Introductions

- Office of Governor Andrew Cuomo
- New York State Department of Transportation
- New York State Department of Environmental Conservation
- General Contractors Association
- American Council of Engineering Companies
Project Introduction
Project Location

- Kennedy Airport
- LaGuardia Airport
- Brooklyn
- Battery Tunnel
- Brooklyn Bridge
- Manhattan Bridge
- Kosciuszko Bridge
- Queens
- Williamsburg Bridge
- Midtown Tunnel
- Long Expwy
- Grand Central Pkwy
- Tri-Boro Bridge
- Gowanus Expwy
- Belt Pkwy
- Verrazano Bridge
- SIE
Project Limits

Brooklyn

Queens

New Calvary Cemetery

Old Calvary Cemetery

Newtown Creek

Project Limit
Project Limits

Brooklyn Connector
L = 1750 ft

Brooklyn Approach
L = 1560 ft

Queens Approach
L = 1670 ft

Main Span
L = 300 ft

Queens Connector
L = 250 feet

Old Calvary Cemetery
Newtown Creek
Project Limits
Purpose and Need
Need for the Project

Addresses three (3) primary problems associated with the existing bridge:

- Structural Conditions
- Traffic Safety
- Traffic Congestion
Need for the Project - Structural

Fatigue Cracking on Structural Steel
Need for the Project - Structural

Local Failures on Concrete Roadway
Need for the Project - Safety

- Non-Standard grades on Approaches
- Non-Standard vertical stopping sight distance on Main Span
- Non-Standard merge lengths at entrance ramps
- Non-Standard shoulder widths on Main Span & Approaches
- Narrow lane widths on Main Span
- Accident rate as much as 6 times the New York state average
Need for the Project - Operations

• Severe traffic congestion throughout much of the day (LOS E and F)
  - Brooklyn-Queens Expressway (BQE)
  - BQE Entrance & Exit Ramps
  - Meeker Avenue & local streets

• Conditions projected to worsen in future
  - Slower average speeds
  - Longer delays
Project History/Background
Notice of Intent – April 2002
EIS Studies (2004-2006)
Draft EIS – March 2007
Final EIS – December 2008
ROD – March 2009
Reevaluation – June 2011
Environmental Review Process

- FHWA approved Bridge Replacement Alternative (BR-5) as the selected alternative
- Granted NYSDOT authorization to proceed with Final Design
- Consultant team designated to progress Final Design
- Developed to 40% level
Project Scope
Proposed Sequencing – Phase 1

Construct new EB Main Span & Approaches on eastbound side of existing bridge
Proposed Sequencing – Phase 2

Construct new EB Connectors
Proposed Sequencing – Phase 2
Construct new WB Connectors and shift all traffic off existing bridge
Propose Sequencing – Phase 3
Demolish existing bridge
Proposed Sequencing – Phase 4

Construct new WB Main Span & Approaches within footprint of existing bridge
Street & Utility Relocations

- Sewers (NYCDEP)
- Water (NYCDEP)
- Fire hydrants (FDNY)
- Gas (National Grid)
- Electrical (Con Edison)
- Telephone (Verizon)
- Cable TV (RCN & Time Warner)
- Fuel (Buckeye Pipeline)
Right-of-Way Acquisitions

• NYSDOT has acquired all private properties required for the project
• Anticipated all remaining tenants to be relocated by Fall
• Buildings to be demolished – Phase 1
• Acquisition of easements over city streets is ongoing
Contaminated Materials

- Contaminated soil & groundwater throughout project limits
- Historic use of properties over the past century
- Mostly non-hazardous levels
- There are several areas of particular concern
NYSDEC Hazardous Waste Site
Underground Oil Plume
Chlorinated Solvent Plume
Remediation

- Soil Management Plan
- Groundwater Management Plan
- Community Air Monitoring Plan
- Health and Safety Plan (HASP)
- Safety Protocols for handling & disposal of contaminants (federal & state regulations)
Community Enhancements

