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**SECTION 01 32 33  
PHOTOGRAPHIC DOCUMENTATION**

PART 1 – GENERAL ..... 1

    1.1. SCOPE ..... 1

PART 2 – PRODUCTS – THIS SECTION NOT USED ..... 1

PART 3 – EXECUTION..... 1

    3.1. REQUIREMENTS FOR DIGITAL PHOTOGRAPHS..... 1

    3.2. PICTURE CONTENT ..... 1

    3.3. DOCUMENTATION ..... 1

**PART 1 – GENERAL**

**1.1. SCOPE**

- A. The General Contractor (GC) shall be required to take digital photographs of adjacent properties before and after demolition is complete to provide a benchmark for any potential restoration requirements.

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

**PART 3 – EXECUTION**

**3.1. REQUIREMENTS FOR DIGITAL PHOTOGRAPHS**

- A. All digital photographs shall be taken with a good quality digital camera, cell phone, tablet, or similar digital device.
- B. Digital photographs shall be properly zoomed in/out to capture a specific level of detail as necessary.
- C. Digital photographs shall be formatted to achieve a good, clear, and detailed image where the final size is between 600KB and 1.2 MB (1200KB).
- D. the camera default naming convention is acceptable. The GC does not have to rename or specifically identify pictures in the title.
- E. All digital photographs shall be saved in JPEG (.jpg) format.

**3.2. PICTURE CONTENT**

- A. The GC shall take perimeter photographs of all of the following that may apply:
  - 1. Public sidewalks to remain.
    - a. Take photos, every 20 feet (+/-), of all public sidewalks adjacent to the demolition property that are not part of the demolition work.
    - b. Mark the sidewalk at each photo location so the end of contract photos may be taken from the same location.
    - c. Photos shall show all existing defects.
  - 2. Utilities. Take photos of any public or private utility including but not limited to poles, guy wires, castings/covers, etc.
  - 3. Public Miscellaneous. Photos of curbs, gutters, street signage, street trees/turf/landscaping, and any other items not specified in the section that may need restoration if damaged.
  - 4. Adjacent property. Take photos of all buildings, fences, landscaping, pavements, and any other items that are within 50 feet of the designated work zone.

**3.3. DOCUMENTATION**

- A. The GC shall provide the Project Manager with a single PDF compilation of all photographs, before and after the contract.
- B. Before contract photographs shall be compared to after contract photographs to determine the extent of any required restoration to adjacent properties.

**END OF SECTION**

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**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

1  
2  
3  
4 PART 1 – GENERAL ..... 1  
5 1.1. SUMMARY ..... 1  
6 1.2. QUALITY ASSURANCE ..... 1  
7 1.3. TEMPORARY UTILITIES ..... 1  
8 1.4. TEMPORARY SANITARY FACILITIES ..... 2  
9 1.5. FENCING ..... 2  
10 1.6. SECURITY ..... 2  
11 1.7. VEHICULAR ACCESS AND PARKING ..... 2  
12 1.8. WASTE REMOVAL ..... 2  
13 PART 2 - PRODUCTS ..... 2  
14 2.1. EQUIPMENT ..... 2  
15 PART 3 - EXECUTION ..... 2  
16 3.1. TEMPORARY FIRE PROTECTION ..... 2  
17 3.2. COLLECTION AND DISPOSAL OF WASTE ..... 3  
18 3.3. ENVIRONMENTAL PROTECTION ..... 3  
19 3.4. REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS ..... 3  
20

**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. Temporary Sanitary Facilities
  3. Fencing
  4. Security
  5. Vehicular Access and Parking
  6. Waste Removal

**1.2. 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".

**1.3. TEMPORARY UTILITIES**

- A. All existing utilities have or will be disconnected by this contract and shall not be used by the contractor.
- B. The General Contractor shall be responsible for providing all temporary facilities including but not limited to the following that may be needed during this contract:
1. Temporary power including outlets and lighting.
  2. Temporary water supply.
  3. Temporary heating. 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 **1.4. TEMPORARY SANITARY FACILITIES**

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

10  
11 **1.5. FENCING**

- 12 A. Contractor shall provide, install, maintain, and remove portable chain link construction fencing panels around  
13 the perimeter of the demolition site. Fencing may be removed after excavation has been properly backfilled and  
14 compacted.

