

Proposed Revision To: ☒ Standard Specifications For Public Works Construction ☐ Standard Plans For Public Works Construction	Change No. 351 SM
Public Works Standards, Inc. c/o BNi Publication Inc. 990 Park Center Drive Suite E Vista, California 92081	Date Proposal Received 10/24/2024 (ASSIGNED BY GREENBOOK COMMITTEE)
Subsection or Standard Plan to be revised: Section 203-11 & Section 302-9 On page(s): 111, 112, 113, 114, 115, 116, 117, 344 and 345	
Warning: Public Contract Code §3400 prohibits any local agency specification that limits bidding, directly or indirectly, to any one specific concern or product. If this revision describes a proprietary or patented product, it must identify other products that equally perform the functions of the proprietary or patented product.	
Revision: Editorial revisions are needed to ensure that Section 203-11 and Section 302-9 on Asphalt Rubber Hot Mix conform to the Standard Greenbook Format and Style.	
Reason For Revision: The recent Greenbook 2024 publication requires revisions to Section 203-11 and Section 302-9 on Asphalt Rubber Hot Mix to align with the Greenbook Standard Formatting and Style.	
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Instructions: Use a separate form for each revision. Attach plain paper if more space is needed. For minor changes, copy present wording striking out words to be deleted and <u>underlining</u> new text. For major changes, rewrite or add paragraph or sections. All proposed revisions must include the reason(s) for the revision.	
Subcommittee Action: On <u>03/17/26</u> (Date) ☒ Recommended For <u>2027</u> Supplement/Edition ☐ Rejected ☒ As Modified	Editorial Standards Subcommittee Review: On <u>05/19/2026</u> (Date) ☐ Reviewed For Surf/Und/Spec/Plans Subcommittee ☐ NO Modifications ☒ As Modified
Greenbook Committee Action: On <u>07/16/2026</u> (Date) ☒ Approved For <u>2027 Greenbook</u> Supplement/Edition ☐ Rejected ☐ As Modified	

203-11 ASPHALT RUBBER HOT MIX (ARHM).

No proposed Changes

Prior to applying sealcoat material, all cracked and broken pavement shall be removed and patched in accordance with the Plans and Specifications. Cracks wider than 1/8 inch (3 mm) shall be cleaned, treated with weed killer, and filled with an asphalt-based crack filler specified by the Engineer. The pavement surface shall be clean and free from dirt, oil, and grease deposits.

When ambient temperatures are over 80°F (27°C) or the pavement is excessively aged or porous, the surface shall be sprayed with a mist of water in an amount that will leave the surface damp, but with no visible puddles of water. This procedure is not required if a tack coat per 302-8.2.1 has been applied.

Sealcoat material shall be applied using a truck-mounted tank or wheeled container in continuous parallel lines and spread by means of brooms or rubber-faced squeegees either by hand or machine and in such a manner as to eliminate all ridges, lap marks, and air pockets. Raised pavement markers, valve box covers, and manhole covers shall be protected and kept free of sealcoat material.

Sealcoat material shall be homogeneous prior to spreading, with no visible separation of solids and liquids.

The second coat of sealcoat material shall not be applied until the first coat has dried to the touch.

The Contractor shall exercise care to prevent sealcoat material from being deposited on other than specified surfaces and shall remove sealcoat material from surfaces not designated to be sealed, at no cost to the Agency.

Traffic control shall be per 302-4.4.

302-8.3 Measurement and Payment. Sealcoat material shall be paid for at the Contract Unit Price per square yard (m²) or as shown in the Bid.

302-9 ASPHALT RUBBER HOT MIX (ARHM).

302-9.1 General. ~~ARHM shall conform to 203-11.~~ ARHM pavement shall consist of one course of ARHM conforming to 203-11 placed on existing asphalt concrete or Portland cement concrete pavement, or on an asphalt rubber and aggregate membrane. The class of ARHM shall be as shown on the Plans.

302-9.2 Materials, Tack Coat. ~~Tack coat shall conform to 302-5.8.~~

302-9.2.1 ARHM. ARHM shall conform to 203-11.

302-9.2.2 Not Used.

302-9.2.3 Tack Coat. Tack coat shall conform to 302-5.2.3.

302-9.2.4 Rock Dust Blotter. Rock dust blotter shall conform to 200-1.2.

302-9.3 Submittals.

302-9.3.1 Job Mix Formulas (JMFs) and Mix Designs. JMFs and mix designs shall be submitted in accordance with 203-6.3.

302-9.3.2 Certificates of Compliance. ~~The Contractor shall submit a Certificate of Compliance for the tack coat materials and the grade of paving asphalt used in the Work.~~

302-9.3.3 Placement Plan. If specified or requested by the Engineer, the Contractor shall prepare and submit a plan showing the dimensions and placement of the ARHM course. The plan shall be submitted a minimum of 14 Days prior to the start of paving operations. The placement plan for the ARHM surface course shall show the final traffic lane lines and graphically verify conformance with 302-5.9.2.

302-9.4 Equipment. Equipment shall conform to 302-5.4.

302-9.5 Not Used.

302-9.6 Pre-Paving Meeting. If specified or requested by the Engineer, the Contractor shall arrange a pre-paving meeting in accordance with 302-5.6.

