

# Iowa

## Spring 2010 National Concrete Consortium State Report

### PCC Overlays

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Iowa Department  
of Transportation

# Iowa PCC Overlays

- Approx. 1300 two-lane miles of PCC overlays over past 40 plus years
  - Nearly 700 miles of Whitetopping (PCC over full-depth HMA)
  - Nearly 500 miles of Unbonded (PCC over HMA over PCC)
  - Over 100 miles of Bonded (PCC over PCC)
- Note: 203 of 1300 miles built in 2009

# Iowa PCC Overlays

- Most overlays on County system
- Some Primary/Interstate
- A few city
- A few airport

# Iowa PCC Overlays

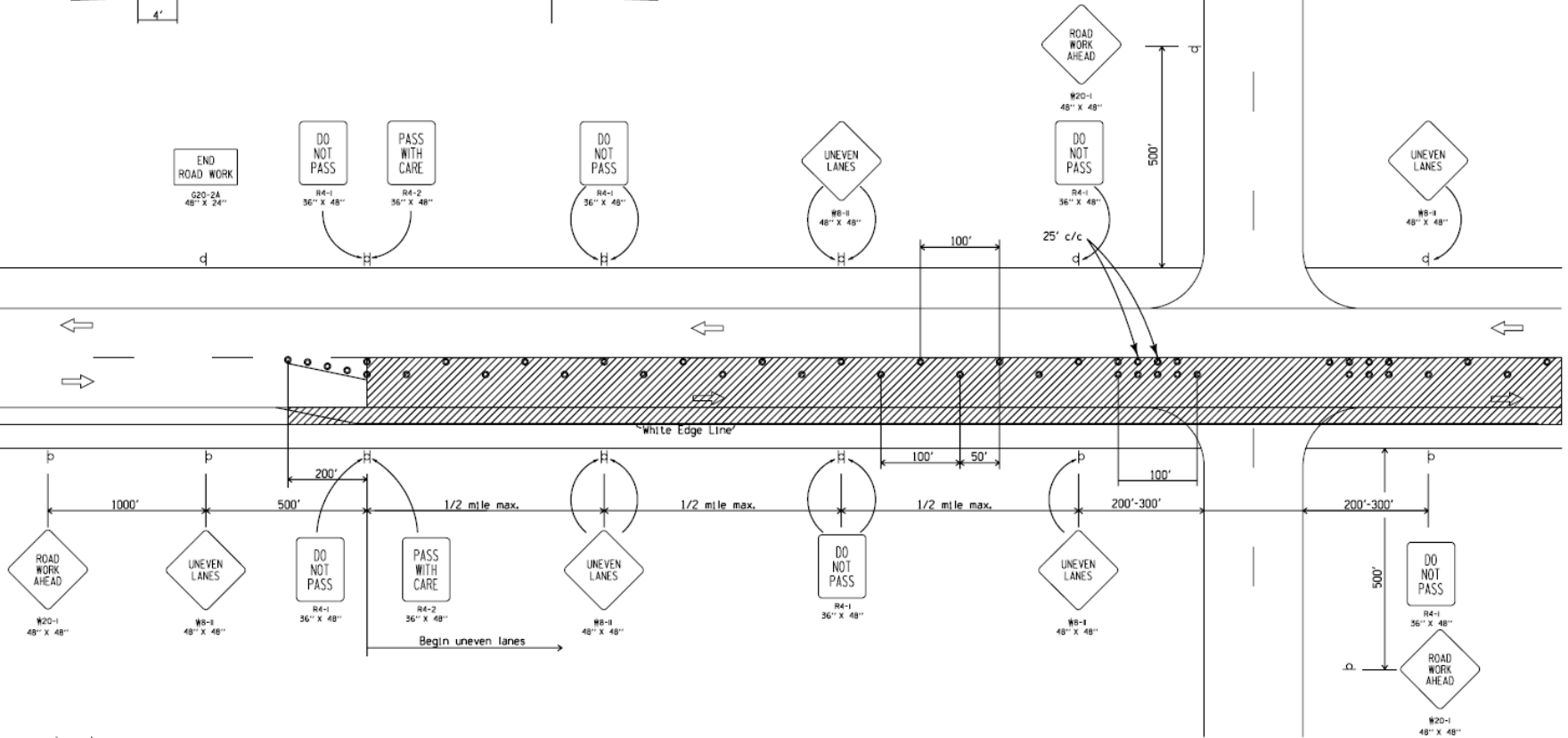
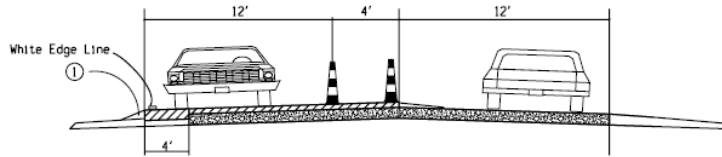
- Bid items used
  - Square yards for placement  
(2009 average \$3 - \$7/SY)
  - Cubic yards for mix  
(2009 average \$65 - 70/CY)
    - Usually include 5 – 10% in plan quantity for irregularities, x-slope correction, etc.
    - Typically overrun plan quantity by 10 – 15%

# Iowa PCC Overlays

## ■ Traffic Control

- Head-to-head on four lane divided
  - Pave opposing side under closed road condition
- Closed road with local access on two lane
  - 2010 project on primary highway half at a time under traffic

# Iowa PCC Overlays



## Legend

- ⊔ Traffic Sign
- ⊔⊔ Traffic Sign (back/back)
- 42-inch Channelizer
- ▨ New Pavement

When a centerline drop-off exists, the maximum length of roadway open to two lane, two-way traffic shall not exceed 7 miles.

① Shoulder edge drop-offs shall be mitigated according to Article 1107.08.K2 of the Standard Specifications.

Lane Line Drop-off  
PCC Overlay

# Iowa PCC Overlays

- Thickness Design
  - Thickness design for Primary/Interstate projects with assistance from the CP Tech Center utilizing PCA method
- Alternates?
  - Some Counties have bid alternates, Department has not

# Iowa PCC Overlays

- Barriers to trying PCC Overlays
  - Fear of the unknown/lack of understanding of the process
  - Misconception that closed road is not passable
- Use of maturity for opening strength a huge asset





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Leica

YELLOW = COM1

GREEN = COM4

RED = COM5

BLUE = COM6

MPC5 - Project: Manly's 2000 truck - Alpha\_043002-00000000

File | Logfiles | Tools | Machine | Support

Front Left: ▲ 0.007	Pos. Front: ◀ 0.025	Front Right: - 0.000	Stationing (+): 513.976
Rear Left: ▲ 0.006	Pos. Rear: ▶ 0.014	Rear Right: - 0.000	Speed: +3.04
Front Left ▲ -0.010 ft ▼		Front Right ▲ -0.010 ft ▼	
Rear Left ▲ -0.010 ft ▼		Rear Right ▲ 0.000 ft ▼	

Navigation icons: Copy, Close, Print, Home, Back



MPC5

Questions?