15  
16 **1.6. SECURITY**

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

19  
20 **1.7. VEHICULAR ACCESS AND PARKING**

- 21 A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for  
22 emergency vehicles.  
23 B. Coordinate access and haul routes with governing authorities and Owner.  
24 C. Provide and maintain access to fire hydrants, free of obstructions.  
25 D. Refer to project plans and special provisions for additional information regarding access and parking.

26  
27 **1.8. WASTE REMOVAL**

- 28 A. See Section 01 74 19 - Waste Management, for additional requirements.  
29 B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.

30  
31 **PART 2 - PRODUCTS**

32  
33 **2.1. EQUIPMENT**

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

50  
51 **PART 3 - EXECUTION**

52  
53 **3.1. TEMPORARY FIRE PROTECTION**

- 54 A. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding  
55 Construction, Alterations and Demolition Operations".  
56 B. Locate fire extinguishers where convenient and effective for their intended purpose.  
57 C. Store combustible materials in containers in fire-safe locations.

- 1 D. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways
- 2 and other access routes for fighting fires.
- 3 E. Prohibit smoking on the premises.
- 4 F. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition
- 5 according to requirements of authorities having jurisdiction.
- 6 G. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site
- 7 H. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods
- 8 and procedures. Post warnings and information.
- 9

10 **3.2. COLLECTION AND DISPOSAL OF WASTE**

- 11 A. Collect waste from construction areas and elsewhere daily
- 12 B. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce
- 13 requirements strictly.
- 14 C. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to
- 15 rise above 80 deg. F.
- 16 D. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing
- 17 properly. Dispose of material in a lawful manner.
- 18

19 **3.3. ENVIRONMENTAL PROTECTION**

- 20 A. Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply
- 21 with environmental regulations, and minimize the possibility that air, waterways and subsoil might be
- 22 contaminated or polluted, or that other undesirable effects might result.
- 23 B. Avoid use of tools and equipment which produce harmful noise.
- 24 C. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms
- 25 near the site.
- 26

27 **3.4. REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS**

- 28 A. Remove temporary utilities, equipment, facilities, and materials prior to Substantial Completion inspection.
- 29 B. Clean and repair damage caused by installation or use of temporary work.
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**END OF SECTION**

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

1  
2  
3  
4 PART 1 – GENERAL ..... 1  
5 1.1. SUMMARY ..... 1  
6 1.2. RELATED SPECIFICAITONS ..... 1  
7 1.3. CITY ORDINANCES ..... 1  
8 1.4. DEFINITIONS..... 1  
9 1.5. PERFORMANCE REQUIREMENTS..... 2  
10 1.6. SUBMITTALS AND DELIVERABLES..... 2  
11 1.7. QUALITY ASSURANCE ..... 3  
12 1.8. WASTE MANAGEMENT PLAN ..... 3  
13 PART 2 – PRODUCTS – THIS SECTION NOT USED ..... 3  
14 PART 3 - EXECUTION ..... 3  
15 3.1. PLAN IMPLEMENTATION ..... 3  
16 3.2. HAZARDOUS AND TOXIC WASTE ..... 3  
17 3.3. GENERAL GUIDELINES FOR ALL WASTES ..... 4  
18 3.4. GUIDELINES FOR RECYCLABLE, RE-USABLE, AND SALVAGEABLE WASTE ..... 4  
19 3.5. GUIDELINES FOR DISPOSAL OF WASTES ..... 5  
20

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 24 A. This specification includes administrative and procedural requirements for the recycling, re-use, salvaging, and  
25 disposal of non-hazardous construction and demolition waste.  
26 B. The General Contractor (GC) shall be fully responsible for complying with all applicable ordinances and other  
27 such regulatory requirements during the execution of this contract.  
28

**1.2. RELATED SPECIFICAITONS**

- 30 A. Other Divisions and Specifications that may address the proper disposal of construction or demolition waste as it  
31 pertains to work being conducted under that particular specification.  
32

**1.3. CITY ORDINANCES**

- 34 A. There are two (2) Madison General Ordinances (MGO) that the City of Madison has regarding construction and  
35 demolition waste.  
36 1. MGO 10.185, Recycling and Reuse of Construction and Demolition Debris, describes the requirements  
37 associated with this ordinance including definitions, documentation requirements, and penalties.  
38 2. MGO 28.185, Approval of Demolition (Razing, Wrecking) and Removal, describes the requirements  
39 associated with applying for and receiving a demolition permit.  
40 B. All City of Madison, Board of Public Works, contracts being conducted by City Engineering, Facility Management,  
41 for construction, remodeling, or demolition shall comply with the above ordinances regardless of project type or  
42 size.  
43

