

EXHIBIT "B"

Project Manual
TECHNICAL SPECIFICATIONS

DAIRY DR CAMPGROUND DEMO & SITE RESTORATION

Economic Development Division

Bid Documents
September 03, 2025

PW Contract No. 9681



**DAIRY DR CAMPGROUND DEMO AND SITE RESTORATION
TABLE OF CONTENTS**

DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

00 31 46 – Permits

DIVISION 01 GENERAL REQUIREMENTS

01 26 13 – Request for Information (RFI)

01 26 57 – Change Order Request (COR)

01 26 63 – Change Order (CO)

01 29 73 – Schedule of Values

01 29 76 – Progress Payment Procedures

01 31 13 – Project Coordination

01 31 23 – Project Management Website

01 32 16 – Construction Progress Schedule

01 32 26 – Construction Progress Reporting

01 32 33 – Photographic Documentation

01 50 00 – Temporary Facilities and Controls

01 74 19 – Construction Waste Management and Disposal

01 76 00 – Protecting Installed Construction

END OF SECTION

SECTION 00 31 46
PERMITS

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. REFERENCES	1
1.3. GENERAL CONTRACTORS REQUIREMENTS	1
PART 2 – PRODUCTS – THIS SECTION NOT USED	1
PART 3 – EXECUTION – THIS SECTION NOT USED	1

PART 1 – GENERAL

1.1. SUMMARY

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

1.2. REFERENCES

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

1.3. GENERAL CONTRACTORS REQUIREMENTS

- A. The GC shall be responsible for all of the following:
 - 1. Execute application for all required permits as may be required by the scope of work described within the contract documents.
 - 2. Scheduling all required inspections that may be conditions of any required permits.
 - 3. Paying for other permits not explicitly stated as excluded in this section.
- B. The GC is not responsible for paying for the City Building, City HVAC, City Electrical, City Plumbing, Madison Fire Department Sprinkler and Madison Fire Department Fire Alarm permits.
- C. The GC shall provide high quality scanned images of all required permits and inspections and upload them to the Contract Documents-Regulatory Documents Library on the Project Management Web Site.

PART 2 – PRODUCTS – THIS SECTION NOT USED

PART 3 – EXECUTION – THIS SECTION NOT USED

END OF SECTION

SECTION 01 26 13
REQUEST FOR INFORMATION (RFI)

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATIONS	1
1.3. PERFORMANCE REQUIREMENTS.....	1
1.4. QUALITY ASSURANCE	1
PART 2 – PRODUCTS.....	1
2.1. REQUEST FOR INFORMATION FORM	1
PART 3 - EXECUTION	1
3.1. CONTRACTOR INITIATED RFI	1
3.3. RFI RESPONSES	2
3.4. COMMENCEMENT OF WORK RELATED TO AN RFI	2

PART 1 – GENERAL

1.1. SUMMARY

- A. Contractors shall use the RFI form/process to request additional information or clarification regarding the construction documents.
- B. All RFI documentation will be processed through the through the Project Management Web Site (PMWS).

1.2. RELATED SPECIFICATIONS

- A. Section 01 26 57 Change Order Request (COR)
- B. Section 01 26 63 Change Order (CO)
- C. Section 01 31 23 Project Management Web Site (PMWS)

1.3. PERFORMANCE REQUIREMENTS

- A. RFI issues initiated by any contractor shall be done through the General Contractor (GC).
 - 1. RFIs submitted by any Sub-contractor under the GCs control shall be returned with no response.
- B. Submit a new RFI for each issue. Only multiple questions that are of a similar nature may be combined into one RFI shall be allowed and responded to.

1.4. QUALITY ASSURANCE

- A. The GC shall be responsible for all of the following:
 - 1. Ensure that any request for additional information is valid and the information being requested is not addressed in the construction documents.
 - 2. Ensure that all requests are clearly stated and the RFI form is completely filled out.
 - 3. Ensure that all Work associated an RFI response is carried out as intended.
- B. The Project Architect /Project Engineer (A/E PROJ MGR) shall be responsible for the following:
 - 1. Ensure that all responses to contractor initiated RFIs are properly responded to in a timely fashion.
 - a. The CPM, Owner, consulting staff, and other City staff shall be responsible for the initial review of the RFI. The A/E PROJ MGR shall be responsible for codifying all consultant and Owner/City staff comments into a unified RFI response.

PART 2 – PRODUCTS

2.1. REQUEST FOR INFORMATION FORM

- A. The RFI form is located on the Project Management Web Site.

PART 3 - EXECUTION

3.1. CONTRACTOR INITIATED RFI

- A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents any contractor may initiate an RFI for additional information or clarification through the GC.
- B. The GC shall use the Project Management Web Site and completely fill out the form.

1. Thoroughly explain the issue at hand, provide backup information (photographs, sketches, drawings, data, etc.) as necessary, and clearly state the question or problem that requires a resolution. Combine like or related issues but do not include multiple issues on one form.
- a. Example. If a duct interferes with other critical piping and electrical work include all issues into one RFI.
- b. Example. If you have a question regarding the chiller and another regarding toilet partitions create separate RFIs.

3.3. RFI RESPONSES

- A. Responses to simple RFI issues shall be completed within five (5) working days of the RFI form being submitted.
- B. Responses to more complex issues may require additional time or may require a Construction Bulletin to be published. The initial RFI shall be responded to within five (5) working days stating that the RFI is being reviewed and provide an estimated date for the response.
- C. The following GC generated RFIs will be returned without action:
 1. Requests for approval of submittals
 2. Requests for approval of substitutions
 3. Requests for approval of Contractor's means and methods.
 4. Requests for coordination information already indicated in the Contract Documents.
 5. Requests for adjustments in the Contract Time or the Contract Sum.
 6. Requests for interpretation of A/E's actions on submittals.
 7. Incomplete RFI or inaccurately prepared RFI.

3.4. COMMENCEMENT OF WORK RELATED TO AN RFI

- A. The GC shall only proceed with the Work of an RFI when additional information is not required.
- B. The GC shall not proceed with any Work associated with an RFI while it is under review.
- C. The GC shall not proceed with any Work associated with an RFI that clearly states a CB will be issued in response to the RFI.
- D. The GC will be required to immediately remove and replace unauthorized Work and all costs required to conform to the Contract Documents shall be borne by the GC.

END OF SECTION

SECTION 01 26 57
CHANGE ORDER REQUESTS (COR)

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATION SECTIONS	2
1.3. DEFINITIONS AND STANDARDS	2
1.4. CONTRACT EXTENSION	3
1.5. OVERHEAD AND PROFIT MARKUP	3
1.6. PERFORMANCE REQUIREMENTS	3
1.7. QUALITY ASSURANCE	4
PART 2 – PRODUCTS	4
2.1. CHANGE ORDER REQUEST FORM	4
PART 3 - EXECUTION	4
3.1. ESTABLISHING A CHANGE ORDER REQUEST	4
3.2. SUBMIT A CHANGE ORDER REQUEST FORM	4
3.3. CHANGE ORDER REQUEST REVIEW, APPROVAL, AND PROCESSING	4
3.4. EMERGENCY CHANGE ORDER REQUEST	5

PART 1 – GENERAL

1.1. SUMMARY

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

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

1.2. RELATED SPECIFICATION SECTIONS

- A. Section 01 26 13 Request for Information (RFI)
- B. Section 01 26 46 Construction Bulletins (CB)
- C. Section 01 26 63 Change Order (CO)
- D. Section 01 31 23 Project Management Web Site (PMWS)
- E. Parts of this specification will reference articles within "The City of Madison FACILITIES MANAGEMENT SPECIFICATIONS for Public Works Construction".
 - 1. Use the following link to access the FACILITIES MANAGEMENT SPECIFICATIONS web page:
<http://www.cityofmadison.com/business/pw/specs.cfm>
 - a. Click on the "Part" chapter identified in the specification text. For example if the specification says "Refer to City of Madison FACILITIES MANAGEMENT SPECIFICATION 210.2" click the link for Part II, the Part II PDF will open.
 - b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you to the referenced text.

1.3. DEFINITIONS AND STANDARDS

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

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

1.4. CONTRACT EXTENSION

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

1.5. OVERHEAD AND PROFIT MARKUP

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

1.6. PERFORMANCE REQUIREMENTS

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

1.7. QUALITY ASSURANCE

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

PART 2 – PRODUCTS

2.1. CHANGE ORDER REQUEST FORM

- A. The COR form is located on the Project Management Web Site.

PART 3 - EXECUTION

3.1. ESTABLISHING A CHANGE ORDER REQUEST

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

3.2. SUBMIT A CHANGE ORDER REQUEST FORM

- A. This specification shall provide a subject overview only. In depth instructions shall be provided to the awarded Contractor in a PDF Instructional Manual.
- B. The GC shall select the appropriate link on the Project Management Web Site.
- C. The software will open a new COR form and the GC shall provide all of the following information:
 - 1. DO NOT perform any calculations on this worksheet, only provide the raw data as requested below. All calculations, totals, and markups shall be computed as described within this specification.
 - 2. Provide a summary description of the COR request, and justification for any requested time extension to the contract, indicate the number of calendar days being requested for the extension and add any attachments to the form as needed.
 - 3. Provide all GC self-performance data including all of the following:
 - a. Materials description, quantities, and unit costs.
 - b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.
 - c. Equipment descriptions, quantities, unit costs and rates.
 - 4. Provide all Sub-contractor data including all of the following:
 - a. Materials description, quantities, and unit costs.
 - b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.
 - c. Equipment descriptions, quantities, unit costs and rates.
 - 5. Ensure all calculations performed by the form have been completed correctly. Contact the CPM directly if you suspect an error before hitting the save button.
- D. When all data has been entered submit the COR form. This will kick off the COR Review and Approval process.

