NEWINGTON-DOVER

Spaulding Turnpike / Little Bay Bridge Improvements

WELCOME

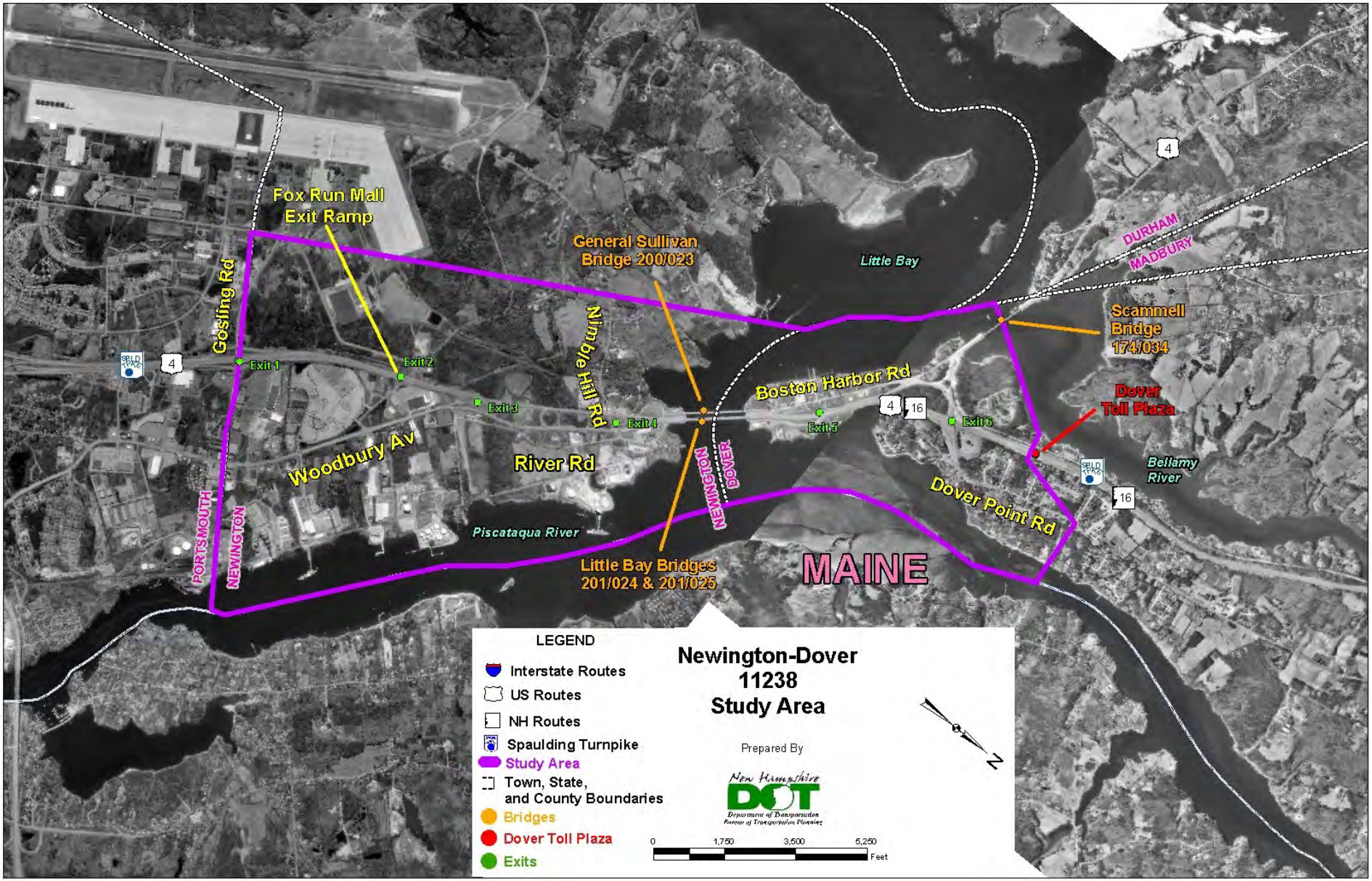
Dover City Council Workshop

April 3, 2013

Meeting Agenda

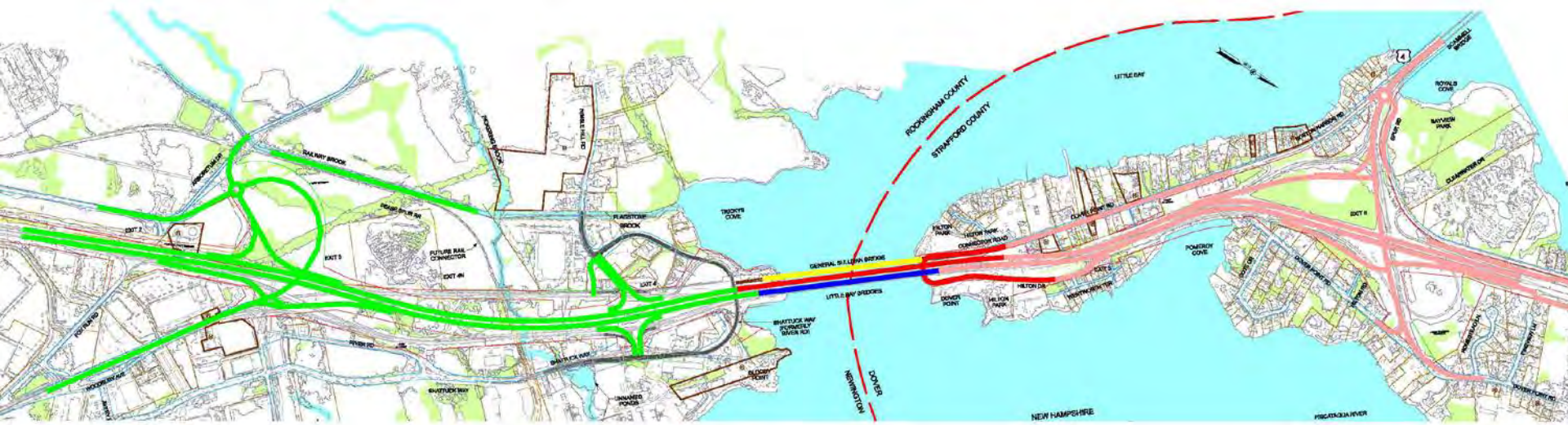
- Introductions
- Project Overview
- Contract Q – The Dover Contract
  - Contract Overview
  - City Utility Impacts and Relocations
  - Soundwalls

Project Area



Newington-Dover Selected Alternative

