# **Chapter 4**

# **Construction Details**

# **Section 30** Recycled Pavement

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# Section 30 Recycled Pavement

#### 4-3001 General

This section provides guidelines for inspecting recycled pavements for work specified under Section 30, "Recycled Pavement," of the *Standard Specifications*, which includes full depth recycling—no stabilizer, full depth recycling—foamed asphalt, full depth recycling—cement, and crack and seat.

This section addresses operations related to construction of pavement bases by using recycled pavement as base material. Pavement recycling includes operations for full depth recycling—no stabilizer, full depth recycling—foamed asphalt, full depth recycling—cement, and crack and seat.

# 4-3002 Before Work Begins

Before work begins, take the following steps:

- Review the contract documents to determine the type of pavement recycling and the locations where pavement will be recycled and placed as base material.
- At least 20 days before starting pavement recycling work, obtain the contractor's
  quality control plan that details the methods the contractor will use to assure
  quality of work and conformance with the requirements of the Standard
  Specifications.
- Hold a preoperation meeting to discuss the quality control plan and contractor's method for performing each element of work affecting material quality, including acceptance testing priorities, lines of communication for test results, timeframes for reporting quality control and acceptance test results, and any contractual testing dispute resolution processes and mix design determination.
- Review the asphaltic emulsion submittals and verify that the asphaltic emulsions comply with Section 30-1.01C(2), "Asphaltic Emulsion," of Standard Specifications.
- Review mix design when applicable. If the contractor proposes a cement content
  different from specified, review the proposed mix design test results. Based on
  test results, and in consultation with the district materials engineer, decide
  whether the proposed percentage of cement will produce the design strength in
  the finished product.
- Conduct field visits to verify the surface is prepared for operation.

For crack and seat, take the following steps:

- Designate and mark a section of roadway for the contractor to construct a test strip.
- Identify locations of core to be collected by the contractor from the test strip.

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 Use the collected core from the test strip to evaluate the effectiveness of contractor cracking operation.

## 4-3003 During the Course of Work

During the work, take the following steps:

- Test for the specified attributes in accordance with the frequency shown in Section 6-1, "Sample Types and Frequencies," of this manual. Initially, and in the case of borderline material, take and save additional samples. In case the first samples tested do not meet the requirements for contract acceptance, the extra samples may be tested to determine the extent of the failing material.
- Review the pavement recycling test strip report for compliance before authorizing the contractor to start pavement recycling activities. In the absence of the engineer's authorization, the contractor may start pavement recycling at their own risk.
- Obtain and review contractor's daily quality control report for each lot.
- For acceptance of recycled pavement, conduct visual inspection to verify absence of defects such as segregation, tearing, scarring of surface, unevenness, and irregularity of compacted recycled pavement. Review the test result and verify the recycled pavement is compacted to specified relative compaction.

## 4-3004 Level of Inspection

Suggested levels of inspection for typical recycled pavement activities are:

- Intermittent inspection of materials produced from pavement recycling.
- Benchmark inspection of compaction of full depth recycling—no stabilizer, full depth recycling—foamed asphalt, and full depth recycling—cement.
- Intermittent inspection of seating of cracked pavement.

### 4-3005 Quality Control

Verify that the contractor is actively performing quality control on recycled pavement-produced base throughout production operations by reviewing copies of quality control records, including quality control test results. Discuss the deficiencies and noncompliance with the contractor as soon as possible. Do not authorize pavement recycling before all noncompliance is addressed.

Verify the recycled pavement compliance with the materials quality characteristics requirements, testing frequency, and sampling location for the type of recycled pavement.

### 4-3006 Payment

For measurement and payment, review the plans and quantity calculations in the resident engineer's file to determine if there is sufficient detail and accuracy to be used in the project records.

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