3.3. CHANGE ORDER REQUEST REVIEW, APPROVAL, AND PROCESSING

- A. The A/E PROJ MGR and CPM shall review all CORs submitted by the GC.

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

14 **3.4. EMERGENCY CHANGE ORDER REQUEST**

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

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

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATION SECTIONS	1
1.3. BOARD OF PUBLIC WORKS PROCEDURE	1
PART 2 – PRODUCTS.....	1
2.1. CHANGE ORDER FORM.....	1
PART 3 - EXECUTION	2
3.1. PREPARATION OF THE CHANGE ORDER	2
3.2. EXECUTION OF THE CHANGE ORDER	2

PART 1 – GENERAL

1.1. SUMMARY

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

1.2. RELATED SPECIFICATION SECTIONS

- A. Section 01 26 13 Request for Information (RFI)
- B. Section 01 26 46 Construction Bulletin (CB)
- C. Section 01 26 63 Change Order Request (COR)
- D. Section 01 31 23 Project Management Web Site (PMWS)

1.3. BOARD OF PUBLIC WORKS PROCEDURE

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

PART 2 – PRODUCTS

2.1. CHANGE ORDER FORM

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

PART 3 - EXECUTION

3.1. PREPARATION OF THE CHANGE ORDER

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

3.2. EXECUTION OF THE CHANGE ORDER

- A. Upon saving the CO as described in section 3.1 above, the software associated with the Project Management Web Site shall notify the GC that the CO has been drafted and is ready for review. The GC shall do the following:
1. Open the CO form using the link provided in the email notification and review all items on the form.
 2. The GC shall notify the CPM immediately of any errors or discrepancies on the form and shall not sign or save it.
 - a. The CPM shall make any corrections as needed, re-save the form, and notify the GC.
 3. If/when the GC concurs with the CO form as drafted the GC shall digitally sign the form and click SAVE.
- B. After the GC digitally signs/saves the CO it shall be routed through the Project Management Web Site for additional review and/or approvals. The CPM shall do the following:
1. Monitor the review process to ensure the software is working properly at each review step.
 2. Ensure that proper BPW procedures are executed as needed by the CO approval process.
 - a. Schedule the CO on the next available BPW agenda if required.
 - i. Attend the BPW meeting to speak on the CO to board members and answer questions.
 - ii. The GC and/or the Project Architect /Project Engineer (A/E PROJ MGR) may be required to attend the BPW meeting to address specific information as it relates to the Work and/or materials associated with the CO.
 3. Monitor final approval and distribution of the CO.
 4. Notify the GC that the CO has been completed.
 5. Ensure that the CO is posted to the next Public Works payment schedule.
 6. Verify that the GC's next Progress Payment-Schedule of Values show the CO as part of the contract sum.
- C. Upon final approval of the CO the GC may proceed with executing the Work associated with the CO.

END OF SECTION

**SECTION 01 29 73
SCHEDULE OF VALUES**

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATIONS	1
1.3. RELATED DOCUMENTS	1
1.4. BASIS OF VALUES	1
PART 2 – PRODUCTS – THIS SECTION NOT USED	2
PART 3 - EXECUTION	2
3.1. APPLICATION FOR PAYMENT	2
3.2. PROJECT MANAGEMENT WEBSITE SOV SPREADSHEET	2
3.3. INITIAL SCHEDULE OF VALUES SUBMITTAL	2
3.4. SOV FOR PROGRESS PAYMENT REQUESTS	2

PART 1 – GENERAL

1.1. SUMMARY

- A. The Schedule of Values (SOV) is a Contractor provided statement that allocates portions of the total contract sum to various portions of the contracted work and shall be the basis for reviewing the Contractors Progress Payment Requests.
- B.
- C. The General Contractor shall be responsible for filling out and updating the SOV in the Project Management website with each Progress Payment Request.

1.2. RELATED SPECIFICATIONS

- A. Section 01 26 63 Change Order (CO)
- B. Section 01 29 76 Progress Payment Procedures
- C. Section 01 31 23 Project Management Web Site (PMWS)
- D. Section 01 32 26 Construction Progress Reporting
- E. Parts of this specification will reference articles within “The City of Madison FACILITIES MANAGEMENT SPECIFICATIONS for Public Works Construction”.
 - 1. Use the following link to access the FACILITIES MANAGEMENT SPECIFICATIONS web page:
<http://www.cityofmadison.com/business/pw/specs.cfm>
 - a. Click on the “Part” chapter identified in the specification text. For example, if the specification says “Refer to City of Madison FACILITIES MANAGEMENT SPECIFICATION 210.2” click the link for Part II, the Part II PDF will open.
 - b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you to the referenced text.

1.3. RELATED DOCUMENTS

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

1.4. BASIS OF VALUES

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

PART 2 – PRODUCTS – THIS SECTION NOT USED

PART 3 - EXECUTION

3.1. APPLICATION FOR PAYMENT

- A. The Contractor shall use the Project Management website or Payment with each Progress Payment Request.
- B. Completely fill out the Pay Application per the tutorial provided for the PMWS
 - 1. Fill out to reflect the current status of the contract through the payment date being requested.
 - 2. The City of Madison calculates retainage on Public Works Contracts as follows:
 - a. In general, across the duration of the contract, 2.5% of the total contract sum, including change orders, is withheld for retainage as referenced from the City of Madison FACILITIES MANAGEMENT SPECIFICATION 110.2:
 - i. Beginning with Progress Payment 1, 5% retainage will be withheld until such time that 50% of the total contract sum has been paid out.
 - ii. No additional retainage will be withheld after 50% of the total contract sum has been paid, unless additional change orders have been approved after the 50% milestone has been reached. Per City of Madison FACILITIES MANAGEMENT SPECIFICATION 110.2, additional retainage up to 10%, may be held in the event there are holds placed by Affirmative Action or liquidated damages by BPW.
 - iii. Retainage for additional change orders after the 50% milestone will be withheld at the rate of 2.5% of the total cost of the change order.
 - iv. Retainage is based on the change orders posted to the City's contract worksheet at the time the progress payment is processed.
- C. Only change orders that have been finalized and posted to the City of Madison's Application for Partial Payment worksheet may be itemized into the SOV documents.
- D. The Contractor shall sign and date the application.

3.2. PROJECT MANAGEMENT WEBSITE SOV SPREADSHEET

- A. The Contractor shall use the PMWS spreadsheet provided by the City to itemize their SOV for this contract. Provide additional sheets as necessary.
- B. Provide information by any method that allocates portions of the total contract sum to various portions of the contracted work. Possible methods include combinations of the following:
 - 1. By division of work
 - 2. By contractor, sub-contractor, sub sub-contractor
 - 3. By specialty item or group
 - 4. Other methods of breakdown as may be requested by the City Project Manager or City Construction Manager at the pre-construction meeting.
- C. Provide total cost of the item/description of work including proportionate shares of profit and overhead related to the item.

3.3. INITIAL SCHEDULE OF VALUES SUBMITTAL

- A. The Contractor shall upload their initial SOV to the Project Management Web Site, no later than five (5) working days after the Pre-construction Meeting.
 - 1. The level of detail shall be as described in section 3.2 above.
- B. The Project Architect /Project Engineer (A/E PROJ MGR) and the City Project Manager (CPM) shall review the SOV as any other submittal and may require modifications to reflect additional detail as necessary.
- C. The Contractor shall resubmit the SOV as necessary until such time as the A/E PROJ MGR and CPM have sufficient detail for assessing and approving future Progress Payment Applications.
- D. Progress Payment Application 1 will not be processed until such time as the Contractor has met this requirement regardless of the amount of work completed per the application.

3.4. SOV FOR PROGRESS PAYMENT REQUESTS

- A. The Contractor shall update the initial SOV with each Progress Payment Application as follows:
 - 1. Initial items and values as part of Section 3.3 above will not be adjusted once the original Schedule of Values submittal has been approved.
 - 2. Change orders shall be added as additional items and values at the bottom of the SOV as they become approved and posted to the City's contract worksheet. The value for each change order shall be the

- 1 value indicated on the SOV and shall stand alone. Values shall not be split out or combined with other
2 existing items with similar work descriptions on the original SOV.
3 3. Fill out columns to properly reflect the work completed and materials received since the last Progress
4 Payment Application.
5 4. Only materials delivered and stored on the project site may be reflected on SOV progress updates.
6 B. Provide an updated project schedule with each Progress Payment application.
7 C. See Specification 01 29 76 Progress Payment Procedures for additional information on submitting Progress
8 Payment Applications.
9
10
11

12 **END OF SECTION**
13

SECTION 01 29 76
PROGRESS PAYMENT PROCEDURES

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATIONS	1
1.3. RELATED DOCUMENTS	1
1.4. PROGRESS PAYMENT MILESTONES	1
1.5. PROGRESS PAYMENT SUBMITTAL	3
PART 2 - PRODUCTS - THIS SECTION NOT USED	4
PART 3 - EXECUTION	4
3.1. GENERAL CONTRACTOR PROCEDURE	4
3.3. CITY PROJECT MANAGER PROCEDURE	4

PART 1 – GENERAL

1.1. SUMMARY

- A. The General Contractor (GC) shall review this and all related specifications prior to submitting progress payment requests.
- B. Progress payment requests (Partial Payment-PP) for this contract shall be applied for by the GC in the Project Management Web Site (PMWS)
- C. The City Project Manager (CPM) shall review and amend or approve the PP on the Project Management Web Site.
- D. After approval of the PP by the CPM, they shall forward the PP to the appropriate agencies for BPW contractual review and payment processing.

