ASPHALT PAVEMENT RECYCLING TECHNOLOGIES

Image Source: FHWA

Asphalt pavement recycling techniques (APRT) including cold in-place recycling (CIR), full-depth reclamation (FDR), cold central plant recycling (CCPR), and hot in-place recycling (HIPR)—can be cost-effective and sustainable options to rehabilitate roadways.

POTENTIAL BENEFITS:

- Reduce construction costs and greenhouse gas (GHG) emissions by about 50 percent compared to conventional mill and overlay by conserving natural resources.

- Increase speed of construction that leads to reduced traffic delays for traveling public.

- Offer deeper repairs in a pavement structure than would be made with conventional mill and fill alternatives, providing improved pavement foundation. Recent national work indicates that cold recycled pavement lives of 20 years or more are common.

Image Source: FHWA

Some State DOTs have successfully established pavement programs that include APRTs. Six State Departments of Transportation (DOTs) were interviewed to learn more about their practices. Techniques and criteria used were identified and summarized.

Image Source: FHWA

LEARN ABOUT HOW STATES:

- Select cold recycling techniques for use at the project level.
- Design the pavement structure integrating recycled materials.
- Select materials and design mixtures.
- Accept recycled pavement during construction.

Practices and lessons learned based on experience using APRT are also highlighted. Collectively, the information indicates that desired performance can be observed with appropriate project selection, design, production, and construction.