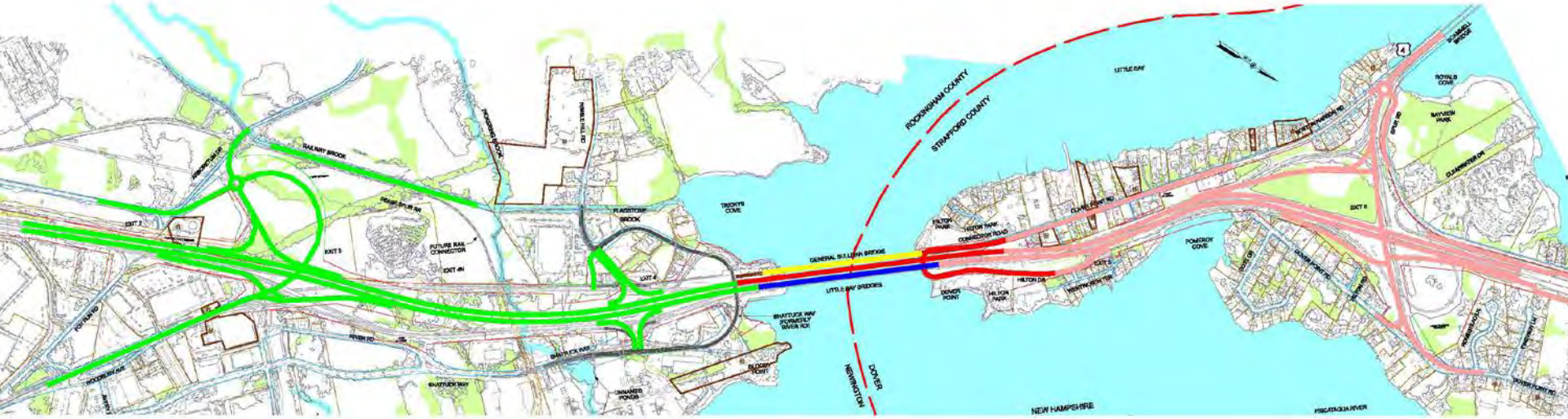
- Reconstructs & Widens Turnpike
  - 8 Lanes – Exit 3 to Exit 6
  - 6 Lanes south of Exit 3 (match into 6 lanes at Exit 1)
  - 6 Lanes north of Exit 6 (match into width at Toll Plaza)
- Consolidates & Reconfigures the Interchanges
  - Eliminate Exit 2 (Fox Run Road ramps)
  - Reconstruct Exit 3 (Full 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)

