

**BIDDING DOCUMENTS**

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**SPECIFICATIONS**

**GATES OF HEAVEN FLOOR REPLACEMENT  
CONTRACT# 8893**

**GATES OF HEAVEN  
300 E GORHAM STREET  
MADISON WISCONSIN**

APRIL 22, 2020

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**SECTION 01 73 29  
CUTTING AND PATCHING**

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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 21 A. This Section includes general procedural requirements for cutting and patching including, but not limited to the  
22 following:  
23 1. Typical areas of cutting and patching for this project may include cutting and patching of metal deck and  
24 wall for enlarging scuppers.  
25 2. Examination  
26 2. Preparation  
27 3. Performance  
28 4. Cleanup and Restoration  
29  
30

**1.2. RELATED SPECIFICATION SECTIONS-THIS SECTION NOT USED**

**1.3. DEFINITIONS**

- 34 A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.  
35 B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other  
36 Work.  
37

**1.4. QUALITY ASSURANCE**

- 39 A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying  
40 capacity or load-deflection ratio.  
41 B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results  
42 in reducing their capacity to perform as intended or that may result in increased maintenance or decreased  
43 operational life or safety.  
44 C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that  
45 could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that  
46 may result in increased maintenance or decreased operational life or safety. Some miscellaneous elements  
47 include the following:  
48 1. Water, moisture, or vapor barriers  
49 2. Membranes and flashings  
50 3. Exterior curtain-wall construction  
51 4. Equipment supports  
52 5. Piping, ductwork, vessels, and equipment  
53 6. Noise and vibration control elements and systems  
54 D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and  
55 patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that  
56 would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has  
57 been cut and patched in a visually unsatisfactory manner.

1 **1.5. WARRANTY**

- 2 A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting  
3 and patching operations, by methods and with materials so as not to void existing warranties.  
4 B. All cutting and patching work performed under this contract shall be warranted like new work as defined by the  
5 Specification governing the work.  
6

7 **PART 2 - MATERIALS**

8  
9 **2.1. GENERAL**

- 10 A. Comply with requirements specified within other sections of the Specifications.  
11 B. In-Place Materials: Use materials identical to existing in-place materials. For exposed surfaces use materials that  
12 visually match in-place adjacent surfaces to the fullest extent possible.  
13 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the  
14 visual and functional performance of in-place materials.  
15

16 **PART 3 - EXECUTION**

17  
18 **3.1. EXAMINATION**

- 19 A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.  
20 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including  
21 compatibility with in-place finishes or primers.  
22 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.  
23

24 **3.2. PREPARATION**

- 25 A. Temporary Support: Provide temporary support of Work to be cut.  
26 B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection  
27 from adverse weather conditions for portions of Project that might be exposed during cutting and patching  
28 operations. If the failure to protect, or the lack of protection, of in-place construction and/or existing conditions  
29 results in damage, the contractor shall be responsible for repair to previous condition.  
30 C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.  
31 D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be  
32 removed, relocated, or abandoned, bypass such services/systems before cutting to eliminate interruption to  
33 occupied areas.  
34

35 **3.3. PERFORMANCE**

- 36 A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the  
37 earliest feasible time, and complete without delay.  
38 1. Cut in-place construction to provide for installation of other components or performance of other  
39 construction, and subsequently patch as required to restore surfaces to their original condition.  
40 B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations,  
41 including excavation, using methods least likely to damage elements retained or adjoining construction. If  
42 possible, review proposed procedures with original Installer; comply with original Installer's written  
43 recommendations.  
44 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and  
45 chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance  
46 of adjacent surfaces. Temporarily cover openings when not in use.  
47 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.  
48 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.  
49 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by  
50 cutting and patching operations.  
51 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap,  
52 valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other  
53 foreign matter after cutting.  
54 6. Proceed with patching after construction operations requiring cutting are complete.  
55 C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following  
56 performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and  
57 comply with installation requirements specified in other Sections.

1 D. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of  
2 installation.  
3

4 **3.4. CLEANUP AND RESTORATION**

- 5 A. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a  
6 manner that will eliminate evidence of patching and refinishing.
- 7 1. Clean piping, conduit, and similar features before applying paint or other finishing materials.
  - 8 2. Restore damaged pipe covering to its original condition.
  - 9 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another,  
10 patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish,  
11 color, texture, and appearance. Remove in-place floor and wall coverings and replace with new  
12 materials, if necessary, to achieve uniform color and appearance.
  - 13 4. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch  
14 and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats  
15 until patch blends with adjacent surfaces.
  - 16 5. Ceilings: Patch, repair, or re-hang in-place ceilings as necessary to provide an even-plane surface of  
17 uniform appearance.
  - 18 6. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight  
19 condition.
  - 20 7. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint,  
21 mortar, oils, putty, and similar materials.
  - 22 8. Any smoke and fire caulking that has been disturbed must be replaced by the Contractor as required by  
23 Code.  
24

25 **END OF SECTION**  
26  
27

**SECTION 00 31 46  
PERMITS**

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10  
11 **PART 1 – GENERAL**

12  
13 **1.1. SUMMARY**

- 14 A. Each project has varying requirements for permits, inspections, and fees based on the scope, size, and location of  
15 the project.  
16 B. The City of Madison (Owner) is subject to all permits, inspections and associated fees for construction,  
17 demolition, utility connection, storm water management, and other similar requirements that may be required  
18 to complete the scope of work associated with these contract documents.  
19 C. The General Contractor (GC) shall be responsible for obtaining all permits, inspections and paying for all  
20 associated fees unless specifically identified within this specification.  
21

22 **1.2. REFERENCES**

- 23 A. The following references are not intended to be all inclusive. It shall be the GC’s responsibility to determine all  
24 requirements based on the scope of work in the contract documents.  
25 B. City of Madison Ordinances: Review all ordinances that may require a permit or fee that may be connected with  
26 a required permit. Contact the following City Agencies to determine the exact requirements during bidding  
27 1. Building Inspection  
28 2. Zoning  
29 3. Engineering  
30 4. Water Utility  
31 5. Traffic Engineering  
32 6. Others as may be specified by the contract documents.  
33 B. State Statutes  
34 C. Other Regulatory Regulations  
35 D. Other Agencies or companies that may have related requirements  
36 1. Madison Metropolitan Sewerage District  
37 2. Local gas and electric utility companies  
38 3. Other utility companies  
39

40 **1.3. GENERAL CONTRACTORS REQUIREMENTS**

- 41 A. The GC shall be responsible for all of the following:  
42 1. Execute application for all required permits as may be required by the scope of work described within the  
43 contract documents.  
44 2. Paying all fees associated with the application of any required permits.  
45 3. Scheduling all required inspections that may be conditions of any required permits.  
46 B. The GC shall provide high quality scanned images of all required permits and inspections to the City Project  
47 Manager (CPM).  
48

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

50  
51 **PART 3 – EXECUTION – THIS SECTION NOT USED**

52  
53  
54  
55 **END OF SECTION**  
56

**SECTION 01 25 13**  
**PRODUCT SUBSTITUTION PROCEDURES**

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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 17 A. The City of Madison uses a specific list of preferred products for various specification items to establish  
18 standards of quality, utility, and appearance required.  
19 B. The City of Madison will not allow substitutions for specified Products except as follows:  
20 1. The Product is no longer produced or the product manufacturer is no longer in business.  
21 2. The manufacturer has significantly changed performance data, product dimensions, or other such design  
22 criteria for the specified Product(s).  
23 3. Products specified by naming one or more Products or manufacturer’s and “or approved equal” or  
24 “approved equivalent.”  
25 C. The City of Madison will not allow substitutions for specified Products as follows:  
26 1. For Products specified by naming only one Product and manufacturer, no substitute product will be  
27 considered.  
28 2. For Products specified by naming several Products or manufacturers select any one of the products or  
29 manufacturers named, which complies with the specifications. No substitute product will be considered.  
30 D. Request for substitutions from any party other than the General Contractor (GC) will not be accepted.  
31

**1.2. RELATED SPECIFICATIONS**

- 32 A. Section 01 33 23 Submittals  
33  
34

**PART 2 – PRODUCTS**

**2.1. SUBSTITUTION REQUEST FORM**

- 37 A. During bidding all contractors (General and Sub-contractors) and suppliers of materials or products shall provide  
38 hard copy of the Substitution Request form and all required attachments directly to the Project Engineer.  
39 B. After bidding only the GC shall submit a request and shall use the form provided by CPM.  
40  
41

**PART 3 - EXECUTION**

**3.1. REQUESTING A SUBSTITUTION DURING BIDDING**

- 42 A. In the event that a substitution is requested during the bidding phase the Contractor or Supplier shall meet the  
43 substitution request deadline listed in the bidding documents. No substitution request will be considered during  
44 the bidding period after the stated substitution request deadline. In general this procedure shall be as follows:  
45 1. Submit the Substitution Request Form including all required supporting documentation to the City  
46 Project Manager and Project Engineer by the substitution request deadline specified in Section A of the  
47 Contract Documents.  
48 2. Submit a Substitution Request Form for each product, supported with complete data, drawings and  
49 samples as appropriate, including:  
50 i. Comparison of qualities of the proposed substitutions with that specified.  
51 ii. Changes required in other elements of the Work because of the substitution.  
52 iii. Effect on the construction schedule.  
53 iv. Cost data comparing the proposed substitution with the Product specified.  
54 v. Any required license fees or royalties.  
55 vi. Availability of maintenance service and source of replacement materials.  
56  
57  
58





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

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18

**PART 1 – GENERAL**

**1.1. SUMMARY**

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

9 **1.2. RELATED SPECIFICATION SECTIONS**

- 10 A. Section 01 26 63 Change Order (CO)  
11 B. Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public  
12 Works Construction".  
13 1. Use the following link to access the Standard Specifications web page:  
14 <http://www.cityofmadison.com/business/pw/specs.cfm>  
15 a. Click on the "Part" chapter identified in the specification text. For example if the specification  
16 says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II  
17 PDF will open.  
18 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you  
19 to the referenced text.  
20

21 **1.3. DEFINITIONS AND STANDARDS**

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

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

18 **1.4. CONTRACT EXTENSION**

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

25 **1.5. OVERHEAD AND PROFIT MARKUP**

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

38 **1.6. PERFORMANCE REQUIREMENTS**

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

56 **1.7. QUALITY ASSURANCE**

- 57 A. The GC shall be responsible for ensuring that all COR supporting documentation meets the following  
58 requirements prior to completing the COR form:



**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

**1.2. RELATED SPECIFICATION SECTIONS**

- 26 A. Section 01 26 63 Change Order Request (COR)  
27  
28

**1.3. BOARD OF PUBLIC WORKS PROCEDURE**

- 29 A. The Board of Public Works has a very explicit procedure for the review and approval of all change orders  
30 associated with any Public Works Contract as follows:  
31 1. The Supervisory Chain of the CPM shall review and approve any CO under \$10,000 provided it does not  
32 include either of the following:  
33 a. The CO does not request a time extension to the contract.  
34 b. The CO does not cause the contract contingency sum to be exceeded.  
35 2. The Board of Public Works shall review and approve any CO that requires any of the following:  
36 a. Any CO over \$20,000.  
37 b. Any CO requesting a time extension to the contract regardless of the monetary value of the CO.  
38 c. Any CO that that causes the contract contingency sum to be exceeded.  
39 B. The Board of Public Works generally meets every other week and only once in August and December. The GC is  
40 cautioned that, under normal scheduling, a CO requiring a BPW review will take a minimum of two (2) weeks to  
41 achieve final approval.  
42 1. The City shall not be responsible for additional delays to the Work caused by the scheduling constraints  
43 of the Board of Public Works.  
44 C. SPECIAL NOTE: The GC is cautioned to never proceed unless told to do so by the CPM. Only in rare instances  
45 may the CPM give a written notice to proceed on a COR without an approved CO. Proceeding without the  
46 written notice of the CPM or an approved CO is at the GC’s own risk.  
47  
48

**PART 2 – PRODUCTS**

**2.1. CHANGE ORDER FORM**

- 50 A. Provided by CPM.  
51  
52  
53

**PART 3 - EXECUTION**

**3.1. PREPARATION OF THE CHANGE ORDER**

- 54 A. The CPM shall prepare the required CO as follows:  
55 1. Provide information for all contract information.  
56  
57  
58

