Turnpike celebrated its 75th Anniversary in October 2015

- Maintain and transform the Turnpike into today’s Super Highway
New Car: 1940=$800; 2015=$31,250 (39 X)
Gallon of Gasoline: 1940=$0.18; 2015=$2.40 (13 X)
75th Anniversary

Lane Miles: 1940=636; 2015=2424 (4 X)
Vehicles Per Day: 1940 = 6575; 2015 = 543,934 (83 X)
CASHLESS TOLLING
I-95 Interchange

January 2016

CASH or EZPass
New Neshaminy Falls Mainline Toll Plaza
Tickets & Cash or EZPass

Future
295

January 2016

NO CASH ZONE
Toll Plate or EZPass
Turnpike Bridge
New ONE-WAY Westbound Toll
NONSTOP TRAVEL

I-95 Link
Coming in 2018

No Cash Zone

Delaware Valley
Interchange Toll Plaza
TO BE REMOVED

Delaware River
Bridge Toll Plaza
TO BE REMOVED

Eastbound Travelers
No Toll

PA NJ DELAWARE RIVER
CASHLESS TOLLING

- Beaver Valley Expressway will be converted to Cashless Tolling by the end of 2016.
- Southern Beltway will be constructed as Cashless Tolling which is anticipated to open to traffic in 2020. The existing 6 miles of the Southern Beltway “Finley Connector” will be converted during same timeframe.
Transportation Quality Initiative (TQI)

- Started summer 2014 and ongoing
- Participants
  - Pennsylvania Department of Transportation
  - Pennsylvania Turnpike Commission
  - American Council of Engineering Companies
  - Associated Pennsylvania Constructors
  - American Concrete Pavement Association
  - Central Atlantic Bridge Associates
  - Pennsylvania Aggregates and Concrete Association
  - Pennsylvania Asphalt Pavement Association
PTC Capital Plan – Highway Program

- $560M FY15 highway program
- $660M FY16 highway program
- Bid $363M in CY 2015
- Anticipating to Bid $725M in CY 2016
  - $406M – Highway Program
  - $319M – Independently Funded
Construction Contracts

As of January 6, 2016:

- **104** construction contracts
- **46** different contracts
- **$1.88B** total contract value
- **$636M** balance remaining
FY16 Capital Plan by Program

Ten Year Total = $6.55B

- Highway 83.3%
- Cashless Toll Conversion 7.2%
- Technology 3.3%
- Fleet Equipment 2.6%
- FEMO 3.7%
Highway Program by Element

- Construction: 70.5%
- CM/CI: 11.3%
- Design: 14.3%
- Studies: 1.0%
- Utilities: 0.9%
- ROW Purchases: 1.7%
- Other: 0.4%
- Land Purchases: 0.02%

General Construction + CM/CI = 82% of Highway Program
Proposed FY16 10-Year Capital Plan

- $450M/year
- $50M/year


- Highway
- Other
Construction AREAS of FOCUS for 2016

- MPT
- Work Zone Safety
- Bituminous Material Quality
- Construction Monthly Cash Draw Downs
- Construction Schedule – Completion Date
**Materials**

- NEW HMA projects constructed in 2016 will use the PTC CS409 or Special Provision that stipulates the Lot/Sublot sizes of 1500 ton and (n=3).

- Sublot results will be averaged and used as Acceptance and Payment criteria.

- Gradation and Void payment factors have been modified in Table I.
CS 409 Revisions:

- Increased Certified Material to 300 tons
- Theoretical Max Gravity - for mass determination, use section 13.1 Mass determination in water.
- Each plant must be equipped with sawing equipment for roadway cores.
CS 409 Revisions - con’t:

- The sealing band on longitudinal joints must be 4” to 6” in width evenly applied across the joint.

- Bulletin 27 – Appendix “J” was rewritten to provide a flow chart and clarity for design submittals. This is a Special Provision in the 2016 contracts.
Summary of ALL Lots

- Total Lots – 1127
  - 868 AT Lots
  - 259 Certified Lots
- Average AT Lot size – 840 ton
  - 729,209 ton
- Average Certified Lot size – 75 ton
  - 19,569 ton
Acceptance Testing Summary

- Total Lots – 868
- 100% payment – 778 (90%)
- 97% payment – 37 (4%)
- 94% payment – 20 (2%)
- R&R – 33 Lots (4%)
  - 21 Removed and Replaced (14,853 ton)
  - 9 L.I.P. (50%) pay
  - 2 L.I.P. with (0%) pay
  - 1 L.I.P. at (70%) pay
HMA Failures by Item

- High AC – 5
- Low AC – 2
- High #200 – 3
- Low #200 – 0
- High Air voids – 38
- Low Air voids – 33
- Low Density – 5
Density Results

- 9.5mm – 94.3%
- 12.5mm – 94.7%
- 19mm – 94.8%
- 25mm – 95.0%
- RB 25mm – 95.4%

- Overall Average – 94.9%
267 approved JMF’s
- (108 Virgin Designs)
- (15 PaDot Designs)

70 Different Designs utilized (49%)

12 Different Producers

18 Different Plants
SMA

- We plan to use 12.5mm SMA wearing course material for all NEW - Total Reconstruction Projects …and… resurfacing of existing Reconstructed Projects.
Materials Lab in Somerset
(March 2016)
The PAPA website will contain the Pa. Turnpike 
HMA Design Software
and
2016 Bit-DEL program.

