2020 Street Operations

INC Transportation Committee
Pat Kennedy, PE, Engr Mgr
DoTI-Office of Asset Management
Jan 9, 2020
Topics

- Paving recap
- GO Bond
- 2020 Paving Program
- Snow Operations
- Main plows
- Residential plows
- Level of Service

Fun Facts

### Paving
- 5,746 ln-mi
  - 1,018 arterial
  - 900 collector
  - 3,828 local

### Snow
- Snow routes
  - A route- 1,421 ln-mi
  - B route- 636 ln-mi
  - School route- 135 ln-mi
  - RSP- 1,259 cl-mi
- Snowfall
  - 60” seasonally
  - 24 events
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Paving Operations

Treatments

- Cape Seal
  - Preservation treatment
  - 10-year life
  - Local streets only

- Hot-In-Place-Recycle
  - Mid-range treatment
  - 10-15 year life
  - 60%+ recycled material

- Mill and Overlay
  - Structural treatment
  - 10-20 year life
  - Mostly in-house production
Paving Operations

- **Treatments**
- **Historic data**
  - Target PCI=75
  - Treatment goal 430 ln-mi annually (7.5%)
  - 2019, 519 ln-mi (incl GO Bond)
Paving Operations

- **Treatments**
  - Target PCI=75
  - Treatment goal 430 ln-mi annually (7.5%)
  - 2019, 519 ln-mi (incl GO Bond, 9.0%)

- **Paving Programs**
  - 2020, 540 ln-mi (9.5%)
  - 6-year, ~2450 ln-mi (over 40%)

- **GO Bond**
  - $45M for arterial and collector paving
  - $11M for curb and gutter repairs
Paving Operations

- One Build
  - Coordinating multiple agencies
  - Correct scheduling
  - Combined efforts
Snow Operations

- Routes

Snow Routes
Snow Operations

- Routes
- Equipment
  - 68 Tandems
  - 11 Heavy Equipment
  - 36 Light Plows (RSP)
  - 2 Bike lane
Snow Operations

- **Routes**
- **Equipment**
  - 68 Tandems
  - 11 Heavy Equipment
  - 36 Light Plows (RSP)
  - 2 Bike lane
- **Deicers**
  - Liquid MgCl
  - Dry Ice Slicer
  - Effective to 15°
  - Not used for RSP
Snow Operations

Level of Service

Main Routes
- Round the clock effort
- Clear travel lanes within 24-72 hours of storm completion depending on storm intensity
- Continued cleanup of bike lanes, turn pockets etc. as needed
- Bare pavement standard

Residential Program
- Deployed for significant events
- One 12 hour shift per 24 hour cycle
- Single pass down middle of street
- No deicers
- Minimizing rut potential
Snow Operations
Snow Operations

November 25

Background
- Five 12”+ storms in last 12 years
- Heavy storms typical in fall or spring
- Typically followed by ‘normal’ temps

Event stats
- Light snow started Monday evening
- Heavy snow (1”-2” per hour) early Tuesday through Tuesday afternoon
- Low temp Wednesday morning -1°
- Light snow Friday
- Large plows deployed from Monday afternoon through Saturday
- One shift RSP Tuesday 0300-1500
Snow Operations

➢ Aftermath

➢ Main plow routes clear within 24 hours of storm completion
➢ Secondary clean up continued for several days
➢ RSP completed one pass minimum on residential streets in single shift.
➢ Residential streets had compact snow and ice lingering for multiple days
➢ Deicer applied to local streets on 12-3
➢ 10 day 311 case load-
  ➢ 2,085 total storm related cases
  ➢ 1,630 sidewalk cases
  ➢ 450 plow/ice cases
  ➢ 5 bike lane cases
Snow Operations

Points to ponder

- Tandem plow has 5-6 hour cycle time
- RSP not designed for bare pavement
- Bike lanes offer unique challenges
  - Lane definition
  - Confined area
  - Deicer effectiveness
  - Snow accumulation, refreeze
Snow Operations

Points to ponder
- Tandem plow has 5-6 hour cycle time
- RSP not designed for bare pavement
- Bike lanes offer unique challenges
- Sidewalks/Snow buddy
- 25¢ per event per person

Program modifications (under consideration for major events)
- 24 hour RSP
- Deicer usage on residentialss
  - Extraordinary circumstances
  - Equipment
  - Environmental
Questions