**1.4. DEFINITIONS**

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

- 1 H. Recycle: Any process by which construction or demolition debris is diverted from final disposal as solid waste at  
2 a permitted landfill and instead is collected, separated, and/or processed into raw materials for new, reused, or  
3 reconstituted products; or for the recovery of materials for energy production processes.
- 4 I. Recycler: Any recycling facility, transfer station, or other waste handling facility which accepts construction and  
5 demolition debris for recycling, or for other transferring to a recycling facility.
- 6 J. Recycling: The process of sorting, cleaning, treating, or reconstituting solid waste and other discarded materials  
7 for the purpose of preparing the material to be recyclable. Recycling does not include burning, incinerating or  
8 thermally destroying waste.
- 9 K. Return: To give back reusable items or unused products to vendors for credit.
- 10 L. Reuse: Shall mean any of the following:
- 11 1. The on-site use of reprocessed construction and demolitions debris.
- 12 2. The off-site redistribution of a material, for use in the same manner or similar manner at another  
13 location.
- 14 3. The use of non-toxic, clean wood as an alternative fuel source.
- 15 M. Salvage: To remove a waste material from the project site for resale or reuse by the Owner or others.
- 16 N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- 17 O. Trash: Any product or material unable to be re-used, returned, recycled, or salvaged.
- 18 P. Waste: Extra materials or products that have reached the end of its useful life or its intended use. Waste  
19 includes salvageable, returnable, recyclable and re-useable construction and demolition materials, and trash.  
20

21 **1.5. PERFORMANCE REQUIREMENTS**

- 22 A. The GC shall develop a Waste Management Plan that results in end-of-project rates for salvage/recycling/reuse  
23 of 75 percent (minimum) by weight of the total waste generated by the Work. Percentages may be adjusted on  
24 a project by project basis depending on selected LEED goals associated with the project.
- 25 B. The GC shall salvage or recycle 100 percent of all uncontaminated packaging materials including but not limited  
26 to the following:
- 27 1. Paper
- 28 2. Cardboard
- 29 3. Beverage containers
- 30 4. Boxes
- 31 5. Plastic Sheet and film
- 32 6. Polystyrene packaging
- 33 7. Wood crates and pallets
- 34 8. Plastic pails and buckets
- 35 C. Use all reasonable means to divert construction waste from landfills and incinerators through recycling, reuse, or  
36 salvage as appropriate.  
37

38 **1.6. SUBMITTALS AND DELIVERABLES**

- 39 A. The GC shall provide his/her completed Waste Management Plan to the City Project Manager as a submittal for  
40 review.
- 41 B. The Waste Management Coordinator shall provide copies of items 1 through 5 below and shall update the Waste  
42 Management Summary Log to reflect the records being submitted.
- 43 1. Records of Donations: Indicate receipt and acceptance of itemized salvageable waste donated to  
44 individuals or organizations. Indicate if the organization is tax exempt.
- 45 2. Records of Sales: Indicate receipt and acceptance of itemized salvageable waste sold to individuals or  
46 organizations. Indicate if the organization is tax exempt.
- 47 3. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by  
48 recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts and  
49 invoices.
- 50 4. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and  
51 incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices.
- 52 5. Statement of Refrigerant Recovery: The Refrigerant Recovery Technician responsible for recovering  
53 refrigerant shall provide the GC with a statement indicating all of the following:
- 54 a. All recovery was performed according to EPA Regulations.
- 55 b. All refrigerant present was recovered; indicate the total quantity recovered by unit.
- 56 c. Date of Recovery.
- 57 d. Name, address, company name, and phone number of technician performing the recovery.
- 58 e. Technician shall sign and date the statement.



