

**PROJECT SPECIAL PROVISIONS****ROADWAY****SHOULDER WEDGE:**

(9-20-11) (Rev. 1-17-12)

610

R6 R03

Revise the *2012 Standard Specifications* as follows:

**Page 6-26, Article 610-8**, add the following after line 43:

Attach a device, mounted on screed of paving equipment, capable of constructing a shoulder wedge with an angle of not more than 30 degrees along the outside edge of the roadway, measured from the horizontal plane in place after final compaction on the final surface course. Use an approved mechanical device or a device provided by the Department which will form the asphalt mixture to produce a wedge with uniform texture, shape and density while automatically adjusting to varying heights. If the device is provided by the Department, then the Contractor shall return the device to the Engineer after completion of all shoulder wedge construction.

Payment for use of this device will be incidental to the other pay items in the contract.

**ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES:**

(11-21-00) (Rev. 7-19-11)

609

R6 R15

The approximate asphalt binder content of the asphalt concrete plant mixtures used on this project will be as follows:

Asphalt Concrete Base Course	Type B 25.0__	4.4%
Asphalt Concrete Intermediate Course	Type I 19.0__	4.8%
Asphalt Concrete Surface Course	Type S 4.75A	6.8%
Asphalt Concrete Surface Course	Type SF 9.5A	6.7%
Asphalt Concrete Surface Course	Type S 9.5__	6.0%
Asphalt Concrete Surface Course	Type S 12.5__	5.5%

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the *2012 Standard Specifications*.

**PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:**

(11-21-00)

620

R6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *2012 Standard Specifications*.

The base price index for asphalt binder for plant mix is \$ **634.29** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **April 1, 2012**.

**FINAL SURFACE TESTING NOT REQUIRED:**

(5-18-04) (Rev. 5-15-12)

610

R6 R45

Final surface testing is not required on this project.

**ASPHALT CONCRETE SURFACE COURSE COMPACTION:**

(7-1-95)

R6 R49

Compact the asphalt surface course on this project in accordance with Subarticle 610-9 of the *2012 Standard Specifications* and the following provision:

Perform the first rolling with a steel wheel roller followed by rolling with a self-propelled pneumatic tired roller with the final rolling by a steel wheel roller.

**WEDGE COURSE:**

(7-1-95)

R6 R52 (Rev.)

Place a wedge course at locations ahead of the paving operation as required by the Engineer. **Materials used during this process have been added to Surface, Intermediate or Base quantities. No wedging pay item will be used.**

**RESURFACING EXISTING BRIDGES:**

(7-1-95) (Rev. 3-20-12)

R6 R61A

The Contractor's attention is directed to the fact that he will be required to resurface the bridges on this project if directed by the Engineer.

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations so that State Forces will have sufficient time to complete their work.

At all bridges that are not to be resurfaced, taper out the proposed resurfacing layer adjacent to the bridges to insure a proper tie-in with the bridge surface.

**PAVING INTERSECTIONS, DRIVEWAYS, AND MAILBOX TURNOUTS:**

(7-1-95)

610

R6 R73

Surface all unpaved intersections back from the edge of the pavement on the mainline of the project at least 50 feet, or as directed by the Engineer. The base material for all intersections to be surfaced will be prepared for surfacing by State Forces. Place pavement in the intersections of the same material and thickness as being used on the mainline.

Surface all paved intersections back to the ends of the radii, or as directed by the Engineer. In addition, the Contractor will be required to resurface all driveway and mailbox turnouts as directed by the Engineer.

**PATCHING EXISTING PAVEMENT:**

(1-15-02) (Rev.11-29-10)

610

R6 R88

**Description**

The Contractor's attention is directed to the fact that there are areas of existing pavement on this project that will require repair prior to resurfacing. Patch the areas that, in the opinion of the Engineer, need repairing. The areas to be patched will be delineated by the Engineer prior to the Contractor performing repairs.

**Materials**

The patching consists of Asphalt Concrete Base Course, Asphalt Concrete Intermediate Course, Asphalt Concrete Surface Course, or a combination of base, binder and surface course.

**Construction Methods**

Remove existing pavement at locations directed by the Engineer in accordance with Section 250 of the *2012 Standard Specifications*.

Place Asphalt Concrete Base Course, in lifts not exceeding 5.5 inches. Utilize compaction equipment suitable for compacting patches as small as 3.5 feet by 6 feet on each lift. Use an approved compaction pattern to achieve proper compaction. If patched pavement is to be open to traffic for more than 48 hours prior to overlay, use Asphalt Surface Course in the top 1.25 inches of the patch.

