

## **PLANNING AND ENGINEERING GUIDELINES & STANDARDS (PEGS)**

### **SUPPLEMENT NUMBER: PEGS-20-001**

**November 4, 2020**

#### **CONSTRUCTION DEBRIS MANAGEMENT AND DISPOSAL**

- A. Volume 2, Section 3.6.2 – MDOT MAA Standard Specifications
- B. Volume 2, Appendix 2D.01, Standard Specifications
- C. Volume 8, Section 2.7 – Construction Debris Management and Disposal

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Effective immediately, the following modification shall be made to the MDOT MAA 2020 PEGS Manual:

All construction contracts at BWI Marshall and Martin State Airports that are being advertised on or after the date of this supplement must include the requirements for construction debris management and disposal as outlined below.

#### **A. Volume 2, Architectural and Engineering – Section 3.6.2 – MDOT MAA Standard Specifications**

Insert the following specifications under Paragraph A:

##### *017419X Construction Debris Management and Disposal*

This specification must be included in all MDOT MAA construction contracts. This requirement is applicable to all construction contracts that are being advertised on or after the date of this supplement.

#### **B. Volume 2, Architectural and Engineering – Appendix 2D, Standard Specifications**

Insert New Standard Technical Specification to Section 2D.01:

##### *Specification 017419X - Construction Debris Management and Disposal*

Note: The above standard specification can also be found on **AIRPortal>Planning and Engineering Reference Library (PERL)>V2- Architectural and Engineering tab>PEGS Appendix 2D – Standard Specifications.**

PEGS Supplement: PEGS-20-002

- A. Volume 2, Section 3.6.2 – MDOT MAA Standard Specifications
- B. Volume 2, Appendix 2D.01, Standard Specifications
- C. Volume 8, Section 2.7 – Construction Debris Management and Disposal

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### **C. Volume 8, Tenant Standards**

Insert New Section: **2.7 – Construction Debris Management and Disposal:**

#### *2.7 Construction Debris Management and Disposal*

Tenants/Tenant Consultants shall consult with the MDOT MAA Permit Committee during the permit review process if MDOT MAA's Standard Technical Specification "017419X Construction Debris Management and Disposal" is applicable to their project.

If you believe this standard supplement conflicts with any other codes or regulations or if you should have any questions regarding this matter, please contact the Director, Office of Engineering and Construction at (410) 859-7093.



11/6/2020

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Tom Varughese, P.E., Director  
Division of Planning and Engineering  
Office of Engineering and Construction

*Paul L. Shank*

11/20/20

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Paul L. Shank, P.E., C.M., Chief Engineer  
Division of Planning and Engineering

DISTRIBUTION

Attachment:

Standard Specification: 017419X- Construction Debris Management and Disposal

- A. Volume 2, Section 3.6.2 – MDOT MAA Standard Specifications
- B. Volume 2, Appendix 2D.01, Standard Specifications
- C. Volume 8, Section 2.7 – Construction Debris Management and Disposal

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## SECTION 017419X – CONSTRUCTION DEBRIS MANAGEMENT AND DISPOSAL

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. MDOT Maryland Aviation Administration's Standard Provisions for Construction Contracts (Volume 1 – General Provisions, Volume 2 – Special Provisions) October 2017 Edition apply to this Technical Specification.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:

- 1. Salvaging nonhazardous demolition and construction debris.
- 2. Recycling nonhazardous demolition and construction debris.
- 3. Disposing of nonhazardous demolition and construction debris.

- B. Related Requirements:

**[Engineer shall include the related spec sections for the specific project.]**

- 1. Section 01 73 00 "Execution" for disposition of debris resulting from cutting and patching.
- 2. Section 02 41 19 "Selective Demolition" for disposition of debris resulting from partial demolition of buildings, structures, and site improvements, and for disposition of hazardous debris.
- 3. Section 04 22 00 "Concrete Unit Masonry" for disposal requirements for masonry debris.

#### 1.3 DEFINITIONS

- A. Construction Debris: Building and site improvement materials and other solid debris resulting from construction, remodeling, renovation, or repair operations. Construction debris includes packaging.
- B. Demolition Debris: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction debris and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction debris for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction debris and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction debris and subsequent incorporation into the Work.