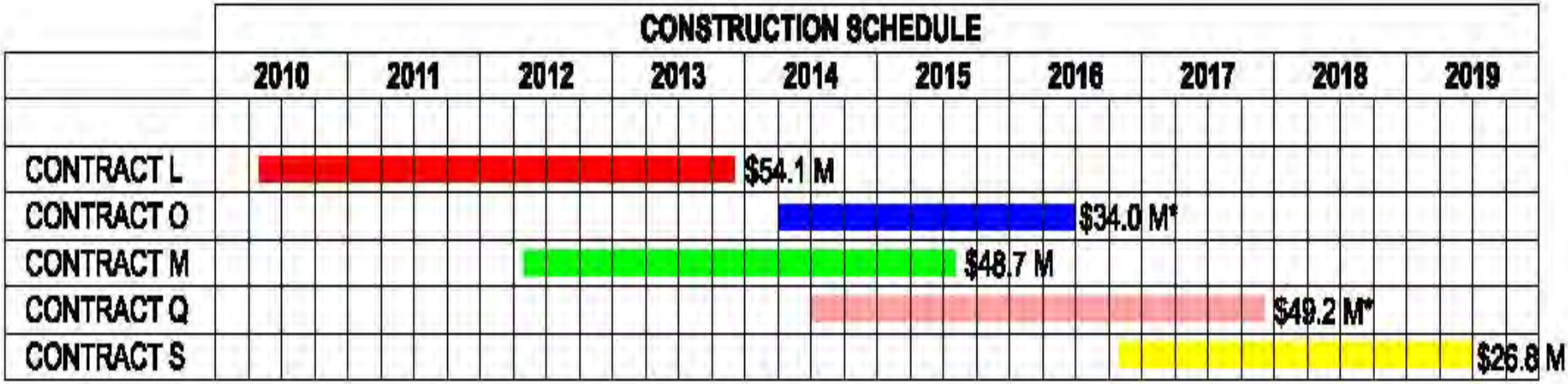


- Construction Contract Breakouts
  - Contract L – SB Little Bay Bridge - $54.1M - Anticipated Construction Completion Fall 2013
  - Contract M – Exits 3 & 4 - $48.7M - Anticipated Construction Completion Summer 2015
  - Contract O – Existing LBB Rehabilitation - $34.0M – Design Ongoing
  - Contract Q – Exit 6, Dover Mainline & Soundwalls - $49.2M - Design Ongoing
  - Contract S – GSB Rehabilitation - $26.8 M - Design Ongoing

Total Construction Cost = $212.8M (2012 Dollars)

Current Contract Breakout & Schedule





* Contract Q & O schedules subject to change

Contract Q

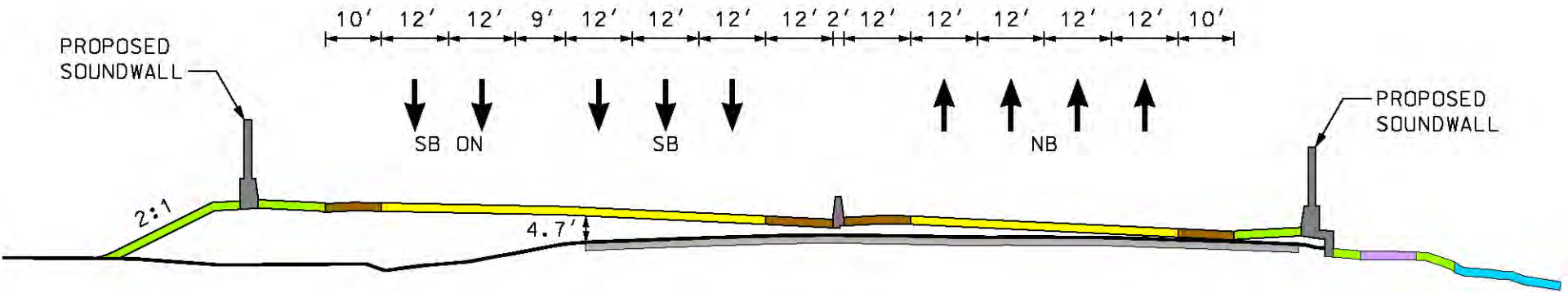
- Provides a Full Service Interchange at Exit 6
- Eliminates Exit 5
- Provides Two-way Connection via Wentworth Terrace
- Introduces 2 Signalized Intersections for Exit 6 Ramps
- Roundabout Replaces Signalized Intersection at Boston Harbor Road
- Constructs 4 Sections of Soundwall – North and South of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