- 1                    2.     Provide a general description of the items described within the change order.
- 2                    3.     Provide detailed information for each Item on the CO form. At the option of the CPM he/she may include
- 3                            multiple Change Order Requests each as their own item.
- 4                    4.     Provide required pricing breakdown and accounting information as needed for the item.
- 5                    5.     Insert attachments of contractor/architect provided information that clarifies and quantifies the CO.
- 6                            Attachments may include but not be limited to material lists, estimated labor breakdown, revised details
- 7                            or specifications, and other documents that may be related to the requested change.
- 8                    6.     Save the final version of the completed CO.
- 9

10                    **3.2.   EXECUTION OF THE CHANGE ORDER**

- 11                    A.     The GC shall do the following:
  - 12                            1.     Review all items on the CO form.
  - 13                            2.     The GC shall notify the CPM immediately of any errors or discrepancies on the form and shall not sign or
  - 14                                    save it.
    - 15                                    a.     The CPM shall make any corrections as needed, re-save the form, and notify the GC.
  - 16                            3.     If/when the GC concurs with the CO form as drafted the GC shall digitally sign the form.
- 17                    B.     The CPM shall do the following:
  - 18                            1.     Monitor the review process
  - 19                            2.     Ensure that proper BPW procedures are executed as needed by the CO approval process.
    - 20                                    a.     Schedule the CO on the next available BPW agenda if required.
      - 21                                            i.     Attend the BPW meeting to speak on the CO to board members and answer questions.
      - 22                                            ii.    The GC and/or PE may be required to attend the BPW meeting to address specific
      - 23                                                    information as it relates to the Work and/or materials associated with the CO.
  - 24                            3.     Monitor final approval and distribution of the CO.
  - 25                            4.     Notify the GC that the CO has been completed.
  - 26                            5.     Ensure that the CO is posted to the next Public Works payment schedule.
  - 27                            6.     Verify that the GC's next Progress Payment-Schedule of Values show the CO as part of the contract sum.
- 28                    C.     Upon final approval of the CO the GC may proceed with executing the Work associated with the CO.
- 29
- 30
- 31
- 32
- 33

**END OF SECTION**

**SECTION 01 33 23**  
**SUBMITTALS**

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13

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 17 A. The General Contractor (GC) shall be responsible for providing submittals for review of all contractors and sub-  
18 contractors as designated in the construction documents. Submittals shall include but not be limited to all of the  
19 following:  
20 1. Equipment specified and pre-approved in the specification; to ensure quality, construction, and  
21 performance specifications have not changed since final design.  
22 2. Equipment specified by performance in the specification; to ensure that the intended quality,  
23 construction, and performance specified is met by the selected material or product.  
24 3. Shop, piece, erection, and other such drawings as indicated in the specifications to ensure all structural,  
25 dimensional, and assembly requirements are being met.  
26 4. Submittals indicating installation sequencing  
27 5. Submittals indicating control sequencing  
28 6. Contractor licensing, certification, and other such regulatory documentation when required by a  
29 specification.  
30 7. Other submittals as may be required by individual specifications.  
31 B. The submittal process shall not be used to determine alternates to specified products or equipment. All  
32 considerations shall be reviewed during the bidding process and acceptable alternates shall be acknowledged by  
33 addendum prior to the closing of bidding. See bidding instructions for the information on submitting alternates  
34 for consideration.  
35 D. In the event that a manufacturer has significantly changed a product (discontinued a model, changed dimension  
36 or performance data changed available colors, etc.) since bid opening the GC shall Notify the City Project  
37 Manager requesting other approved alternates prior to uploading a digital submittal.  
38 E. Contractors and sub-contractors shall be responsible for knowing the submittal requirements of ALL sections  
39 within their scope of work under the contract. The Owner reserves the right to request documentation on any  
40 materials, equipment, or product being installed where a submittal is not on file. If the material, equipment, or  
41 product installed is determined not to meet the intent of the specification the contractor/sub-contractor shall be  
42 required to remove and replace the items involved. The GC shall be solely responsible for all costs associated  
43 with the removal and replacement.  
44

**1.2. RELATED REFERENCES**

- 45 A. All Technical Specifications, contract documents, construction drawings, and any published addendums during  
46 the bidding process.  
47 B. All contract documents generated during the execution of the contract.  
48  
49

**1.3. SUBMITTAL REQUIREMENTS**

- 50 A. A completed submittal shall meet the following requirements:  
51 1. Digital submittal shall be original PDF of manufacturer’s data sheets or high quality color scan of the  
52 same.  
53 a. Submittals shall not include sales fliers or other similar documents that typically do not provide  
54 complete manufacturers data.  
55 2. Documents within the PDF submittal shall be printable to a sized sheet no less than 8-1/2 by 11 inches  
56 and no larger than 24 by 36 inches.  
57

- 1                    3.     At the beginning of each submittal the contractor shall identify the plan reference (WC-1, EF-3, etc.) in  
2                    RED block letters that the submittal is for.
- 3                    4.     Where multiple model numbers appear in a table the contractor shall identify the specific model being  
4                    submitted by using a RED square, box, or other designation to distinguish the correct model from others  
5                    on the page.
- 6                    B.     A complete submittal will include all information associated with the product or equipment as presented in  
7                    plans, equipment tables, and specifications. Information shall include but not be limited to the following:  
8                    1.     Dimensional data  
9                    2.     Performance data  
10                    3.     Resource requirements, power, water, waste, etc.  
11                    4.     Clearance and maintenance requirements  
12                    5.     Finish information, colors, textures, etc.  
13                    6.     Warranty information
- 14                    C.     Where a submittal includes material samples (carpet, tile, paint draw downs, etc.) the contractor shall do the  
15                    following:  
16                    1.     The Contractor shall submit the sample(s) as indicated in the specification.  
17                    2.     The Contractor shall include a quality photograph(s) of the product with the digital submittal.  
18                    Photographs shall meet the following requirements:  
19                    a.     Formatted to be between 500Kb and 1.0 Mb in file size  
20                    b.     Have no glare or flash reflection on the sample  
21                    c.     Sample fills the frame of the photo and shows detail as needed. Include multiple photos from  
22                    other angles as needed.  
23                    d.     Scanned copies of products or photos are not acceptable.
- 24                    D.     Uploaded submittals should be relative and related to a specific written specification.  
25                    1.     Do not upload submittals under a broad category or division (I.E. HVAC 23 00 00). Always upload by the  
26                    specific specification that identifies a required product or performance to be met.  
27                    2.     Group related items together if the specification is written that way. (I.E. all of the plumbing fixtures and  
28                    trim relative to one specific specification should be submitted together).  
29                    3.     Submittals shall be grouped and adhere to the divisions in the submittal schedule. Submittals that do not  
30                    conform to the submittal schedule and/or specification divisions will be rejected for re-submittal.

31  
32     **PART 2 – PRODUCTS – THIS SECTION NOT USED**

33  
34     **PART 3 - EXECUTION**

35  
36     **3.1. GENERAL CONTRACTORS PROCEDURES**

- 37                    A.     All required submittals will be submitted electronically by the GC.  
38                    B.     Uploading the submittal indicates that the GC has reviewed and approved the submittal against the contract  
39                    document requirements.  
40                    C.     The GC shall discuss submittal status at all progress meetings and shall monitor submittal review/approval/re-  
41                    submittal so as to not incur delays in the project schedule.  
42                    D.     The GC and sub-contractors shall provide re-submittals as required.

43  
44     **3.2. SUBMITTAL REVIEW**

- 45                    A.     The submittal shall be reviewed internally by the required Architect/Engineer and Owner Representative in a  
46                    timely fashion and provide commentary on missing items, incorrect information, or incomplete shop drawings,  
47                    etc. as needed.  
48                    B.     When the internal review is completed the CPM will notify the Project Engineer the submittal is ready for final  
49                    review.  
50                    C.     Information will be transmitted electronically.

51  
52     **3.3. PROJECT ENGINEERS REVIEW**

- 53                    A.     Upon completion of the internal review the Project Engineer shall review all internal review comments, confer  
54                    with the CPM as needed and determine the appropriate disposition status for the submittal (approved or  
55                    resubmit).  
56                    B.     The Project Engineer shall summarize final internal review comments onto the submittal cover sheet, provide a  
57                    final disposition of the submittal and update the review status of the submittal to "Complete..." (With or w/o  
58                    comments) or "Rejected".



- 1 C. A completed Final Review status initiates the CPM to notify the GC and appropriate sub-contractor(s) that the
- 2 review of the submittal has been completed.
- 3 D. Information will be transmitted electronically.
- 4
- 5 **END OF SECTION**
- 6

**SECTION 01 73 29  
CUTTING AND PATCHING**

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15 3.3. PERFORMANCE ..... 2  
16 3.4. CLEANUP AND RESTORATION ..... 3  
17

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 21 A. This Section includes general procedural requirements for cutting and patching including, but not limited to the  
22 following:  
23 1. Typical areas of cutting and patching for this project may include cutting and patching of metal deck and  
24 wall for enlarging scuppers.  
25 2. Examination  
26 2. Preparation  
27 3. Performance  
28 4. Cleanup and Restoration  
29  
30

**1.2. RELATED SPECIFICATION SECTIONS-THIS SECTION NOT USED**

**1.3. DEFINITIONS**

- 34 A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.  
35 B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other  
36 Work.  
37

**1.4. QUALITY ASSURANCE**

- 39 A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying  
40 capacity or load-deflection ratio.  
41 B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results  
42 in reducing their capacity to perform as intended or that may result in increased maintenance or decreased  
43 operational life or safety.  
44 C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that  
45 could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that  
46 may result in increased maintenance or decreased operational life or safety. Some miscellaneous elements  
47 include the following:  
48 1. Water, moisture, or vapor barriers  
49 2. Membranes and flashings  
50 3. Exterior curtain-wall construction  
51 4. Equipment supports  
52 5. Piping, ductwork, vessels, and equipment  
53 6. Noise and vibration control elements and systems  
54 D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and  
55 patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that  
56 would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has  
57 been cut and patched in a visually unsatisfactory manner.

1 **1.5. WARRANTY**

- 2 A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting  
3 and patching operations, by methods and with materials so as not to void existing warranties.  
4 B. All cutting and patching work performed under this contract shall be warranted like new work as defined by the  
5 Specification governing the work.  
6

7 **PART 2 - MATERIALS**

8  
9 **2.1. GENERAL**

- 10 A. Comply with requirements specified within other sections of the Specifications.  
11 B. In-Place Materials: Use materials identical to existing in-place materials. For exposed surfaces use materials that  
12 visually match in-place adjacent surfaces to the fullest extent possible.  
13 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the  
14 visual and functional performance of in-place materials.  
15

16 **PART 3 - EXECUTION**

17  
18 **3.1. EXAMINATION**

- 19 A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.  
20 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including  
21 compatibility with in-place finishes or primers.  
22 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.  
23

24 **3.2. PREPARATION**

- 25 A. Temporary Support: Provide temporary support of Work to be cut.  
26 B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection  
27 from adverse weather conditions for portions of Project that might be exposed during cutting and patching  
28 operations. If the failure to protect, or the lack of protection, of in-place construction and/or existing conditions  
29 results in damage, the contractor shall be responsible for repair to previous condition.  
30 C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.  
31 D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be  
32 removed, relocated, or abandoned, bypass such services/systems before cutting to eliminate interruption to  
33 occupied areas.  
34

35 **3.3. PERFORMANCE**

- 36 A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the  
37 earliest feasible time, and complete without delay.  
38 1. Cut in-place construction to provide for installation of other components or performance of other  
39 construction, and subsequently patch as required to restore surfaces to their original condition.  
40 B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations,  
41 including excavation, using methods least likely to damage elements retained or adjoining construction. If  
42 possible, review proposed procedures with original Installer; comply with original Installer's written  
43 recommendations.  
44 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and  
45 chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance  
46 of adjacent surfaces. Temporarily cover openings when not in use.  
47 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.  
48 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.  
49 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by  
50 cutting and patching operations.  
51 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap,  
52 valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other  
53 foreign matter after cutting.  
54 6. Proceed with patching after construction operations requiring cutting are complete.  
55 C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following  
56 performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and  
57 comply with installation requirements specified in other Sections.