1 **1.7. QUALITY ASSURANCE**

- 2 A. Waste Management Coordinator: The GC shall be responsible for designating a Waste Management  
3 Coordinator. Coordinator may be the GC Supervisor, GC Project Manager or other member of the GC staff  
4 having knowledge of proper waste management procedures and all applicable regulations.  
5 B. Regulatory Requirements: comply with all hauling and disposal regulations of authorities having jurisdiction.  
6 C. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.  
7

8 **1.8. WASTE MANAGEMENT PLAN**

- 9 A. Develop a plan consisting of waste identification, a waste reduction work plan, and cost/revenue analysis.  
10 Indicate quantities by weight or volume. Use the same units of measure throughout the waste management  
11 plan.  
12 1. Waste Identification: Indicate anticipated types and quantities of site clearing, demolition waste, and  
13 construction waste that will be generated during the execution of this contract. Include assumptions for  
14 the estimates.  
15 2. Identify what types of materials will be recycled. Provide lists of local companies that receive and/or  
16 process the materials. Include names, addresses, and phone numbers.  
17 3. Identify what types of materials will be disposed of and whether it will be disposed of in a landfill facility  
18 or by incineration facility. Provide lists of local companies that receive and/or process the materials.  
19 Include names, addresses, and phone numbers.  
20 4. Identify methods to be used on site for separating waste including all of the following:  
21 a. Sizes of containers to be used.  
22 b. Labels to be used on the containers to identify the type of waste allowed in the container.  
23 c. Designated locations on the project site for waste material containers.  
24 B. Incorporate the ordinance required (MGO 28.185) Recycling and Reuse Plan (Exhibit D) into the Waste  
25 Management Plan.  
26 C. If at the option of the GC, he/she chooses to contract with a Waste Management Disposal Company that allows  
27 comingled and unsorted waste materials, the GC shall include with his/her Waste Management Plan the  
28 following:  
29 1. Name, address, phone number, state permitting information, and other pertinent information about the  
30 disposal company.  
31 2. Documentation from the disposal company indicating company policies and procedures regarding  
32 comingled and unsorted waste materials to include:  
33 a. GC responsibilities on the project site.  
34 b. Disposal company procedures for receiving, sorting, recycling, and disposing of comingled and  
35 unsorted waste material.  
36

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

38  
39 **PART 3 - EXECUTION**

40  
41 **3.1. PLAN IMPLEMENTATION**

- 42 A. Implement the approved waste management plan. Provide adequate containers, storage space, signage,  
43 transportation and other items required to implement the plan during the execution of this contract.  
44 B. Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways,  
45 and other adjacent and used facilities.  
46 1. Designate and label specific areas on the project site necessary for separating materials to be salvaged,  
47 recycled, reused, donated, and sold.  
48 2. Comply with any specification or regulatory requirements pertaining to dust, dirt, environmental  
49 protection, and noise control.  
50

51 **3.2. HAZARDOUS AND TOXIC WASTE**

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

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**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.

**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.
- B. Asphalt Paving: Break-up into transportable pieces or grind, transport to an authorized recycling facility.
- C. Carpet and Pad: Separate carpet and pad scraps, containerize and transport to an authorized recycling facility.
- D. Ceiling System Components: Suspended ceiling system components shall be sorted by material type as follows:
  - 1. Broken, cut, or damaged tiles shall be containerized, transport to an authorized recycling facility.
  - 2. Damaged, or cut tracks, trim and other metal grid system components shall be sorted with other metals of similar types, palletize, transport to an authorized recycling facility.
- E. Clean Wood Materials: Including but not limited framing cutoffs, wood sheathing or paneling materials, structural or engineered wood products, and pallets or crates. Clean Wood shall be free of paints, stains, oils, preservatives and other such contaminates.
  - 1. Wood materials shall be containerized, transport to an authorized recycling facility.
- F. Concrete: Break-up into transportable pieces, remove all reinforcing and other metals, transport to an authorized recycling facility.
- G. Glass Products: Shall be sorted by types, do not include light fixture lamps and bulbs. Products broken in shipment shall be returned to the supplier. Broken or cracked items still in frames shall be taped to prevent further breakage and injury to workers. Transport to an authorized recycling facility.
- H. Light Fixture Lamps and Bulbs: Fluorescent tubes shall be containerized, transport to an authorized recycling facility.
- I. Masonry and CMU: Remove all metal reinforcing, anchors, and ties, clean undamaged pieces and neatly stack on pallets, transport damaged pieces to an authorized recycling facility.
- J. Metals: Sort metals by type as follows, this does not include piping:
  - 1. Architectural metals including but not limited to siding, soffit, and roofing panels shall be sorted by material, palletize or bundle as needed and transport to an authorized recycling facility.
  - 2. Structural steel, sort by size and type; palletize and transport to an authorized recycling facility.
  - 3. Miscellaneous metals such as aluminum, brass, bronze, etc shall be sorted by type, containerized or palletized as necessary, transport to an authorized recycling facility.
- K. Piping and conduit: Reduce all piping and conduit to straight lengths, sort and store by size, material and type. Remove supports, hangers, valves, boxes, sprinkler heads, and other such components, sort and store by size, material and type. Transport to authorized recycling facilities according to material types.
- L. Roofing: Roofing materials shall be sorted and containerized by type, transport to authorized recycling facilities according to material types.
- M. Site-Clearing Waste: Sort all site waste by type.
  - 1. Only stockpile soils types and quantities required for re-use on the project site. All remaining quantities shall be transported off site to an authorized facility that receives such materials.
  - 2. Brush, branches, and trees with no marketable re-use shall be transported to facilities for chipping into 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.