Contract Q

Contract Q- Dover- $49.2 M

- Tentative Advertising Date: July 2014
- Tentative Construction: 2014 - 2017
- Completes and Opens All Spaulding Turnpike Improvements
- Municipal Agreement to be executed & address
  - Sidewalk Maintenance
  - Dover Point Road (East) Reclassification
  - Municipal Workzone Agreement

Contract Q
Spaulding Turnpike Cross Section

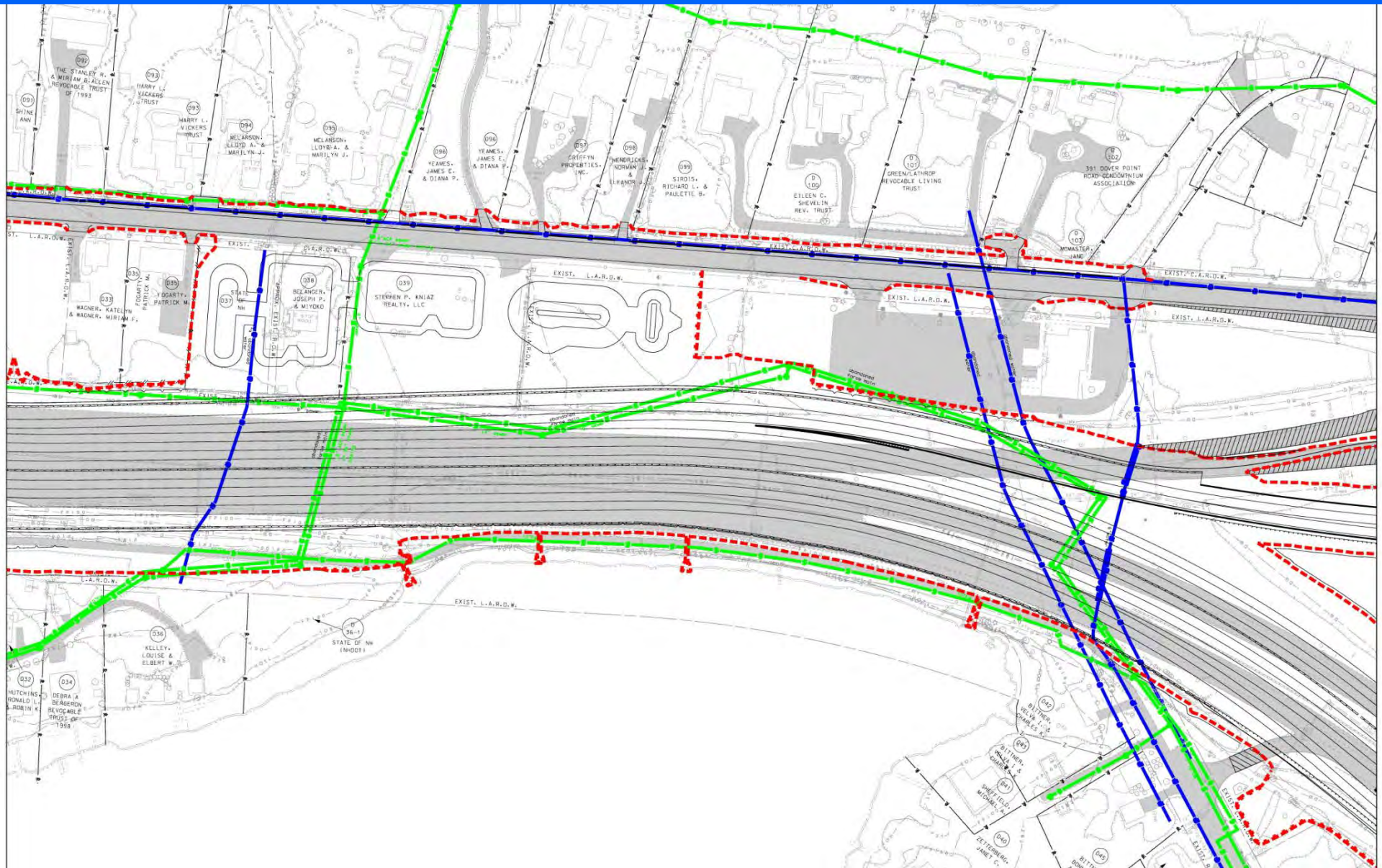


- 40’ of Spaulding Turnpike Widening
- SB Raise in Elevation
- Soundwalls along NB and SB
- Pomeroy Cove Paved Pathway (Paved and 10’ wide) is Maintained

