NEWINGTON-DOVER
Spaulding Turnpike / Little Bay Bridge Improvements

WELCOME

Tenants Association at Pease Informational Presentation
April 9, 2014
@ Great Bay Bay Community College
Meeting Agenda

■ Project Overview
■ Environmental Mitigation Components
■ Transit Enhancements & TDM Options
■ Turnpike Expansion
  ➢ Contract 11238 L – New SB Little Bay Bridge
  ➢ Contract 11238 M – Newington
  ➢ Contract 11238 Q – Dover
  ➢ Contract 11238 O – Rehab NB Little Bay Bridge
  ➢ Contract 11238 S – General Sullivan Bridge
Project Need

- Spaulding Turnpike
  - Limited Capacity – Chronic Congestion
    - Four Lane Facility – 2 Lanes in each direction
    - High Traffic Volumes
    - Projected 94,300 (2025)
  - Level of Service E & F (during peak hours)
  - High Number of Interchanges
    - 5 Interchanges in 2 ½ miles
  - Geometric Deficiencies
    - Substandard Shoulders (Little Bay Bridges)
    - Substandard Ramp Accel & Decel Geometry
    - Inadequate Weave Geometry
  - Poor Local & System Connectivity
  - High # of Crashes with Long Delays
Project Need
Environmental Mitigation Components

- Environmental Mitigation - $4.37M
  - 120-acre Preservation of Tuttle Farm (Joint Effort w/ City, SRC, DOT) – completed ($1.34M)
  - 40-acre Preservation of Day Property in Blackwater Brook Watershed – completed ($0.23M)
  - 64 acres of Preservation in Knight Brook Watershed – underway (est. $2.0M)
  - Railway Brook Restoration & Preservation (23 acres) – underway (est. $0.8M)
Knight Brook – Saba & Hislop Properties
Railway Brook Restoration

Construct during low water flow in 2015
Travel Demand Mitigation Components

- Travel Demand Management (TDM) Commitment Cost is $16.28M
  - Park’n’Ride at Dover, Rochester and Lee ($5.0 M)
  - Improved Downeaster Rail Service ($2.0M)
  - Improved Transit Service (COAST & WILDCAT) ($8.88M)
  - Financial Support for Seacoast TMA –($0.4M)
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Park ‘n’ Ride

- Park’n’Ride at Exit 9 in Dover – completed ($3.49M)
- Park’n’Ride at Exit 13 in Rochester (Under construction $1.35M by A. J. Coleman & Sons)
- Multi-use Park’n’Ride in Lee – CMAQ Location under review (est. $85k)
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Improved Downeaster Rail Service

- CMAQ Investment of $2.0 M
  with N-D Turnpike Match
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Expanded Transit Service

- NH – Boston Bus Service (C&J)
- Express Coast Bus Service from Rochester, Dover, Somersworth/Berwick to Portsmouth Naval Shipyard
- Direct Bus Service – COAST Bus Service from Rochester to Pease
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Expanded Local Transit Service

Local Coast Bus Routes

➢ route 2 – Rochester, Somersworth, Dover, Newington to Portsmouth (25% increase ridership)

➢ route 40 - Portsmouth/Pease trolley

➢ route 41 – Portsmouth Lafayette Road trolley

➢ UNH Wildcat service to Malls and Market Square (route 4)
Transportation Demand Management

- Commute SMART Seacoast – a new Transportation Management Association (TMA) to promote:
  - Carpooling/vanpooling
  - Ride mass transit
  - Bicycle/walk
  - Telecommuting
  - Compressed work schedules

- Focus is employers and employees at Pease and within the Greater Seacoast

- More information at www.commuteSMART.org
Newington-Dover
Selected Highway Solution

- Reconstructs & Widens Turnpike
  - 8 Lanes – Exit 3 to Exit 6
  - 6 Lanes south of Exit 3 (match into 6 lanes at Exit 1)
  - 6 Lanes north of Exit 6 (match into width at Toll Plaza)

