

SUSTAINABLE TEMPORARY CONSTRUCTION MATERIALS

SECTION 01360

{Instruction to Consultants: The Master Specification must only be considered to be general guidelines as it is not prepared for a Specific Project. If the items described in the Master Specification do not match the items actually going to be used in a Specific Project, then the Consultant must add new text or modify the existing text so that the final Specification is fully coordinated and consistent with the Contract Drawings. The Master Specification must not be considered complete. Additions and deletions necessary to make it Project specific are required from the Consultant. Items that are not part of the scope of the Specific Project must be deleted.

The Consultant must add to and/or delete paragraphs, items, etc. to the Master Specification Section as required by the scope and nature of the Specific Project. The general format and general statements of the various Sections must remain unchanged. The Consultant must modify and finalize the footer to identify the Specific Project as to name of Project, Project number, and issued for/issue date.}

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on Chicago Department of Aviation Sustainable Airport Manual (SAM), August 5, 2009. Reference can be found at www.airportsgoinggreen.org.
- B. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 7.11 of the SAM.
- C. The requirements of this Section are applicable only for temporary construction materials defined as those materials that are used for construction that are not incorporated into the final development which may include, but are not limited to, items such as erosion control materials, temporary roadway pavements, shoring materials, formwork, temporary carpentry, and traffic control devices and signage.

1.02 RELATED DOCUMENTS

- A. Recycled Content of materials will be defined in accordance with 16 CFR 260.7(e) of the Federal Trade Commission's "Guide for the Use of Environmental Marketing Claims".

1.03 DEFINITIONS

- A. Recycled Materials: Materials that are manufactured, extracted, harvested, or recovered and contain some amount of post-consumer and/or pre-consumer recycled content.
- B. Recycled Content: The percentage by cost of the constituents of a product or building material that have been recovered or otherwise diverted from a solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer).
 - 1. Post-Consumer Recycled Content is consumer waste that has become a raw material (feedstock) for another product. The post-consumer recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.
 - 2. Pre-consumer Recycled Content contains waste from industrial processes that has been traded through the marketplace. The pre-consumer recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.
- C. Rapidly Renewable Materials: Materials and products that are made from plants that are typically harvested within a 10-year or shorter cycle.
- D. Certified Wood: Wood and wood products that are certified in accordance with the Forest Stewardship Council (FSC) criteria.

1.04 CALCULATIONS

- A. Recycled Content of Temporary Construction Materials:
 - 1. Only include items in CSI Divisions 2-10 in the calculation of the percentage of temporary construction materials that have recycled content. This includes but is not limited to temporary pavements, masonry, aggregate, erosion control items such as silt fence, steel products such as construction fences, temporary carpentry including manufactured wood or fiber products, metal formwork, and temporary construction signage.
 - 2. Mechanical, electrical, plumbing components, and specialty items (CSI Divisions 11-16) and items in FAA electrical specification sections (L-XXX sections) must not be included in this calculation. Items that are not to be considered include but

are not limited to pumps, fans, heaters, wiring, ductwork, lighting fixtures and controls.

3. Do not include rented or leased items.
4. The overall recycled content for the temporary construction materials shall be the percentage of post-consumer recycled materials plus one half of the pre-consumer recycled materials with respect to the total temporary construction materials by cost.
5. In the case where the recycled content of an item could not be obtained from a vendor or manufacturer, use the default recycled content percentages for the following materials in the table below (from SAM Credit 5.7). The default values are conservative and, in most cases, the actual recycled content percentages may be higher.

Material	Recycled Content (%)	
	Postconsumer	Preconsumer
Steel	25%	-
Copper	65%	-
Aluminum	80%	-
Reinforced Concrete Pipe	2%	-
Asphaltic Paving Materials	45%	45%

B. Rapidly Renewable Temporary Construction Materials

1. Only include items in CSI Divisions 2-10 in the calculation of the percentage of temporary construction materials that have recycled content. This includes but is not limited to erosion control items such as silt fence, woven blankets, logs, and temporary carpentry including bamboo or fiber products.
2. Do not include rented or leased items.

3. The overall percentage of renewable materials used for the temporary construction materials shall be the percentage of renewable materials and products by cost with respect to the quantity of the total temporary construction materials by cost.

C. Certified Wood Temporary Construction Materials

1. Include only temporary carpentry or wood materials in the calculation. This includes but is not limited to scaffolding, stakes, shoring, temporary railings and walkways.
2. Do not include rented or leased items.
3. The overall percentage of certified wood used for the temporary construction materials shall be the percentage of certified wood materials and products by cost with respect to the quantity of the total temporary construction materials by cost.

