

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

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March 17, 2011

11-SD-78-45.2/57.9  
11-2M1904  
Project ID 1100020040

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN DIEGO COUNTY AT AND NEAR JULIAN FROM OLD JULIAN HIGHWAY TO MAIN STREET.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Thursday, March 24, 2011.

This addendum is being issued to revise the Notice to Bidders and Special Provisions.

In the Special Provisions, Section 10-1.19, "BONDED WEARING COURSE - GAP GRADED," subsection "MATERIALS," "Asphaltic Emulsion Membrane," the table in the first paragraph is revised as follows:

Properties	Test Method	Specification	
		Min.	Max.
Saybolt-Furol viscosity, at 25 °C, s	AASHTO T59	20	100
Sieve test on original emulsion (at time of delivery), %		-	0.05
24-hour storage stability, %		-	1
Residue by evaporation, %	California Test 331	63	--
Demulsibility, 35 ml, 0.8% sodium dioctyl sulfosuccinate, % <sup>a</sup>	AASHTO T59	30	--
Tests on residue from evaporation test:			
Torsional recovery, measure entire arc of recovery, at 25 °C, %	California Test 332	40	--
Penetration (0.01 mm) at 25 °C	AASHTO T49		
If using PG 76-22 PM asphalt binder		50	150
If using PG 64-28 PM asphalt binder		70	200

<sup>a</sup> The demulsibility test shall be made within 30 days from the date of shipment.

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In the Special Provisions, Section 10-1.19, "BONDED WEARING COURSE - GAP GRADED," subsection "HOT MIX ASPHALT DESIGN REQUIREMENTS," "Hot Mix Asphalt for Job Mix Formula," the table in the first paragraph is revised as follows:

**Hot Mix Asphalt for Job Mix Formula**

Quality Characteristic	Test Method	Requirement
Film thickness, (µm min.)	Asphalt Institute MS-2 Table 6.1 Note a	12.0
Drain Down (max.)	AASHTO T-305 <sup>b</sup>	0.1%

Notes:

<sup>a</sup>Film thickness is calculated based on effective asphalt content and determined as follows:

$$FT = \left( \frac{P_{be}}{SA \times G_b \times 1000} \right) 10^6$$

where:

FT = Film Thickness in µm

P<sub>be</sub> = Effective asphalt content by weight of aggregate using Lab Procedure LP-4.

SA = Estimated surface area of the aggregate blend in m<sup>2</sup>/kg from Table 6.1 in the Asphalt Institute Manual Series No. 2 (MS-2).

G<sub>b</sub> = Specific gravity of asphalt binder

<sup>b</sup> Combine aggregate and asphalt at binder supplier's recommended mixing temperature. Coated aggregates that fall through the wire basket during loading will not be considered as "drain down" and are returned to the basket before conditioning at 350 °F for one hour.

In the Special Provisions, Section 10-1.19, "BONDED WEARING COURSE - GAP GRADED," subsection "CONSTRUCTION," "Transporting, Spreading, and Compacting," the first paragraph is revised as follows:

"Apply asphaltic emulsion membrane on dry or damp pavement with no free water. Do not place bonded wearing course when freezing temperature or precipitation is forecasted within 24 hours of placement. Apply asphaltic emulsion when the atmospheric and pavement temperatures are above 45 °F."

In the Special Provisions, Section 10-1.19, "BONDED WEARING COURSE - GAP GRADED," subsection "CONSTRUCTION," "Transporting, Spreading, and Compacting," the second paragraph is revised as follows:

"Before spreading HMA, apply asphaltic emulsion membrane under Section 94, "Asphaltic Emulsions," of the Standard Specifications. Apply emulsion at a temperature from 140 to 180 °F and in a single application at the residual rate specified for the condition of the underlying surface. Choose a target residual rate from the following:"

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In the Special Provisions, Section 10-1.19, "BONDED WEARING COURSE - GAP GRADED," subsection "CONSTRUCTION," "Transporting, Spreading, and Compacting," the tenth paragraph is revised as follows:

"When measured on the surface immediately behind the screed, the HMA must be at least 275 °F and the temperature across the mat should not vary by more than 25 °F. Do not take the temperature within 2 feet of the edge of the pavement."

To Bid book holders:

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This addendum is available for the Contractors' download on the Web site:

**[http://www.dot.ca.gov/hq/esc/oe/project\\_ads\\_addenda/11/11-2M1904](http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/11/11-2M1904)**

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,



LAURIE BERMAN  
District Director