

Delaware Department of Transportation

QUESTIONS AND ANSWERS

T201401003.01

RUMBLE STRIP INSTALLATION, STATEWIDE, OPEN-END STATEWIDE COUNTY

Monday, October 28, 2013

Q #	Question	Answer
Thursday, October 24, 2013		
3	<p>General Construction Note number 3.</p> <p>Methacrylate (HMWM) sealer is to be placed over rumble strips placed on bridge decks and is incidental to the price of the rumble strip. What type and quantity of each type rumble strips will be placed on concrete bridge decks which require this sealer? Where can we find what type of HMWM is required as well as the manufacturers recommendations on installation?</p>	<p>Rumble strips on bridge decks will be included as part of Item 760017 and the entire quantity for this item will occur only on bridge decks for Locations 7 and 8. See attached specification for the methacrylate material. The successful low bidder will submit the material for approval prior to use on this project.</p>
2	<p>General Construction Note number 2.</p> <p>Note number 2 indicates that pavement markings with regard to items number 760012 and 760013 shall be incidental to these items. These two items represent 1,420,100 lf of rumble strips.</p> <p>Will there be 1,420,000 lf of incidental paint? If not, what quantity should be included? What type paint is to be used for this item?</p>	<p>The pavement markings for the rumble stripes will be paid under item 748548. The pavement markings are not incidental to the rumble strip pay items. As such, an addendum will be issued to strike the last sentence of General Construction Note 2.</p>

Q #	Question	Answer
1	<p>I would like to get additional clarification on the “General Construction Notes” in the upper right hand corner of sheet 2 of the plans.</p> <p>General Construction Note number 1.</p> <p>This note reads as follows: “After rumble strips are installed and prior to opening the roadway to unrestricted use, contractor shall use a vacuum truck to clean travel lanes and shoulders of all debris including...lanes and shoulders shall be swept clean of all debris including pavement millings. Sweeping operation shall be part of the mobile operation convoy.”</p> <p>Will the contractor be allowed to sweep and distribute/dispose of the material to berm of the road or will the contractor be required to collect the debris and haul it to an offsite disposal area?</p> <p>It is important that Deldot is specific on this question as there are additional costs which must be included when the material has to be picked up off the road, collected, hauled, and disposed of offsite. Given the fact that we may be cutting rumble strips on bridge decks where berm disposal is not possible and the fact that this project includes centerline milling where on site debris disposal would require sweeping the millings across at least one full lane and a shoulder, the recommended method would be to collect all debris and dispose of it offsite.</p>	<p>The contractor will be required to collect the debris and haul it to an offsite disposal area</p>

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Continued Response to Question # 3:

A wax-free low odor, high molecular weight methacrylate prime coat. The prime coat shall be a resin, and prior to adding initiator the resin shall have a maximum volatile content of 30 percent, when tested in accordance with ASTM designation D 2369, and conforming to the following:

High Molecular Weight Methacrylate (HMWM) Resin		
Property	Requirement	Test Method
Viscosity* (Brookfield RVT with UL adapter, 50 RPM at 77°F)	0.025 Pa•s, maximum	ASTM D 2196
Specific Gravity* (at 77°F)	0.90, minimum	ASTM D 1475
Flash Point* (Degrees C)	10	ASTM D 3278
Vapor Pressure* (mm Hg at 77°F)	1.0	ASTM D 323
Tack Free Time (minutes at 77°F)	400 min. maximum	ASTM C 679
PCC Saturated Surface-Dry Bond Strength (MPa at 24 hrs at 70±1°F)	0.5 psi minimum	

*Tested prior to adding initiator

The prime coat promoter/initiator shall consist of a metal drier and peroxide. If supplied separately from the resin, **at no time shall the metal drier be mixed directly with the peroxide.** The containers shall be stored in a manner that will not allow leakage or spillage from one material to contact the containers or material of the other.