1 D. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of  
2 installation.  
3

4 **3.4. CLEANUP AND RESTORATION**

- 5 A. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a  
6 manner that will eliminate evidence of patching and refinishing.
- 7 1. Clean piping, conduit, and similar features before applying paint or other finishing materials.
  - 8 2. Restore damaged pipe covering to its original condition.
  - 9 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another,  
10 patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish,  
11 color, texture, and appearance. Remove in-place floor and wall coverings and replace with new  
12 materials, if necessary, to achieve uniform color and appearance.
  - 13 4. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch  
14 and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats  
15 until patch blends with adjacent surfaces.
  - 16 5. Ceilings: Patch, repair, or re-hang in-place ceilings as necessary to provide an even-plane surface of  
17 uniform appearance.
  - 18 6. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight  
19 condition.
  - 20 7. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint,  
21 mortar, oils, putty, and similar materials.
  - 22 8. Any smoke and fire caulking that has been disturbed must be replaced by the Contractor as required by  
23 Code.  
24

25 **END OF SECTION**  
26  
27

**SECTION 01 74 13  
PROGRESS CLEANING**

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13 3.3. PROGRESS CLEANING ..... 2  
14 3.4. FINAL CLEANING..... 3  
15 3.5. CALL BACK WORK ..... 4  
16

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 20 A. Throughout the execution of this contract all contractors shall be responsible for maintaining the project site in a  
21 standard of cleanliness as described in this specification.  
22 B. All contractors shall also comply with the requirements for cleaning as described in other specifications.  
23 C. Work included in this specification shall include but not be limited to:  
24 1. Safety Cleaning  
25 2. Project Site Cleaning  
26 3. Progress Cleaning  
27 4. Final Cleaning  
28

**1.2. RELATED SPECIFICATIONS**

- 30 A. Section 01 60 00 Product Requirements  
31 B. Section 01 74 19 Construction Waste Management and Disposal  
32 C. Section 01 76 00 Protecting Installed Construction  
33

**1.3. QUALITY ASSURANCE**

- 35 A. The General Contractor (GC) shall conduct daily inspections, more often if necessary, of the entire project site to  
36 ensure the requirements of cleanliness are being met as described within these specifications.  
37 B. All contractors shall comply with other regulatory requirements as they apply to waste recycling, reuse, hauling,  
38 and disposal requirements of any governmental authority having jurisdiction.  
39 C. The Owner reserves the right to have work done by others in the event any contractor fails to perform cleaning  
40 as described within these specifications. The cost of any Owner provided cleaning shall be charged to the  
41 contractor through a deduct change order.  
42

**PART 2 - PRODUCTS**

**2.1. CLEANING MATERIALS AND EQUIPMENT**

- 46 A. The Contractor shall provide all required personnel, equipment, and materials necessary to maintain the  
47 required level of cleanliness as described in this specification.  
48 B. Use only cleaning materials and equipment that are compatible with the surface being cleaned, as  
49 recommended by the manufacturer, or as approved by the A/E.  
50 C. Use only cleaning materials, equipment, and methods as recommended in the manufacturers care and use guide  
51 of the material, finish or equipment being cleaned.  
52

**PART 3 - EXECUTION**

**3.1. SAFETY CLEANING**

- 56 A. All Contractors shall be responsible for safety cleaning as required by OSHA and other regulatory requirements  
57 as applicable.  
58 B. Safety Cleaning shall include but not be limited to the following:

1. All work areas, passageways, ramps, and stairs shall be kept free of debris, scrap materials, pallets, and other large items that would obstruct exiting routes. Small items such as tools, electrical cords, etc are picked up when not in use.
2. Form and scrap lumber shall have nails/screws removed or bent over. Lumber shall be neatly stacked in an area designated by the GC.
3. Spills of oil, grease, and other such liquids shall be cleaned immediately or sprinkled with sand/oil-dry first, then cleaned.
4. Oily, flammable, or hazardous items shall be stored in appropriate covered containers and storage devices unless actively being used.
5. Oily, or flammable rags, and other such waste shall only be disposed of in authorized covered containers.
6. Disposal by burning shall not be allowed at any time.

### 3.2. PROJECT SITE CLEANING

- A. This section applies to the general cleanliness of the project site as a whole for the duration of the execution of this contract.
- B. Exterior Project Site Areas
  1. The GC and other Contractors as appropriate shall ensure the following levels of cleanliness are applied to the exterior project site areas.
    - a. The overall appearance of the project site is neat and orderly. Defined areas for material storage, material waste, job trailers, and the project area are clean and well maintained.
    - b. The construction fence is maintained, erect with no gaps, and properly posted per all regulatory requirements.
    - c. All erosion control measures are properly maintained, cleaned, and repaired as necessary.
    - d. All loose materials (construction or waste) are properly tied or weighted down to resist blowing.
    - e. All construction materials are properly covered with fully functional tarps or plastic wrap, protected from the weather, coverings are tied, strapped, or weighted down to resist blowing.
    - f. Dust control is applied as necessary or as required by any regulatory requirement.
- C. Interior Project Site Areas
  1. All Contractors shall ensure the following levels of cleanliness are applied to the interior project site areas.
    - a. The overall appearance of the project site is neat and orderly. Defined areas for material storage, material waste, and project area are clean and well maintained.
    - b. Stored materials are kept in original shipping containers whenever possible. Stored materials not in shipping containers are properly stored and protected according to other applicable specifications.
    - c. All scraps and debris shall be properly disposed of as often as necessary to keep work areas, passageways, stairs, and ramps free of debris and clear for emergency exiting.
    - d. Boxes, pallets, and other such shipping containers, are broken down, stored in a consolidated area or, disposed of as often as is necessary.
    - e. Hand tools, supplies, materials, electrical cords not being used are picked up and stored in gang boxes, not left as walking hazards in work areas, passageways, etc.
- D. Job Trailer
  1. The interior of the job trailer shall be kept clean and available as a work space at all times. The GC shall ensure that the following is provided for within the job trailer:
    - a. Meeting space including tables and chairs.
    - b. Sufficient space for all contractors to access the official construction documents, provide updates, etc.

### 3.3. PROGRESS CLEANING

- A. This sub-section shall apply to all Progress Cleaning prior to the installation of finishes, fixtures, and trim (IE rough-in).
  1. For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other material capable of being removed by use of reasonable effort using a good quality janitor broom and shop-vac.
  2. Daily cleanings shall be conducted by all contractors at the end of the work day as follows:
    - a. Debris in excavated areas shall be removed prior to backfill and compaction.
    - b. Debris in wall cavities, chase spaces, etc shall be removed prior to enclosing the spaces.
    - c. Large items shall be properly stored, returned to designated areas, or disposed of as necessary.

- 1 d. Loose materials shall be properly secured.  
2 e. Flammable or hazardous materials are properly stored or disposed of.  
3 3. Weekly cleaning shall be conducted by all contractors as designated by the GC. Weekly cleanings shall  
4 include all the above for a daily cleaning and other necessary cleaning as designated by the GC.  
5 B. This sub-section shall apply to Progress Cleaning in preparation for the installation of finishes, fixtures, and trim.  
6 a. Surfaces receiving finishes shall be thoroughly cleaned prior to contractors applying finish  
7 materials. The GC shall be responsible for inspecting the area and surfaces being cleaned for  
8 finish prior to the sub-contractor applying the finish. This shall include but not be limited to the  
9 following:  
10 i. Wall surfaces shall be wiped clean of dirt and oily residues, vacuumed free of dust, and  
11 shall be free of surface imperfections prior to painting or installing wall coverings.  
12 ii. Metal surfaces shall be wiped clean of dirt and oily residues, and be free of surface  
13 imperfections prior to painting.  
14 iii. Flooring shall be broom swept of large and loose items then vacuumed clean of dust and  
15 small particles, and damp mopped clean and dried prior to installing any flooring finish.  
16 Additional cleaning may be required depending on the preparation requirements  
17 recommended by the flooring material manufacturer.  
18 C. This sub-section shall apply to Progress Cleaning after the installation of finishes, fixtures, and trim.  
19 1. For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other  
20 material capable of damaging or visually disfiguring finished work, finishes, fixtures, and trim.  
21 2. Progress Cleaning at this point in the contract shall be conducted immediately as follows:  
22 a. Dust, dirt, etc shall be swept and vacuumed off of finish flooring and trim.  
23 b. Liquid spills shall be cleaned up according to the spill type. This shall include drips and spills  
24 caused by paint, stain, sealants, and other such items.  
25 3. The Contractor(s) at no additional cost to the Owner shall be responsible for replacing any finished work,  
26 finishes, fixtures, and trim damaged or disfigured because of inadequate or improper cleaning.  
27

### 28 3.4. FINAL CLEANING

- 29 A. As noted in Specification 01 29 76 Progress Payment Procedures, Progress Payment Milestone Schedule, Final  
30 Cleaning shall not be conducted prior to requesting the 90% contract total progress payment and all of the  
31 following shall be complete:  
32 1. All final regulatory inspections including but not limited to Building Inspection Department and Madison  
33 Fire Department inspections have been successfully completed.  
34 2. All Quality Management Observation (QMO) reports have been closed out.  
35 3. All Demonstration and Training has been completed.  
36 4. All Attic Stock has been consolidated and located to its designated area  
37 5. All protection for installed construction shall be removed prior to final cleaning by the contractor  
38 responsible for providing the protections. This shall include the removal of any adhesive residues left  
39 behind from tapes. Contractors shall only use manufacturer authorized cleaning materials for removing  
40 adhesives, etc.  
41 B. For the purposes of this section "clean" shall be defined as a level of cleanliness generally provided by skilled  
42 cleaners using commercial quality building maintenance equipment and materials.  
43 C. The GC shall be responsible for ensuring that all requirements under this section are being met.  
44 D. General Requirements  
45 1. Employ experienced personnel or professional cleaners for final cleaning as necessary for the areas or  
46 equipment being cleaned.  
47 2. Cleaning equipment used shall be commercial grade equipment commonly used by professional cleaners.  
48 3. Cleaning equipment and materials shall be cleaned, rinsed, or replaced to ensure a uniform level of  
49 cleanliness is being maintained during the final cleaning. This shall include but not be limited to the  
50 following:  
51 a. Vacuum cleaner bags and/or filters are changed and/or cleaned as often as necessary.  
52 b. Dust & wipe down rags are washed, rinsed, or replaced before starting each room.  
53 c. Mopping equipment  
54 i. Mop water for washing shall have cleaning solution added to the amount and temperature  
55 per manufacturer's recommendations. Mop washing water shall be replaced often to  
56 maintain the levels of the cleaning solution and temperature required.  
57 ii. Mop water for rinsing shall remain clean, clear, and be replaced as often as necessary.  
58 iii. Mop heads shall be rinsed often and replaced as necessary.