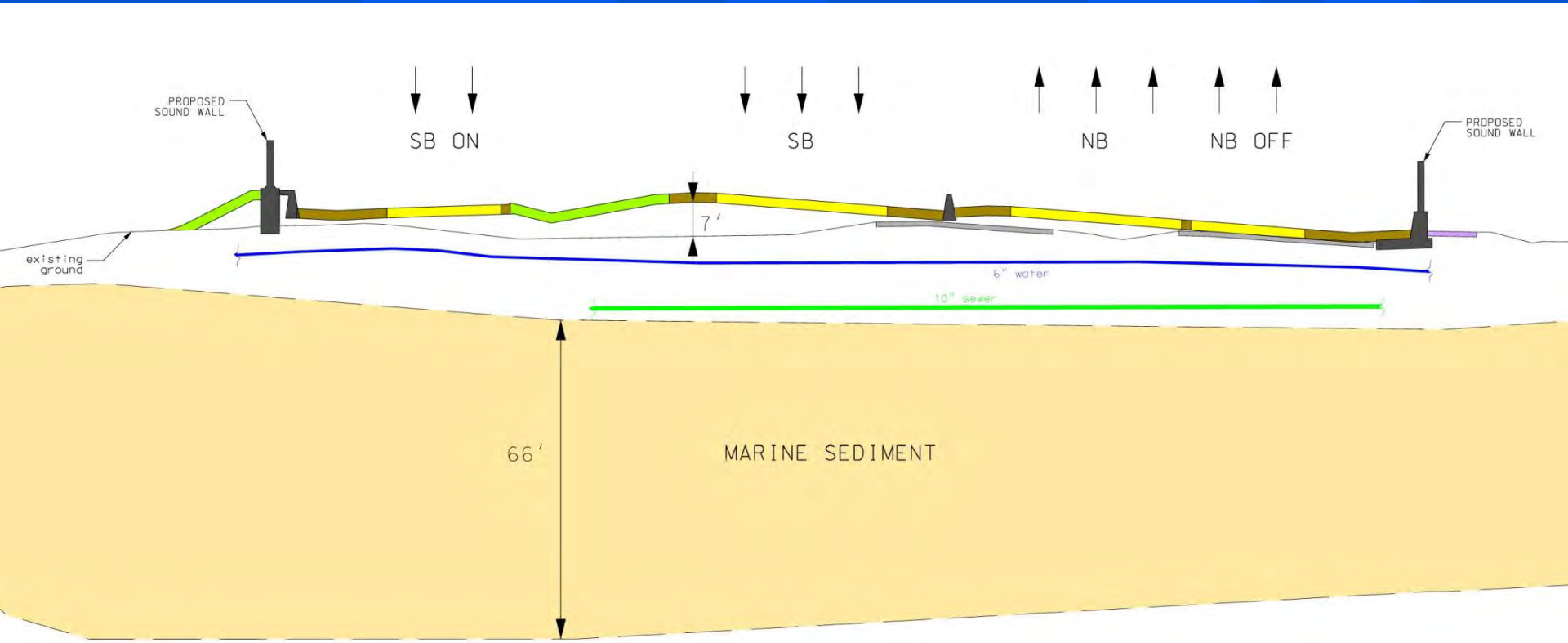
Dover Point Road (West) Sidewalk Extention Meeting April 9, 2013

