

SECTION 02513
ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:

1. Hot-mixed Asphaltic Concrete Pavement.
2. Field Quality Control.
3. Weed Control.

B. Related Sections:

1. Section 01400 - Quality Control.
2. Section 02200 - Earthwork.
3. Section 02580 - Pavement Marking.

1.2 SUBMITTALS:

A. Weed Control Products:

1. Submit complete manufacturer's data for each product to be used, including:
 - a. Manufacturer's safety data sheets.
 - b. Method of application.
 - c. Location of application.

B. Material Certificates:

1. Provide 2 copies of materials certificates signed by the material producer and the Contractor, certifying that each material item complies with, or exceeds, specified requirements.
2. Provide independent testing laboratory reports on aggregates and asphalt for sieve analysis, wear abrasion and other characteristics.

C. Design Mix:

1. Submit proposed mix design based on laboratory tested mix to determine optimum asphalt content and other properties as specified, using 50 blow Marshall method.

1.3 QUALITY ASSURANCE:

A. Testing and Inspection Service:

1. A testing laboratory to perform quality control testing during asphaltic concrete paving operations shall be employed by the Owner. Any retesting required due to failed test shall be paid by the Contractor.

B. Standards:

1. Conform materials and installation to applicable portions of Sections 300, 400, 700, Colorado Department of Transportation, "Standard Specifications for Road and Bridge Construction", Latest Edition.

1.4 Environmental Considerations:

LEED SSc7: Heat Island Effect

Specify the least amount of asphaltic concrete paving as possible.

Specify Light colored/high albedo materials instead of asphalt when feasible.

Note: DESIGNER SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER WITH REGARD TO SUBGRADE AND PAVEMENT THICKNESS.

PART 2 - PRODUCTS

2.1 AGGREGATES:

- A. Base Course Aggregate: Per Section 703.03, Class 6, Colorado Department of Transportation Specifications.
 1. Minimum Thickness: 7".
- B. Asphalt Concrete Aggregate: Per Section 703.04, Gradation C for drives and roadways, and Gradation CX for parking lots and walks, Colorado Department of Transportation Specifications.
 1. Minimum Thickness Over Aggregate Base: 3".
 2. Minimum Thickness for Full Depth Asphalt: 5".
 3. Minimum Thickness Over Aggregate Base: 4" for parking facilities.
- C. Mineral Filler: Limestone dust, portland cement, or other inert material complying with ASTM D242 or AASHTO M17.
- D. Asphalt Materials:
 1. Asphalt Cement: Comply with ASTM D3381 or AASHTO M226 Table 1, Viscosity Grade AC-10 or AC-20, and per Section 702, Colorado Department of Transportation Specifications.
 2. Prime Coat: Cut-back asphalt type, ASTM D2027 or AASHTO M82, MC-30, MC-70 or MC-250.
 3. Tack Coat: Emulsified asphalt, ASTM D977, D2397, AASHTO M140 or M208, SS-1, SS-1h, CSS-1 or CSS-1h, diluted with water 1 : 1.

PART 3 - EXECUTION

3.1 PREPARATION:

A. ProofRolling:

1. Require proof rolling of subgrade of paved areas by means to determine soft spots or

inadequate compaction. Where soft spots occur, remove loose materials and replace with road base aggregate compacted to level of subgrade.

3.2 WEEDCONTROL:

- A. If vegetation exists on subgrade, remove surface vegetation within 3 days prior to application of Casoron or apply "Roundup" at rates following manufacturer's instructions.
- B. Apply Casoron weed control at rate of 2.4 lbs per 100 sq. yds. for G-10 or 4.0 lbs. for W-50. Apply by methods recommended by manufacturer.
- C. Exercise care and be responsible for damage to vegetation outside area to be treated due to careless or improper handling or use of weed control.
- D. Conform to State and local requirements for use of agricultural chemicals.

3.3 JOINING TO EXISTING WORK:

- A. Cut sides vertically and apply tack coat to exposed asphalt surfaces before placing new pavement. Meet existing thickness of surface and base courses, but not less than specified for new work.
- B. Where new work joins existing asphaltic concrete paving on City of Colorado Springs right-of-way, comply with the requirements of City of Colorado Springs authorities for surface and base course thickness.

3.4 FIELD QUALITY CONTROL:

- A. Owner will test the in-place asphalt concrete course for compliance with requirements for thickness and surface smoothness.
 - 1. Owner through project manager to provide Parking and Transportation Services (PTS) with testing results for impacted parking facilities.
- B. Repair or remove and replace unacceptable paving as directed by the Architect / Engineer.
- C. Thickness: In-place compacted thickness will not be acceptable if exceeding following allowable variation from required thickness.
 - 1. Base Course: +0.5"
 - 2. Surface Course: +0.25"
- D. Owner will check compaction and compliance with design mix by cutting test plugs where directed in accordance with ASTM D1559. Patch core holes. Owner will test for compaction minimum of 95% of Marshall Design, aggregate gradation, voids and percent asphalt.
- E. Remove and replace non-conforming work as directed.
- F. Surface Smoothness: Owner will test finished surface of each asphaltic concrete course for smoothness, using 10' straightedge applied parallel with, and at right angles to centerline of paved area. Surfaces will not be acceptable if exceeding the following tolerance for

smoothness.

1. Wearing Course Surface: 0.1875".

G. Check surfaced areas at intervals as directed by the Architect.

END OF SECTION 02513