**ITEM #0703036A - SAW-TOOTH DEFLECTOR**

**Description:** Work under this item shall consist of furnishing and placing a pattern of stone material referred to as a “saw-tooth deflector” within an existing or proposed channel bed as shown on the plans. This item shall also include maintaining a stockpile of material on the Site, placement of stockpiled material in the channel, and removal and proper disposal of all unused and unacceptable material.

**Materials:** Stone materialshall consist of individual boulders with or without rounded riprap. The type and size of the stone material shall be as noted on the plans.

The mineral composition and color of the stone materialselected shall replicate, to the extent possible, existing stone materialon-Site and shall be sound, durable, free from decomposed stones or other defects and shall be resistant to the action of air and water.

# Material the Contractor proposes to use must be inspected and approved by the Engineer or their authorized delegate prior to the excavation of existing on-Site material or hauling of material from an off-Site source. Stone material found on-Site which meets the requirements on the plans may be re-used with authorization from the Engineer. The Contractor shall give the Engineer at least 10 work days’ notice for scheduling of the inspection and approval of the individual boulders.

The following will **NOT** be accepted:

* stone material consisting of sandstone, shale, or other rock material prone to disintegration
* stone material with visible cracks or spalling
* rock excavated from ledge (bedrock) formations or broken from larger boulders
* stone material with sharp corners, angular edges or edges as a result of cutting or crushing operations
* broken concrete

# Construction Methods: The Contractor shall submit for the Engineer’s approval a proposed location plan for stockpiling stone material. The proposed location shall be suitable in size and shall be upland of the channel to minimize disruption to the channel or impact to wetland areas during placement of material. The stockpile area shall be prepared in accordance with the “Required Best Management Practices” in Article 1.10.03.

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# Prior to installation, the Contractor shall stake out the beginning and end location for placement of the stone material and the Contractor shall notify the Engineer for a field review. The final location will be at the discretion of the Engineer or their authorized delegate.

The Contractor shall provide the Engineer at least 10 work days’ notice prior to initiating the placement of the stone materialto create the saw-tooth deflector. The work and placement of the stone material shall be in accordance with the plans or as directed by the Engineer or their authorized delegate. No work on the saw-tooth deflector will be allowed on-Site without the presence of the Engineer or their authorized delegate to oversee the construction activities.

Equipment: When placing and maneuvering the individual boulders within the channel or embedding boulders into the streambank, the Contractor shall use an excavator with an articulated bucket (with thumb). Any other equipment proposed to be used shall be reviewed and approved in advance by the Engineer or their authorized delegate.

All disturbed areas, including the stockpile area, shall be permanently stabilized using approved erosion and sedimentation control measures according to the Site’s required “Erosion and Sedimentation Control Plan.”

**Method of Measurement:** This work will be measured for payment by the cubic yard of stone material in the saw-tooth deflector installed and accepted.

**Basis of Payment**: This work will be paid for at the Contract unit price per cubic yard for "Saw-Tooth Deflector,” completed and accepted. The price shall include all materials, equipment, tools and labor incidental to preparation of the stockpile area, excavation of channel bottom, hauling of material to the stockpile, separation of any rock ledge or concrete debris, and storing and protecting (including sedimentation controls and covering) of material. It shall also include disposal of unacceptable and surplus material.

Pay Item Pay Unit

Saw-Tooth Deflector c.y.