- Consolidates & Reconfigures the Interchanges
  - Eliminate Exit 2 (Fox Run Road ramps)
  - Reconstruct Exit 3 (Full service interchange with northern access into Pease)
  - Maintain Exit 4 Ramps (Nimble Hill Road & Shattuck Way)
  - Eliminate Exit 5 (Hilton Park & Wentworth Terrace)
  - Reconstruct Exit 6 (Full service interchange with US 4 & Dover Point Road)
NEWINGTON-DOVER 11238

NEWINGTON
SOUTHERLY
RENDERING
NEWINGTON-DOVER 11238

DOVER

NORTHERLY

RENDERING
## Current Contract Breakout & Schedule

### Construction Schedule

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$\text{CONTRACT L}$: $\text{\$54.1 M} \\
\text{CONTRACT O}$: $\text{\$34.0 M}^*$ \\
\text{CONTRACT M}$: $\text{\$48.7 M} \\
\text{CONTRACT Q}$: $\text{\$49.2 M}^*$ \\
\text{CONTRACT S}$: $\text{\$31.7 M}$

*Contract Q & O schedules subject to change*
Construction Contract Breakouts

- Contract L – SB Little Bay Bridge - $54.1M - Construction Completed Fall 2013
- Contract M – Exits 3 & 4 - $48.7M - Anticipated Construction Completion Summer 2015
- Contract O – Existing LBB Rehabilitation - $34.0M – Advertise August 2014
- Contract Q – Exit 6, Dover Mainline & Soundwalls - $49.2M - Advertise June 2015
- Contract S – GSB Rehabilitation - $31.0 M - Design Ongoing

Total Construction Cost = $217.0M (2012 Dollars)
Construction – Contract L

Ground Breaking Celebration on September 9, 2009
Contract L - SB Little Bay Bridge Construction

- Construction Initiated in 2010, completed fall 2013
  - Cianbro Contractors, Maine
- SB Little Bay Bridge
- Spaulding Turnpike Dover Approach Work
- Spaulding Turnpike Newington Roadway Approach
- Exit 5 Ramp Reconstruction (Within Contract M)
- Wentworth Terrace
- General Sullivan Bridge Dover Abutment
- Pedestrian & Bicycle Structure
General Sullivan Bridge Access Closure

- Dover side - November 1, 2010 to May 1, 2011
- Newington side – occasionally

Sidewalk beneath GSB and LBB closed during construction
Construction – Contract L
Ped and Bikeway to General Sullivan Bridge

- Pedestrian & Bicycle Structure
Construction – Contract L
Ped and Bikeway to GSB

- Pedestrian, Bicycle Access to GSB
- Wentworth Terrance/Hilton Park Access Under LBB’s
Construction – Contract L
Little Bay Bridge

Temporary Trestle to Construct Phase I - Cost
$5 Million (2010-12)
Construction – Contract L
Little Bay Bridge

Westerly Placement of Final Mid-Span Girder
(March 13, 2013)
Construction – Contract L
Little Bay Bridge

Deck Reinforcing Steel and Concrete Pour (2012)  Final Bridge Deck (2013)
Contract 11238M

- Eliminates Exit 2 and Replaces it with Cul-de-Sac
- Provides a Full Service Interchange at Exit 3 with Extended Woodbury Avenue and Reconstructs Exit 4 Interchange
- Provides Additional Access into Pease
- Provides Future Consideration for Railroad Spur
- Eliminates Maintenance and Incident Management Reverse Direction Ramps Between Exits 3 and 4
Contract M – Exit 3 and Arboretum Drive

- Full Service Interchange at Exit 3 with Additional PDA Access
- Arboretum Drive Work Extended 0.5 miles South of New Roundabout
- Provides Future Consideration for Railroad Spur
- Improved Access to Portsmouth Water Tower
- Railroad Brook Fluvial Restoration
Woodbury Avenue West of Spaulding Turnpike

WOODBURY AVENUE

EB

WB

EXISTING GROUND

SIDEWALK

5' 12' 12' 2' 16' 2' 12' 10' 5'