Contract Q
City Water & Sewer Utilities

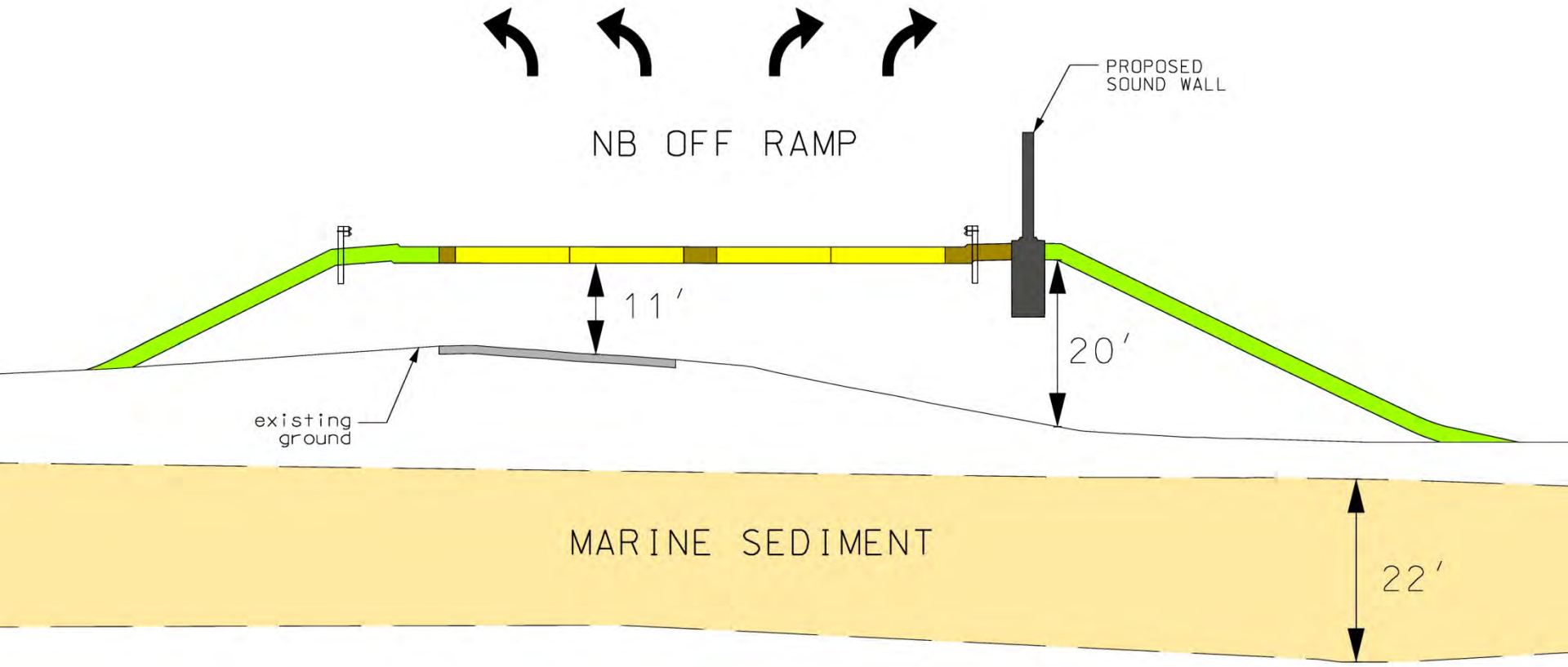
City Utility Impact Plan



Cross Section
Just North of Pomeroy Cove



Cross Section
NB Off Ramp



Utility Design Process

WATER AND SEWER – Evaluation completed to date

- NHDOT determine existing pipe locations, sizes & type
- City review and confirm
- Review existing locations with proposed roadway design
- Modify roadway design to minimize impacts
- NHDOT request utility relocation designs to be 60% complete by August 1, 2013

Utility Design Process (cont'd)

WATER AND SEWER – Remaining efforts

- NHDOT & City confirm reimbursement
- Anticipated Water & Sewer Relocation Design Process
  - Design Study of options
  - Receive geotechnical settlement and lateral movement information from NHDOT
  - Review of options with NHDOT and other utilities
  - Select preferred option
  - Final design and geotechnical engineering
  - Coordination with NHDOT and complete design

Utility Construction

WATER & SEWER

- OPTION 1 - City hires contractor directly to construct in coordination with NHDOT contractor
  - Encroachment Agreement necessary
- OPTION 2 - City requests water and sewer construction to be included within NHDOT construction contract
- Use and Occupancy Permit required for final location of water & sewer

Utility Reimbursement Process

WATER & SEWER

- CASE 1 - City utilities within City owned right-of-way, utility easement or pre-dating state roadway - Full design and construction reimbursement
- CASE 2 - City utilities within NHDOT right-of-way through sufferance – No design and limited construction reimbursement
- Force Account Agreements for engineering and construction shall be signed prior to services being eligible for reimbursement