1.2. RELATED SPECIFICATIONS

- A. Section 01 26 63 Change Order (CO)
- B. Section 01 29 73 Schedule of Values
- C. Section 01 31 23 Project Management Web Site (PMWS)
- D. Section 01 32 26 Construction Progress Reporting

1.3. RELATED DOCUMENTS

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

1.4. PROGRESS PAYMENT MILESTONES

- A. City Engineering-Facility Management has developed the Project Payment Milestone Schedule (Section 1.4 below) to assist the GC in providing required construction specific documentation and general contractual documentation in a timely manner.
- B. The Progress Payment Milestone Schedule is not an all inclusive list. Multiple agencies review progress payment requests and contract closeout requests. Missing, incomplete, or incorrect documentation for any agency may be a cause for not processing progress payments. It shall be the sole responsibility of the Contractor for providing documentation as required or requested to the appropriate agencies.
- C. The milestone schedule is based on the contract total sum and shall be valid for most contracts. Milestone submittals will be required with whatever progress payment hits the percentage of contract total indicated in the schedule.
- D. The CPM shall review the milestone schedule with each progress payment request and at their option may elect to hold processing the progress payment until such time as the contractor has met the requirements for providing construction specific documentation.
- E. It shall be the General Contractors responsibility to comply with all BPW Contract Administration requirements and related deadlines as outlined in the Award Letter, Award Checklist, and Start Work Letter.

Progress Payment (PP) Milestone Schedule		
Milestone Description	Due Before	Remarks
BPW Contract Administration Documentation • Workforce profiles • Best Value Contracting Documentation • Sub-contractors prequalification approval & Affirmative Action plans • Submittals Schedule • Other as may be required	PP-1, or start work as applicable	• For GC and Sub-contractors before PP-1 regardless of scheduling • Sub-contractors (if applicable), due 10 days before they may start work • Sub-contractors (if applicable), due 10 days before they may start work • Specification 01 32 19
Required Construction Submittals/Administrative Documents • Contractors Project Directory • Schedule of Values • Waste Management Plan	PP-1	References • Specification 01 31 23 • Specification 01 29 73 • Specification 01 74 19
General Construction Progress Requirements are all up to date • Schedule of Values • Progress Reporting • Waste Management documentation	Each future PP	Verified with each Progress Payment Request • Specification 01 29 73 • Specification 01 32 26 • Specification 01 74 19
* All of the above are being updated on the Project Management Web Site as required		
BPW Contract Administration Documentation • Weekly payroll reports • Best Value Contracting Reports • SBE Reports	25% CT or PP 2	See 1.4.E above. <i>This progress payment will be withheld by BPW for any missing contractual documentation.</i>
Construction Progress Milestones • Construction/Contract Closeout Meeting #1		
Construction/Contract Closeout Meeting #2 • Construction closeout checklist	70% CT	• Specification 01 31 19 • Specification 01 77 00

Progress Payment (PP) Milestone Schedule		
Milestone Description	Due Before	Remarks
BPW Contract Administration Documentation Request Finalization Review from BPW	80% CT	This is a recommendation to the GC and is not a requirement of this PP. Specification 01 77 00
All of the following shall be completed for this PP: - Regulatory Inspections completed - Final Cleaning	90% CT	Contractor to determine the proper order of completion: - Governing ordinances and statutes - Specification 01 74 13
Construction Closeout Procedures: Letter of Substantial Compliance sent to BI and DHS as needed	100% CT	Specification 01 77 00
BPW Contract Administration Documentation Contract Closeout Procedures - Construction Closeout has been completed - Contractor requests final payment of retainage upon receiving City Letter of Substantial Completion - All BPW contractual requirements are verified	Final	- Specification 01 77 00 - Contractor must provide any missing BPW Contractual Documentation
* Completion of this closes the contract but not the warranty period/bond.		
NOTE: CT = Contract Total less held retainage		

1.5. PROGRESS PAYMENT SUBMITTAL

- A. Each progress payment submittal shall be completed in the Project Management Website. See guide on the Project Management Website for the procedure.
- B. Submit all required construction progress documentation to the appropriate Project Management Web Site component as described in guides.
- C. In general the following shall apply to all PP requests:
 1. Materials or products:
 - a. On order, being shipped, etc. may not be invoiced.
 - b. Received and stored on the project site may be invoiced.
 - c. Being manufactured off site at any location may not be invoiced (example: cabinetry, ductwork, etc.)
 - d. Completed products stored off site locally waiting for delivery to the project site may be invoiced with prior approval by the CPM. All of the following conditions must be met to be allowed:
 - i. Items must be visually inspected by CPM to verify product is complete.

- ii. Item must be stored inside a compatible structure and the structure and contents must be insured.
 - iii. Contractor is responsible for condition until installation is completed.
 2. All labor and equipment, including rental time for the current progress period may be invoiced.
 3. Only completed installations may be invoiced to 100% based on the Schedule of Values.
- D. DO NOT submit BPW Contract Administration Documentation for review with Progress Payment Requests, submit them directly to the correct agency and in the correct format as instructed from information in your BPW Contract Award Packet instructions.

PART 2 - PRODUCTS - THIS SECTION NOT USED

PART 3 - EXECUTION

3.1. GENERAL CONTRACTOR PROCEDURE

- A. The GC shall use the Project Management Website for each PP request.
 1. The GC shall subtotal the work completed to date for all of the original Schedule of Value items.
 2. Ensure that any newly posted change orders have been entered.
 3. The GC shall submit the PP request in the Project Management Website. The username and date will be automatically recorded.
 4. The GC shall provide the dates from and to for the PP being requested.
 5. The GC shall provide the list of all contractors/sub-contractors that were actively working during the dates indicated above. The guide details the appropriate location for this list.
 - a. All contractors/sub-contractors named must be in compliance with all City requirements (Pre-qualified, Affirmative Action Plan on file, etc). The PP will be held and not processed by the City of Madison until all contractors/sub-contractors are in compliance.
 - b. Do not list the names of suppliers or manufacturers, doing so will slow down processing and require a re-submittal of the paperwork.
 6. The GC shall attach a copy of the current Project Schedule.

3.3. CITY PROJECT MANAGER PROCEDURE

- A. The CPM shall review all documents submitted by the GC to ensure the schedule of values accurately reflects the work completed to date.
- B. The CPM may elect to hold processing of any progress payment pending submittal of required progress payment milestones.
- C. When verified, the CPM shall send the PP and required documentation to the appropriate City agencies for further processing of the payment request.
- D. The PP processing will be completed and available for view within the PMWS.

END OF SECTION

**SECTION 01 31 13
PROJECT COORDINATION**

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATIONS	1
1.3. GENERAL REQUIREMENTS	1
1.4. GENERAL CONTRACTOR PERFORMANCE REQUIREMENTS	2
1.5. SUB-CONTRACTOR PERFORMANCE REQUIREMENTS	2
PART 2 – PRODUCTS – THIS SECTION NOT USED	3
PART 3 – EXECUTION – THIS SECTION NOT USED	3

PART 1 – GENERAL

1.1. SUMMARY

- A. Project Coordination covers many areas within the execution of the Contract Documents and the requirements of proper coordination are the applicable to all contractors executing the Work of this contract.
- B. This specification provides general information regarding project coordination for the General Contractor and all Sub-contractors. All contractors shall be familiar with project coordination requirements and responsibilities that may be defined in other specification within these Contract Documents.
- C. The General Contractor shall at all times be responsible for the project, project site, and execution of the Contract Documents.

1.2. RELATED SPECIFICATIONS

- A. Section 01 29 76 Progress Payment Procedures
- B. Section 01 31 23 Project Management Web Site

1.3. GENERAL REQUIREMENTS

- A. The following general requirements shall applicable to all contractors:
 - 1. Cooperate with the Owner, all authorized Owner Representatives, Project Architect and all consultants of the Owner.
 - 2. Materials, products, and equipment shall be new, as specified and to industry standards except where otherwise noted.
 - 3. Labor and workmanship shall be of a high quality and to industry standards.
- B. Existing conditions:
 - 1. Verify all existing conditions indicated in the contract documents with actual field locations and take field measurements to verify existing conditions. Field verify dimensions including sizes and locations of existing architectural components, existing structural systems, existing equipment, existing mechanical and utility components, and similar items including any existing condition related to the work.
 - 2. Report any inconsistencies, errors, omissions, or code violations in writing to the General Contractor (GC) immediately.
 - 3. Annotate any inconsistencies, errors, omissions on the GC As-Built record drawings immediately for future reference.
- C. Contract Documents:
 - 1. The Contract Documents are intended to include everything necessary to perform the work. Every item required may not be specifically mentioned, shown, or detailed.
 - a. Except where specifically stated all systems and equipment shall be complete, installed, and fully operable.
 - b. If a conflict exists within the contract documents the contractor shall furnish the item, system, or workmanship of the highest quality, largest, largest quantity, or most closely fits the intent of the contract documents.
 - c. Manufacturers recommended installation details shall be verified and used prior to installation of products and equipment so as to not void warranties.
- D. Errors and Omissions
 - 1. No Contractor shall take any advantage of any apparent error or omission in the construction documents.
 - 2. The City of Madison shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the construction documents.
- E. Owners Representatives

1. All contractors shall be familiar with various Owner Representatives having Quality Management responsibilities for the duration of this project including but not limited to the following:
 - a. Project Architect, responsible for all decisions affecting the code compliance and design intent of the construction documents.
 - b. Consulting Architects and Engineers, responsible for providing consulting services to the Project Architect, Owner, and City Project Manager, also responsible for Quality Management of the construction documents.
 - c. Owner, the designated representative of the City Agency that will occupy the project upon completion.
 - d. City Project Manager, responsible for all day to day decisions regarding the execution and performance of this Public Works Contract.
 - e. Consulting City Staff, responsible for providing consulting services to the Project Architect, Owner, and City Project Manager, also responsible for Quality Management of the construction documents.
 - f. Commissioning Agent (CxA), responsible for ensuring that the project is meeting the Owner's Project Requirements and related quality assurance procedures.
2. Owner Representatives shall be attending progress meetings, pre-installation meetings, performing or being present for final testing and acceptance and quality management reporting during the execution of the contract documents as outlined in other specifications.