1.05 SUBMITTALS

- A. Pre-Construction Estimate – Prior to the initial Application for Mobilization Payment, the Contractor shall submit an estimate (see Form 01360-1.05A, “Sustainable Temporary Construction Materials Pre-Construction Estimate”) that identifies total Project material cost (less labor and equipment) and the Recycled Content, Rapidly Renewable and Certified wood portions of the materials and products that are proposed for the Project.
- B. Final Construction Total - Concurrent with the Application for Reduction of Retainage from 5% to 3%, the Contractor shall submit the final actual total Project material cost, less labor and equipment (see Form 01360-1.05B, “Sustainable Temporary Construction Materials Final Construction Total”), and the Recycled , Rapidly Renewable, and Certified wood percentages of the materials and products that were used for the Project.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 DOCUMENTATION TEMPLATE

- A. Sustainable Temporary Construction Materials Pre-Construction Estimate – Template Form 01360-1.05A attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Sustainable Temporary Construction Materials

submittal requirements as outlined in Part 1 of this Specification Section .

- B. Sustainable Temporary Construction Materials Final Construction Total – Template Form 01360-1.05B attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Sustainable Temporary Construction Materials submittal requirements as outlined in Part 1 of this Specification Section .

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. The tracking of Sustainable Temporary Construction Materials will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01360

**Sustainable Temporary Construction Materials
Pre-Construction Estimate (01360-1.05A)**

Contractor: _____
Project: _____
WBS No.: _____

RECYCLED CONTENT Description of Material		Total Construction Cost	Labor	Equipment	=	Total Material Cost	Recycled Content (per 01360-1.03B) Overall = Post-Consumer + 1/2 Pre-Consumer		
Spec Section	Item	[\$]	(Subtract from Total) [\$]	(Subtract from Total) [\$]		(Less Labor & Equipment) [\$]	Post-Consumer [%]	Pre-Consumer [%]	Overall [\$]
					=	\$ -			\$ -
					=	\$ -			\$ -
					=	\$ -			\$ -
					=	\$ -			\$ -
					=	\$ -			\$ -
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					=	\$ -			\$ -
					=	\$ -			\$ -
		\$ -	\$ -	\$ -	=	\$ -			\$ -

TOTAL RECYCLED CONTENT OF MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST #DIV/0!

RENEWABLE MATERIALS Description of Material		Total Construction Cost	Labor	Equipment	=	Total Material Cost	Rapidly Renewable Materials (per 01360-1.03C)	
Spec Section	Item	[\$]	(Subtract from Total) [\$]	(Subtract from Total) [\$]		(Less Labor & Equipment) [\$]	Overall [\$]	
					=	\$ -		
					=	\$ -		
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RAPIDLY RENEWABLE MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST #DIV/0!

CERTIFIED WOOD Description of Material		Total Construction Cost	Labor	Equipment	=	Total Material Cost	Certified Wood (per 01360-1.03D)	
Spec Section	Item	[\$]	(Subtract from Total) [\$]	(Subtract from Total) [\$]		(Less Labor & Equipment) [\$]	Overall [\$]	
					=	\$ -		
					=	\$ -		
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		\$ -	\$ -	\$ -	=	\$ -		\$ -

CERTIFIED WOOD MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST #DIV/0!

Company: _____
Printed Name: _____
Title: _____
Signature: _____
Date: _____

Sustainable Temporary Construction Materials
Final Construction Total (01360-1.05B)

Contractor: _____
Project: _____
WBS No.: _____

Contractor Certification

I, [insert Contractor's name] declare that this list constitutes all of the temporary building materials and products and that, where applicable, the items as shown meet the definition of Recycled Content, Rapidly Renewable, and Certified Wood materials per the specification section(s).

RECYCLED CONTENT		Total Construction Cost [\$]	-	Labor (Subtract from Total) [\$]	-	Equipment (Subtract from Total) [\$]	=	Total Material Cost (Less Labor & Equipment) [\$]	Recycled Content (per 01360-1.03B) Overall = Post-Consumer + 1/2 Pre-Consumer			
Spec Section	Description of Material Item								Post-Consumer [%]	Pre-Consumer [%]	Overall [\$]	
			-		-		=	\$ -				\$ -
			-		-		=	\$ -				\$ -
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			-		-		=	\$ -				\$ -
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TOTAL RECYCLED CONTENT OF MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST												#DIV/0!
RENEWABLE MATERIALS		Total Construction Cost [\$]	-	Labor (Subtract from Total) [\$]	-	Equipment (Subtract from Total) [\$]	=	Total Material Cost (Less Labor & Equipment) [\$]	Rapidly Renewable Materials (per 01360-1.03C)			
Spec Section	Description of Material Item								Overall	[\$]		
			-		-		=	\$ -				
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		\$ -	-	\$ -	-	\$ -	-	\$ -	\$			\$ -
RAPIDLY RENEWABLE MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST												#DIV/0!
CERTIFIED WOOD		Total Construction Cost [\$]	-	Labor (Subtract from Total) [\$]	-	Equipment (Subtract from Total) [\$]	=	Total Material Cost (Less Labor & Equipment) [\$]	Certified Wood (per 01360-1.03D)			
Spec Section	Description of Material Item								Overall	[\$]		
			-		-		=	\$ -				
			-		-		=	\$ -				
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CERTIFIED WOOD MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST												#DIV/0!

Company: _____
Printed Name: _____
Title: _____
Signature: _____
Date: _____

Reviewed by: _____
 (Resident Engineer)