1 **3.5. GUIDELINES FOR DISPOSAL OF WASTES**

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

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

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2  
3  
4 PART 1 – GENERAL ..... 1  
5 1.1. SUMMARY ..... 1  
6 1.2. QUALITY ASSURANCE ..... 1  
7 1.3. RELATED SPECIFICATIONS ..... 1  
8 PART 2 - PRODUCTS ..... 1  
9 2.1. FENCING MATERIALS AND BARRICADES ..... 1  
10 2.2. EROSION CONTROL PROTECTION ..... 2  
11 PART 3 - EXECUTION ..... 2  
12 3.1. GENERAL EXECUTION REQUIREMENTS ..... 2  
13 3.2. PROTECT ADJACENT PROPERTIES ..... 2  
14 3.3. PROTECT UTILITIES ..... 3  
15 3.4. PROTECT PUBLIC RIGHT OF WAY ..... 3  
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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19  
20 A. The purpose of this specification is to provide clear responsibilities, guide lines, and requirements related to  
21 providing protection to already installed construction.  
22 B. Already installed construction shall include but not be limited to the following:  
23 1. Any existing site feature such as pavement, curbs, drainage features, utilities, landscaping features (trees,  
24 shrubbery, plantings, flagpoles, etc) and other such exterior items not associated with the building  
25 whether on or adjacent to the project site.  
26 2. Any existing structure on or adjacent to the project site.  
27 3. Any existing feature of any kind within the public right-of-way that may be on the project site property,  
28 adjacent to the project site or across the street from the project site.  
29 C. The requirements noted within this specification do not relieve any contractor of the responsibility for  
30 compliance with any code, statute, ordinance, or other such regulatory requirement having jurisdictional  
31 authority over these contract documents.  
32

**1.2. QUALITY ASSURANCE**

- 33  
34 A. It shall be the responsibility of every contractor and worker assigned to the project to be diligent in protecting all  
35 existing work, and newly installed construction.  
36 B. It shall be the General Contractors' (GC) responsibility under the contract to provide all reasonable protection  
37 methods, materials, or precautionary measures required to protect new or existing construction as described in  
38 within this specification to the project as a whole.  
39 1. The GC shall be responsible to ensure any damaged new or existing construction is repaired or replaced  
40 at no additional cost to the Contract.  
41

**1.3. RELATED SPECIFICATIONS**

- 42  
43 A. Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public  
44 Works Construction".  
45 1. Use the following link to access the Standard Specifications web page:  
46 <http://www.cityofmadison.com/business/pw/specs.cfm>  
47 a. Click on the "Part" chapter identified in the specification text. For example if the specification  
48 says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II  
49 PDF will open.  
50 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you  
51 to the referenced text.  
52 c. City Standard Detail Drawings (SDD) may be located from the index in Part VIII.  
53

**PART 2 - PRODUCTS**

**2.1. FENCING MATERIALS AND BARRICADES**

- 54  
55  
56  
57 A. Except where noted in other areas of the construction documents, the responsible contractor shall provide a six  
58 foot galvanized chain link fence around the perimeter of the work area to be disturbed. For temporary barricade