1.4. GENERAL CONTRACTOR PERFORMANCE REQUIREMENTS

- A. Assume the responsibility for all Work specified in the Contract Documents except where specifically identified to be performed by the Owner or other contractor separately hired by the Owner.
 1. Coordinate all work by Owner, equipment provided Owner, or contractor hired by the Owner into the project schedule.
- B. Provide all construction management responsibilities as specified in other Division 1 specifications including but not limited to:
 1. Scheduling of work
 2. Coordination of work between other Trades and Sub-contractors
 3. Construction administration and management
 4. Site layout, cleanliness, and protection of completed work/stored materials
 5. Waste Management
 6. Quality Assurance and Quality Control
- C. Use Diggers Hotline and private utility locating companies to accurately locate all public and private utilities on the property as needed. The GC is responsible for any repair or replacement to any public or private utility damaged during the execution of the Work
- D. Report any inconsistencies, errors, omissions, or code violations in writing to the Project Architect immediately. Failure to report inconsistencies prior to beginning work shall indicate that the GC accepted all existing conditions.
- E. The GC shall be responsible for assigning work and related responsibilities where the Contract Documents may not clearly state who is responsible for providing the work, material, or product.
- F. Provide construction management oversight of all items described in Section 1.5 below.
- G. Coordinate and assist CxA as outlined within 01 91 00 and as directed by Owner.

1.5. SUB-CONTRACTOR PERFORMANCE REQUIREMENTS

- A. Be familiar with all of the contract documents as they pertain to your Work, adjacent work and the overall progress of the project.
 1. All Sub-contractors shall be familiar with all Division 1 specifications as they may apply to progress, progress payments, quality control construction management, and closeout of the contract.
- B. Coordinate your Work with all adjacent work and existing conditions.
 1. Perform your work in proper sequence according to the GC's project schedule and in relation to the work of other trades.
 2. Notify other sub-contractors and trades whose work may be connected to, combined with, or influenced by your work and allow them reasonable time and access to complete their work.
 3. Join your work to the work of others in accordance with the intent of the Contract Documents.
 4. Order materials and schedule deliveries to facilitate the general progress of the Work.
- C. Cooperate with all other trades to facilitate the general progress of the work. This shall include providing every reasonable opportunity for the installation of work by others and the storage of their materials and equipment.

END OF SECTION

**SECTION 01 31 23
PROJECT MANAGEMENT WEB SITE**

PART 1 – GENERAL	1
1.1. GENERAL DESCRIPTION	1
1.2. AUTODESK CONSTRUCTION CLOUD PROCEDURE OVERVIEW	1
1.3. RELATED SPECIFICATIONS	1
PART 2 - PRODUCTS	2
2.1. AUTODESK CONSTRUCTION CLOUD SYSTEM RELATED PRODUCTS	2
PART 3 - EXECUTION	2
3.1. POST BID-OPENING	2
3.2. POST PRE-CONSTRUCTION MEETING	2

PART 1 – GENERAL

1.1. GENERAL DESCRIPTION

- A. The City of Madison (CoM) has established a cloud-based Project Management Tool (PMT) using an Autodesk product called Autodesk Construction Cloud (ACC).
- B. The software is used throughout the design, construction and warranty process of major remodels and new construction projects.
- C. Initially deployed in mid-2023, the PMT software will be deployed on all projects. The PMT software is cloud-based software and therefore will receive regular updates and enhancements.

1.2. AUTODESK CONSTRUCTION CLOUD PROCEDURE OVERVIEW

- A. The CoM PMT is 3 main modules. The [Autodesk Docs \(https://help.autodesk.com/view/DOCS/ENU/\)](https://help.autodesk.com/view/DOCS/ENU/) module is a document management file system that is the foundation of ACC. The [Build \(https://help.autodesk.com/view/BUILD/ENU/\)](https://help.autodesk.com/view/BUILD/ENU/) module has many sections that assist in performing day to day functions of design/construction management while reducing the use of different software platforms, surface mail, email and email attachments. Finally, the [Cost management \(https://help.autodesk.com/view/BUILD/ENU/?guid=Cost_Overview\)](https://help.autodesk.com/view/BUILD/ENU/?guid=Cost_Overview) module is used to manage project finances.
 1. Files within Autodesk Docs can store a wide variety [file formats \(https://help.autodesk.com/view/DOCS/ENU/?guid=Supported_Files_Docs\)](https://help.autodesk.com/view/DOCS/ENU/?guid=Supported_Files_Docs) including but not limited to Word, Excel, PDF, photographs (all popular formats), etc.
 2. The Issues section within the Build module is used for Punch Lists, Quality Control and Warranty issues.
 3. File Folder and module section access are controlled by Permission Groups and Permission Level
- B. A tutorial document on the web based PMT will be provided to the General Contractor (GC) who is awarded the contract. Additional training will be provided as needed for the GC and Sub-Contractors (SC) by the CoM.
- C. The PMT has predefined work flows that channel automated alerts as documents are uploaded, reviewed, and completed. These workflows are designed for inbound information from the contractor as well as outbound information from the Architectural/Engineer consultant and the Owner.
- D. The GC will be required to receive email notifications, access the internet to review related documentation and be able to upload/download documentation to the various project modules or folders.
- E. The SC's will be required (at a minimum) to receive email notifications and access the internet to review related documentation. Prior to setting up the final PMT the GC and CPM shall meet to review all ACC workflows, the GC will determine to what level over the minimum requirements the SC's will be involved.
- F. At final project closeout with the GC, the CoM will provide the Project Architect/Project Engineer (A/E PROJ MGR) and the GC, an exported version of the complete project in ACC.

1.3. RELATED SPECIFICATIONS

- A. The following specification sections are directly related to the CoM PMT system.
 1. 01 26 13 Request for Information (RFI)
 2. 01 26 46 Construction Bulletins (CB)
 3. 01 26 57 Change Order Request (COR)
 4. 01 26 63 Change Order (CO)
 5. 01 29 76 Progress Payment Procedures
 6. 01 32 26 Construction Progress Reporting
 7. 01 32 33 Photographic Documentation

PART 2 - PRODUCTS

2.1. AUTODESK CONSTRUCTION CLOUD SYSTEM RELATED PRODUCTS

- A. Autodesk Construction Cloud is an Autodesk based software that requires no additional software installation, hardware or other special requirements/applications for the users. There are no costs associated with the use of this system.
- B. Please consult Autodesk's web site for the [latest system requirements](https://help.autodesk.com/view/BUILD/ENU/?guid=System_Requirements_ACC) (https://help.autodesk.com/view/BUILD/ENU/?guid=System_Requirements_ACC)

PART 3 - EXECUTION

3.1. POST BID-OPENING

- A. After bids have been opened, a successful bidder has been determined, and bid acceptance procedures have been initiated the City Project Manager (CPM) will contact the GC to provide the following information.
 - 1. [Autodesk Construction Cloud Help \(https://help.autodesk.com/view/BUILD/ENU/\)](https://help.autodesk.com/view/BUILD/ENU/) and [Learning Center \(https://learnacc.autodesk.com/\)](https://learnacc.autodesk.com/) are kept up to date with latest ACC features.
 - 2. For more customized workflows, Project Management Software Tutorials have been developed. These tutorials are in a PDF printable format with screen shots and associated instructions on how to access and use the PMT.
 - 3. A blank Project Directory in an Excel spread sheet format. The contractor shall provide the following information for GC and SC staffs as indicated on the spreadsheet. This will generally be the Project Manager for the GC as well as the Sub-contractors and the GC Site Supervisor.
 - a. Last Name, First Name
 - b. Company Name
 - c. Email address (valid, work related)
 - 4. Phone Contact number and professional name must be entered by each user themselves via <https://profile.autodesk.com/>
 - 5. The GC shall provide the above information for all SC's where the GC is not self-performing the work.
 - 6. The GC may provide project foreperson information for work being self-performed if he/she so desires.