Contract Q Soundwall Locations

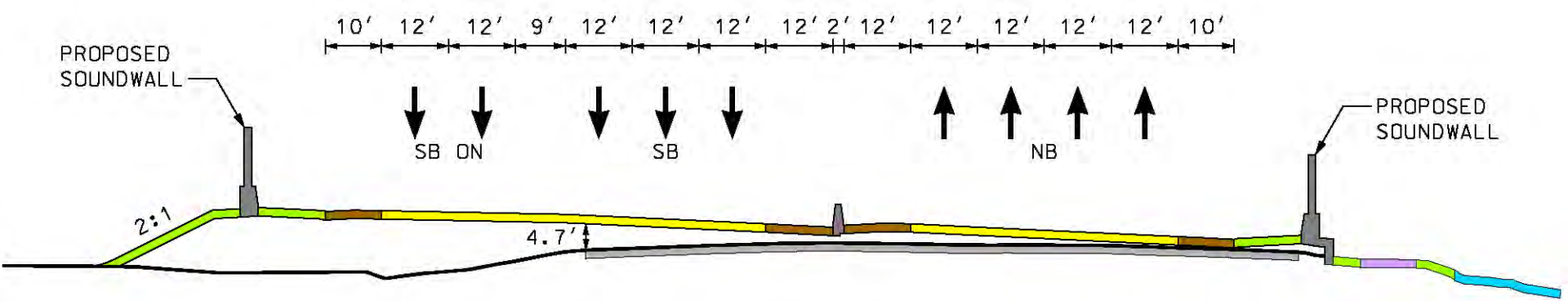
Southbound

- Begins 0.5 miles north of Dover Toll Plaza and ends at Exit 6 SB off ramp
- Begins at the roundabout and continues to Exit 6 SB on ramp and SB turnpike to the Little Bay Bridge

Northbound

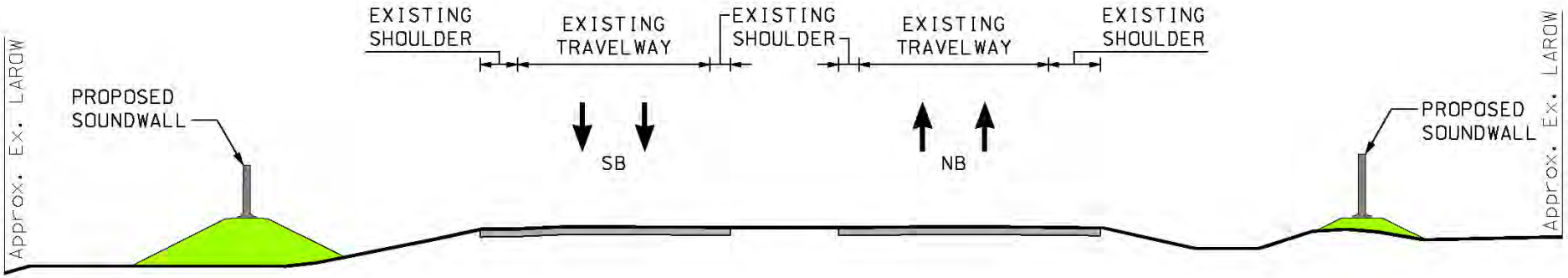
- Begins 1,200’ north of Little Bay Bridge and continues along NB and Exit 6 NB off ramp to the intersection of Dover Point Road (East)
- Begins at the Exit 6 NB on ramp and ends 0.5 miles north of the Dover Toll Plaza

Contract Q
Spaulding Turnpike Cross Section



- 40’ of Spaulding Turnpike Widening
- SB Raise in Elevation
- Soundwalls along NB and SB
- Pomeroy Cove Pathway (Paved and 10’ wide) is Maintained