## 1.4 PERFORMANCE REQUIREMENTS

- A. General: Per the Maryland DGS high performance building requirements, develop debris management plan that results in end-of-project goal rates for salvage/recycling of a minimum of 75 percent by weight of total debris generated by the Work including the following:

1. Demolition Debris:
  - a. Asphalt paving.
  - b. Concrete.
  - c. Concrete reinforcing steel.
  - d. Brick.
  - e. Concrete masonry units (CMU).
  - f. Wood studs.
  - g. Wood joists.
  - h. Plywood and oriented strand board.
  - i. Wood paneling.
  - j. Wood trim.
  - k. Structural and miscellaneous steel.
  - l. Rough hardware.
  - m. Roofing.
  - n. Insulation.
  - o. Doors and frames.
  - p. Door hardware.
  - q. Windows.
  - r. Glazing.
  - s. Metal studs.
  - t. Gypsum board.
  - u. Acoustical tile and panels.
  - v. Carpet.
  - w. Carpet pad.
  - x. Demountable partitions.
  - y. Equipment.
  - z. Cabinets.
  - aa. Plumbing fixtures.
  - bb. Piping.
  - cc. Supports and hangers.
  - dd. Valves.
  - ee. Sprinklers.
  - ff. Mechanical equipment.
  - gg. Refrigerants.
  - hh. Electrical conduit.
  - ii. Copper wiring.
  - jj. Lighting fixtures.
  - kk. Lamps.
  - ll. Ballasts.
  - mm. Electrical devices.

- nn. Switchgear and panelboards.
- oo. Transformers.

2. Construction Debris:

- a. Site-clearing debris.
- b. Masonry and CMU.
- c. Lumber.
- d. Wood sheet materials.
- e. Wood trim.
- f. Metals.
- g. Roofing.
- h. Insulation.
- i. Carpet and pad.
- j. Gypsum board.
- k. Piping.
- l. Electrical conduit.
- m. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
  - 1) Paper.
  - 2) Cardboard.
  - 3) Boxes.
  - 4) Plastic sheet and film.
  - 5) Polystyrene packaging.
  - 6) Wood crates.
  - 7) Plastic pails.

1.5 SUBMITTALS

- A. Debris Management Plan: Submit plan within 14 days of date established for the Notice of Award.
- B. Debris Reduction Progress Reports: Concurrent with each Application for Payment, submit an electronic copy of report to the MDOT MAA Project Manager. Include the following information:
  - 1. Project name
  - 2. Timeframe of report
  - 3. Table including the following information:
    - a. Generation point of debris.
    - b. Total quantity of debris for each material category by weight.
    - c. Quantity of debris salvaged for each material category, by weight and as a percentage of total.
    - d. Salvage location.
    - e. Quantity of debris recycled for each material category, by weight and as a percentage of total.
    - f. Recycling location.
    - g. Total quantity of debris recovered (salvaged plus recycled) for each material

category by weight and as a percentage of total debris.

h. Total quantities for all material categories.

- C. Qualification Data: Provide a copy of the EPA refrigerant recovery certification for the refrigerant recovery technician. **[Remove if no refrigerant recovery in project]**
- D. Statement of Refrigerant Recovery: Signed by qualified refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered. **[Remove if no refrigerant recovery in project]**

## 1.6 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program. **[Remove if no refrigerant recovery in project]**
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

## 1.7 DEBRIS MANAGEMENT PLAN

- A. General: Develop a plan consisting of debris identification, debris reduction work plan, and cost/revenue analysis. Include separate sections in plan for demolition and construction debris. Indicate quantities by weight or volume but use same units of measure throughout debris management plan.
- B. Debris Reduction Work Plan: List each type of debris expected on the project and whether it will be salvaged, recycled, or disposed of in a landfill or incinerator. Include points of debris generation, estimated quantity of each type of debris, estimated quantity for each means of recovery, and handling and transportation procedures.
  - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
  - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
  - 3. Salvaged Materials for Owner's Use: For materials designated to be salvaged for the Owner's use, describe how the materials will be removed, handled, stored, and delivered to the Owner.
  - 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
  - 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
  - 6. Handling and Transportation Procedures: Include methods that will be used for removal, sorting, preparation, and storage of each type of recyclable material on the project, according to the receiving facility requirements. Include sizes of containers, container labeling, and designated location where materials separation will be performed. Include names and contact information for each hauling operator utilized on the project.