3.2. POST PRE-CONSTRUCTION MEETING

- A. The GCPM will return the completed Project Directory spread sheet to the CPM no later than the Pre-construction meeting.
- B. The City Project Admin is responsible for uploading all project directory data into ACC, adding users to project and licenses to users for all non-city staff (GC/SC staffs).
- C. All GC/SC staff will be notified through an automated email from Autodesk directing them to create an Autodesk account if they do not already have one. It is the responsibility of each GC/SC to follow the instructions to setup their own account
- D. Once the GCPM has received his/her project invitation, uploading of contract related documents can begin. This would include but not be limited to project schedules, submittals, RFI's, and other documents as needed.
- E. All workflows, review of documentation, and general archiving of construction related documentation will be conducted on the PMWS. These documents will generally not be emailed.
- F. The following documents related to the execution of the contract will not be part of the PMT:
 - 1. All documentation related to executing the contract, such as:
 - a. Sub Contractors list
 - b. Affirmative Action documentation
 - c. Bonding documentation
 - d. Documentation associated with payroll verification
 - e. Final documentation associated with closing out the contract
 - 2. Any documentation required/generated by ordinance, code or statute, such as;
 - a. Erosion Control inspections
 - b. Building Inspection Department inspections

END OF SECTION

SECTION 01 32 16
CONSTRUCTION PROGRESS SCHEDULES

PART 1 – GENERAL	1
1.1. SCOPE	1
1.2. RELATED SPECIFICATIONS	1
PART 2 – PRODUCTS – THIS SECTION NOT USED	1
PART 3 - EXECUTION	1
3.1. OVERALL PROJECT SCHEDULE (OPS)	1
3.2. 6 WEEK LOOK-OUT SCHEDULES (LOS)	1
3.3. PROJECT MANAGEMENT WEB SITE (PMWS)	2

PART 1 – GENERAL

1.1. SCOPE

- A. This specification is to identify various project related schedules associated with indicating construction progress and outlook. The following schedules are the responsibility of the General Contractor (GC).
 - 1. Overall Project Schedule
 - 2. 6 Week Look-out Schedule
- B. This specification is not intended to include internal schedules generated by the contractors during their planning and execution of the contract.

1.2. RELATED SPECIFICATIONS

- A. Section 01 29 76 Progress Payment Procedures
- B. Section 01 31 23 Project Management Web Site
- C. Other specification within the construction documents that may indicate the need for scheduling any event with Owner, Project Architect, Owner Representatives, including any owner provided equipment.

PART 2 – PRODUCTS – THIS SECTION NOT USED

PART 3 - EXECUTION

3.1. OVERALL PROJECT SCHEDULE (OPS)

- A. The GC shall prepare an OPS that covers the duration of the contract from the pre-construction meeting through the end of construction to final contract closeout.
 - 1. The GC shall review Specification 01 77 00 Closeout Procedures to become familiar with definitions, differences, and requirements for closing out the construction and contract including the association with progress payments.
- B. The GC shall provide copies and lead a discussion on the OPS during the pre-construction meeting.
- C. The OPS shall indicate start and end dates of each task associated with the project.
- D. The OPS shall clearly indicate the critical path of the project.
- E. The GC shall update the OPS as often as necessary during the duration of the project. Updates will be briefed as needed during bi-weekly progress meetings.

3.2. 6 WEEK LOOK-OUT SCHEDULES (LOS)

- A. The GC shall prepare the initial LOS to include detail of daily tasks for the first six (6) weeks of construction in depth for the Pre-construction meeting. The LOS shall be compatible and complimentary to the OPS.
- B. The GC shall provide copies and lead a discussion on the LOS during the pre-construction meeting.
- C. The LOS shall indicate start and end dates of each major task, associated related sub-tasks, and required parallel or pre-requisite tasks required to complete the major task on time.
- D. The LOS shall also include identifying and scheduling such events as:
 - 1. Pre-installation meetings and mock-up review meetings.
 - 2. Quality management reviews of installations before they are covered.
 - 3. Owner provided equipment as designated by the contract documents.
 - 4. Work by others as designated by the contract documents.
 - 5. Critical submittal dates.

- E. The GC shall update the LOS prior to each bi-weekly progress meeting to indicate the next 6 weeks of scheduled work. Updates will be briefed during each bi-weekly progress meeting.

3.3. PROJECT MANAGEMENT WEB SITE (PMWS)

- A. The GC shall upload all project schedules and updates to the PMWS in an original PDF version of the scheduling document. Scans will not be permitted.

END OF SECTION

SECTION 01 32 26
CONSTRUCTION PROGRESS REPORTING

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATION SECTIONS	1
1.3. PERFORMANCE AND QUALITY ASSURANCE REQUIREMENTS	1
PART 2 – PRODUCTS - THIS SECTION NOT USED	1
PART 3 - EXECUTION	1
3.1. CONTRACTOR JOURNAL	1
3.2. CONSTRUCTION PROGRESS MEETINGS	2

PART 1 – GENERAL

1.1. SUMMARY

- A. Daily records of project activities, resources used, weather conditions, and other information related to the ongoing progress of the project are extremely important at all levels of Construction Management.
- B. Daily records provide the base for weekly progress reports and updating progress schedules.

1.2. RELATED SPECIFICATION SECTIONS

- A. Section 01 31 23 Project Management Web Site
- B. Section 01 32 23 Photographic Documentation

1.3. PERFORMANCE AND QUALITY ASSURANCE REQUIREMENTS

- A. The General Contractor (GC) shall be responsible for all Construction Progress Reporting as outlined in this and other specifications as noted.
- B. The GC shall maintain daily progress journals in a format of their choosing provided it is legible and contains the information as outlined in Section 3.1 below.
- C. The journal shall be located in the job trailer and shall be reviewable by the Project Architect or City Project Manager if so requested.

PART 2 – PRODUCTS - THIS SECTION NOT USED

PART 3 - EXECUTION

3.1. CONTRACTOR JOURNAL

- A. The GC shall maintain a journal of daily progress on which Work is performed by any employee or entity for which the GC is responsible. Such reports shall include all relevant data concerning the progress of Work activities the GC and Subcontractors are responsible for and the effect of that activity on the time of performance of the Contract.
 - 1. Some projects may not require weekly journals be kept instead of daily journals. This is at the sole discretion of the City Project Manager. A daily journal will generally be required when the contract has a significant amount of site work. A weekly journal will generally be used when a contract is interior work only.
- B. Journal entries shall be made in the Project Management Web Site. The form consists of the following areas:
 - 1. Weather; include temperature, humidity, precipitation, wind and other related information such as significant storm events, times, and details.
 - 2. Work completed by trade
 - 3. Delays encountered
 - 4. Deliveries received or delayed
 - 5. Hot issues that need to be addressed
 - 6. Safety issues
 - 7. Photograph progress and upload to the Photo Library on the Project Management Web Site.
 - 8. Other including inspections, testing, etc.
 - 9. Space for attaching documents
- C. Contractor Daily/Weekly Report Forms shall be completed and signed by the GC's Job Superintendent or other on-site representative authorized by the GC confirming each such report is current, accurate and complete.

- D. If applicable the GC shall include schedules of quantities and costs, progress schedules, wage rates, reports, estimates, invoices, records and other data as requested by the CPM concerning Work performed or to be performed under this Contract if the CPM determines such information is needed to substantiate Change Order proposals, claims, or to resolve disputes.

3.2. CONSTRUCTION PROGRESS MEETINGS

- A. The GC shall provide a verbal summary of the previous two (2) weeks progress reports at each bi-weekly construction progress meeting.

END OF SECTION

SECTION 01 32 33
PHOTOGRAPHIC DOCUMENTATION

PART 1 – GENERAL	1
1.1. SCOPE	1
1.2. RELATED SPECIFICATION SECTIONS	1
1.3. SUBMITTALS	1
PART 2 – PRODUCTS	1
2.1. DIGITAL CAMERA	1
PART 3 – EXECUTION	1
3.1. REQUIREMENTS FOR DIGITAL PHOTOGRAPHS	1

PART 1 – GENERAL

1.1. SCOPE

- A. The General Contractor (GC) shall be required to take weekly digital photographs of interior and exterior construction progress and upload the photos directly to the Project Management Web Site (PMWS).
- B. The GC shall be required to provide digital time-lapse photo service of the project exterior -or interior when applicable- construction progress. Exterior or interior location determination to be confirmed with City Construction Manager.

1.2. RELATED SPECIFICATION SECTIONS

- A. Section 01 29 76 Progress Payment Procedures
- B. Section 01 31 23 Project Management Web Site (PMWS)

1.3. SUBMITTALS

- A. The GC shall provide general information on the type of camera being used for interior and exterior digital photographs.
 - 1. Information may be written on Contractor's transmittal sheet.
 - a. Include camera name/type, aspect ratio setting, and average file size
 - b. Provide sample project pictures as part of PDF submittal.
- B. The GC shall provide sufficient information on the type of time lapse system being used that meets the requirements identified in section 2.2 below.

PART 2 – PRODUCTS

2.1. DIGITAL CAMERA

- A. All digital photographs shall be taken with a good quality digital camera, cell phone, tablet, and other such digital device.
- B. Digital photographs shall be formatted to achieve a good, clear, and detailed image where the final file size is between 600 KB and 3.0 MB (3000KB).

PART 3 – EXECUTION

3.1. REQUIREMENTS FOR DIGITAL PHOTOGRAPHS

- A. The GC shall take a minimum of two (2) exterior photographs each week. Exterior photographs will not be required on projects that do not include any exterior work.
 - 1. Exterior photos shall be taken from approximately the same location each week for the duration of the project.
 - 2. When applicable this requirement shall begin prior to commencing any site work.
 - 3. This requirement shall only be applicable when there is exterior work actively being conducted with the project. Periods of inactivity due to weather (winter conditions) do not require a photograph.
 - 4. This requirement shall end when the exterior work has been substantially completed.
 - 5. This requirement may be suspended due to weather conditions or substantial delays in exterior progress.
- B. The GC shall take interior photographs each week that document interior construction progress.
 - 1. This requirement will begin when exterior wall framing begins.
 - a. When an interior remodeling project includes demolition work interior photos shall be taken during the demolition process.