2:1
Construction 11238M

Utility Relocation in 2011-12:
- 30” M&N Gas Line - Exit 3 and Arboretum Drive Area (By Others)
- Unitil Gas Distribution Line – Little Bay Directional Drill – completed in summer 2013

Contract M Construction
- Contractor: A. J. Coleman
- Construction Cost: $48.7M
- Construction Duration: 2012 – 2015
Construction – Contract M

Construction Operations

- Test Embankment in Dover
- Exit 3 Embankment Area, Roundabout and Arboretum Drive
- SB Barrel Ledge Excavation
- SB Traffic Shift Exit 1 through Exit 3
- Woodbury Avenue Bridge Construction
- Shattuck Way Bridge Widening
- Railway Brook Restoration
- NB and SB Barrel Construction in Existing Median Area
Construction – Contract M

Initial Construction Phase

- Exit 5 Test Embankment Area
- Settlement Testing
- UNH Study
Construction – Contract M

Embankment Area

- Installation of Sand Drains
Construction – Contract M

Embankment Area

- Instrumentation for Rate of Settlement
Construction – Contract M

Pre-Construction Utility Relocations

- 30 Inch Diameter High Pressure M&M Gas Line Relocation (By Others)
Construction – Contract M

Preparation of Staging Site

- Staging Area at Former Drive-in Theater
- Future Site for Turnpike Maintenance Facility
Construction – Contract M

- Unitil Gas Line Relocation SB Barrel - Exit 1 to Exit 3 (By Others)
- Water Line Relocation SB Barrel - Exit 1 to Exit 3
Construction – Contract M

Woodbury Avenue Bridge (Westerly Abutment)
Construction – Contract M

Woodbury Avenue Bridge (Middle Pier)
Construction – Contract M

Southbound Barrel Construction
(Phase I)
Construction – Contract M

Woodbury Avenue Approach and Arboretum Drive
Construction – Contract M

Shattuck Way Bridge Widening
Construction – Contract M

Water Quality Protection

• Flocculent Treatment
• Stormwater Basins
Construction – Contract M

Traffic Transition to New Little Bay Bridge in Summer 2015
Contract 11238Q

- Provides a Full Service Interchange at Exit 6
- Eliminates Exit 5
- Provides Two-way Connection via Wentworth Terrace
- Introduces 2 Signalized Intersections for Exit 6 Ramps
- Roundabout Replaces Signalized Intersection at Boston Harbor Road
- Constructs 4 Sections of Soundwall – North and South of Exit 6
Roundabout Intersection

Two-Lane Hybrid Roundabout
Contract Q
Spaulding Turnpike

- 40’ of Spaulding Turnpike Widening
- SB Raise in Elevation
- Soundwalls along NB and SB
- Pomeroy Cove Paved Pathway (10’ wide) is Maintained
Cross Section
Just North of Pomeroy Cove
Contract Q
Soft Soil Settlement Predictions
Contract Q

Contract Q - Dover - $49.2 M

- Currently Unfunded in Turnpike Program
- Tentative Advertising Date: June 2015
- Tentative Construction: 2015 - 2018
- Completes and Opens All Spaulding Turnpike Improvements
Contract 11238O

LITTLE BAY BRIDGE REHAB
Contract 11238O

Contract O - $34.0 M

- Tentative Advertising Date: Aug. 2014
- Replace Steel Beams on 1966 Segment
- Rehabilitate the 1984 girders; replace rocker bearings
- Replace full deck (1589 Feet)
- Modular expansion joints at abutments
Contract 11238O
Rehab of Existing LBB
Contract 11238S

GENERAL SULLIVAN BRIDGE REHAB
Contract 11238S

Contract S- Dover- $31.0 M

- Tentative Advertising Date: Aug. 2016
- Tentative Construction: 2016 - 2018
- Rehabilitation of General Sullivan Bridge for Pedestrian and Bicycle Access
  - First Phase – Inspection in 2014
  - Second Phase – Rehabilitation Evaluation (Feasibility to meet NEPA) in 2014-15
  - Third Phase – Design Plans for Construction 2015-16
Contact Information

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THANK YOU

Questions/Comments