

Supplemental Technical Specification for

Bridge Lift Materials

SCDOT Designation: SC-M-205-3 (01/22)

APPROVED:  
Division Administrator

By: \_\_\_\_\_  
FEDERAL HIGHWAY ADMINISTRATION

1.0 DESCRIPTION

The requirements of this specification shall consist of furnishing all necessary submittals and materials for providing bridge lift materials in accordance with the details shown on the plans. The bridge lift materials shall be installed at locations shown on the plans, unless otherwise directed by the Department.

2.0 MATERIALS

The materials provided for under this specification shall be used for bridge lifts. Bridge lift materials shall consist of 2 general types; first, materials that can be placed through water and second those materials that are placed over soft exposed subgrades without water being present. The materials placed through water shall consist of either stone or coarse granular materials. The materials placed on soft exposed subgrades may consist of stone or coarse granular materials; borrow materials or man-made materials.

2.1 **Stone Materials:** The stone materials shall meet the provision requirements as indicated in the following table.

Sieve Analysis	Percent Passing
2-inch	100
1.5-inch	90-100
No. 4	0-50
No. 16	0-6

The stone shall consist of durable particles that are comprised of naturally occurring materials including durable marine limestone. The natural materials shall have a dry unit weight of at least 90 pounds per cubic foot. The dry unit weight shall be a rodded unit weight determined according to AASHTO T-19M. The stone bridge lift materials shall be obtained from a source listed on *SCDOT Qualified Product List 2*.

2.2 **Granular Materials:** The granular materials shall meet the specification requirements for an A-1-a soil (AASHTO M-145 (ASTM D3282)) as indicated in the following table.

Sieve Analysis	Percent Passing
3-inch	100
No. 10	50 max.
No. 40	30 max.
No. 200	15 max.
Plasticity Index	6 max.
Organics	1 max.

The granular materials shall consist of durable, naturally occurring particles. The granular materials shall have a dry unit weight of at least 110 pounds per cubic foot. The dry unit weight shall be determined according to AASHTO T-99. Recycled materials may not be used.

**2.3 Borrow Excavation Materials:** Borrow excavation materials used as a bridge lift shall be limited to A-1, A-2 and A-3 materials (AASHTO M-145). The borrow excavation materials shall meet the requirements as described in the current edition of the SCDOT Standard Specifications for Highway Construction.

**2.4 Man-Made Materials:** Man-made materials shall conform to the latest requirements contained in Supplemental Technical Specification (STS) *Lightweight Aggregates* (SC-M-203-5). Recycled materials may not be used.

**2.5 Submittals:** The contractor is required to submit copies of gradation testing to the Department prior to delivery of the material to the site and at the discretion of the RCE as placement proceeds, if in the opinion of the RCE additional verification of the gradation is required.

**3.0 METHOD OF MEASUREMENT**

Stone bridge lift materials shall be measured by the ton (TON) when included in the Contract. Granular bridge lift materials shall be measured by the cubic yard (CY) when included in the Contract. The quantity of granular bridge lift material includes the material acceptably excavated and is measured in its original position and determined from cross-sections by the method of average-end-areas, complete and accepted. Borrow excavation bridge lift materials shall be measured and included in the total borrow excavation material required for the project. Man-made bridge lift materials shall be measured as required in STS *Lightweight Aggregates* (SC-M-203-5).

**4.0 BASIS OF PAYMENT**

Unless otherwise specified, payment for the accepted quantity of material, as specified herein, measured in accordance with this specification, is determined using the contract unit bid price for the applicable pay item. Payment is full compensation for obtaining, hauling and placing the material and all other materials, labor, equipment, tools, supplies and incidentals necessary to satisfactorily complete the work as required in the Plans, Project Specifications and other terms in the Contract.

Where the Contractor is required to furnish the borrow pits for granular bridge lift material, payment for the granular bridge lift material includes the cost of the borrow pit, clearing and grubbing of pits, necessary haul roads, hauling of the borrow material to the designated location on the project and for all other pertinent stipulations stated above.

Payment of borrow excavation bridge lift material shall be included in the quantity of borrow excavation used on the project. Payment for man-made bridge lift material shall be included in the quantity for lightweight aggregates.

Payments shall be made under:

Item No.	Pay Item	Pay Unit
2052010	Stone Bridge Lift Material	TON
2052020	Granular Bridge Lift Material	CY