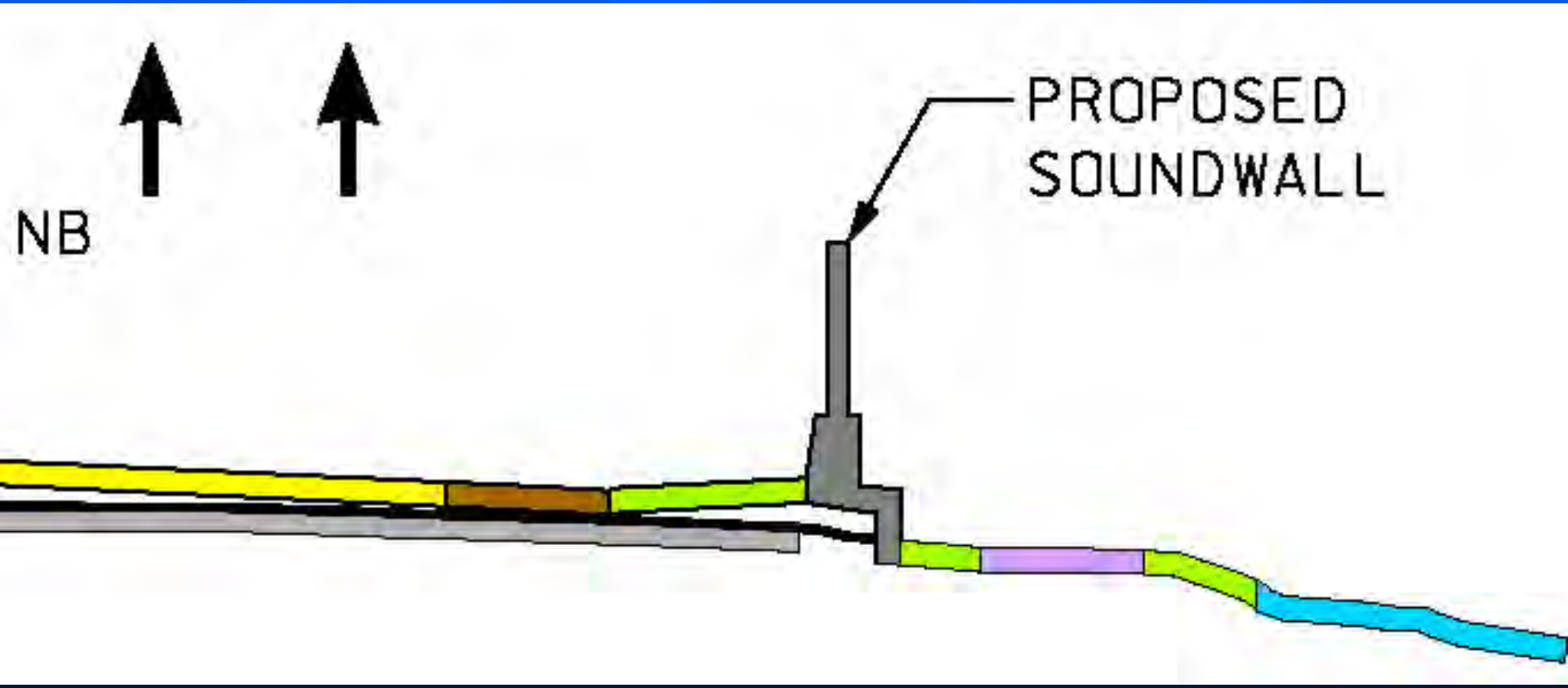
Contract Q
Soundwalls North of Dover Toll Plaza



- No Spaulding Turnpike Work Proposed
- Soundwalls Located Near Right-of-Way to Accommodate Potential Third Lane

Contract Q
Soundwall with Ivy

Pomeroy Cove Cross Section



Contract Q
Translucent Soundwall

Pomeroy Cove - Looking Northwest from Exit 5 On-Ramp

Pomeroy Cove - Looking East from Exit 6 On-Ramp

Looking North Adjacent to Pomeroy Cove

Pomeroy Cove - Looking East from Exit 6 On-Ramp

Contract Q Soundwall

Soundwall Type Study Completed in 2009

- Wood soundwall is NHDOT standard at a cost of approximately $23/sf
- Transparent soundwall costs approximately double the cost of wood at $46/sf

Neighborhood Soundwall Meeting in March 2010

- Transparent soundwall considered along Pomeroy Cove only (1,000 lf)
- Concerns raised include: Headlight glare, graffiti, birds, and discoloration
- Wentworth Terrace residents support wood soundwall

Contract Q Soundwall

2012 Additional Study and Design

- Transparent wall types vary in safety performance and cost
- Department supports high level of safety to protect pedestrians and bicyclists along Pomeroy Cove
- Soundwall with Integrated Fragment Retention System retains fragments from falling
- Crashworthy transparent soundwall costs approximately $115/sf compared to the $30/sf for wood – resulting in an increased cost of $850,000 ($1,150,000 vs $300,000)

Crashworthy Soundwall

Contract Q Soundwall

Selection Considerations

- Safety concern
- Cost differential for crashworthy transparent wall is almost 4 times that of wood
- Wentworth Terrace Neighborhood supports wood soundwall
- NHDOT currently supporting wood soundwall

Upcoming Meetings

- Dover Point Road (West) Sidewalk Extention Meeting – April 9th
  - Start Time: 4:30
  - Location: Newick's Restaurant
- Public Informational Meeting – May, 2013
  - Start Time: TBD
  - Location: Dover City Hall

Contact Information

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THANK YOU

Questions/Comments