

PRECISION

COLD PLANING, INC.

Cold Planing, Pulverization and Soil Stabilization

PRODUCTIVITY, EFFICIENCY & RELIABILITY

Full Depth Reclamation (FDR)



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Typical Construction Sequence of Full-Depth Reclamation with Portland Cement

1. **Investigate Existing Pavement:** Always investigate the existing pavement structure and sub-grade prior to the FDR process to optimize the final result. Typically, samples of the pavement and sub-grade are collected to the desired depth of reclamation and sent to a qualified testing laboratory to determine the appropriate rate of Portland Cement addition. Either too much or too little cement may reduce the quality of the final product.
2. **Plan Operation to Ensure a Well-Coordinated Job:** Mixing, Curing, and Paving operations should be sequenced to minimize traffic disruptions and cover the FDR in a timely manner. Although the completed FDR base course can carry light traffic for a week or more, extended exposure without further paving is not recommended.
3. **Begin FDR by pulverizing existing pavement:** As a first step, it is recommended that the existing pavement be pulverized to the desired depth using a Cold Recycler. The maximum particle size after pulverization varies with different specifications, but is generally required to be 2 inches or less. The contractor may elect to add some water at this stage to reduce dust and ease initial shaping.
4. **Roughly reshape the pulverized pavement:** A motor grader and sheep-foot roller are used to roughly regrade the base and prepare it to receive Portland Cement.
5. **Spread Portland Cement:** Cement is applied by a Spreader Truck that is calibrated to deliver the specified amount of cement within tight tolerances. (Typically +/- 0.5 percent.) Actual spread rate should be measured in the field by testing technicians periodically during construction.
6. **Mix cement, water, and pulverized pavement:** The Cold Recycler will make a second pass to mix the cement and pulverized pavement. The Cold Recycler will also use an attached water tanker to simultaneously bring the final mixture to the appropriate moisture content as determined by the laboratory testing in Step 1.
7. **Compaction and fine grading:** The sheep-foot roller is used to compact the new treated mixture. The motor grader works in tandem to achieve deep compaction while maintaining the desired elevation. Once initial compaction is achieved, the motor grader and vibratory smooth drum roller will complete the fine grading operation and provide a smooth surface ready for overlay. This step is critical in achieving a smooth base that is ready to receive the final portion of the new structural section.

GO GREEN