**SECTION 01 74 19**  
**CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

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14 **PART 1 – GENERAL**

15  
16 **1.1. SUMMARY**

- 17 A. This specification includes administrative and procedural requirements for the recycling, re-use, salvaging, and  
18 disposal of non-hazardous construction and demolition waste.  
19 B. The General Contractor (GC) shall be fully responsible for complying with all applicable ordinances and other  
20 such regulatory requirements during the execution of this contract.  
21

22 **1.2. RELATED SPECIFICAITONS**

- 23 A. 01 33 23 Submittals  
24 B. Other Divisions and Specifications that may address the proper disposal of construction or demolition waste as it  
25 pertains to work being conducted under that particular specification.  
26

27 **1.3. CITY ORDINANCES**

- 28 A. There are two (2) Madison General Ordinances (MGO) that the City of Madison has regarding construction and  
29 demolition waste.  
30 1. MGO 10.185, Recycling and Reuse of Construction and Demolition Debris, describes the requirements  
31 associated with this ordinance including definitions, documentation requirements, and penalties.  
32 2. MGO 28.185, Approval of Demolition (Razing, Wrecking) and Removal, describes the requirements  
33 associated with applying for and receiving a demolition permit.  
34 B. All City of Madison, Board of Public Works, contracts being conducted by City Engineering, Facility Management,  
35 for construction, remodeling, or demolition shall comply with the above ordinances regardless of project type or  
36 size.  
37

38  
39 **PART 2 – PRODUCTS – THIS SECTION NOT USED**

40  
41 **PART 3 - EXECUTION**

42  
43  
44 **3.1. GENERAL GUIDELINES FOR ALL WASTES**

- 45 A. Recycle all paper and beverage containers used by workers, sub-contractors, suppliers and visitors to the project  
46 site.  
47 B. All revenues, savings, rebates, tax credits, and other such incentives received from recycling, reusing, or  
48 salvaging waste materials shall accrue to the GC unless specified otherwise in the contract documents.  
49 C. Separate recyclable, reusable, and salvageable waste from other waste materials, trash, and debris-  
50 1. Separate by type in appropriate containers or designated areas according to the approved waste  
51 management plan away from the construction area. Do not store within the drip lines of existing trees.  
52 2. Inspect containers and bins frequently for contamination and inappropriately sorted materials. Remove  
53 contaminated materials and resort as necessary.  
54 3. Stockpile bulk materials such as sand, topsoil, stone, etc., on site away from the construction area and  
55 without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water, and  
56 cover to prevent windblown dust. Do not store within the drip lines of existing trees.  
57 4. Whenever possible store items off the ground and/or protect them from the weather.  
58

1 **3.2. GUIDELINES FOR RECYCLABLE, RE-USABLE, AND SALVAGEABLE WASTE**

- 2 A. The following guidelines is not a complete or all-inclusive list and shall be adjusted as needed by the methods  
3 and procedures identified in the Waste Management Plan.
- 4 B. Asphalt Paving: Break-up into transportable pieces or grind, transport to an authorized recycling facility.
- 5 C. Carpet and Pad: Separate carpet and pad scraps, containerize and transport to an authorized recycling facility.
- 6 D. Ceiling System Components: Suspended ceiling system components shall be sorted by material type as follows:  
7 1. Broken, cut, or damaged tiles shall be containerized, transport to an authorized recycling facility.  
8 2. Damaged, or cut tracks, trim and other metal grid system components shall be sorted with other metals  
9 of similar types, palletize, transport to an authorized recycling facility.
- 10 E. Clean Fill: When allowed by Division 31 Specifications; concrete, masonry, stone, asphalt pavement, sand and  
11 other such materials may be used as clean fill on this project site. The GC shall verify with the Project Engineer,  
12 Structural Engineer, or Civil Engineer as necessary prior to using any materials as clean fill. Materials shall be  
13 processed, placed, and compacted as specified. If not being re-used on site, transport to an authorized recycling  
14 facility.
- 15 F. Clean Wood Materials: Including but not limited framing cutoffs, wood sheathing or paneling materials,  
16 structural or engineered wood products, and pallets or crates. Clean Wood shall be free of paints, stains, oils,  
17 preservatives and other such contaminates.  
18 1. Useable pieces shall be sorted by type and dimension, bundled and transported off site by the GC or  
19 returned to the supplier.  
20 2. Non-useable pieces shall be palletized or containerized, transport to an authorized recycling facility.  
21 3. Clean, uncontaminated sawdust and wood shavings shall be bagged, transport to an authorized recycling  
22 facility.
- 23 G. Concrete: Break-up into transportable pieces, remove all reinforcing and other metals, transport to an  
24 authorized recycling facility.
- 25 H. Glass Products: Shall be sorted by types, do not include light fixture lamps and bulbs. Products broken in  
26 shipment shall be returned to the supplier. Broken or cracked items still in frames shall be taped to prevent  
27 further breakage and injury to workers. Transport to an authorized recycling facility.
- 28 I. Gypsum Board: Stack large clean pieces on wooden pallets or container, store in a dry location, transport to an  
29 authorized recycling facility.
- 30 J. Light Fixture Lamps and Bulbs: Fluorescent tubes shall be containerized, transport to an authorized recycling  
31 facility.
- 32 K. Masonry and CMU: Remove all metal reinforcing, anchors, and ties, clean undamaged pieces and neatly stack on  
33 pallets, transport damaged pieces to an authorized recycling facility.
- 34 L. Metals: Sort metals by type as follows, this does not include piping:  
35 1. Architectural metals including but not limited to siding, soffit, and roofing panels shall be sorted by  
36 material, palletize or bundle as needed and transport to an authorized recycling facility.  
37 2. Structural steel, sort by size and type; palletize and transport to an authorized recycling facility.  
38 3. Miscellaneous metals such as aluminum, brass, bronze, etc. shall be sorted by type, containerized or  
39 palletized as necessary, transport to an authorized recycling facility.
- 40 M. Packaging and shipping materials  
41 1. Cardboard boxes and containers: Breakdown all cardboard boxes and containers into flat sheets. Bundle  
42 and store in a dry location until transported for recycling.  
43 2. Pallets:  
44 a. Whenever possible require deliveries using pallets to remove them from the project site.  
45 b. Neatly stack pallets in preparation for reusing them or providing them to other companies for  
46 salvage or re-use.  
47 c. Break down pallets into component wood pieces that comply with the requirements for recycling  
48 clean wood materials. Neatly stack or palletize pieces in preparation for transportation.  
49 3. Crates: Break down crates into component wood pieces that comply with the requirements for recycling  
50 clean wood materials. Neatly stack or palletize pieces in preparation for transportation.  
51 4. Polystyrene Packaging: Separate and bag materials.
- 52 N. Piping and conduit: Reduce all piping and conduit to straight lengths, sort and store by size, material and type.  
53 Remove supports, hangers, valves, boxes, sprinkler heads, and other such components, sort and store by size,  
54 material and type. Transport to authorized recycling facilities according to material types.
- 55 O. Roofing: Roofing materials shall be sorted and containerized by type, transport to authorized recycling facilities  
56 according to material types.
- 57 P. Site-Clearing Waste: Sort all site waste by type.





**SECTION 01 76 00**  
**PROTECTING INSTALLED CONSTRUCTION**

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21

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 25 A. The purpose of this specification is to provide clear responsibilities, guide lines, and requirements related to  
26 providing protection to already installed construction.  
27 B. Already installed construction shall include but not be limited to the following:  
28 1. Any existing site feature such as pavement, curbs, drainage features, utilities, landscaping features (trees,  
29 shrubbery, plantings, flagpoles, etc) and other such exterior items not associated with the building  
30 whether on or adjacent to the project site.  
31 2. Any existing structure on or adjacent to the project site.  
32 3. Any existing interior work that may be adjacent to the new work including all paths of ingress/egress to  
33 areas associated with accessing the Work.  
34 4. Any existing feature of any kind within the public right-of-way that may be on the project site property,  
35 adjacent to the project site or across the street from the project site.  
36 C. All contractors shall be familiar with the specifications of their Division of Work for specific requirements on  
37 protection of the Work.  
38 D. The requirements noted within this specification do not relieve any contractor of the responsibility for  
39 compliance with any code, statute, ordinance, or other such regulatory requirement having jurisdictional  
40 authority over these contract documents.  
41

**1.2. QUALITY ASSURANCE**

- 43 A. It shall be the responsibility of every contractor and worker assigned to the project to be diligent in protecting all  
44 existing work, and newly installed construction.  
45 B. It shall be the General Contractors' (GC) responsibility under the contract to provide all reasonable protection  
46 methods, materials, or precautionary measures required to protect new or existing construction as described in  
47 within this specification to the project as a whole.  
48 1. The GC shall be responsible to ensure any damaged new or existing construction is repaired or replaced  
49 at no additional cost to the Contract.  
50 2. The GC at his/her discretion may direct other contractors to provide and maintain protection of  
51 completed work associated with their Division of Work. I.E.: The carpet installer may be required by the  
52 GC to provide carpet protection along traveled paths, ingress/egress, etc after installation.  
53 C. It shall be the responsibility of the GC to ensure that all materials being used to protect installed construction are  
54 compatible with, and/or adjacent to, the materials being protected. This shall include but not be limited to the  
55 material used as covering, tapes used to fasten protective materials, etc.

1  
2 **1.3. RELATED SPECIFICATIONS**

- 3 A. Parts of this specification will reference articles within “The City of Madison Standard Specifications for Public  
4 Works Construction”.
- 5 1. Use the following link to access the Standard Specifications web page:  
6 <http://www.cityofmadison.com/business/pw/specs.cfm>  
7 a. Click on the “Part” chapter identified in the specification text. For example if the specification  
8 says “Refer to City of Madison Standard Specification 210.2” click the link for Part II, the Part II  
9 PDF will open.  
10 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you  
11 to the referenced text.  
12 c. City Standard Detail Drawings (SDD) may be located from the index in Part VIII.
- 13 B. Section 01 60 00 Product Requirements  
14 C. Section 01 74 13 Progress Cleaning

15  
16 **PART 2 - PRODUCTS**

17  
18 **2.1. FENCING MATERIALS AND BARRICADES**

- 19 A. Except where noted in other areas of the construction documents the responsible contractor may provide any of  
20 the following that sufficiently provide a sturdy physical barrier and/or visual barrier as necessary for the  
21 intended application.
- 22 1. Standard orange construction barrels each with a standard rubber base ring and reflective tape  
23 a. Provide flashing amber lights as needed to increase night time visibility  
24 2. Steel “T” style fence posts  
25 3. 4’0” high standard orange construction fence  
26 4. Traffic barricades  
27 5. Jersey barriers  
28 6. Other types of fencing or barricades typically used in the construction industry
- 29 B. The contractor responsible for providing the fencing materials and barricades shall also be responsible for  
30 maintaining them. This shall include but not limited to fixing damaged fencing, standing up barrels that have  
31 been knocked over, realigning barrels, and ensuring flashing lights are fully operational at all times.
- 32 C. The following fencing and barricade designations, and their use descriptions shall be used throughout this  
33 specification to provide uniformity in describing protection requirements.
- 34 1. Type A, Jersey Barriers, to be used as permanent blocking devices to deny access to alternate project site  
35 entrances or exits.  
36 2. Type B, Traffic Barricades, to be used as temporary blocking devices to deny access to alternate project  
37 site entrances or exits.  
38 3. Type C, Construction Barrels without construction fencing shall be used for lane closures, temporary  
39 blocking devices to deny access and the protection of single locations (I.E. identify the location of an  
40 access structure) that do not require fencing.  
41 4. Type D, Construction Barrels with construction fencing where it becomes necessary to surround an object  
42 with a complete visual barricade and it is impractical or unacceptable to install fence posts. The surround  
43 shall be constructed in such a manner as to provide a buffer zone around and access to the item being  
44 protected.  
45 5. Type E, Steel “T” Fence Posts with construction fencing to surround an object with a complete visual  
46 barricade and it is practical to install fence posts. The surround shall be constructed in such a manner as  
47 to provide a buffer zone around and access to the item being protected.  
48 6. Type X, Other fencing or barricade types that may be designated and detailed within the construction  
49 documents shall use additional alpha numeric designations.

50  
51 **2.2. EROSION CONTROL PROTECTION**

- 52 A. Refer to City of Madison Standard Specification 210.2 for authorized materials associated with erosion control  
53 materials.

54  
55 **2.3. INTERIOR FINISH PROTECTION MATERIALS**

- 56 A. Except where noted in other areas of the construction documents or this specification the responsible  
57 contractor:  
58 1. Shall not provide the cheapest or least effective method as an effort to meet any protection requirement.