## **PART 2 - PRODUCTS (Not used)**

## **PART 3 – EXECUTION**

### **3.1 PLAN IMPLEMENTATION**

- A. General: Implement approved Debris 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.
- B. Training: Train workers, subcontractors, and suppliers on proper debris management procedures, as appropriate for the Work.
  - 1. Distribute debris management plan to everyone concerned within three days of submittal return.
  - 2. Distribute debris management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- C. Site Access and Temporary Controls: Conduct debris 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, and sold.

### **3.2 SALVAGING DEMOLITION DEBRIS**

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  - 3. Store items in a secure area until installation.
  - 4. Protect items from damage during transport and storage.
  - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale: Items must be removed from the project site to the Contractor's yard or other facility to be sold. The selling of salvaged items is prohibited on the project site.
- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  - 3. Store items in a secure area until delivery to Owner.
  - 4. Protect items from damage during transport and storage.
- D. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave

door hardware attached to doors.

### 3.3 RECYCLING DEMOLITION AND CONSTRUCTION DEBRIS

- A. Removal, sorting, preparation, storage, and transport of recyclable material types listed in Section 1.4.A.1-2 shall comply with the recycling hauler and recycling facility requirements for the specific materials, as detailed in the Contractor's Debris Management Plan.
- B. Materials shall be bundled, stacked, and stored according to the recycling facility requirements so to not damage or compromise the recyclable product.

### 3.4 DISPOSAL OF DEBRIS

- A. General: Except for items or materials to be salvaged, 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: Transport debris materials for disposal to the facility designated in the Debris Management Plan.

## PART 4 - MEASUREMENT

### 4.1 METHOD OF MEASUREMENT

- A. No separate measurement will be made for work under this section.

## PART 5 - PAYMENT

### 5.1 BASIS OF PAYMENT

- A. No separate payment will be made for work under this section.
  - 1. The cost of the work described in this section for base bid items shall be included in the contract price for Section 01 10 00. **[Designate appropriate payment section for project]**
- B. Payment will be made under:
  - Item 01 10 00-1 Building Construction **[Designate appropriate payment section for project]**

- C. Costs include all labor, materials, services, and equipment necessary to complete the work in every respect.

END OF SECTION 017419X

### Sample Debris Reduction Progress Report

Company Name: XYZ CONSTRUCTION  
Company Contact: MS. GREEN  
Contact Phone number: 410-XXX-XXXX

Project/Work Name: BWI Project  
Contract Number: MAA-CO-XX-XXX

Time Period of this report: October 1 - 31, 2019

Material Category*	A. Generation Point of Debris	B. Total Debris (tons)	Estimated (E) or Actual (A) weight**	C. Debris Salvaged (tons)	Debris Salvaged (% of total)	D. Salvage Location	E. Debris Recycled (tons)	Debris Recycled (% of total)	F. Recycling Location	G. Total Tons of Debris Recovered (salvaged plus recycled)	% Debris Recovered (salvaged plus recycled)
Asphalt Paving	BWI - A Pier	20	A	0	0%		20	100%	ABC Asphalt	20	100.00%
Carpet	BWI - A Pier	15	A	10	67%	MAC Warehouse	0	0%		10	66.67%
H. Total all Materials		35		10	29%		20	57%	0	30	85.71%

\*Refer to Specification Section 01 74 19X - Construction Debris Management and Disposal Section 1.4 A for material categories

\*\* If Estimate, specify method in comments. If actual, attach weigh tickets

Progress Report Narrative: Add any required or additional information below. Include information on whether or not you are meeting the Debris Managmeent Plan Diversion Rate Goal.