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- 2. Pictures do not need to be taken from the same location each week.
 - 3. This requirement shall end when the interior work has been substantially completed.
 - C. Digital photographs shall be properly zoomed in/out, and flash used as needed, to capture a level of detail required to properly show the progress being captured by the photograph.
 - 1. Blurry and dark pictures will not be accepted.
 - D. The camera default naming convention is acceptable. The GC does not need to rename or specifically identify pictures with a title.
 - E. All digital photographs shall be saved in a JPEG (.jpg) format and uploaded directly to the Project Management Web Site.

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATION SECTIONS	1
1.3. QUALITY ASSURANCE	1
1.4. TEMPORARY UTILITIES	2
1.5. TELECOMMUNICATIONS SERVICES AND WI-FI.....	2
1.6. TEMPORARY SANITARY FACILITIES.....	2
1.7. BARRIERS.....	2
1.8. FENCING	2
1.9. EXTERIOR ENCLOSURES.....	2
1.10. SECURITY	3
1.11. VEHICULAR ACCESS AND PARKING	3
1.12. WASTE REMOVAL.....	3
1.13. PROJECT IDENTIFICATION	3
1.14. FIELD OFFICES.....	ERROR! BOOKMARK NOT DEFINED.
PART 2 - PRODUCTS	3
2.1. TEMPORARY PARTITIONS.....	3
2.2. EQUIPMENT	3
PART 3 - EXECUTION	4
3.1. TEMPORARY FIRE PROTECTION	4
3.2. COLLECTION AND DISPOSAL OF WASTE.....	4
3.3. ENVIRONMENTAL PROTECTION.....	4
3.4. REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS.....	4

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes general procedural requirements for temporary facilities and controls including, but not limited to the following:
1. Temporary Utilities
 2. Telecommunications Services
 3. Temporary Sanitary Facilities
 4. Barriers
 5. Fencing
 6. Exterior Enclosures
 7. Security
 8. Vehicular Access and Parking
 6. Waste Removal
 7. Project Identification
 8. Field Offices

1.2. RELATED SPECIFICATION SECTIONS

- B. Section 01 31 23 Project Management Web Site
C. Section 01 74 19 Construction Waste Management and Disposal

1.3. QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:
1. Building Code requirements
 2. Health and safety regulations
 3. Utility company regulations
 4. Police, Fire Department and Rescue Squad rules
 5. Environmental protection regulations
 6. Joint Commission - Hospital Accreditation Standards

- B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities".
- C. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code".

1.4. TEMPORARY UTILITIES

- A. Contractor will provide the following:
 - 1. Electrical power and metering.
 - 2. Water supply.
- B. General:
 - 1. Existing facilities may be used.
- C. Water Service: water is available from existing building services.
 - 1. Use trigger-operated nozzles for water hoses, to avoid waste of water.
- E. Temporary Lighting: Electrical Contractor shall provide temporary lighting with local switching
 - 1. Install and operate temporary lighting, minimum of 30 fc, to fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for all areas of work, including construction operations and traffic conditions.
- F. Temporary Heat: General Contractor shall provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
 - 1. Heating Facilities: Except where use of the permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
 - a. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

1.5. TELECOMMUNICATIONS SERVICES AND WI-FI

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization through construction closeout.
- B. Telecommunications services shall include:
 - 1. Windows-based personal computer dedicated to project telecommunications.
 - 2. Shared access to the internet via WIFI or similar wireless connection.
 - 3. Email Account/address dedicated for GC Project Manager of GC Supervisor on site.

1.6. TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Temporary toilets: Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
 - 1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.
 - 2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy.
- C. Maintain daily in clean and sanitary condition
- D. Water: Provide potable water approved by local health authorities

1.7. BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

1.8. FENCING

- A. Construction: Refer to Plan Documents and Specification Section 01 76 00: Fencing Materials and Barricades

1.9. EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures

identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.10. SECURITY

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

1.11. VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Existing parking areas may be used for construction parking.

1.12. WASTE REMOVAL

- A. See Section 01 74 19 - Waste Management, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site periodically.
- D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.13. PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction indicated in Section 01 58 13.
- B. Erect on site at location determined by Owner .
- C. No other signs are allowed without Owner permission except those required by law.

PART 2 - PRODUCTS

2.1. TEMPORARY PARTITIONS

- A. Provide dustproof partitions to limit dust and dirt migration and to separate occupied areas from fumes and noise.
 - 1. Non-fire rated partitions, standard
 - a. Wood stud framing, 6-mil polyethylene

2.2. EQUIPMENT

- A. Temporary Lifts and Hoists: Contractors requiring temporary lifts and hoists shall provide facilities for hoisting materials and employees.
- B. Electrical Outlets: Electrical Contractor shall provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- C. Electrical Power Cords: Contractors requiring power cords shall provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- D. Lamps and Light Fixtures: Electrical Contractor shall provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- E. Heating Units: General Contractor shall provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.
- F. First Aid Supplies: General Contractor shall provide first aid supplies complying with governing regulations.
- G. Fire Extinguishers: General Contractor shall provide hand-carried, portable UL-rated, fire extinguishers of NFPA recommended classes for the exposures, extinguishing agent and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1. TEMPORARY FIRE PROTECTION

- A. Until fire protection needs are supplied by permanent facilities, General Contractor shall install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses.
- B. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations".
- C. Locate fire extinguishers where convenient and effective for their intended purpose.
- D. Store combustible materials in containers in fire-safe locations.
- E. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires.
- F. Prohibit smoking on the premises.
- G. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
- H. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site
- I. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.2. COLLECTION AND DISPOSAL OF WASTE

- A. Collect waste from construction areas and elsewhere daily
- B. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly.
- C. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F.
- D. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

3.3. ENVIRONMENTAL PROTECTION

- A. Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.
- B. Avoid use of tools and equipment which produce harmful noise.
- C. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.4. REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

END OF SECTION

SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. RELATED SPECIFICATIONS	1
1.3. CITY ORDINANCES	1
1.4. DEFINITIONS	1
1.5. PERFORMANCE REQUIREMENTS	2
1.6. SUBMITTALS AND DELIVERABLES	2
1.7. QUALITY ASSURANCE	3
1.8. WASTE MANAGEMENT PLAN	3
PART 2 – PRODUCTS – THIS SECTION NOT USED	4
PART 3 - EXECUTION	4
3.1. PLAN IMPLEMENTATION	4
3.2. HAZARDOUS AND TOXIC WASTE	4
3.3. GENERAL GUIDELINES FOR ALL WASTES	4
3.4. GUIDELINES FOR RECYCLABLE, RE-USABLE, AND SALVAGEABLE WASTE	4
3.5. GUIDELINES FOR DISPOSAL OF WASTES	6

PART 1 – GENERAL

1.1. SUMMARY

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

1.2. RELATED SPECIFICATIONS

- A. 01 29 76 Progress Payment Procedures
- B. 01 31 23 Project Management Web site
- C. Other Divisions and Specifications that may address the proper disposal of construction or demolition waste as it pertains to work being conducted under that particular specification.

1.3. CITY ORDINANCES

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

1.4. DEFINITIONS

- A. Clean: Untreated and unpainted material, free of contamination caused by oils, solvents, caulks, and other chemicals.
- B. Construction and Demolition Debris: Materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, buildings, and roads.
- C. Disposal: Off-site removal of construction and demolition debris and the subsequent sale, recycling, reuse, or deposit in authorized landfill or incinerator.
- D. Hazardous: Exhibiting the characteristics of hazardous substance, i.e. ignitability, corrosiveness, toxicity, or reactivity and including but not limited to asbestos containing materials, lead, mercury and PCBs.
- E. Non-hazardous: Exhibiting none of the characteristics of a hazardous substance.
- F. Nontoxic: Not immediately poisonous to humans or poisonous after a long period of exposure.
- G. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product.

- H. Recycle: Any process by which construction or demolition debris is diverted from final disposal as solid waste at a permitted landfill and instead is collected, separated, and/or processed into raw materials for new, reused, or reconstituted products; or for the recovery of materials for energy production processes.
- I. Recycler: Any recycling facility, transfer station, or other waste handling facility which accepts construction and demolition debris for recycling, or for other transferring to a recycling facility.
- J. Recycling: The process of sorting, cleaning, treating, or reconstituting solid waste and other discarded materials for the purpose of preparing the material to be recyclable. Recycling does not include burning, incinerating or thermally destroying waste.
- K. Return: To give back reusable items or unused products to vendors for credit.
- L. Reuse: Shall mean any of the following:
 - 1. The on-site use of reprocessed construction and demolitions debris.
 - 2. The off-site redistribution of a material, for use in the same manner or similar manner at another location.
 - 3. The use of non-toxic, clean wood as an alternative fuel source.
- M. Salvage: To remove a waste material from the project site for resale or reuse by the Owner or others.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be re-used, returned, recycled, or salvaged.
- P. Waste: Extra materials or products that have reached the end of its useful life or its intended use. Waste includes salvageable, returnable, recyclable and re-useable construction and demolition materials, and trash.