Any questions can be directed to Terry Dreher in our Materials Dept.
Longitudinal Joint Info

- A69 to A73 – 91.2%, 92.8%, 92.1%, 91.8%
- A105 to A115 – 84.9%, 88.5%
- T148 to T159 – 90.3%, 88.6%, 88.8%, 92.2%

- Must meet a minimum of 88% compaction
- PTC Seals all longitudinal construction joints
IRI NUMBERS FROM THIS YEAR

Projects - 2015
Total lane miles paved this year
34.68/138.72 lane miles
Total Overall IRI Avg. = 48.80

Projects - 2014
Total lane miles paved last year
32.62/130.48 lane miles
Total Overall IRI Avg. = 51.90
Roadway Projects

Bituminous Overlay:
Willow Grove IC; Milepost 342.91
Clarks Summit IC; Milepost A130.64
Gateway IC; Milepost 1.44
Pittsburgh IC; Milepost 56.56

1st and 2nd Quarters of 2016
Roadway Projects

Bituminous Overlay:
Milepost 174 – Milepost 180
Milepost 192 – Milepost 197
Milepost 246 – Milepost 255
Milepost 319 – Milepost 326
Milepost 109 – Milepost 123

4th Quarter of 2016
Total
Reconstruction
Total Reconstruction Program

Status as of November 2015

- **Completed** - 113 miles
- **Under Construction** - 19 miles
- **In Design** – 126 miles
Completed Construction

Typical Total Reconstruction Section

122 ft. Out-to-Out
Total Reconstruction Projects

Milepost 202 to Milepost 206

Release – June 8, 2016
Bid – July 20, 2016

- Excavation – 750,000 cy (various classes)
- Pipe – 35,000 lf (various types/sizes)
- Bituminous Paving Courses – 1,500,000 sy
- 1 – Two-Span Prestressed Concrete Box Beam Bridge – SR 997 over Turnpike
- 3 – Mainline Single Span Prestressed Concrete Box Beam Bridges
- Concrete Box Extensions – 335 lf
- CIP Retaining Wall – 250 lf and Soldier Pile Retaining Wall – 250 lf
**Total Reconstruction Projects**

**Milepost A31 to Milepost A38**

**Release – September 14, 2016**
**Bid – October 26, 2016**

- Excavation – 997,000 cy (various classes)
- Pipe – 50,000 lf (various types/classes)
- Bituminous Paving Courses – 2,000,000 sy
- 1 – Mainline Single Span Concrete Bulb Tee Bridge
- 3 – Mainline Prestressed Concrete Box Beam Bridges (2 – single/1 – 3-span)
- Retaining Wall – 3,645 lf and Sound Wall – 13,6
Mon-Fayette/Southern Beltway
Southern Beltway US 22 to I-79

- Dual Bridges over US 22 - Construction completed
- (3) Roadway Contracts anticipated to be bid in 2016
- Anticipated 5 Major Roadway Contracts
- Construction timeframe now to late 2019.
Southern Beltway Projects

Wetland Mitigation; Section 55W

Release – November 4, 2015
Bid – December 2, 2015

- Excavation – 45,000 cy (various classes)
- Topsoil – 7,000 cy
- Temporary Stream Crossing/Access Road
Section 55-A1

Release – August 17, 2016
Bid – September 28, 2016

- Excavation – 5,400,000 cy (various classes)
- Pipe – 40,000 lf (various types/classes) Inlets – 340 ea
- PCC pavement/shoulders – 179,000 sy
  Bituminous Paving – 49,000 sy
- 6 – Mainline and 1 – Overhead bridges
- 1,100,000 lbs. Fabricated Structural Steel
- 8,110 lf Prestressed Concrete Beams
Section 55-B

Release – September 28, 2016
Bid – November 9, 2016

- Excavation – 4,800,000 cy (various classes)
- Pipe – 26,000 lf (various types/classes) Inlets – 230 ea
- PCC pavement/shoulders – 124,000 sy
- 2 – Mainline (Dual bridges – 1,500’ in length/110’ in height)
- 7,300,000 lbs. Fabricated Structural Steel
Section 55-C1-1

Release – November 2, 2016
Bid – December 14, 2016

- Excavation – 1,000,000 cy (various classes)
- Pipe – 32,000 lf (various types/classes) Inlets – 270 ea
- PCC pavement/shoulders – 105,000 sy
  Bituminous Paving – 52,000 sy
- 2 – Mainline (Dual bridges – 1,015’ in length/100’ in height)
  - 6,500,000 lbs. Fabricated Structural Steel
  - 1560 lf Prestressed Concrete Beams
## Southern Beltway Projects

<table>
<thead>
<tr>
<th>Section</th>
<th>Bid Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 55-C2-2</td>
<td>Bid – 2\textsuperscript{nd} Q of 2017</td>
</tr>
<tr>
<td>Section 55-A2</td>
<td>Bid – 3\textsuperscript{rd} Q of 2017</td>
</tr>
<tr>
<td>Section C1-2</td>
<td>Bid – 4\textsuperscript{th} Q of 2017</td>
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<tr>
<td>Section C2-1</td>
<td></td>
</tr>
<tr>
<td>Section S</td>
<td>Bid – 1\textsuperscript{st} Q of 2018</td>
</tr>
<tr>
<td>Section T</td>
<td></td>
</tr>
<tr>
<td>Section M</td>
<td>Bid - TBD</td>
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QUESTIONS?