

Montana Department of Transportation  
Contract 03214, Letting Date: 2/27/14

SPECIAL PROVISIONS

CONTRACT NO. 03214

Payment at the contract unit price is full compensation for all resources necessary to complete the items of work under the contract.

21. RECONSTRUCTION OF ROADWAY AT BRIDGE APPROACH SECTIONS

A. Description. Reconstruct the existing pavement section at the bridge ends for a distance of 330' from the end of the existing bridge approach slabs (30' at a flush grade with the bridge end and then 300' to transition the grade from the bridge approach end to the 0.40' overlay surface grade).

B. Construction Requirements. Reconstruct the entire roadway with Non-Frost Susceptible Backfill (2.00' depth), Crushed Aggregate Course (0.75' depth) and Grade S Plant Mix (0.67' depth) with PG 70-28 binder. Line the bottom of the reconstructed area beneath the Non-Frost Susceptible Backfill with Separation Geotextile. After paving, apply a coat of SS-1 emulsified asphalt to the reconstructed section of the roadway. When removing the existing transition slab, do not damage the sleeper slab that exists below the joint between the bridge approach slab and the roadway that is being reconstructed. In addition to the sleeper slab, the bridge approach slab must also remain unharmed. All damaged sleeper slabs and bridge approach slabs will be replaced at the expense of the contractor. The Non-Frost Susceptible Backfill should be compacted uniformly as directed by the Project Manager. The gradation for the Non-Frost Susceptible Backfill at the bridge approach sections should meet the following requirements:

SIEVE	PERCENT PASSING
2"	100%
No. 4	<25%
No. 200	0-4%

22. RIDE SPECIFICATION CATEGORY (SINGLE) [401] (REVISED 12-13-12)

This is a Category I project.

23. PCCP PAVEMENT CRACKING AND SEATING

A. Description. This work is cracking and seating the existing Portland Cement Concrete Pavement (PCCP) prior to placing a plant mix bituminous surfacing leveling course and overlay.

B. Equipment.

1) Pavement Breaker: Use a guillotine type breaker capable of producing the desired cracking pattern without displacing the concrete more than one-half inch vertically or to cause spalling of the concrete to a depth greater than one inch. Do not use unguided free-falling weights. Mount the device on a vehicle capable of controlled forward and transverse movement. Provide a screen during the cracking process to protect vehicles in the adjacent lane from flying chips.

2) Roller: Seat the cracked pavement using a pneumatic tired roller with a minimum loaded weight of 35 tons and a maximum loaded weight of 55 tons.

C. Construction Requirements.

1) General

a) On the mainline, crack and seat the Eastbound roadway and Westbound roadway separately. Each roadway is considered to be two 12 ft. driving lanes and the adjacent shoulders.

b) Perform all cracking and seating work during daylight hours. Clean the cracked surface of loose material at the end of each working day.

c) Remove existing bituminous patches by cold milling before cracking the concrete pavement.

d) Furnish and apply water for dust control as directed by the Project Manager.

- 2) Cracking
    - a) Do not destroy the concrete interlock between the cracked portions during cracking and seating operations.
    - b) Crack the concrete pavement transverse to centerline at 18 inch minimum to 30 inch maximum spacing. No more than 20 percent of the spacing's to be greater than 24 inches. Do not operate breakers closer than 12 inches from an existing transverse joint or pavement edge. Crack pavement full depth of the PCCP but still maintain aggregate interlock on the fractured faces. Full depth is the thickness of the PCCP (8 in.). Verify full depth cracking by taking 8 inch cores.
    - c) The Project Manager will designate test sections before cracking operations begin. Crack the test sections using varying striking patterns and energy until a satisfactory cracking method is established. Perform this process for each breaker that is used. When cracking the test section, determine the extent of cracking by applying a fine mist of water to dampen the pavement.
    - d) At least once a day, verify that the cracking pattern is being maintained by applying water to random sections determined by the engineer. Make adjustments to the striking pattern and/or energy as required in order to maintain a satisfactory cracking pattern and full depth cracking throughout the project. Verify full depth cracking by taking 8 inch cores as directed by the Project Manager.
    - e) Apply increased cracking efforts in areas where full depth cracking is not achieved. If increased cracking efforts do not produce desired results, remove the PCCP. Replace the removed materials with ¾ in., Grade S Plant Mix Surfacing to the top of the adjacent PCCP.
  - 3) Seating
    - a) Seat the cracked pavement using the pneumatic tired roller. Use a minimum of two passes. Continue rolling the cracked pavement until the pieces are seated to the satisfaction of the Project Manager. Do not perform rolling operations under excessively wet subgrade conditions.
    - b) Remove rocking pieces of concrete detected during the rolling operation. Fill the voids left by removed pieces with ¾ in., Grade S Plant Mix Surfacing to the top of the adjacent PCCP.
  - 4) Cleaning
    - a) Clean the cracked and seated pavement of all dirt, spalls, and loose material by power brooming and air blowing with 100-psi nominal pressure before opening to traffic and prior to tack coating.
  - 5) Maintenance
    - a) Maintain the cracked and seated pavement that is opened to traffic. Sweep loose material from the surface and patch holes with plant mix surfacing as directed by the Project Manager.
- D. Measurement and Payment.
- 1) Include all costs to perform crack and seat operations as specified above, including removing and disposing of unseated concrete, in the unit price bid per square yard for Crack and Seat.
  - 2) Include the cost to remove and dispose of bituminous patches as specified in the unit price bid per square yard for Cold Milling.
  - 3) Include all costs to furnish, place, and compact Plant Mix Surfacing, Grade S in the voids left by removed pieces of PCCP in the unit price bid for Plant Mix Bituminous Surfacing, Grade S-¾ inch.

24. SALVAGE UNCLASSIFIED EXCAVATION AND COLD MILLINGS

- A. Description. Salvage all unclassified excavation and cold millings including all plant mix, crushed base course, and subgrade. Excavated PCCP will not be salvaged.