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302-9.7 Not Used.**302-9.8 Tack Coat.** Tack coat shall conform to 302-5.8.**302-9.9.3 Placement.**

302-9.9.1 General. Placement shall conform to 302-5.9.1 except that at the time of delivery to the Work site, the temperature of the ARHM shall be between 300°F (149°C) and 330°F (166°C), and ARHM shall be placed in one course as shown in Table 302-9.3. When the atmospheric temperature is above 85°F (29°C), the temperature of the ARHM at the time of delivery to the Work site may be reduced to 290°F (143°C) if approved by the Engineer.

TABLE 302-9.3

Specified Total Thickness		Number of Courses	Type and Class of Mixture
Equal to or Greater than (inches [mm])	But Not More Than (inches [mm])		
1-1/2 (38)	2 (50)	1	ARHM-GG-D
1-1/2 (38)	2 (50)	1	ARHM-GG-C
2 (50)	2-1/2 (60)	1	ARHM-GG-C
2-1/2 (60)	-	1	ARHM-GG-B, ARHM-GG-C

302-9.9.2 Joints. ~~302-9.5 Joints.~~ Joints shall conform to 302-5.9.2.**302-9.9.3 Manholes (and other structures).** Manhole and other structures shall conform to 403-3.

302-9.9.4 Rock Dust Blotter. ~~302-9.7 Rock Dust Blotter.~~ At the option of the Engineer, when traffic conditions warrant, a rock dust blotter may be required to avoid tracking. Rock dust blotter shall conform to 200-1.2 and be uniformly applied using a mechanical spreader at a rate of 2 pounds per square yard (1.1 kg/m²) to 4 pounds per square yard (2.2 kg/m²). When the ARHM pavement has cooled to below 150°F (66°C), the rock dust blotter may not be required.

302-9.10.302-9.4 Rolling. Rolling shall conform to 302-5.10 except that vibratory rollers using the vibratory mode shall be used for initial breakdown rolling. The initial coverage of breakdown rolling shall commence before the ARHM temperature falls below 290°F (143°C). If the atmospheric temperature is above 85°F (29°C), the initial breakdown rolling temperature may be reduced to 280°F (138°C). Pneumatic rollers shall not be used. If the initial breakdown rolling temperature is reduced, the Contractor shall not be relieved of the density requirements.

~~302-9.5 Joints.~~ Joints shall conform to 302-5.9.2.~~302-9.6 Manholes (and Other Structures).~~ Manhole and other structures shall conform to 403-3.**302-9.11 Compaction.** Compaction shall conform to 302-5.11.**302-9.12 Smoothness.** Smoothness shall conform to 302-5.12.**302-9.13 302-9.8 Measurement.****302-9.13.1 General.****302-9.13.2 Tack Coat.** Tack coat will be measured in accordance with 302-5.13.4.**302-9.13.3 ARHM.** ARHM will be measured by the ton (tonne) or by the square foot (m²).

The Contractor shall furnish to the Engineer at the time of delivery to the Work site, a legible copy of a licensed weighmaster certificate showing gross, tare, and net weights of each truckload of ARHM.

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When an automatic batching system is used, the certificate may show only the net weight of ARHM in the truckload.

~~Tack coat will be measured in accordance with 302-5.13.4.~~

302-9.14.302-9.9 Payment.

302-9.14.1 General. Unless otherwise specified, payment will be made in accordance with the following.

302-9.14.2 Tack Coat. Payment for tack coat will be made in accordance with 302-5.14.4.

302-9.14.3 ARHM. Payment for ARHM will be made at Contract Unit Price per ton (tonne) or square foot (m²). No separate payment for rock dust blotter or sweeping will be made.

~~Payment for tack coat will be made in accordance with 302-5.14.4.~~

Failure of the Contractor to provide a licensed weighmaster certificate to the Engineer by the end of the day on which the ARHM represented by such certificate was delivered to the Work site may, at the discretion of the Engineer, result in forfeiture of payment.

302-10 ASPHALT RUBBER AND AGGREGATE MEMBRANE (ARAM).

302-10.1 Application. Asphalt rubber binder shall conform to 203-12.2. Asphalt rubber binder shall be placed upon a clean dry surface. The pavement surface temperature shall be a minimum of 55°F (13°C) including shaded areas; the atmospheric temperature shall be a minimum of 60°F (16°C) ; the wind shall not adversely affect spray distribution; and all necessary equipment shall be in position and ready to commence placement operations prior to starting the work. The Contractor shall take temperature readings with a temperature measuring device approved by the Engineer.

Asphalt rubber binder shall be applied by distributor equipment meeting the requirements of the following:

- a) Distributor trucks shall meet the requirements for distributing equipment of 203-2.5 and be equipped with an internal heating device capable of evenly heating the material to a temperature of 425°F (218°C).
- b) The distributor shall have a platform on the rear of the vehicle and an observer shall accompany the distributor.
- c) The observer shall ride in a position so that all spray bar tips are in full view and readily accessible for unplugging if a plugged tip should occur.
- d) Material shall be applied at a rate between 0.55 to 0.65 gallons per square yard (2.5 to 3.0 L/m²) as directed by the Engineer.
- e) Material spreading shall not be in excess of that which can be covered with aggregate within 15 minutes maximum.
- f) At the time of delivery to the Work site, the temperature of the asphalt rubber shall be 300°F (149°C) minimum.

The asphalt rubber binder may be applied to the roadway immediately following mixing and reacting at a temperature between 375°F (191°C) minimum to 425°F (218°C) maximum. However, if the binder is not to be used within 6 hours of mixing, the binder shall be allowed to cool below 300°F (149°C) for 12 hours maximum, or to ambient temperature for longer periods, and shall be uniformly reheated to a

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