- Bikeway/walkway on new WB structure
- Reconstruction & expansion of Sgt. Dougherty Playground in Brooklyn
- Creation of new parks & open space in both Brooklyn and Queens
- Streetscaping improvements on local streets adjacent to bridge
Structure Types
Connectors – Selection Criteria

- Minimize Construction Cost
- Minimize Life Cycle Requirements
- Minimize Community Impacts
  - Material delivery (trucks)
  - Construction duration
- Maintain Horizontal & Vertical Clearances
Connectors – Options

Structure types considered:

- Steel Girders
- Prestressed Concrete Girders (AASHTO Beams & Bulb-Tee Girders)
- Retained Earth (M.S.E.S. Walls)
- Expanded Polystyrene (EPS) Fill
Approaches

New Calvary Cemetery

Calvary Cemetery

Newtown Creek
Approaches – Selection Criteria

- Construction Cost
- Life Cycle Requirements
- Construction Duration
- Constructability
- Contaminated Soils
- Groundwater
- Community Impacts / Material Delivery
Approaches – Options

Structure Types Considered:
- Northeast Bulb Tee
- Steel Box Girder
- Concrete Segmental Box Girder
Main Span – Selection Criteria

- Construction Cost
- Life Cycle Costs
- Construction Duration
- Construction Complexity
- Avian Impacts
- Contaminated Soils & Groundwater
- Community Impacts
- Aesthetics
- Public Input
Main Span – Deck Arch
Main Span – Through Arch
Main Span – Cabled-Stayed
Design-Build Procurement
Proposed DB Contract

• NYSDOT accelerating as a “Design-Build” project under NY Works Program
• Combining Phases 1, 2 and 3 into a single Design-Build contract
• Phase 4 to be an option in RFQ
Proposed DB Project

- Phase 1 – Construct new E/B Main Span & Approaches
- Phase 2 – Construct new Queens & Brooklyn Connectors
- Phase 3 – Demolish existing bridge
- Phase 4 – Construct new W/B Main Span & Approaches
Anticipated DB Schedule

RFQ – Summer 2012
RFP – Fall 2012
Selection – Early 2013
Construction – Spring 2013
Design-Build Procurement

- Contract type – fixed price, lump sum contract
- Basis of selection – Best Value (as defined by DB Procedures Manual)
- Two-step process:
  - RFQ (determine Short-List)
  - RFP (make selection)
- Considering payment of stipend
Possible RFP Evaluation Criteria

- Financial Qualifications
- Legal Qualifications
- Experience & Qualifications of Team and Key Personnel
- Past Projects & Experience
- Proposed Cost & Schedule
- Technical Solutions
Possible RFP Evaluation Criteria

- Project Understanding
- DBE Compliance
- Environmental Compliance/Sensitivity (natural and socio-economic)
Anticipated Role of NYSDOT

• Contract procurement & administration
• Prepare RFQ & evaluate SOQs
• Determine Short-List
• Prepare RFP & evaluate Proposals
• Make Selection
• Independent Quality Assurance
• Right-of-Way acquisitions
Permit\Approval Coordination

- US Coast Guard Bridge Permit
- US Army Corps of Engineers Nationwide Permit No. 15
- NYSDEC Section 401 Water Quality Certification
- NYSDEC Tidal Wetlands Permit
- NYSDEC Excavation & Fill in Navigable Waters Permit
Permit Approval Coordination

- NYSDEC SPDES General & Individual Permits
- NYSDEC Long Island Wells Permit
- NYSDOS Coastal Zone Consistency
- NYCDCP Waterfront Revitalization Program Consistency
- NYCDOT Work Permit
NYSDOT has begun process to set the DBE % goal for Design-Build Contract

Establish DBE % goal in bid documents
Available Information

• Final EIS
• Record of Decision (ROD)
• Reevaluation Statement
• Structure Justification Reports (SJRss)
• Preliminary Structure Plans
• 40% plan set including Civil Plans
• Updated Cost Estimates
• Value Engineering Study
Available Information

• Preliminary Geotechnical Investigation Report
• Asbestos Assessment and Design Reports for buildings & bridge
• Contaminated Soils Investigation Report
• Hydrology/Hydraulics Analysis Report
• Right-of-Way Plans