- 1                   2.     Shall provide materials of sufficient quality, and durability to provide adequate protection based on the  
2                                   seasonal conditions and the anticipated duration at the time the protection will be needed.  
3                   3.     Shall provide sufficient quantity of protection material to protect the construction as needed.  
4            B.     Prior to installing protective measures the responsible contractor shall propose to the GC, Project Engineer (PE)  
5                   and City Project Manager (CPM) the proposed plan for protection, materials to be used and samples as  
6                   necessary.  
7                   1.     The PE and CPM reserve the right to disapprove any proposed method and/or material and/or make  
8                                   alternate proposals.  
9

10 **PART 3 - EXECUTION**

11  
12 **3.1. GENERAL EXECUTION REQUIREMENTS**

- 13           A.     The GC shall be responsible for ensuring all of the following procedures and requirements are implemented as  
14                   needed for the duration of the Work performed under this contract.  
15           B.     The GC shall also be responsible for the following:  
16                   1.     Reporting any incident of damage to existing property, right-of-way, or utility to the CPM immediately  
17                                   upon rendering the incident safe, and notifying emergency response teams, and emergency utility crews  
18                                   as needed.  
19                   2.     Conduct a site walk through prior to leaving at the end of each day to assess:  
20                                   a.     Protection measures are properly in place, provide correction actions as necessary.  
21                                   b.     Note damage to existing completed work and schedule repair/replacement as needed.  
22                   3.     Ensure all contractors and workers are being diligent in protecting existing work, and newly installed  
23                                   construction.  
24

25 **3.2. PROTECT ADJACENT PROPERTIES**

- 26           A.     Whenever possible through the design process the City of Madison shall have previously provided notice to  
27                   adjacent property owners that work will be occurring on or near their property. The City of Madison shall also  
28                   have obtained any permanent or temporary easements that may be necessary to complete any Work on  
29                   adjacent properties.  
30           B.     It shall be the responsibility of the GC to do the following for all Work under this contract being performed on or  
31                   adjacent to the property line:  
32                   1.     Contact the adjacent property owner and provide him/her with information on the work to be done,  
33                                   equipment to be used, and estimated duration of the work. Information to be updated and  
34                                   communicated to property owner(s) as construction progresses and site conditions change.  
35                                   a.     If any adjacent property is a rented or leased space the GC shall also make contact and provide  
36                                   the same information to the tenants.  
37                                   b.     Determine from the owner and/or tenants if there are any concerns for children, pets, special  
38                                   plantings, or other concerns.  
39                   2.     Discuss the following with all contractors performing work on or near the property line.  
40                                   a.     Work to be completed and timeline.  
41                                   b.     Concerns of adjacent property owners/tenants from item 1 above.  
42                                   c.     Which protective measures will be necessary to protect adjacent properties and address the  
43                                   concerns of adjacent property owners/tenants.  
44                   3.     Ensure all protective measures are placed and maintained during the execution of Work on or adjacent to  
45                                   the property line. Interact with the adjacent property owners/tenants as needed.  
46           C.     Any contractor doing work on or adjacent to the property line shall install and maintain any protective measure  
47                   identified in the contract documents, this specification, or as directed by the GC.  
48           D.     The GC shall be responsible for restoring any damage to structure and property located on or adjacent to the  
49                   property line.  
50                   1.     Restoration shall include but not be limited to repair or replacement using like materials and finishes to  
51                                   its original condition or better.  
52                   2.     Restoration of landscaping materials shall include watering of any seed, sod, or other planting of any kind  
53                                   for a reasonable period of time to encourage germination and root development.  
54           E.     The GC shall keep the CPM informed directly to any issues pertaining to adjacent property owners and tenants.  
55

56 **3.3. PROTECT LANDSCAPING FEATURES**

- 57           A.     Except where specifically stated in other areas of the construction documents the following minimal protection  
58                   requirements shall apply under this section.

- 1 1. Whenever possible do not install new landscape features until exterior building construction has been
- 2 completed, equipment such as scaffolding and lifts are no longer needed and have been removed, and
- 3 heavy equipment operation is no longer required.
- 4 2. Whenever possible remove and temporarily store all existing landscape features such as benches, waste
- 5 receptacles, signage, and other such features that will be within the area of Work that can be removed.
- 6 3. Landscape features that cannot be removed such as flag poles, light poles, light bollards, etc. shall be
- 7 protected with Type D fencing for areas on pavement or Type E fencing for areas on soil.
- 8 4. Planting beds shall be protected using Type E fencing around the exposed perimeter of the planting bed
- 9 as needed.
- 10 5. The City of Madison Standard Specification 107.13 shall apply to all tree protection in and around the
- 11 project site at all times.
- 12

### 13 3.4. PROTECT UTILITIES

- 14 A. The contractor shall be responsible for notifying all utilities to determine emergency response procedures and
- 15 protection requirements prior to installing any construction protection.
- 16 1. This includes requesting utility marking through Diggers Hotline.
- 17 a. Call 811 or 1-800-242-8511 to request a public utility locate
- 18 b. For emergency locate call (262) 432-7910 or (877) 500-9592
- 19 2. Contact the Owner and CPM for any available private utility information on the property that may be
- 20 available prior to calling a private utility locating company.
- 21 B. Except where specifically stated in other areas of the construction documents the following minimal protection
- 22 requirements shall apply under this section.
- 23 1. Hydrants, lamp posts, electrical transformers, and other utility pedestals shall be protected with Type D
- 24 fencing for areas on pavement or Type E fencing for areas on soil. Fence posts shall be located so as to
- 25 not be directly over the utility main.
- 26 2. Storm sewer structures in pavement shall have proper inlet protection according to City of Madison
- 27 Standard Specification 210.1(g) and Type C Construction Barrels when necessary.
- 28 3. Storm sewer structures in turf and other landscaped areas shall have proper inlet protection according to
- 29 City of Madison Standard Specification 210.1(g) and Type E fencing for areas on soil.
- 30 4. Stormwater management features such as greenways, retention/detention ponds, bio-filtration ponds
- 31 and other such features shall be properly protected according to the appropriate erosion control
- 32 measure specified on the Erosion Control Plan. See multiple sections of City of Madison Standard
- 33 Specification 210.1
- 34 a. For the protection of hard to see items such as structures, castings, inlets, etc. in grassy areas
- 35 provide Type E fencing for areas on soil.
- 36 c. For the protection of storm water management features having special soils and plants such as
- 37 bio-filtration ponds provide Type E fencing for areas on soil.
- 38 5. Other structures and covers including but not limited to cleanouts, wiring hand holes, valve boxes, access
- 39 structures, grease trap structures, etc shall be protected as follows:
- 40 a. Provide Type E fencing for areas on soil.
- 41 b. When paving operations are complete provide a construction barrel or cone near structures as
- 42 necessary depending on required heavy construction traffic.
- 43

### 44 3.5. PROTECT PUBLIC RIGHT OF WAY

- 45 A. Except where specifically stated in other areas of the construction documents the following minimal protection
- 46 requirements shall apply under this section.
- 47 1. All public right-of-way (area from behind the sidewalk to the centerline of the street) shall remain open
- 48 and accessible except during periods of active work. At such times the public right of way shall be
- 49 properly closed and signed as referenced in City of Madison Standard Specification 107.9.
- 50 2. Bus stops and bus stop structures shall remain accessible at all times.
- 51 3. Traffic signage and traffic signals, traffic control boxes shall be protected with Type D fencing for areas on
- 52 pavement or Type E fencing for areas on soil.
- 53 a. Protection at traffic signage/signals shall not obstruct the viewing of the sign/signal for its
- 54 intended purpose at any time.
- 55 B. When additional protection for traffic control is required, the use of barricades, guardrails, lane closures and
- 56 other such procedures will be detailed within the construction documents.
- 57 C. When additional protection for overhead sidewalk cover is required the contract documents shall indicate the
- 58 specific location and structural requirements of the protective structure.



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**3.6. PROTECT STORED MATERIALS**

- A. All contractors shall refer to Specification 01 60 00 Product Requirements for all storage and protection requirements of building materials and products delivered to the site.

**3.7. PROTECT WORK - EXTERIOR**

- A. Provide all temporary services that may be required to protect the installed material from heat, cold, humidity, etc, while materials such as concrete, mortar, sealants, paints, etc, are drying and/or curing.
- B. Open trenches, pits, and other such excavations shall be properly covered, lined, or shored as needed during periods of inclement weather to prevent the caving of soils onto existing work in progress. Refer to the appropriate specifications and/or regulatory requirements governing this type of work as necessary.
- C. Provide adequate protection at all openings with heavy duty tarps, plastic sheathing, or wood framing and sheathing as needed to protect interior work in progress from inclement weather as needed.
- D. Protect exterior finishes of all kinds with heavy duty tarps or plastic sheathing as needed while landscaping is being installed through full germination of seeded areas or installation of filter fabric and mulches to keep dust, dirt, and mud off of finished exterior surfaces.
- E. Designate specific curb mounting points and provide wood blocking where small vehicles, skid loaders and other such equipment may need access to areas being landscaped.
- F. Provide plywood turning pads for skid loaders to turn on to prevent tire marking on new pavement.
- G. Do not permit the parking of vehicles with any kind of fluid leaks to park on new pavement.
- H. The contractor shall be responsible for cleaning, repairing, or replacing any completed work or work in progress under this specification as deemed necessary by the CPM without additional cost to the contract.

**3.8. PROTECT WORK - INTERIOR**

- A. The GC shall do all of the following:
  - 1. Provide all temporary services that may be required to protect the installed material from heat, cold, humidity, etc, while materials such as concrete, mortar, sealants, paints, etc, are drying and/or curing.
  - 2. Provide adequate visual and/or physical protection as needed to protect newly completed interior work such as paint, flooring material, sealants, grouts, etc that may be drying and/or curing.
  - 3. Provide adequate space and materials for cleaning boots, tool boxes, supplies, and other items coming into the project site once finish work has begun.
  - 4. Clean dirtied areas and repair/replace damaged areas immediately.
- B. The contractors responsible for interior work shall be responsible for protecting their work and finishes from dirt, mud, snow, spills, splatters, and physical damage after installation as follows:
  - 1. Protect vinyl composite, rubber composite, painted/stained concrete, and tiled flooring as follows:
    - a. Define foot traffic areas and protect with Ramboard Temporary Floor Protection products as a minimum basis of design or other protection product(s) compatible with installed flooring product if Ramboard is not compatible. Products to be used shall be new.
      - i. Tape all edges, seams, etc with a good quality tape that does not leave sticky residue. Do not allow any debris or other material between the installed flooring and the protection material.
      - ii. Repair tears immediately, replace worn areas with like material as necessary.
  - 2. Protect carpeted areas as follows:
    - a. Define foot traffic areas and protect with a minimum of 6mil, clear, polyethylene sheeting 3 feet wide. Products to be used shall be new.
      - i. Tape all edges, seams, etc with a good quality tape that does not leave sticky residue. Do not allow any debris or other material between the installed flooring and the protection material.
      - ii. Repair tears immediately, replace worn areas with like materials as necessary.
  - 3. Protect all finished walls in high traffic areas with Ramboard Temporary Wall protection products or approved equal.
    - i. Tape all edges, seams, etc with a good quality tape that does not leave sticky residue. Do not allow any debris or other material between the installed flooring and the protection material.
    - ii. Repair tears immediately, replace worn areas with like materials as necessary.
  - 3. Protect counter tops, cabinets, and other finished surfaces with large sheets of thick cardboard or Ramboard products. Do not allow toolboxes, finish materials, parts and other such items to be placed on finished materials.

- 1 C. All protection shall stay in place until the CPM, PE, and GC mutually deem the project is ready for Final Cleaning.  
2 The contractors responsible for protecting the work shall be responsible for removing the protection and  
3 removing any adhesive residue at that time. Contractors shall only use manufacturer authorized cleaning  
4 materials for removing adhesives, etc.
- 5 D. Contractors doing work in un-protected areas of finished work shall be required to provide drop cloths and other  
6 protection as noted within this specification for the duration of their work.
- 7 1. Finished areas shall be sufficiently covered to accommodate all equipment, and materials being used to  
8 complete the work being done.
- 9 2. Finished areas shall be sufficiently covered to prevent splatters, over spray, etc when doing touch-up  
10 work.
- 11 3. Contractors who do not provide sufficient protection under this sub-section shall be responsible for any  
12 costs associated with cleaning, repairing or replacing already finished construction at no additional cost  
13 to the contract.
- 14  
15  
16  
17  
18

**END OF SECTION**

**SECTION 01 77 00  
CLOSEOUT PROCEDURES**

1  
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15 3.4. CONTRACT CLOSEOUT REQUIREMENTS ..... 4  
16 3.5. CONTRACT CLOSEOUT PROCEDURE ..... 4  
17

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 21 A. The purpose of this specification is to clearly define and quantify the requirements associated with closing a City  
22 of Madison Public Works Contract for facility related work.  
23 B. All contracts have two distinct but related paths. Each path needs to be properly closed independently in order  
24 to close the contract as a whole.  
25 1. Construction closeout is related to closing out all of the Work associated with the construction  
26 documents.  
27 a. It shall be the responsibility of all contractors to be fully aware of the required Work and closeout  
28 requirements involved in their individual trades.  
29 2. Contract closeout is related to closing out all of the administrative aspects of the contract in general.  
30 a. It shall be the responsibility of all contractors to be fully aware of the administrative requirements  
31 required by the contract and to provide the supporting documentation required.  
32 3. Construction Closeout must be completed before Contract Closeout can begin.  
33 C. This specification will provide general knowledge associated with the following areas:  
34 1. Construction Closeout Requirements  
35 2. Construction Closeout Procedure  
36 3. Contract Closeout Requirements  
37 4. Contract Closeout Procedure  
38 5. Final Payment and Certificate of Completion  
39