- 1 situations, the responsible contractor may provide one of the following that sufficiently provide a sturdy physical  
2 barrier and/or visual barrier as necessary for the intended application.
- 3 1. Standard orange construction barrels each with a standard rubber base ring and reflective tape
  - 4 a. Provide flashing amber lights as needed to increase night time visibility
  - 5 2. Steel "T" style fence posts
  - 6 3. 4'0" high standard orange construction fence
  - 7 4. Traffic barricades
  - 8 5. Jersey barriers
  - 9 6. Other types of fencing or barricades typically used in the construction industry
- 10 B. The contractor responsible for providing the fencing materials and barricades shall also be responsible for  
11 maintaining them. This shall include but not limited to fixing damaged fencing, standing up barrels that have  
12 been knocked over, realigning barrels, and ensuring flashing lights are fully operational at all times.
- 13 C. The following fencing and barricade designations, and their use descriptions shall be used throughout this  
14 specification to provide uniformity in describing protection requirements.
- 15 1. Type A, Jersey Barriers, to be used as permanent blocking devices to deny access to alternate project site  
16 entrances or exits.
  - 17 2. Type B, Traffic Barricades, to be used as temporary blocking devices to deny access to alternate project  
18 site entrances or exits.
  - 19 3. Type C, Construction Barrels without construction fencing shall be used for lane closures, temporary  
20 blocking devices to deny access and the protection of single locations (I.E. identify the location of an  
21 access structure) that do not require fencing.
  - 22 4. Type D, Construction Barrels with construction fencing where it becomes necessary to surround an object  
23 with a complete visual barricade and it is impractical or unacceptable to install fence posts. The surround  
24 shall be constructed in such a manner as to provide a buffer zone around and access to the item being  
25 protected.
  - 26 5. Type E, Steel "T" Fence Posts shall be used at the project lines with six foot galvanized chain link fencing  
27 to surround an object with a complete visual barricade. The surround shall be constructed in such a  
28 manner as to provide a buffer zone around and access to the item being protected. All posts shall be  
29 driven installed, surface mounted posts shall only be allowed for temporary barricades.
  - 30 6. Type X, Other fencing or barricade types that may be designated and detailed within the construction  
31 documents shall use additional alpha numeric designations.

## 32 **2.2. EROSION CONTROL PROTECTION**

- 33 A. Refer to City of Madison Standard Specification 210.2 for authorized materials associated with erosion control  
34 materials.  
35

## 36 **PART 3 - EXECUTION**

### 37 **3.1. GENERAL EXECUTION REQUIREMENTS**

- 38
- 39 A. The GC shall be responsible for ensuring all of the following procedures and requirements are implemented as  
40 needed for the duration of the Work performed under this contract.
- 41 B. The GC shall also be responsible for the following:
- 42 1. Reporting any incident of damage to existing property, right-of-way, or utility to the CPM immediately  
43 upon rendering the incident safe, and notifying emergency response teams, and emergency utility crews  
44 as needed.
  - 45 2. Conduct a site walk through prior to leaving at the end of each day to assess:  
46 a. Protection measures are properly in place, provide correction actions as necessary.  
47 b. Note damage to existing completed work and schedule repair/replacement as needed.
  - 48 3. Ensure all contractors and workers are being diligent in protecting existing work.  
49

### 50 **3.2. PROTECT ADJACENT PROPERTIES**

- 51 A. Whenever possible through the design process the City of Madison shall have previously provided notice to  
52 adjacent property owners that work will be occurring on or near their property. The City of Madison shall also  
53 have obtained any permanent or temporary easements that may be necessary to complete any Work on  
54 adjacent properties.  
55
- 56 B. It shall be the responsibility of the GC to do the following for all Work under this contract being performed on or  
57 adjacent to the property line:

- 1                   1.     Contact the adjacent property owner and provide him/her with information on the work to be done,  
2                                 equipment to be used, and estimated duration of the work. Information to be updated and  
3                                 communicated to property owner(s) as construction progresses and site conditions change.  
4                   a.     If any adjacent property is a rented or leased space the GC shall also make contact and provide  
5                                 the same information to the tenants.  
6                   b.     Determine from the owner and/or tenants if there are any concerns for children, pets, special  
7                                 plantings, or other concerns.  
8                   2.     Discuss the following with all contractors performing work on or near the property line.  
9                   a.     Work to be completed and timeline.  
10                   b.     Concerns of adjacent property owners/tenants from item 1 above.  
11                   c.     Which protective measures will be necessary to protect adjacent properties and address the  
12                                 concerns of adjacent property owners/tenants.  
13                   3.     Ensure all protective measures are placed and maintained during the execution of Work on or adjacent to  
14                                 the property line. Interact with the adjacent property owners/tenants as needed.  
15           C.     Any contractor doing work on or adjacent to the property line shall install and maintain any protective measure  
16                                 identified in the contract documents, this specification, or as directed by the GC.  
17           D.     The GC shall be responsible for restoring any damage to structure and property located on or adjacent to the  
18                                 property line.  
19                   1.     Restoration shall include but not be limited to repair or replacement using like materials and finishes to  
20                                 its original condition or better.  
21                   2.     Restoration of landscaping materials shall include watering of any seed, sod, or other planting of any kind  
22                                 for a reasonable period of time to encourage germination and root development.  
23           E.     The GC shall keep the CPM informed directly to any issues pertaining to adjacent property owners and tenants.  
24

25   **3.3.   PROTECT UTILITIES**

- 26   A.     The contractor shall be responsible for notifying all utilities to determine emergency response procedures and  
27                                 protection requirements prior to installing any construction protection.  
28                   1.     This includes requesting utility marking through Diggers Hotline.  
29                   a.     Call 811 or 1-800-242-8511 to request a public utility locate  
30                   b.     For emergency locate call (262) 432-7910 or (877) 500-9592  
31                   2.     Contact the Owner and CPM for any available private utility information on the property that may be  
32                                 available prior to calling a private utility locating company.  
33   B.     Except where specifically stated in other areas of the construction documents the following minimal protection  
34                                 requirements shall apply under this section.  
35                   1.     Hydrants, lamp posts, electrical transformers, and other utility pedestals shall be protected with Type D  
36                                 fencing for areas on pavement or Type E fencing for areas on soil. Fence posts shall be located so as to  
37                                 not be directly over the utility main.  
38                   2.     Storm sewer structures in pavement shall have proper inlet protection according to City of Madison  
39                                 Standard Specification 210.1(g) and Type C Construction Barrels when necessary.  
40                   3.     Storm sewer structures in turf and other landscaped areas shall have proper inlet protection according to  
41                                 City of Madison Standard Specification 210.1(g) and Type E fencing for areas on soil.  
42                   4.     Stormwater management features such as greenways, retention/detention ponds, bio-filtration ponds  
43                                 and other such features shall be properly protected according to the appropriate erosion control  
44                                 measure specified on the Erosion Control Plan. See multiple sections of City of Madison Standard  
45                                 Specification 210.1  
46                   a.     For the protection of hard to see items such as structures, castings, inlets, etc. in grassy areas  
47                                 provide Type E fencing for areas on soil.  
48                   c.     For the protection of storm water management features having special soils and plants such as  
49                                 bio-filtration ponds provide Type E fencing for areas on soil.  
50                   5.     Other structures and covers including but not limited to cleanouts, wiring hand holes, valve boxes, access  
51                                 structures, grease trap structures, etc. shall be protected as follows:  
52                   a.     Provide Type E fencing for areas on soil.  
53                   b.     When paving operations are complete provide a construction barrel or cone near structures as  
54                                 necessary depending on required heavy construction traffic.  
55

56   **3.4.   PROTECT PUBLIC RIGHT OF WAY**

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

- 1                    1.     All public right-of-way (area from behind the sidewalk to the centerline of the street) shall remain open
- 2                        and accessible except during periods of active work. At such times the public right of way shall be
- 3                        properly closed and signed as referenced in City of Madison Standard Specification 107.9.
- 4                    2.     Bus stops and bus stop structures shall remain accessible at all times.
- 5                    3.     Traffic signage and traffic signals, traffic control boxes shall be protected with Type D fencing for areas on
- 6                        pavement or Type E fencing for areas on soil.
- 7                        a.     Protection at traffic signage/signals shall not obstruct the viewing of the sign/signal for its
- 8                                intended purpose at any time.
- 9                    B.     When additional protection for traffic control is required, the use of barricades, guardrails, lane closures and
- 10                        other such procedures will be detailed within the construction documents.
- 11                    C.     When additional protection for overhead sidewalk cover is required the contract documents shall indicate the
- 12                        specific location and structural requirements of the protective structure.
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**END OF SECTION**