Schedule operations so that all areas where pavement has been removed will be repaired on the same day of the pavement removal and all lanes of traffic restored.

**Measurement and Payment**

*Patching Existing Pavement* will be measured and paid as the actual number of tons of asphalt plant mix complete in place that has been used to make completed and accepted repairs. The asphalt plant mixed material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices. The above price and payment will be full compensation for all work covered by this provision, including but not limited to removal and disposal of all types of pavement; furnishing and applying tack coat; furnishing, placing, and compacting of asphalt plant mix; furnishing of asphalt binder for the asphalt plant mix; and furnishing scales.

Patching Existing Pavement will be considered a minor item. In the event that the item of Patching Existing Pavement overruns the original bid quantity by more than 100 percent, the provisions of Article 104-5 of the *2012 Standard Specifications* pertaining to revised contract unit price for overrunning minor items will not apply to this item. Any provisions included in the contract that provides for adjustments in compensation due to variations in the price of asphalt binder will not be applicable to payment for the work covered by this provision.

Payment will be made under:

**Pay Item**  
Patching Existing Pavement

**Pay Unit**  
Ton

**ADJUSTMENT OF MANHOLES, METER BOXES, AND VALVE BOXES:**

(7-1-95)

858

R8 R97

The Contractor's attention is directed to Article 858-3 of the *2012 Standard Specifications*. Cast iron or steel fittings will not be permitted for the adjustment of manholes, meter boxes, and valve boxes on this project.

**REMOVE AND REPLACE CURB RAMPS:**

(8-16-11)

848

R8 R127

**Description**

Remove and replace curb ramps as directed by the Engineer. Perform all work in accordance with Section 848 of the *2012 Standard Specifications*.

**Measurement and Payment**

*Remove and Replace Curb Ramps* will be measured and paid in units of each. Such price includes, but is not limited to, excavating and backfilling, sawing the existing sidewalk or driveway and furnishing and installing truncated domes. Removal and disposal of existing curb ramps will be incidental to the work performed.

Payment will be made under:

**Pay Item**  
Remove and Replace Curb Ramps

**Pay Unit**  
Each

**DETECTABLE WARNINGS FOR CURB RAMPS:**

(6-15-10) (Rev. 8-16-11)

848

R8 R126

**Description**

Where curb ramps are to be removed and replaced, construct detectable warnings consisting of integrated raised truncated domes on curb ramps in accordance with the *2012 Standard Specifications*, plan details, the requirements of the *28 CFR Part 36 ADA Standards for Accessible Design* and this provision.

**Materials**

Detectable warning for curb ramps shall consist of integrated raised truncated domes. The description, size and spacing shall conform to Section 848 of the *2012 Standard Specifications*.

Use material for detectable warning systems as shown herein. Material and coating specifications must be stated in the Manufacturers Type 3 Certification and all Detectable Warning systems must be on the NCDOT Approved Products List.

Install detectable warnings created from one of the following materials: precast concrete blocks or bricks, clay paving brick, gray or ductile iron castings, mild steel, stainless steel, and engineered plastics, rubber or composite tile. Only one material type for detectable warning will be permitted per project, unless otherwise approved by the Engineer.

- (A) Detectable Warnings shall consist of a base with integrated raised truncated domes, and when constructed of precast concrete they shall conform to the material requirements of Article 848-2 of the *2012 Standard Specifications*.
- (B) Detectable Warnings shall consist of a base with integrated raised truncated domes, and may be comprised of other materials including, but not limited, to clay paving brick, gray iron or ductile iron castings, mild steel, stainless steel, and engineered plastics, rubber or composite tile, which are cast into the concrete of the curb ramps. The material shall have an integral color throughout the thickness of the material. The detectable warning shall include fasteners or anchors for attachment in the concrete and shall be furnished as a system from the manufacturer.

Prior to installation, the Contractor shall submit to the Engineer assembling instructions from the manufacturer for each type of system used in accordance with Article 105-2 of the *2012 Standard Specifications*. The system shall be furnished as a kit containing all consumable materials and consumable tools, required for the application. They shall be capable of being affixed to or anchored in the concrete curb ramp, including green concrete (concrete that has set but not appreciably hardened). The system shall be solvent free and contain no volatile organic compounds (VOC). The static coefficient of friction shall be 0.8 or greater when measured on top of the truncated domes and when measured between the domes in accordance with ASTM C1028 (dry and wet). The system shall be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to degradation by motor fuels, lubricants and antifreeze.