**1.2. RELATED SPECIFICATIONS**

- 41 A. Contractors shall review all references to other specifications including specifications relating to the execution of  
42 the Work associated with their Division or Trade.  
43 B. Section 01 29 76 Progress Payment Procedures  
44 C. Section 01 32 16 Construction Progress Schedules  
45 D. Section 01 74 13 Progress Cleaning  
46 E. Section 01 45 16 Construction Waste Management and Disposal  
47 F. Section 01 76 00 Protecting Installed Construction  
48 G. Section 01 78 23 Operation and Maintenance Data  
49 H. Section 01 78 36 Warranties  
50 I. Section 01 78 39 As-Built Drawings  
51 J. Section 01 79 00 Demonstration and Training  
52 K. Other requirements as noted in the contract documents signed by the General Contractor  
53

**1.3. DEFINITIONS**

- 55 A. **Substantial Compliance:** A letter provided to the City of Madison Building Inspection and signed by the Project  
56 Engineer indicating that all Work has been completed to a level that would allow Owner Occupancy and that all  
57 construction is in compliance with the construction documents. A copy of this letter is also provided to the

- 1 State of Wisconsin Department of Health and Safety as necessary to clear plan review requirements. This letter  
2 does not represent construction closeout.
- 3 B. **Certificate of Occupancy:** The Regulatory letter from the City of Madison Building Inspection Department  
4 indicating that all regulatory requirements and inspections have been completed and the building may now be  
5 occupied for its intended use. This letter does not represent construction closeout.
- 6 C. **Certificate of Substantial Completion:** A letter provided by the Department of Public Works, signed by the City  
7 Engineer indicating that Construction activities are substantially complete. This letter does represent  
8 construction closeout and the date of this letter begins the date of the Warranty Period.
- 9 D. **Construction Closeout:** The point in the contract where all contractual requirements associated the execution of  
10 the Work as described in the plans, specifications, and other documents have been successfully met and the  
11 items described in 1.3.A, .B, and .C above have been completed.
- 12 E. **Final Progress Payment:** The progress payment associated with achieving Construction closeout as described in  
13 1.3.D above. At this point the contractor may request all monies associated with the contract be paid with the  
14 exception of held retainage.
- 15 F. **Contract Closeout:** The point in the contract where all contractual requirements associated with the City of  
16 Madison, Board of Public Works contract has been successfully met.
- 17 G. **Final Payment:** The final contract payment submittal that may be approved by the City of Madison after all  
18 contractual requirements of the Public Works Contract have been met and any remaining monies (retainage)  
19 due to the contractor may be released for the Final Payment.

20  
21 **1.4. QUALITY ASSURANCE – CONSTRUCTION CLOSEOUT**

- 22 A. All contractors shall be responsible for properly executing the construction closeout requirements associated  
23 with their Work as described in the specifications governing their Work.
- 24 B. The GC shall be responsible for all of the following:
- 25 1. Ensuring that all contractors have met the construction closeout requirements associated with their  
26 Work.
- 27 2. Coordinate the collection of all construction closeout deliverables from all contractors, provide the  
28 deliverables to the Project Engineer and City Project Manager for review as necessary, and ensure all  
29 contractors correct deficiencies of deliverables and resubmit as needed for final acceptance.
- 30 3. Ensure all closeout requirements identified in the Construction Closeout Checklist below have been  
31 completed as intended by the construction documents.

32  
33 **1.5. QUALITY ASSURANCE – CONTRACT CLOSEOUT**

- 34 A. The City of Madison, Department of Civil Rights (DCR) monitors contract compliance for construction and  
35 procurement contracts to ensure that local, state and federal regulations are followed by contractors working on  
36 City of Madison Public Works (PW) projects. DCR will monitor all PW projects from contract award through the  
37 final payment at the close of the project. Contractors will be required to submit reporting paperwork  
38 throughout the PW project process.
- 39 1. Contractors are encouraged to visit the web site identified below for additional information, checklists,  
40 forms, and other information provided by DCR as it relates to Contract Compliance.  
41 <http://www.cityofmadison.com/Business/PW/contractCompliance.cfm>
- 42 2. Questions regarding the process should be directed to parties and offices as identified on the various  
43 forms, documents, and instructions or contact:  
44 City of Madison, Department of Civil Rights  
45 210 Martin Luther King Jr. Blvd., Room 523  
46 Madison, WI 53703  
47 (608) 266-4910
- 48 B. All Sub-Contractors have submitted the applicable required documents described in item 1.5.D below to the  
49 General Contractor (GC) for Contract Closeout.
- 50 C. The GC has submitted the required applicable documents described in item 1.5.D below for all contractors to the  
51 appropriate City of Madison Agency per instructions associated with each submittal.
- 52 D. The documents required for submittal to the City of Madison for Contract Closeout may include any/all of the  
53 items listed below depending on contract type. It is the sole responsibility of all contractors to know and submit  
54 the required and complete documentation in a timely fashion.
- 55 1. Weekly Payroll Reports
- 56 2. Employee Utilization Reports
- 57 3. Agent or Subcontractor Affidavit of Compliance with Prevailing Wage Rate Determination
- 58 4. Prime Contractor Affidavit of Compliance with Prevailing Wage Rate Determination

5. Documentation required for Small Business Enterprise (SBE) goals
6. Other documents as maybe required or requested through the Finalization Review Process

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

**PART 3 - EXECUTION**

**3.1. CONSTRUCTION CLOSEOUT 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 Construction Closeout Requirements to the GC.
  1. The checklist shall include all items identified within the construction documents that require any of the following (and examples) prior to moving into Contract Closeout Procedures:
    - a. Documents indicating a specified level of performance has been achieved, such as:
      - i. Test reports of all types
      - ii. Startup reports
    - b. Required documentation, such as:
      - i. As-builts and record drawings
      - ii. Operation and maintenance data
    - c. Physical items to be turned over to the owner, such as:
      - i. Attic stock
      - ii. Keys
    - d. Required maintenance completed, such as:
      - i. Ducts cleaned
      - ii. Filters replaced
    - e. Owner and Maintenance Training
  - B. Each list shall indicate the title of the closeout requirement, the associated specification of the requirement, the required result or deliverable, the responsible contractor(s), 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 closeout lists into one master Construction Closeout Checklist.
      - a. The checklist shall be in a tabular data format similar to the sample below
    2. Resubmit the checklist as needed after initial reviews have been completed.
  - D. The GC shall work with all contractors to amend the Construction Closeout Checklist throughout the execution of the project based on changes and modifications as necessary.

<u>Title</u>	<u>Specification</u>	<u>Description</u>	<u>Responsibility</u>	<u>Completed</u>
Quality Management Observation Reports	01 45 16	All QMO reports have been properly responded to, reviewed and closed by the CPM.	All, GC	
As-Built Drawings	01 78 39	As-Built drawings have been reviewed and accepted per the specification	All, GC	
Testing and Balancing	23 09 23	Provide final TAB reports indicating design performance has been achieved	HVAC	

**3.2. CONSTRUCTION CLOSEOUT REQUIREMENTS**

- A. The timely submittal or completion of closeout requirements shall go hand in hand with the Progress Payment Milestone Schedule that can be found in Specification 01 29 76 Progress Payments. No payments shall be made until all requirements for that payment have been met.
  1. The GC and all major Subcontractors, PE, and CPM, shall review all requirements for Construction/Contract Closeout during two (2) special meetings.
    - a. The first meeting shall be held at the 50% Contract Total Payment milestone. This meeting shall discuss the requirements associated with various construction/contract closeout documentation and events when they are due with respect to progress payments.
    - b. The second meeting shall be held at the 70% Contract Total Payment milestone. This meeting shall review the contractors progress regarding the closeout checklist, begin making plans for upcoming deadlines such as scheduling training, where to put attic stock, and when they are due with respect to progress payments.



**SECTION 01 78 23**  
**OPERATION AND MAINTENANCE DATA**

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8 1.4. O&M DATA REQUIREMENTS ..... 1  
9 1.5. O&M DATA SUBMITTALS ..... 2  
10 PART 2 – PRODUCTS – THIS SECTION NOT USED ..... 2  
11 PART 3 - EXECUTION ..... 2  
12 3.1. O&M DATA PREPARATION - GENERAL ..... 2  
13 3.2. O&M DATA DRAFT SUBMITTAL-THIS SECTION NOT USED ..... 2  
14 3.3. O&M DATA FINAL SUBMITTAL-THIS SECTION NOT USED ..... 2  
15 3.3. CONSTRUCTION CLOSEOUT-THIS SECTION NOT USED..... 2  
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 well  
21 documented and complete Operation and Maintenance (O&M) Data related to general facility use, equipment,  
22 systems, finishes, and materials to City of Madison Staff (Owner, Owner Representatives, Maintenance, and  
23 Custodial Personnel) as needed.  
24 B. For primary roofing projects Operation and Maintenance Data shall consist to both of the following categories:  
25 1. Operation and Maintenance Data: Generally shall mean the owner manual that provides information on  
26 start-up, shut-down, operation, troubleshooting, maintenance, parts, and other such documentation as it  
27 pertains to all equipment and systems installed under the Work.  
28 2. Use and Care instructions: Where applicable use and care instructions shall also be considered O&M for  
29 such things as flooring, tile, partitions, and other such finishes and trim related items, installed under the  
30 Work.  
31

**1.2. RELATED SPECIFICATIONS- THIS SECTION NOT USED**

**1.3. QUALITY ASSURANCE**

- 32  
33  
34  
35 A. All O&M Data shall meet the requirements identified in Section 1.4 below.  
36 B. All contractors shall provide O&M Data for each piece of equipment, system, or finish installed during the  
37 installation of the Work. O&M Data shall be provided to the General Contractor (GC) for verification and  
38 submittal.  
39 C. The GC shall be responsible for receiving all required O&M Data files from all contractors for verifying that all  
40 files submitted meet the requirements in Section 1.4 below.  
41

**1.4. O&M DATA REQUIREMENTS**

- 42  
43 A. O&M Data shall be provided in digital PDF format as follows:  
44 1. PDF files shall be complete first generation consumer useable editions of PDF documents as provided by  
45 any of the following:  
46 a. Product manufacturer  
47 b. Supplier of product  
48 c. Product manufacturer internet site  
49 2. Acceptable PDF files shall have the following functionality:  
50 a. Word searchable  
51 b. Key areas are bookmarked  
52 c. Table of Contents and/or Index linked to content is preferred whenever possible.  
53 3. Scanned printed material, with word searchable capabilities, saved as a PDF, is not acceptable and will be  
54 rejected without further review.  
55 B. O&M Data shall include but not be limited to the following manufacturers' published information as appropriate  
56 for the equipment, system, material, or finish:  
57 1. Product Data Sheets for all materials used in the roofing system installation, including drains, roof  
58 hatches and other specialty products as applicable.





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

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7 1.3. DEFINITIONS ..... 1  
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9 PART 2 – PRODUCTS - THIS SECTION NOT USED ..... 2  
10 PART 3 - EXECUTION ..... 2  
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12 3.2. LETTERS OF WARRANTY ..... 3  
13 3.3. STANDARD PRODUCT WARRANTY ..... 3  
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 78 23 Operation and Maintenance Data  
30 B. Other Divisions and Specifications that may address more specifically the requirements for Warranties related to  
31 the installation of all items and equipment installed under the execution of the Work.  
32

**1.3. DEFINITIONS**

- 33  
34 A. Emergency Repair: The Owner or Owner Representative reserves the right to make emergency repairs as  
35 required to keep equipment or materials in operation or to prevent damage to property and injury to persons  
36 without voiding the contractors warranty or bond or relieving the contractor of his/her responsibilities during  
37 the warranty period.  
38 B. Installer: The company or contractor hired to install a finished product that was manufactured and supplied  
39 specifically for the Work within this contract. The Installer may or may not be the same company that supplied  
40 the product. See the definition for supplier.  
41 C. Supplier: Any company that makes a specific finished product for the Work from information within the Contract  
42 Documents. Examples of suppliers would include custom cabinets, steel stairs and railings, etc. A supplier would  
43 not be a company that distributes items manufactured by others such as an electrical or plumbing supplier.  
44 D. Warranty: A written guarantee from the manufacturer to the owner on the integrity of a product and its  
45 installation, and the manufacturers’ responsibility to repair or replace the defective product or components  
46 within a specified time from the date of ownership. Warranty may also be used interchangeably with  
47 Guarantee. The following warranty types may be part of any specification within the Work associated with the  
48 Construction Documents:  
49 1. Expressed Warranty: A warranty that provides specific repair or replacement for covered components of  
50 a product over a specified length of time.  
51 2. Implied Warranty: A warranty that is not stated explicitly by a seller or manufacturer that the product is  
52 merchantable and fit for the intended purpose.  
53 3. Standard Product Warranty: Preprinted written warranties published by individual manufacturers for  
54 particular products and are specifically endorsed by the manufacturer to the Owner. Standard warranties  
55 may be for any amount of time but shall not be for anything less than one (1) year from the warranty  
56 date.  
57 4. Special Warranty: A written warranty required by the Contract Documents either to extend the time  
58 limit provided under a standard warranty or to provide greater rights to the Owner.

