

## SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes
  - 1. Recycling nonhazardous construction waste.
  - 2. Disposing of nonhazardous construction waste.
  - 3. Recycling of vinyl composition tile.
  - 4. Recycling of mineral fiber ceiling tile.

#### 1.2 PRICE AND PAYMENT PROCEDURES

- A. The Owner desires to achieve a goal of recycling 90 percent of all construction waste. Payment procedures for construction waste management and disposal are identified in Division 00 Section "General Conditions."
- B. Provide a separate cost for construction waste management and disposal as identified in this Section on Division 00 Section "Trade Proposal Form."

#### 1.3 DEFINITIONS

- A. Construction Waste: Demolition, building, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging and waste generated by Workers.
- B. Disposal: Removal off-site of construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- C. Recycle: Recovery of construction waste for subsequent processing in preparation for reuse.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for recycling of 90 percent of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction waste from landfills and incinerators. Facilitate recycling and salvage of materials.
- A. Refer to Division 01 Section "General Conditions" for waste management payment procedures and incentives.

## 1.5 SUBMITTALS

- A. Waste Management Plan: Submit plan within 7 days of date established for the Notice to Proceed or Contract signing.
- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report indicating amount of construction waste recycled and amount of construction waste disposed to land fill. Include receipts from recycling and landfill facilities. Use Waste Reduction Progress Report form located on Owner's Project Management Website (PMW) under **Files > Capital > Building & Site Specifications > Procurement and Contracting Requirements > WORKING FORMS-open to retrieve excel files**. A sample of the form is also included at the end of this section.
- C. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for recycling and disposal as a percentage of total waste generated by the Work.

## 1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Waste Management Conference: Conduct conference at Project site. Review methods and procedures related to waste management.
- C. Recycling Programs: Ceiling and floor tile will be recycled via a manufacturer sponsored program as follows:
  - 1. Approved Recycled Ceiling and Floor Tile Recipient:
    - a. Armstrong World Industries
      - 1) Phone: 1-877-276-7876
      - 2) Website: [www.armstrong.com/environmental](http://www.armstrong.com/environmental)
    - b. Substitution approved by Owner.
  - 2. A representative of the approved recycled tile recipient must approve the material for reclamation.
  - 3. Prior to removal the VCT flooring is to be registered with the Armstrong Flooring Recycling Center.
  - 4. Floor Tile:
    - a. Approved Floor Tile Material:
      - 1) 12 inch (305 mm) by 12 inch (305 mm) vinyl composition tiles.
    - b. Materials not acceptable for recycling:

- 1) Asbestos containing flooring tiles.
- 2) Flooring tiles installed with adhesives containing asbestos.
- 3) Flooring tiles being removed from a location undergoing any type of asbestos or hazardous abatement.
- 4) Wet, moldy or weathered flooring tiles.
- 5) Flooring tiles or gaylord boxes/pallets which contain debris (garbage, construction waste).
- 6) Flooring tiles not packaged according to packaging procedures set forth below.
- 7) Flooring tiles or roll-off bins or containers, used by demolition and construction specialists, which contain debris (garbage, construction waste).
- 8) Vinyl composition tiles containing aluminum oxide grit as present in slip retardant tiles.
- 9) Flooring tile being reclaimed that may have come into contact with asbestos containing material, hazardous waste materials or special waste.

5. Ceiling Tile

a. Approved Ceiling Tile Material:

- 1) All brands of pulvable mineral fiber ceiling materials.
- 2) Field painted ceiling tiles, after testing in ceiling tile manufacturer's laboratory to confirm acceptability.

b. Ceiling materials that are not acceptable include:

- 1) Vinyl or fabric-faced ceiling materials
- 2) Foil-backed ceiling materials
- 3) Ceiling materials with visible wood pulp
- 4) Moldy ceiling materials
- 5) Asbestos containing ceiling materials
- 6) Ceiling materials installed below friable asbestos or that are contaminated with any other hazardous material.

1.7 WASTE MANAGEMENT PLAN

A. General: Develop a waste management plan according requirements in this Section. Plan shall consist of waste identification and waste reduction work plan. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

1. Refer to sample plan at the end of this section.

B. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator.

1. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
2. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.

3. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
  1. Comply with operation, termination, and removal requirements in Division 00 Section "General Conditions."
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
  2. Comply with Division 00 "General Conditions" for controlling dust and dirt, environmental protection, and noise control.

### 3.2 RECYCLING CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
  1. Mineral Fiber Ceiling Tile and Vinyl Composition Floor Tile Recycling: Comply with recycled ceiling and floor tile recipient's procedures for packaging and shipping.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. At Contractor's option, separate recyclable waste by type either at Project site or in a single container that will be separated later at the recycling facility. Verify with Owner to determine if site constraints will prohibit separating recyclable waste at Project site.

1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site.
2. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

### 3.3 RECYCLING VCT FLOORING

- A. The procedure for product handling of recyclable VCT is as described below.

1. Remove the approved VCT and place in the supplied cardboard Gaylord Boxes.
2. Gaylord Boxes and Pallets must be kept dry.
3. Colors must be separated into different Gaylord Boxes when diverse.
4. No wood, metal, construction debris, trash or hazardous material of any kind can be included.
5. Materials should not be loaded above the top of the Gaylord Boxes.
6. Each Gaylord Box should have visible Armstrong RA label attached.
7. Contact Armstrong when a full truckload, 24 Gaylord Boxes, is ready for pick-up.

### 3.4 DISPOSAL OF WASTE

- A. General: Except for items or materials to be recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

### 3.5 ATTACHMENTS

- A. Sample Waste Reduction Progress Report.
- B. Sample Construction Waste Management Plan.

*(See following pages for sample reports)*

**Sample Waste Reduction Progress Report**

Zero Waste Reporting										
Project Number		Project Type			Project Manager					
Start Date		Opening Date			General Contractor					
	Amount in Tons									
	Trash <sup>1</sup>	Concrete	Wood	Plastic	Asphalt	Metal	Non-Ferrous Metal	Ceiling/Floor Tile	Cardboard	Other <sup>2</sup>
January	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	0	0
Percentages	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	<sup>1</sup> Anything not considered Recyclable for the project									
	<sup>2</sup> Anything not listed, but still Recyclable									

January										
	Amount in Cubic Yards									
	Trash	Concrete	Wood	Plastic	Asphalt	Metal	Non-Ferrous Metal	Ceiling/Floor Tile	Cardboard	Other
1-Jan										
2-Jan										
3-Jan										
4-Jan										
5-Jan										
6-Jan										
7-Jan										
8-Jan										
9-Jan										
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24-Jan										
25-Jan										
26-Jan										
27-Jan										
28-Jan										
29-Jan										
30-Jan										
31-Jan										
Total (ton	0	0	0	0	0	0	0	0	0	0
Percents	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

### **Sample Construction Waste Management Plan**

**Goal:** To divert 90% or more of all construction waste from landfills through reuse, recycling or salvaging.

#### **Waste Management Contact:**

TO BE PROVIDED BY GENERAL CONTRACTOR (put recycler information and contact info here)

#### **Communication Plan:**

- Contractor must submit proposed waste hauler to Kroger or the G.C. prior to bringing containers for hauling waste onsite.
- Containers will be labeled with the materials they are for
- Access to containers will be prevented when contractors are not onsite, through fencing, or locking the lids on containers
- The GC is responsible for training subcontractors to follow the CWM plan.
- CWM goals will be discussed during weekly meetings.

#### **Expected Waste and Disposal:**

- If recycler is designated as “*Single Stream*” all construction waste should be disposed of in the same waste container, labeled “*Construction Waste*”.
- All non-recyclable, non-hazardous material should be disposed of in a dumpster labeled “*Trash*”, to be sent to a landfill.
- Identify each dumpster by material, i.e. a dumpster labeled “*Concrete*” will be used for

#### **Management and Administration:**

- Construction Waste Management and Disposal is to be executed according to specification section 01 74 19.
- Contractor should provide amount of waste sent to landfill and waste diverted in tons on spreadsheet known as Waste Reduction Progress Report, as well as receipt from recycler. Both are to be uploaded to sitefolio under General Contractor -> RFP -> Waste Reduction Progress Reports
- Waste is to be placed in dumpsters designated for the type of waste
- If the 90% goal is not reached, the Contractor will receive compensation proportional to the percent of the goal reached.

END OF SECTION 01 74 19