1.5. PERFORMANCE REQUIREMENTS

- A. The GC shall develop a Waste Management Plan that results in end-of-project rates for salvage/recycling/reuse of 95 percent (minimum) by weight of the total waste generated by the Work. Percentages may be adjusted on a project by project basis depending on selected LEED goals associated with the project.
- B. The GC shall salvage or recycle 100 percent of all uncontaminated packaging materials including but not limited to the following:
 - 1. Paper
 - 2. Cardboard
 - 3. Beverage containers
 - 4. Boxes
 - 5. Plastic Sheet and film
 - 6. Polystyrene packaging
 - 7. Wood crates and pallets
 - 8. Plastic pails and buckets
- C. Promote a resourceful use of supplies and materials through proper planning and handling. Generate the least amount of waste possible by minimizing errors, poor planning, breakage, mishandling, contamination or other similar factors.
- D. Use all reasonable means to divert construction waste from landfills and incinerators through recycling, reuse, or salvage as appropriate.

1.6. SUBMITTALS AND DELIVERABLES

- A. The GC shall provide their completed Waste Management Plan to the Project Management Web Site as a submittal for review by the Project Architect and City Project Manager.
 - 1. See item 1.8 below for Waste Management Plan submittal requirements.
 - 2. The Waste Management Plan shall be completed, submitted, and approved as a pre-requisite for Progress Payment number 1.
 - 3. Copies of all documentation required by this specification shall be submitted to the appropriate Project Management Web Site Library. Documentation shall be reviewed by the City Project Manager during all Progress Payment reviews for compliance and accuracy.
- B. The Waste Management Coordinator shall provide copies of items 1 through 5 below to the appropriate Project Management Web Site Library and shall update the Waste Management Summary Log to reflect the records being submitted.
 - 1. Records of Donations: Indicate receipt and acceptance of itemized salvageable waste donated to individuals or organizations. Indicate if the organization is tax exempt.
 - 2. Records of Sales: Indicate receipt and acceptance of itemized salvageable waste sold to individuals or organizations. Indicate if the organization is tax exempt.

3. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices.
4. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices.
5. Statement of Refrigerant Recovery: The Refrigerant Recovery Technician responsible for recovering refrigerant shall provide the GC with a statement indicating all of the following:
 - a. All recovery was performed according to EPA Regulations.
 - b. All refrigerant present was recovered; indicate the total quantity recovered by unit.
 - c. Date of Recovery.
 - d. Name, address, company name, and phone number of technician performing the recovery.
 - e. Technician shall sign and date the statement.

1.7. QUALITY ASSURANCE

- A. Waste Management Coordinator: The GC shall be responsible for designating a Waste Management Coordinator. Coordinator may be the GC Supervisor, GC Project Manager or other member of the GC staff having knowledge of proper waste management procedures and all applicable regulations.
- B. Regulatory Requirements: comply with all hauling and disposal regulations of authorities having jurisdiction.
- C. The Waste Management Coordinator shall comply with Specification 01 31 19 Project Meetings, Section 3.7.B.1 and conduct a Waste Management Conference at the job site. This conference shall be repeated as necessary as additional trades are added to the Work. The conference shall include but not be limited to the following:
 1. Identify the Waste Management Coordinator; provide trade contractors with name, phone, and email information.
 2. Review and discuss the Waste Management Plan and the roles of the Coordinator.
 3. Review the requirements for documenting and reporting procedures of each type of waste and its disposition.
 4. Review procedures for material separation; indicate availability and locations of containers and bins.
 5. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 6. Review waste management procedures specific to each trade.
- D. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

1.8. WASTE MANAGEMENT PLAN

- A. Develop a plan consisting of waste identification, a waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume. Use the same units of measure throughout the waste management plan.
 1. Waste Identification: Indicate anticipated types and quantities of site clearing, demolition waste, and construction waste that will be generated during the execution of this contract. Include assumptions for the estimates.
 2. Waste Reduction Work Plan: The work plan shall consist of but not be limited to all of the following:
 - a. Identify methods for reducing construction waste. Re-using, framing and forming materials, re-planning material cuts to minimize waste, etc.
 - b. Identify what types of materials will be recycled. Provide lists of local companies that receive and/or process the materials. Include names, addresses, and phone numbers.
 - c. Identify what types of materials will be disposed of and whether it will be disposed of in a landfill facility or by incineration facility. Provide lists of local companies that receive and/or process the materials. Include names, addresses, and phone numbers.
 - d. Identify methods to be used on site for separating waste including all of the following:
 - i. Sizes of containers to be used.
 - ii. Labels to be used on the containers to identify the type of waste allowed in the container.
 - iii. Designated locations on the project site for waste material containers.
- B. If project requires demolition incorporate the ordinance required (MGO 28.185) Recycling and Reuse Plan into the Waste Management Plan.
- C. Provide all of the following for the Waste Management Coordinator:
 1. Name, employer, employer address, phone number, and email address of the designated coordinator.
 - a. The GC shall also provide this information with the required Project Directory Submittal at the beginning of the project.
- D. If at the option of the GC, they choose to contract with a Waste Management Disposal Company that allows comingled and unsorted waste materials, the GC shall include with their Waste Management Plan the following:

1. Name, address, phone number, state permitting information, and other pertinent information about the disposal company.
2. Documentation from the disposal company indicating company policies and procedures regarding comingled and unsorted waste materials to include:
 - a. GC responsibilities on the project site.
 - b. Disposal company procedures for receiving, sorting, recycling, and disposing of comingled and unsorted waste material.

PART 2 – PRODUCTS – THIS SECTION NOT USED

PART 3 – EXECUTION

3.1. PLAN IMPLEMENTATION

- A. Implement the approved waste management plan. Provide adequate containers, storage space, signage, transportation and other items required to implement the plan during the execution of this contract.
- B. The GC and Waste Management Coordinator shall be responsible for monitoring and reporting the status of the Waste Management Plan and shall monitor the waste management practices on site as frequently as needed.
- C. Train all workers, sub-contractors, and suppliers on proper waste management procedures as appropriate for the work being conducted on the project site.
 1. Distribute the waste management plan to everyone concerned within seven (7) days of submittal approval.
 2. Distribute the waste management plan to new workers, sub-contractors, and suppliers when they first appear on the project site.
 3. Conduct additional training as needed during the execution of the contract to keep a positive focus on the waste management plan.
- D. Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent and used facilities.
 1. Designate and label specific areas on the project site necessary for separating materials to be salvaged, recycled, reused, donated, and sold.
 2. Comply with any specification or regulatory requirements pertaining to dust, dirt, environmental protection, and noise control.

3.2. HAZARDOUS AND TOXIC WASTE

- A. The Owner shall be responsible under separate contract for the removal of any asbestos related materials. All other materials shall be removed by the GC.
- B. All hazardous and toxic waste shall be separated, stored, and disposed of according to all applicable regulations.
- C. All hazardous and toxic materials on site shall have a Material Safety and Data Sheet (MSDS) available that indicates storage requirements, emergency information, and disposal requirements as necessary.

3.3. GENERAL GUIDELINES FOR ALL WASTES

- A. Recycle all paper and beverage containers used by workers, sub-contractors, suppliers and visitors to the project site.
- B. All revenues, savings, rebates, tax credits, and other such incentives received from recycling, reusing, or salvaging waste materials shall accrue to the GC unless specified otherwise in the contract documents.
- C. Separate recyclable, reusable, and salvageable waste from other waste materials, trash, and debris except where Waste Management Disposal Company allows comingled waste materials, see section 1.8.D above.
 1. Separate by type in appropriate containers or designated areas according to the approved waste management plan away from the construction area. Do not store within the drip lines of existing trees.
 2. Inspect containers and bins frequently for contamination and inappropriately sorted materials. Remove contaminated materials and resort as necessary.
 3. Stockpile bulk materials such as sand, topsoil, stone, etc., on site away from the construction area and without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water, and cover to prevent windblown dust. Do not store within the drip lines of existing trees.
 4. Whenever possible store items off the ground and/or protect them from the weather.

3.4. GUIDELINES FOR RECYCLABLE, RE-USABLE, AND SALVAGEABLE WASTE

- A. The following guidelines is not a complete or all inclusive list and shall be adjusted as needed by the methods and procedures identified in the Waste Management Plan.