- 1 F. Warranty Date: The effective date that begins all warranty periods required for products, installations, and  
2 workmanship associated with the execution of the Work for this contract. The Warranty Date shall be set by the  
3 CPM.
- 4 G. Related Damages and Losses: When correcting failed or damaged Warranted Work, remove and reinstall (or  
5 replace if necessary) the construction that has been damaged as a result of the failure or the construction that  
6 must be removed and replaced to obtain access for the correction of Warranted Work.
- 7 H. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected reinstate the  
8 warranty by a new written endorsement. The reinstated warranty shall be equal to the original warranty with an  
9 equitable adjustment for depreciation unless specifically noted otherwise in a specification.
- 10 I. Replacement Cost: All costs that may be associated with Work being replaced under warranty including but not  
11 limited to the following:
- 12 1. Related damages and losses  
13 2. Labor, material and equipment  
14 3. Permits and inspection fees  
15 4. This shall be regardless of any benefit the Owner may have had from the Work through any portion of its  
16 anticipated useful service life.
- 17 J. Replacement Work: All materials, products, required labor, and equipment necessary to replace failed or  
18 damaged warranted to an acceptable condition that complies with the requirements of the original Construction  
19 Documents.
- 20 K. Owners Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not  
21 limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods  
22 shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations,  
23 rights, and remedies.
- 24 1. Rejection of Warranties: The Owner reserves the right to reject any warranty and to limit the selection of  
25 products with warranties not in conflict with the requirements of the contract documents.
- 26 2. Where the Contract Documents require a Special Warranty or similar commitment on the Work or  
27 product, the Owner reserves the right to refuse acceptance of the Work until the Contractor presents  
28 evidence the entities required to countersign such required commitments have done so.
- 29

30 **1.4. GENERAL CONTRACTORS RESPONSIBILITIES**

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

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

47  
48 **PART 3 - EXECUTION**

49  
50 **3.1. WARRANTY CHECKLIST**

- 51 A. All contractors shall be responsible for reviewing the drawings and specifications within their Divisions of Work  
52 to provide a complete and comprehensive list of all Warranty Requirements to the GC.
- 53 B. Each list shall indicate the title (and plan identifier when applicable) of the warranted item, the associated  
54 specification of the warranted item, the terms of the warranty (years), and a column to verify the item has been  
55 turned in and completed.
- 56 C. The GC shall be responsible for all of the following:
- 57 1. Consolidating all the warranty lists into one master Warranty Checklist and submitting electronically.
- 58 a. The checklist shall be in a tabular data format similar to the sample below.



- 1 a. If a PDF version is used all additional information shall be completed using simple PDF editing  
2 tools such as text boxes, highlight, etc.  
3 b. If a PDF version is not available and an original document is furnished the additional information  
4 shall be neatly hand written and highlighted on the document in such a fashion so that it does not  
5 obscure any part of the written warranty.  
6 2. Provide the following additional information on each warranty document:  
7 a. Contract warranty date.  
8 b. Provide the manufacturer name and model number of the product if not specified within the  
9 warranty.  
10 i. Where the manufacturer name and model number is specified within the warranty it shall  
11 be highlighted for visibility.  
12 c. Provide the plan identifier (LAV-1, WC-2, etc.) when applicable.  
13 D. Each completed warranty shall be saved as a digital PDF. The file shall be named using the specification number  
14 and item description. I.E. 22 42 00 Toilet (WC-1).pdf  
15 a. Where an original certificate was furnished provide a high quality colored scan of the completed  
16 document with the additional information. Save the scanned image in PDF format and use the  
17 same naming convention as indicated above.  
18 E. Provide all PDF files and any original documents to the GC for final consolidation to be provided to the Owner.  
19

20 **3.4. FINAL WARRANTY SUBMITTAL**

- 21 A. The GC shall receive all required warranties (digital PDF and any original documents) from all contractors,  
22 suppliers, installers and manufacturers.  
23 B. The GC shall inventory all received warranties with the Warranty Submittal List to ensure all required warranties  
24 have been received and all warranty periods are correct according to the specifications.  
25 C. Provide with each Operation and Maintenance Manual a complete copy of any associated warranty.  
26 D. Scan all warranties into a single organized electronic PDF file as follows:  
27 1. Organize the PDF file into an orderly sequence based on the table of contents of the Specifications.  
28 2. Provide a typed Table of Contents for the entire file at the front of the document.  
29 3. Provide bookmarks and links to each individual PDF to enable quick navigation through the PDF  
30 document.  
31 E. Submit electronically, the warranty submittal for review by the PE and CPM.  
32 F. Correct any deficiencies or omissions and resubmit as necessary.  
33

34 **3.5. WARRANTY NOTIFICATION, RESPONSE, EXECUTION AND FOLLOW-UP**

- 35 A. Not Applicable.  
36  
37  
38  
39  
40

**END OF SECTION**

**SECTION 09 64 00  
ENGINEERED FLOORING AND RELATED WORK**

1  
2  
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33 3.12. **WARRANTY** ..... 6

**PART 1 – GENERAL**

- 34  
35  
36  
37 **1.1. CONDITIONS OF CONTRACT**  
38 A. The conditions of the Contract (General, Supplemental, and other Conditions) and the requirements of Division 1  
39 are hereby made a part of this Section. Applicable provisions of Division 1 shall govern work under this section.  
40  
41 **1.2. SUMMARY OF WORK**  
42 A. Unless otherwise specified in the drawings, specifications and provisions of the contract, the Contractor shall  
43 furnish all materials, tools, equipment, apparatus, transportation, labor and supervision required to remove the  
44 existing flooring materials from the main floor and install new floor materials and related work at the Gates of  
45 Heaven Synagogue, 300 East Gorham Street, Madison, Wisconsin.  
46 B. The floor replacement project work includes, but is not limited to, the following:  
47 A. Deliver materials to the site to acclimate to the building environment. Check moisture content in new material.  
48 B. Inspect all material for defects. Cull out pieces that will not be acceptable for installation.  
49 C. Blend materials from all cartons so any variation in is spread across the floor.  
50 D. Remove existing quarter round shoe molding from main floor.  
51 E. Remove existing front door threshold for reinstallation.  
52 F. Remove existing railing to basement stair related to flooring installation and protect for reinstallation.  
53 G. Cut existing flooring around base of altar with fine saw tool to remove existing flooring without damage to  
54 altar/bema surface finish.  
55 H. Remove existing flooring at main floor. Leader boards at basement stair opening to remain in place.  
56 I. Discard removed flooring and shoe molding. Retain front door threshold for reinstallation.  
57 J. Mock up options to integrate new flooring with existing stair opening leaders to remain and discuss options with  
58 engineered flooring manufacturer and CPM to find best solution for achieving historic appearance.

- 1 K. Assess condition of existing subfloor and address any areas requiring removal and replacement.  
2 L. Clean subfloor so it is free of dust and debris and will allow for the proper installation of underlayment.  
3 M. Install new plywood underlayment.  
4 N. Clean underlayment so it is free of dust and debris and will allow for the proper installation of paper.  
5 O. Install 15lb asphalt felt paper.  
6 P. Install new engineered flooring with nail down installation at main floor following manufacturer's installation  
7 instructions. Carefully scribe new floor to altar/bema leaving gaps as specified by manufacturer's installation  
8 instructions. Install flooring at existing stair opening leaders to achieve historic appearance.  
9 Q. Sand, seal, and apply tinted commercial grade finish at main floor. Color to be determined on site, but will be  
10 similar to existing floors to remain.  
11 R. Sand front door threshold and apply tinted commercial grade finish to match color of finish used at new flooring.  
12 S. Reinstall railing at stair to basement.  
13 T. Install new quarter round shoe molding at main floor. Paint to match existing paint color of adjacent baseboard,  
14 columns, closed rails, or stair risers. Quarter round adjacent to newel posts should be finished to match newel  
15 post.  
16 U. Install new 5/8" thick x 3/4" high shoe molding along front of altar/bema in species and finish to match  
17 altar/bema. This molding should have a slight bevel or angle in profile.  
18 V. Screen existing floors of altar/bema platforms, balcony areas, and stairs and landings. Screen corners and areas  
19 around existing railing balusters with small power hand tools or by hand. Existing quarter round in these areas to  
20 remain in place.  
21 W. Apply commercial grade finish to screened areas to match main floor color (may require a different finish color).  
22 X. Touch up paint or finish where scuffed by screening or sanding work.
- 23 **1.3. RELATED SPECIFICATIONS, REFERENCES & REQUIREMENTS**  
24 A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division  
25 01 Specification Sections, apply to this Section.  
26 B. National Floor Covering Association, NFCA  
27 C. Install all roofing products in accordance with all federal, state, and local building codes.  
28 D. All work shall be performed in a manner consistent with current OSHA guidelines.  
29 E. Obtain all necessary building permits.  
30 F. The contractor shall be responsible for meeting all requirements of the Madison General Ordinance, Chapter 10,  
31 Section 10.185, Recycling and Reuse of Construction and Demolition Debris, for commercial buildings.  
32
- 33 **1.4. SUBMITTALS**  
34 A. Submit manufacturer's technical data and instructions for each product and component to be used to CPM and  
35 installer with mark ups to show the specific items, type model, and exactly how all components will be installed.  
36 Where instructions allow installer options, clearly indicate which option will be used.  
37 B. Provide submittals and samples for the following products:  
38 1. Engineered flooring material with heart pine top layer and example of small tight knot  
39 2. Subfloor underlayment material  
40 3. Paint color sample for the shoe molding  
41 4. Moisture barrier underlayment  
42 5. Shoe molding profile to match existing  
43 6. Molding profile at altar/bema  
44 7. Finish for molding piece to match altar/bema color and sheen  
45 7. Flooring finishes for the following:  
46     ▪ Engineered flooring  
47     ▪ Existing flooring  
48 C. Close Out Submittals:  
49 1. Maintenance Data: For roofing system to include in maintenance manuals. Refer to Section 01 78 23  
50 OPERATION AND MAINTENANCE DATA.  
51 2. Executed copies of all warranties. Refer to Section 01 78 36 WARRANTIES.  
52
- 53 **1.5. MEETINGS**  
54 A. Pre-Bid Meetings: Refer to Section A of the Proposal, Contract, Bond and Specifications document for pre-bid  
55 meeting date, time and location.  
56 B. Pre-Construction Meeting: A mandatory pre-construction meeting shall take place prior to the start of the work.  
57 1. Attendees: The contractor and any subcontractors and the CPM are required to attend.

- 1                    2.     Topics: Certified contractor and manufacturer’s representative shall review all pertinent requirements for  
2                    the project, including but not limited to, site product storage, scheduling, weather considerations, project  
3                    duration, and requirements for the specified warranty.  
4                    C.     Pre-Installation Meetings: The contractor shall be responsible for notifying the CPM at each phase of the project  
5                    and at critical inspection points. Each work phase shall be inspected and approved by the CPM before  
6                    proceeding with the work.  
7                    D.     Final Inspection Meeting: A final inspection shall take place when the contractor completes all work. The  
8                    contractor shall notify the CPM at such time and arrange for a final inspection meeting. Substantial completion  
9                    shall be determined once all deficiencies have been corrected from this inspection.

