Demographics of Nebraska

- Number of NDOR Employees – 2100 FTE
- Centerline miles of roadway – 9949 Mi.
- Number of Annual Projects – 142 (FY ’13)
- Annual Contracted Dollar Work - $450M - $500M

State Bird – Western Meadow Lark

State Mammal - White-tailed Deer

Types of In-Place Recycling Used in Nebraska

- Full Depth Reclamation (Cement or Fly Ash Stabilized)
- Cold In-Place with High Float Emulsion or Foamed Asphalt
- Cold In- Place by Hydrated Lime Slurry Stabilization, 1.5% Lime and 1.5% CSS-1
- Hot In-Place
- All of the above have been let in the last 5 yrs.

Recycling Projects in the last 5 years

Project Type	Number of Projects	Cost per Station	Total Cost
FDR -Cement Stabilized Bituminous	3	$7,494	$14,915,035
FDR -Fly Ash Stabilized Bituminous	15	$7,939	$56,458,555
Cold In-Place Recycling w/HF Emulsion	4	$5,261	10,287,964
Cold In-Place by Hydrated Lime Slurry Stabilization	28	$7,114	$92,179,760
Hot In-Place Recycling	13	$3,179	$20,560,448

Why We Choose Each Strategy

1. Full Depth Reclamation by Cement or Fly Ash Stabilized Bituminous.
    - When extreme cracking/stripping and depressed thermal cracks are present.
    - When pavement condition won't support Hydrate Lime Slurry Equipment.
    - When poor subgrade conditions exist.
2. Cold In-Place Recycle w/HF Emulsion or Foamed Asphalt
    - When traffic during construction is light or can be detoured.
    - When existing pavement contains bituminous sand.
    - When the project impacts and schedule can support a grade raise or widening.
3. Cold In-Place Recycle by Hydrated Lime Slurry Stabilization
    - When the Truck ADT is less than 200.
    - When the remaining existing pavement beneath the recycling process will support the equipment load.
    - When the project impacts and schedule can support a grade raise or widening.

4. Hot In-Place Recycle

Surface needs rejuvenated but structurally sound.

Does not have extensive patching.

Low to moderate traffic volume roadway .

Why In-Place Recycling Is Not Utilized

1. 4” Mill/Fill strategies that incorporate high RAP percentage (up to 50%) are cost competitive, less sensitive to weather conditions and are structurally similar to recycle.

   CIP to 4” * 0.25 SN=1 plus Overlay 3”*.44 SN= 1.32 Total SN=2.32

   M/F 4”x 0.44 SN= 1.76

2. Project impacts and schedule will not allow a grade raise or widening.
3. Traffic volumes too high for tender recycled surface that is curing.
4. The existing pavement has sufficient structure making additional impacts due to recycling unnecessary.

Suggestions

- Cooperation between recycling and overlay Contractors to maintain or correct cross-slopes.
- Some full depth reclamation projects have an irregular outside edge.