- (C) When steel or gray iron or ductile iron casting products are provided, only products that meet the requirements of Subarticle 106-1(B) of the *2012 Standard Specifications* may be used. Submit to the Engineer a Type 6 Certification, catalog cuts and installation procedures at least 30 days prior to installation for all.

### **Construction Methods**

- (A) Prior to placing detectable warnings in concrete curb ramps, adjust the existing subgrade to the proper grade and in accordance with Article 848-3 of the *2012 Standard Specifications*.

- (B) Install all detectable warning in concrete curb ramps in accordance with the manufacturer's recommendations.

**Measurement and Payment**

Detectable Warnings installed where curb ramps are to be removed and replaced will not be paid for separately. Such payment will be included in the price bid for *Remove and Replace Curb Ramps*.

**MATERIALS:**

(2-21-12) (Rev. 5-15-12)

1005, 1081

R10 R01

Revise the 2012 Standard Specifications as follows:

Page 10-23, Table 1005-1, AGGREGATE GRADATION-COARSE AGGREGATE, replace with the following:

Std. Size #	Percentage of Total by Weight Passing													Remarks
	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#40	#200		
4	100	90-100	20-55	0-15	-	0-5	-	-	-	-	-	A	Asphalt Plant Mix	
467M	100	95-100	-	35-70	-	0-30	0-5	-	-	-	-	A	Asphalt Plant Mix	
5	-	100	90-100	20-55	0-10	0-5	-	-	-	-	-	A	AST, Sediment Control Stone	
57	-	100	95-100	-	25-60	-	0-10	0-5	-	-	-	A	AST, Str. Concrete, Shoulder Drain, Sediment Control Stone	
57M	-	100	95-100	-	25-45	-	0-10	0-5	-	-	-	A	AST, Concrete Pavement	
6M	-	-	100	90-100	20-55	0-20	0-8	-	-	-	-	A	AST	
67	-	-	100	90-100	-	20-55	0-10	0-5	-	-	-	A	AST, Str. Concrete, Asphalt Plant Mix	
78M	-	-	-	100	98-100	75-100	20-45	0-15	-	-	-	A	Asphalt Plant Mix, AST, Str. Conc. Weep Hole Drains	
14M	-	-	-	-	-	100	35-70	5-20	0-8	-	-	A	Asphalt Plant Mix, AST, Weep Hole Drains, Str. Concrete	
9	-	-	-	-	-	100	85-100	10-40	0-10	-	-	A	AST	
ABC	-	100	75-97	-	55-80	-	35-55	25-45	-	14-30	-	4-12 <sup>B</sup>	Aggregate Base Course, Aggregate Stabilization	
ABC (M)	-	100	75-100	-	45-79	-	20-40	0-25	-	-	-	0-12 <sup>B</sup>	Maintenance Stabilization	
Lightweight <sup>C</sup>	-	-	-	-	100	80-100	5-40	0-20	0-10	-	-	0-2.5	AST	

A. See Subarticle 1005-4(A).  
 B. See Subarticle 1005-4(B).  
 C. For Lightweight Aggregate used in Structural Concrete, see Subarticle 1014-2(E)(6).

**Page 10-162, Subarticle 1081-1(A) Classifications, lines 4-7,** delete the second and third sentences of the description for Type 3A.

**Page 10-162, Subarticle 1081-1(B) Requirements, lines 26-30,** replace the second paragraph with the following:

For epoxy resin systems used for embedding dowel bars, threaded rods, rebar, anchor bolts and other fixtures in hardened concrete, the manufacturer shall submit test results showing that the bonding system will obtain 125% of the specified required yield strength of the fixture. Furnish certification that, for the particular bolt grade, diameter and embedment depth required, the anchor system will not fail by adhesive failure and that there is no movement of the anchor bolt. For certification and anchorage, use 3,000 psi as the minimum Portland cement concrete compressive strength used in this test. Use adhesives that meet Section 1081.

List the properties of the adhesive on the container and include density, minimum and maximum temperature application, setting time, shelf life, pot life, shear strength and compressive strength.

**Page 10-169, Subarticle 1081-3(G) Anchor Bolt Adhesives,** delete this subarticle.