- 1 B. Asphalt Paving: Break-up into transportable pieces or grind, transport to an authorized recycling facility.
- 2 C. Carpet and Pad: Separate carpet and pad scraps, containerize and transport to an authorized recycling facility.
- 3 D. Ceiling System Components: Suspended ceiling system components shall be sorted by material type as follows:
- 4 1. Broken, cut, or damaged tiles shall be containerized, transport to an authorized recycling facility.
- 5 2. Damaged, or cut tracks, trim and other metal grid system components shall be sorted with other metals
- 6 of similar types, palletize, transport to an authorized recycling facility.
- 7 E. Clean Fill: When allowed by Division 31 Specifications; concrete, masonry, stone, asphalt pavement, sand and
- 8 other such materials may be used as clean fill on this project site. The GC shall verify with the Project Architect,
- 9 Structural Engineer, or Civil Engineer as necessary prior to using any materials as clean fill. Materials shall be
- 10 processed, placed, and compacted as specified. If not being re-used on site, transport to an authorized recycling
- 11 facility.
- 12 F. Clean Wood Materials: Including but not limited framing cutoffs, wood sheathing or paneling materials,
- 13 structural or engineered wood products, and pallets or crates. Clean Wood shall be free of paints, stains, oils,
- 14 preservatives and other such contaminants.
- 15 1. Useable pieces shall be sorted by type and dimension, bundled and transported off site by the GC or
- 16 returned to the supplier.
- 17 2. Non-useable pieces shall be palletized or containerized, transport to an authorized recycling facility.
- 18 3. Clean, uncontaminated sawdust and wood shavings shall be bagged, transport to an authorized recycling
- 19 facility.
- 20 G. Concrete: Break-up into transportable pieces, remove all reinforcing and other metals, transport to an
- 21 authorized recycling facility.
- 22 H. Glass Products: Shall be sorted by types, do not include light fixture lamps and bulbs. Products broken in
- 23 shipment shall be returned to the supplier. Broken or cracked items still in frames shall be taped to prevent
- 24 further breakage and injury to workers. Transport to an authorized recycling facility.
- 25 I. Gypsum Board: Stack large clean pieces on wooden pallets or container, store in a dry location, transport to an
- 26 authorized recycling facility.
- 27 J. Light Fixture Lamps and Bulbs: Fluorescent tubes shall be containerized, transport to an authorized recycling
- 28 facility.
- 29 K. Masonry and CMU: Remove all metal reinforcing, anchors, and ties, clean undamaged pieces and neatly stack on
- 30 pallets, transport damaged pieces to an authorized recycling facility.
- 31 L. Metals: Sort metals by type as follows, this does not include piping:
- 32 1. Architectural metals including but not limited to siding, soffit, and roofing panels shall be sorted by
- 33 material, palletize or bundle as needed and transport to an authorized recycling facility.
- 34 2. Structural steel, sort by size and type; palletize and transport to an authorized recycling facility.
- 35 3. Miscellaneous metals such as aluminum, brass, bronze, etc shall be sorted by type, containerized or
- 36 palletized as necessary, transport to an authorized recycling facility.
- 37 M. Packaging and shipping materials
- 38 1. Cardboard boxes and containers: Breakdown all cardboard boxes and containers into flat sheets. Bundle
- 39 and store in a dry location until transported for recycling.
- 40 2. Pallets:
- 41 a. Whenever possible require deliveries using pallets to remove them from the project site.
- 42 b. Neatly stack pallets in preparation for reusing them or providing them to other companies for
- 43 salvage or re-use.
- 44 c. Break down pallets into component wood pieces that comply with the requirements for recycling
- 45 clean wood materials. Neatly stack or palletize pieces in preparation for transportation.
- 46 3. Crates: Break down crates into component wood pieces that comply with the requirements for recycling
- 47 clean wood materials. Neatly stack or palletize pieces in preparation for transportation.
- 48 4. Polystyrene Packaging: Separate and bag materials.
- 49 N. Piping and conduit: Reduce all piping and conduit to straight lengths, sort and store by size, material and type.
- 50 Remove supports, hangers, valves, boxes, sprinkler heads, and other such components, sort and store by size,
- 51 material and type. Transport to authorized recycling facilities according to material types.
- 52 O. Roofing: Roofing materials shall be sorted and containerized by type, transport to authorized recycling facilities
- 53 according to material types.
- 54 P. Site-Clearing Waste: Sort all site waste by type.
- 55 1. Only stockpile soils types and quantities required for re-use on the project site. All remaining quantities
- 56 shall be transported off site to an authorized facility that receives such materials.
- 57 2. Brush, branches, and trees with no marketable re-use shall be transported to facilities for chipping into
- 58 mulch.

3. Trees with a marketable re-use shall be salvaged and transported to facilities that specialize in processing trees for future use as wood products.

3.5. GUIDELINES FOR DISPOSAL OF WASTES

- A. The following guidelines shall be adjusted as needed by the methods and procedures identified in the Waste Management Plan.
- B. Any waste that is contaminated, organic, or cannot be recycled, re-used, or salvaged shall be legally disposed of in an authorized landfill or incinerator. Disposal methods shall follow all applicable regulatory requirements.
- C. No waste material of any kind, except those types designated as clean fill in section 3.4 above, shall be allowed to be buried on the project site at any time.
- D. No burning of any kind of waste material shall be permitted on this project site at any time.
- E. Paint and Stain: Paints, stains, and their containers shall be disposed of as follows:
1. Whenever possible containers should be thoroughly cleaned immediately after emptying and sorted with as appropriate (metal or plastic) for recycling
 2. Empty containers, regardless of type or base material, may be disposed of with lids off with general garbage.
 3. Latex paint may be placed with general garbage if properly solidified as follows:
 - a. Small amounts (an inch or less in can): Remove lids and allow paint to dry out in the can and harden. Protect cans from rain and freezing.
 - b. Large amounts (more than one inch): Mix paint with equal amounts of cat litter, stir and allow to completely dry. Alternate method: mix with commercial paint hardener.
 4. Oil-based or combustible paints and stains, regardless of liquid or solid, shall be transported to an approved facility that takes such items such as Dane County Clean Sweep Sites.
- F. Treated Wood Materials: Treated wood materials including but not limited to wood that has been painted, stained, or chemically treated shall not be recycled or incinerated.

END OF SECTION

SECTION 01 76 00
PROTECTING INSTALLED CONSTRUCTION

PART 1 – GENERAL	1
1.1. SUMMARY	1
1.2. QUALITY ASSURANCE	1
1.3. RELATED SPECIFICATIONS	2
PART 2 - PRODUCTS	2
2.1. FENCING MATERIALS AND BARRICADES	2
2.2. EROSION CONTROL PROTECTION	2
2.3. INTERIOR FINISH PROTECTION MATERIALS	2
PART 3 - EXECUTION	3
3.1. GENERAL EXECUTION REQUIREMENTS	3
3.2. PROTECT ADJACENT PROPERTIES.....	3
3.3. PROTECT LANDSCAPING FEATURES	3
3.4. PROTECT UTILITIES	4
3.5. PROTECT PUBLIC RIGHT OF WAY	4
3.6. PROTECT STORED MATERIALS.....	4
3.7. PROTECT WORK - EXTERIOR.....	5
3.8. PROTECT WORK - INTERIOR	5

PART 1 – GENERAL

1.1. SUMMARY

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

1.2. QUALITY ASSURANCE

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

1.3. RELATED SPECIFICATIONS

- A. Parts of this specification will reference articles within “The City of Madison FACILITIES MANAGEMENT SPECIFICATIONS for Public Works Construction”.
 - 1. Use the following link to access the FACILITIES MANAGEMENT SPECIFICATIONS web page:
<http://www.cityofmadison.com/business/pw/specs.cfm>
 - a. Click on the “Part” chapter identified in the specification text. For example if the specification says “Refer to City of Madison FACILITIES MANAGEMENT SPECIFICATION 210.2” click the link for Part II, the Part II PDF will open.
 - b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you to the referenced text.
 - c. City Standard Detail Drawings (SDD) may be located from the index in Part VIII.

PART 2 - PRODUCTS

2.1. FENCING MATERIALS AND BARRICADES

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

2.2. EROSION CONTROL PROTECTION

- A. Refer to City of Madison FACILITIES MANAGEMENT SPECIFICATION 210.2 for authorized materials associated with erosion control materials.

2.3. INTERIOR FINISH PROTECTION MATERIALS

- A. Except where noted in other areas of the construction documents or this specification the responsible contractor:
 - 1. Shall not provide the cheapest or least effective method as an effort to meet any protection requirement.
 - 2. Shall provide materials of sufficient quality, and durability to provide adequate protection based on the seasonal conditions and the anticipated duration at the time the protection will be needed.
 - 3. Shall provide sufficient quantity of protection material to protect the construction as needed.
- B. Prior to installing protective measures the responsible contractor shall propose to the GC, Project Architect (PA)/Project Engineer (PE) and City Project Manager (CPM) the proposed plan for protection, materials to be used and samples as necessary.

1. The PA/PE and CPM reserve the right to disapprove any proposed method and/or material and/or make alternate proposals.

PART 3 - EXECUTION

3.1. GENERAL EXECUTION REQUIREMENTS

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

3.2. PROTECT ADJACENT PROPERTIES

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

3.3. PROTECT LANDSCAPING FEATURES

- A. Except where specifically stated in other areas of the construction documents the following minimal protection requirements shall apply under this section.
 1. Whenever possible do not install new landscape features until exterior building construction has been completed, equipment such as scaffolding and lifts are no longer needed and have been removed, and heavy equipment operation is no longer required.
 2. Whenever possible remove and temporarily store all existing landscape features such as benches, waste receptacles, signage, and other such features that will be within the area of Work that can be removed.

3. Landscape features that cannot be removed such as flag poles, light poles, light bollards, etc. shall be protected with Type D fencing for areas on pavement or Type E fencing for areas on soil.
4. Planting beds shall be protected using Type E fencing around the exposed perimeter of the planting bed as needed.
5. The City of Madison FACILITIES MANAGEMENT SPECIFICATION 107.13 shall apply to all tree protection in and around the project site at all times.

3.4. PROTECT UTILITIES

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

3.5. PROTECT PUBLIC RIGHT OF WAY

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

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.
- C. All protection shall stay in place until the CPM, PA/PE, and GC mutually deem the project is ready for Final Cleaning. The contractors responsible for protecting the work shall be responsible for removing the protection and removing any adhesive residue at that time. Contractors shall only use manufacturer authorized cleaning materials for removing adhesives, etc.

- END OF SECTION**