

CCPR

Cold Central Plant Recycling

Cold central plant recycling (CCPR) is the process of recycling an existing stockpile of reclaimed asphalt pavement (RAP) through a portable cold-mix plant. CCPR is a good alternative when cold in-place recycling (CIR) cannot be used.



THE PROCESS

RAP that is either transported to or stockpiled at a central location is run through a cold mix plant. The RAP is sized, then mixed with the appropriate asphalt emulsion/asphalt cement, and is either placed in a stockpile for later use, or hauled to a roadway for placement. The CCPR mixture is placed with conventional paving equipment. A wearing course such as chip seal, micro surfacing or hot mix will be needed over the CCPR layer.

*BENEFITS

- 20-50% less expensive than conventional reconstruction
- Reduces greenhouse gases by as much as 50%
- Reuses 100% of the existing materials
- Adds 15-20 years to the pavement when combined with appropriate wearing courses

*ISSUES ADDRESSED

- Addresses the same distresses as a hot mix asphalt (HMA) overlay
- CCPR can be used along with CIR to treat distresses at a deeper depth

MATERIALS USED

- **RAP:** Gathered from existing roadway or stockpile
- **Asphalt:** Either an asphalt emulsion or foamed asphalt cement can be used based on the design
- **Chemical Additive:** Chemical additives such as lime or cement are added in dry or slurry form to improve mix
- **Corrective Aggregate:** Occasionally needed based on the mix design

COMMON COMBINATIONS

- CCPR + hot mix overlay
- CCPR + single or double chip seal (low-volume roads)
- CCPR + slurry or micro surfacing (low-volume roads)
- CCPR + CIR to increase treatment depth

**Reported by RoadResource.org by PPR*