NJTPA 2016 Local Concept Development Study Bergen & Essex Counties Kingsland Avenue Bridge over the Passaic River



Public Information Center





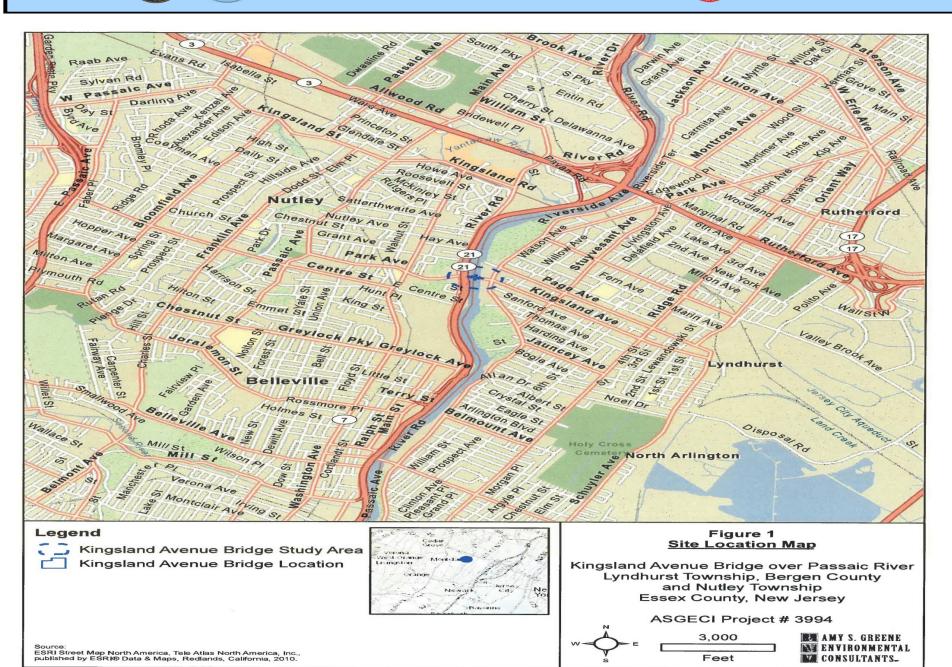






Project Site Location Map

U.S. Department of Transportation
Federal Highway
Administration



Project Overview and Background

- Bridge Spans the Passaic River connecting the Townships of Nutley & Lyndhurst
- Kingsland Avenue Bridge was built in 1905.
- Bridge is in need of major rehabilitation or replacement.
- Routine maintenance can no longer address deficiencies.
- NJTPA/Bergen & Essex County Local Concept Development (LCD) Study initiated June 2016 utilizing federal funding
- Local Capital Project Delivery Process provides opportunity to advance this project with public input and agency collaboration.









Local Capital Project Delivery Process

Local Concept Development	Local Preliminary Engineering	Final Design/ Right of Way Acquisition	Construction
Data Collection Purpose and Need Statement	Approved Design Exception Report	Construction Contract Documents and PS&E package	Complete Construction
Concept Development & Alternatives Analyses	Cost Estimates (Final Design, ROW and Construction)	Environmental Reevaluations	Continue Public Outreach
Selection of Preliminary Preferred Alternative	Approved Environmental Document	Secure Environmental Permits	As-Builts
Environmental Screening Report & NEPA Classification	Preliminary Design	Acquisition of ROW	Update and Finalize Design Communications Report
Concept Development Report	Preliminary Engineering Report	Final Utility Relocation Schemes	Close-out Documentation
Initiate Public Outreach & Involvement	Continue Public Outreach & Involvement	Continue Public Outreach & Involvement	











Local Concept Development Process

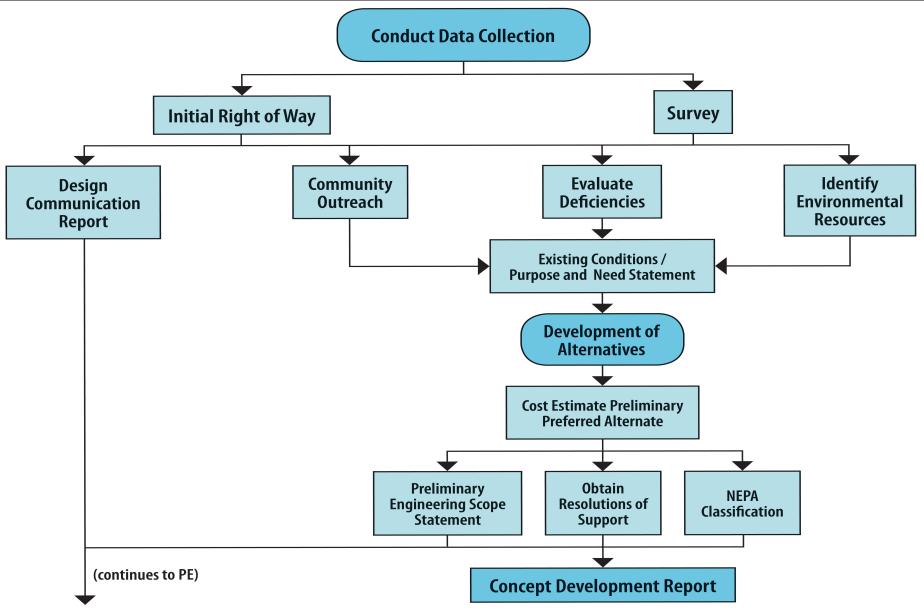












Environmental Process

- Federally funded projects require NEPA (National Environmental Policy Act) documentation
- Identify environmental resources and concerns
- Avoid, minimize and or mitigate environmental impacts
- Coordination with permitting agencies
- Process includes public input and community development









