and coatings shall comply with VOC content limits of authorities having jurisdiction and the following VOC content limits:
  - 1. Flat Paints and Coatings: 50 g/L.
  - 2. Nonflat Paints and Coatings: 50 g/L.
  - 3. Dry-fog Coatings: 150 g/L.
  - 4. Primers, Sealers and Undercoaters: 100 g/L.
  - 5. Rust-Preventive Coatings: 100 g/L
  - 6. Zinc-Rich Industrial Maintenance Primers: 100 g/L.
  - 7. Pretreatment Wash Primers: 420 g/L.
  - 8. Shellacs, Clear: 730 g/L.
  - 9. Shellacs, Pigmented: 550 g/L.
- D. Colors: As indicated in a color schedule.

**PART 3 - EXECUTION**

**3.1. EXAMINATION MOCKUP REPORT**

- A. Window existing coatings were largely intact, however minor oxidation and peeling of existing coatings does exist. The overall finish is also indicative of substantial fading and checking from weatherization.
- B. The current amount of coating applications appears to be a minimum of (5) coating layers over the primer on this particular window. Removal of the coatings to the primer application took (2) separate applications of Peel Away left to work overnight approximately 18 hours between applications. Following the second application the finish coatings were completely dissolved to the primer level. The primer was left largely intact following the second stripper application.
- C. Upon completion of the second stripper application the remaining substrate was neutralized and prepared utilizing SSPC SP-2 Hand Tool Cleaning followed by SSPC SP-1 Solvent wiping. This removed the remaining loose paint/stripper material on the sash and mullion substrates prior to primer application.

**3.2. PREPARATION**

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Complete removal (100%) of existing window perimeter sealants and re-installation with a high-quality urethane. The complete removal should be done to create sealant bond between masonry and the metal window frame.



- 1 C. Some areas of removal may require the pre-installation of an appropriate sized closed cell polyurethane backer  
2 rod.  
3 1. All installed sealant bead depth should not exceed 50% of the width of the joint under any circumstances.  
4 2. All installed sealant bead should be tooled in acceptable aesthetic and functional manner for optimum  
5 performance of the sealant joint.  
6 D. The installation of the sealant should follow directly after final finish coat application.  
7

### 8 3.3. APPLICATION

- 9 A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."  
10 B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking,  
11 runs, sage, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.  
12 C. Primer application.  
13 1. Examination Mockup used Sherwin-Williams, 646-100 HS Epoxy Primer B58-600 Series.  
14 2. Primer shall be installed at 7-10 mils WFT final mils, yield 5-8 mils DFT.  
15 3. Primer shall be tinted to 50% formula of selected color.  
16 4. Primer installation shall only be completed during compliance with environmental conditions required  
17 per the application conditions of manufacturer's requirements.  
18 D. Intermediary Coat.  
19 1. Examination Mockup used Corothane 1 HS Aliphatic Urethane Finish  
20 2. Intermediary coat shall be installed at 3.5-5.0 mils WFT final mils, yield 2.0-3.0 mils DFT.  
21 3. The first intermediary application shall be tinted to 75% formula of final color chosen for this coat. This  
22 allows a full visual representation of coverage due to color difference.  
23 4. The second intermediary application shall be applied at the same mils WFT and DFT with 100% color  
24 formula producing final finish color.  
25 E. A Color Step Mockup on an existing window shall be installed and accepted by the owner prior to moving  
26 forward with project.  
27 1. This Color Step Mockup shall remain in place for the duration of the entire project and this window will  
28 be completed last.  
29 2. This mockup shall serve as the standard and allow verification of coats applied due to color differences.  
30 All applied coats shall be verified by the owner's representative prior to proceeding to the next applied  
31 coat.  
32 F. Final DFT shall be verified onsite with the use of an Ultrasonic Coating Thickness Gauge.  
33 1. Use Defelsko PosiTector 200 or like device, testing to an ASTM, SSPC or NACE standard for coating  
34 thickness.  
35 a. The gauge should be able to separate the individual coats and provide dry mil reading thicknesses.  
36 b. If the installation contractor cannot provide this service, this contractor shall be required to  
37 provide third party coatings inspection with a full written report verifying proper DFT and coats  
38 applied.  
39 G. All onsite verification, if not completed by third parties, shall be conducted in the presences of the owner's  
40 representative.  
41 1. All verification shall take place on each individual window prior to moving forward to the next window.  
42 2. Each window opening shall require final acceptance upon completion in writing by the owner's  
43 representative. A punch list shall be completed as each window is completed.  
44

### 45 3.4. CLEANING AND PROTECTION

- 46 A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by  
47 cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.  
48 B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted  
49 surfaces.  
50

### 51 3.5. EXTERIOR PAINTING SCHEDULE

- 52 A. Steel and Iron Substrates – Upgraded Epoxy/Urethane System  
53 1. Primer: B58W00610 - Macropoxy® 646 Fast Cure Epoxy, min. 5 mils dft, MPI #108  
54 2. Two (2) Coats: B65W00015 - Corothane® I-Aliphatic Moisture Cure Urethane, 2-3 mils dft per coat, MPI  
55 #203  
56 3. Exterior Paint color: Benjamin Moore: Lehigh Green, Color Ref: HC-131.  
57

**END OF SECTION**