10

11     **1.6.    QUALITY ASSURANCE**

- 12                    A.     There will be no deviation made from this specification and the drawings without prior written approval by the  
13                    CPM.  
14                    1.     The Contractor shall coordinate with the CPM to inspect all installed components for compliance with the  
15                    intent of the design as outlined in the drawings and specifications. In addition, the Contractor shall  
16                    B.     Installer Qualifications: By submitting the bid, the bidder and each subcontractor certifies as to meeting the  
17                    following requirements:  
18                    1.     Installer must be approved by the manufacturer at the proper level for installation of all roofing products  
19                    that are to be installed under this section in order to obtain the specified warranty. For the GAF-Elk  
20                    roofing system, the installer must have GAF Master Elite status. For other roofing systems, the installer  
21                    must have an equivalent qualification.  
22                    2.     Installer has access to all necessary equipment and has organizational capacity and technical competence  
23                    necessary to do the work properly and expeditiously.  
24                    3.     Maintains a permanent place of business.  
25                    C.     Proceed with work only when existing and forecasted weather conditions will permit work to be performed in  
26                    accordance with the manufacturer’s recommendations. During the work day, should the weather conditions  
27                    appear to be changing adversely, take preventive measures to allow the work area to be closed to a weather  
28                    tight condition to avoid exposure to building, equipment, and materials.  
29                    D.     Repair any work, damaged by failure to provide proper and adequate protection, to its original state to the  
30                    satisfaction of the CPM or remove and replace with new work to match the appropriate historical appearance at  
31                    the Contractor’s expense.

32

33     **1.7.    DELIVERY, STORAGE AND HANDLING**

- 34                    A.     Do not deliver the wood flooring product during adverse weather conditions.  
35                    B.     Deliver all products to the building in manufacturer’s original unopened labeled packaging and containers with  
36                    labels and markings intact.  
37                    C.     Store products at temperature and relative humidity ranges required by manufacturer’s recommendations.  
38                    Achieve these conditions 5 days prior to delivery and maintain these conditions throughout installation. Record  
39                    daily temperature and relative humidity from 5 days prior to delivery through installation. Conduct daily  
40                    moisture tests of flooring material and record results for CPM review from delivery through completion of work.  
41                    Contact CPM immediately if HVAC system does not appear to be working correctly.  
42                    D.     Store bundles on a flat surface per manufacturer’s recommendations.  
43                    E.     Inspect the product at time of delivery for moisture content, color, grade, finish, or any damage and contact the  
44                    local flooring dealer immediately if the flooring material is found to be unacceptable.

45

46     **1.8.    PROJECT CONDITIONS**

- 47                    A.     Job Site  
48                    1.     The job site itself is an historic building located in a city park. The building is not open to the public  
49                    during the work.  
50                    2.     Protect and maintain the job site in a safe condition for the duration of the work.  
51                    3.     Remove debris daily and keep job site clean throughout the work day.  
52                    4.     Maintain the temperature and relative humidity level in the recommended ranges to ensure maximum  
53                    performance of the product. Achieve these conditions 5 days prior to delivery.  
54                    B.     Protection of Work: All necessary protection shall be provided to prevent damage to existing historic materials  
55                    and new materials during all aspects of this work.  
56                    C.     Hazardous Materials: Contractor may encounter lead paint on existing interior wood surfaces. The Contractor  
57                    shall take necessary precautions and use best practices when working in these areas.

58

1 **1.9. WARRANTY**

- 2 A. Provide standard product warranties for products purchased and installed under this contract. Refer to Section  
3 01 78 36 "Warranties".  
4

5 **PART 2 - PRODUCTS**

6  
7 **2.1. GENERAL**

- 8 A. Provide products by manufacturers which meet or exceed standards as set forth in this Section.  
9 B. All materials shall be new. No products specified or approved shall contain asbestos.

10  
11 **2.2. ENGINEERED WOOD FLOORING**

- 12 A. Multi-layer product consisting of a solid wood top-layer glued to the multi-layer plywood base system.  
13 1. Top-layer: 3mm wear-layer in select heart pine with limited small tight knots to match appearance of  
14 existing floor. Squared edge preferred, micro-beveled edge would be considered. No factory finish.  
15 2. Dimension: 5-5 1/8 inches wide x 10 feet long x 5/8-3/4 inch thick  
16 3. Installation type: Nail down  
17 4. Warranty: 25 year  
18 5. Low Volatile Organic Compound (VOC) emission.

19  
20 **2.3. SUBFLOOR UNDERLAYMENT**

- 21 A. Exterior grade B plywood (no OSB) subfloor underlayment in thickness that when combined with engineered  
22 flooring will result in the thickness of the existing floor. This subfloor underlayment will be placed on top of the  
23 existing subfloor.  
24 B. Moisture content difference between the engineered floor and the underlayment must not exceed more than  
25 the percentage noted by the manufacturer.  
26

27 **2.4. MOISTURE BARRIER UNDERLAYMENT**

- 28 A. 15 lb. laminated asphalt felt paper for flooring underlayment by Hosking Hardwood, Fortifiber, Aquabar B, or  
29 approved equal. 15lb asphalt paper for roofing is not desirable in this application.  
30

31 **2.5. FLOOR FINISH**

- 32 A. New floor finish: Commercial grade low VOC finish with added tint to match existing floor color and matte sheen.  
33 2 coats minimum. Prepare samples on uninstalled flooring material until desired floor color is achieved.  
34 B. Existing floor finish: Commercial grade low VOC finish with matte sheen. 2 coats minimum.  
35

36 **2.6. TRANSITION MOLDING**

- 37 A. Quarter round molding: New material dimension, profile and species to match existing material. Molding will  
38 have painted or stained finish applied to match finish of adjacent material.  
39 B. Shoe molding at altar/bema: 5/8" thick x 3/4" high slight bevel or angle in top profile in species to match existing  
40 altar/bema material. Molding will have stained finish applied to match finish of adjacent altar/bema.  
41

42 **PART 3 - EXECUTION**

43  
44 **3.1. GENERAL CONDITIONS**

- 45 A. The contractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of  
46 material quantities required and necessary to satisfy the requirements of the drawings and specifications.  
47 B. All necessary protection shall be provided to prevent damage to existing adjacent historic materials and  
48 landscaping during all aspects of this work.  
49

50 **3.2. SELECTIVE DEMOLITION**

- 51 A. Remove existing quarter round shoe molding from main floor. Lead paint may be encountered with this work.  
52 B. Remove existing front door threshold and protect for reinstallation.  
53 C. Remove existing railing to basement stair related to flooring installation and protect for reinstallation.  
54 D. Cut existing flooring around base of altar with fine saw tool to remove existing flooring without damage to  
55 altar/bema or its surface finish.  
56 E. Remove existing flooring at main floor. Leader boards at basement stair opening to remain in place.  
57 F. Discard removed flooring and shoe molding. Retain front door threshold for reinstallation.  
58



1 **3.3. PREPARATION**

- 2 A. Clean existing subfloor of dust, debris, moisture, and other substances detrimental to flooring system installation  
3 according to flooring manufacturer's instructions. Remove sharp projections.  
4 B. Verify that the deck is dry, sound, clean and smooth. It shall be free of any depressions, waves, and projections  
5 or areas of deterioration. Replace any areas in-kind that do not meet these standards.  
6 C. Do not begin flooring installation until the existing subfloor has been properly prepared.  
7

8 **3.4. INSTALLATION OF SUBFLOOR UNDERLAYMENT**

- 9 A. The subfloor underlayment must be flat within 3/16" over a 10 foot radius in all directions.  
10 B. Test moisture content of subfloor underlayment to ensure that it meets manufacturer's recommendations for  
11 flooring installation.  
12 C. Kerf the back of the panel as recommended by the manufacturer to take the tension out of the panel.  
13 D. Install subfloor underlayment at 45 degree angle (preferred) or perpendicular to the direction of the finished  
14 floor.  
15 E. Stagger sheets and allow expansion gap between panels as suggested by the flooring manufacturer. Scribe  
16 subfloor underlayment to altar/bema without damaging the surface.  
17 F. Glue and mechanically fasten as indicated in the manufacturer's recommendations.  
18

19 **3.5. INSTALLATION OF MOISTURE BARRIER UNDERLAYMENT**

- 20 A. Clean subfloor underlayment of dust, debris, moisture, and other substances detrimental to flooring system  
21 installation according to flooring manufacturer's instructions. Remove sharp projections.  
22 B. Cover the clean subfloor underlayment with moisture barrier underlayment. This material will keep the floor  
23 clean and help retard moisture from below.  
24 C. Follow installation instructions from underlayment manufacturer and flooring manufacturer.  
25

26 **3.6. INSTALLATION OF ENGINEERED WOOD FLOORING**

- 27 A. Clean moisture barrier underlayment of dust, debris, and other substances detrimental to flooring system  
28 installation according to flooring manufacturer's instructions. Remove sharp projections.  
29 B. Blend the product from all cartons to achieve a uniform appearance across the entire floor. Cull out planks that  
30 may not be acceptable.  
31 C. Conduct daily moisture tests and record results for CPM review before flooring installation begins.  
32 D. Install flooring using methods recommended by manufacturer. Scribe flooring to altar/bema making sure to  
33 leave gaps as specified by the manufacturer.  
34 E. Protect installed flooring from damage, dings, dents and scratches.  
35 F. Stagger end joints by at least 14 inches. Randomly install different lengths to avoid a patterned appearance. Use  
36 long lengths to replicate historic appearance.  
37 G. Follow manufacturer's recommendations for complete set up and operation of fastening equipment. Use only  
38 manufacturer's recommended staples or cleats. When used improperly, staples or cleats may cause blistering,  
39 peaking, squeaking, or other damage to the floor. The crown of the staple should sit flush within the nail pocket.  
40 H. Use tapping block to engage the tongue and groove so that adjacent planks are flush and tight without gaps. Do  
41 not use a rubber mallet directly on the flooring.  
42 I. Planks near the last rows will need to be fastened by hand by either blind nailing or face nailing. Drill pilot holes  
43 as specified by the manufacturer and countersink nails. Fill holes with wood filler and prepare surface for  
44 finishing.  
45 J. Mock up connection detail where new flooring will abut existing leader boards at stair opening to basement.  
46 Existing leader boards must remain in place and final detail must match historic appearance. Mock ups shall be  
47 created using non-fixed sample materials for review and approval by the CPM.  
48 k. Prepare flooring for having finish applied as specified by the flooring manufacturer.  
49

50 **3.7. SCREENING EXISTING FLOORING**

- 51 A. Use 16 inch floor polisher with 4 screening grits from rough to smooth 60, 80, 100 and 120 grit for stairs, balcony  
52 and altar/bema platforms. Use palm sander for corners and edges of these spaces.  
53 B. Screen or sand the front door threshold to prepare for application of finish.  
54 C. Vacuum dust from all surfaces including floor and walls. Use tack cloth to collect remaining dust from screened  
55 floor surfaces.  
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**3.8. APPLICATION OF FLOOR FINISH**

- A. New floor finish: Install a minimum of 2 coats of commercial grade low VOC finish as approved by CPM with matte sheen. Apply finish to floor as specified by flooring and finish manufacturers.
- B. Existing floor finish: Install a minimum of 2 coats of commercial grade low VOC finish with matte sheen. Apply finish to floor as specified by finish manufacturer.
- C. Front door threshold: Apply finish to match color and sheen of new flooring. Apply finish to threshold as specified by finish manufacturer.

**3.9. INSTALLATION OF TRANSITION MOLDINGS**

- A. Quarter round molding: Install new quarter round where quarter round existed before removal. Paint or stain new quarter round to match appearance before removal. Install in long lengths with scarf joints and mitered corners.
- B. Shoe molding at altar/bema: Install new molding to cover gap at new flooring. Stain new molding to match color and finish of adjacent altar/bema surface. Install with mitered corners following perimeter shape of altar/bema.
- C. Install molding using brad nailer. Countersink brads at the altar/bema and fill holes with putty.

**3.10. PROTECTION AND CLEANING**

- A. Protect building, landscaping and flooring from damage during the work. Immediately report any damage to the City Project Manager.
- B. Correct deficiencies in or remove areas that do not comply with requirements and reinstall to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean dirt, dust, and debris from the site and building interior.

**3.11. ATTIC STOCK**

- A. Provide a minimum of 100 square feet of flooring material for future repairs and unused paint and floor finish.
- B. Provide the formula for the tinted floor finish for each flooring area.

**3.12. WARRANTY**

- A. Refer to section 1.8 of this document for warranty requirements.

**END OF SECTION**

END OF PROJECT MANUAL  
GATES OF HEAVEN FLOOR REPLACEMENT  
CONTRACT # 8893