

Recurring Special Provisions  
Division 400 – Asphalt Pavements  
City of Fort Wayne  
Public Works

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**SECTION 401 – QC/QA HMA PAVEMENT**

**401.06 Recycled Materials**

Recycled materials may consist of reclaimed asphalt pavement, RAP, ~~or reclaimed asphalt shingles, RAS, or a blend of both.~~ RAP shall be the product resulting from the cold milling or crushing of an existing HMA pavement. Before entering the plant, RAP shall be processed so that 100% will pass the 2 in. (50 mm) sieve ~~and RAS shall be processed so that 100% will pass the 3/8 in. (9.5 mm) sieve.~~ The RAP coarse aggregate shall pass the maximum size sieve for the mixture being produced.

150 Recycled materials may be used as a substitute for a portion of the new materials required to produce HMA mixtures. The amount of total binder replaced by binder in the recycled material shall be computed as follows:

$$\text{Binder Replacement, \%} = \frac{(A \times B) + (C \times D)}{E} \times 100\%$$

where:

- A = RAP, % Binder Content by Mass of RAP
- B = RAP, % by Total Mass of Mixture
- ~~C = RAS, % Binder Content by Mass of RAS~~
- ~~D = RAS, % by Total Mass of Mixture~~
- E = Total, % Binder Content by Total Mass of Mixture

~~RAS may be obtained from either pre-consumer or post-consumer asphalt shingles but the two RAS types shall not be blended together for use in HMA mixtures.~~

~~Post-consumer asphalt shingles shall be in accordance with the following:~~

- ~~(a) post-consumer asphalt shingles shall be essentially nail-free~~
- 170 ~~(b) extraneous metallic materials retained on or above the No. 4 (4.75 mm) sieve shall not exceed 0.5% by mass~~
- ~~(c) extraneous non-metallic materials such as glass, rubber, soil, brick, paper, wood and plastic retained on or above the No. 4 (4.75 mm) sieve shall not exceed 1.5% by mass~~
- ~~(d) post-consumer shingles shall be prepared by a processing company with an IDEM Legitimate Use Approval letter. The approval letter shall be submitted with the DMF to the Engineer.~~

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The recycled material percentages shall be as specified on the DMF. HMA mixtures utilizing recycled materials shall be limited to the binder replacement percentages in the following table:

HMA mixtures utilizing RAP ~~or RAS or a blend of RAP and RAS~~

Maximum Binder Replacement, %										
Mixture Category	Base and Intermediate							Surface		
	Dense Graded				Open Graded			Dense Graded		
	25.0 mm	19.0 mm	12.5 mm	9.5 mm	25.0 mm	19.0 mm	9.5 mm	12.5 mm	9.5 mm	4.75 mm
2	25.0*				25.0*			25.0* 20.0		
3	25.0*				25.0*			25.0* 20.0		
4	25.0*				25.0*			25.0* 20.0		
* The contribution of RAS to any HMA mixture shall be $\leq 3.0\%$ by total mass of mixture and $\leq 15.0\%$ binder replacement.										

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**SECTION 402 – HMA PAVEMENT**

**402.02 Quality Control**

10 The HMA shall be supplied from a certified HMA plant in accordance with ITM 583; Certified Hot Mix Asphalt Producer Program. The HMA shall be transported and placed according to a Quality Control Plan, QCP, prepared and submitted by the Contractor in accordance with ITM 803; Contractor Quality Control Plans for Hot Mix Asphalt Pavements. The QCP shall be submitted to the Engineer at least 15 days prior to commencing HMA paving operations.

Type “D” Certification Sheets will not be required and contractor testing of the asphalt mixtures will not be required. City of Fort Wayne Test Lab shall perform any necessary testing.

When a safety edge is required for a project, the QCP shall identify the device or devices in accordance with 409.03(c) to be used for constructing the safety edge.

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**MATERIALS**

20 **402.03 Materials**

Materials shall be in accordance with the following:

- Asphalt Materials
- PG Binder ..... 902.01(a)
- Coarse Aggregates ..... 904

Base Mixtures – Class D or Higher  
Intermediate Mixtures – Class C or Higher  
Surface Mixtures\* – Class B or Higher

Fine Aggregates .....904

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\* Surface aggregate requirements are listed in 904.03(d).

Surface aggregate may also include air cooled blast furnace slag, steel furnace slag, and sandstone for Type B & C mixtures.

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