Kingsland Avenue Bridge Data

- Year Built: 1905 (Major rehab. 1986)
- Bridge type: 4 spans- two-span riveted Warren throughtruss rim-bearing swing center span (204 ft), west and east approach steel through pony truss spans (80 ft)
- Overall Length: 364 feet
- Bridge Roadway Width: 29' 3"
- No Shoulders on bridge
- 6 foot wide cantilevered sidewalk on both sides
- Bridge Navigational Vertical Clearance in closed position:
 7 feet (at MHW); Horizontal Clearance = 65 feet









- Bridge in poor overall condition and is Structurally Deficient – (2014 Bridge Re-evaluation Report)
- Sufficiency Rating = 24.3 (out of 100)
- Superstructure in poor condition: Rating = 4 out of 10 (severe corrosion and/or loss of section of below deck truss members, gusset plates, floor beams, and stringers)
- Bridge may soon need to be load posted due to advancing deterioration of steel support members









Existing Bridge Condition (continued)

- Substructure in satisfactory condition Rating = 6 out 10
- Bridge railings are substandard
- Bridge operating machinery in overall fair condition but has only one set of brakes and the span lock machinery has failed (both conditions non-compliant with AASHTO)
- Bridge electrical and control systems are in overall fair condition, although many parts do not conform or are in violation of current standards
- Needs approx. \$ 7.3 M in remedial repairs











Bridge East Approach Roadway Looking West - Note no shoulders



Bridge Opening Looking West at Route 21 & Township of Nutley











West approach to bridge at River Road & Park Avenue intersection



West approach to bridge at intersection with Route 21 ramps & Park Ave.















Bridge Opening Looking East at Township of Lyndhurst











Kingsland Ave & Riverside Avenue intersection looking east



Project Goal: Improve Bicycle Compatibility













Project Goal: Compatibility with Passaic River Waterfront Walkway

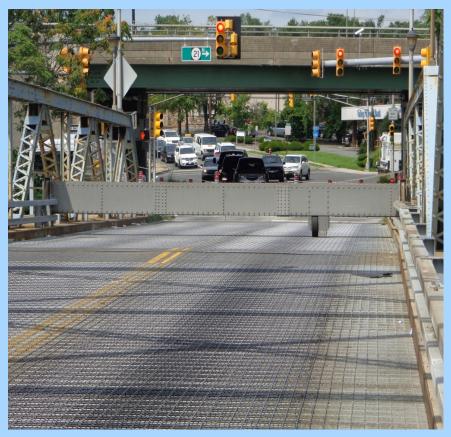
Passaic River Waterfront Walkway looking south











Geometric Constraint for Raising Bridge Roadway Profile: Route 21 Bridge



Route 21 Ramp approaching Park Avenue





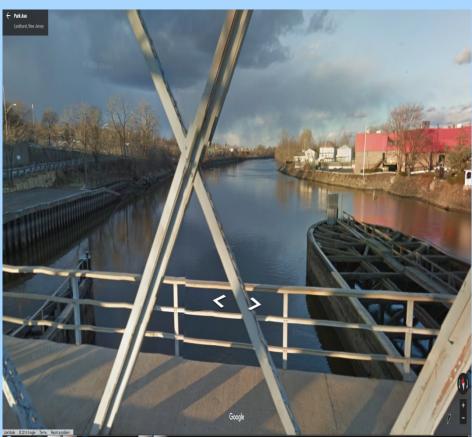




Passaic River Navigation



Bridge Navigation: 7-ft vertical clearance at MHW, 65-ft channel width



Looking upstream from bridge; note boat ramp on west bank









Passaic River Navigation



Looking Downstream from bridge



Looking upstream from boat ramp on west bank

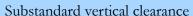














Substandard bridge railing (typical)











Floor beams & stringers of East Approach Span



Moderate to heavy corrosion of stringers in swing span











Severe corrosion of stringers in West Approach Span



Swing Span Center Pivot











Severe corrosion of top of east approach pony truss & deterioration of rivets



Corrosion of west approach pony truss span











Advanced decay through center pier fender system looking upstream



Advanced decay through pier fender system looking downstream









Additional Significant LCD Phase Elements

- Navigation Impact Report for Clay Street, Bridge Street and Kingsland Avenue Bridges
- Entire Completion of Cultural Resources (Section 106)
 Process
- Value Engineering
- Risk Analysis Assessment











Environmental Constraints





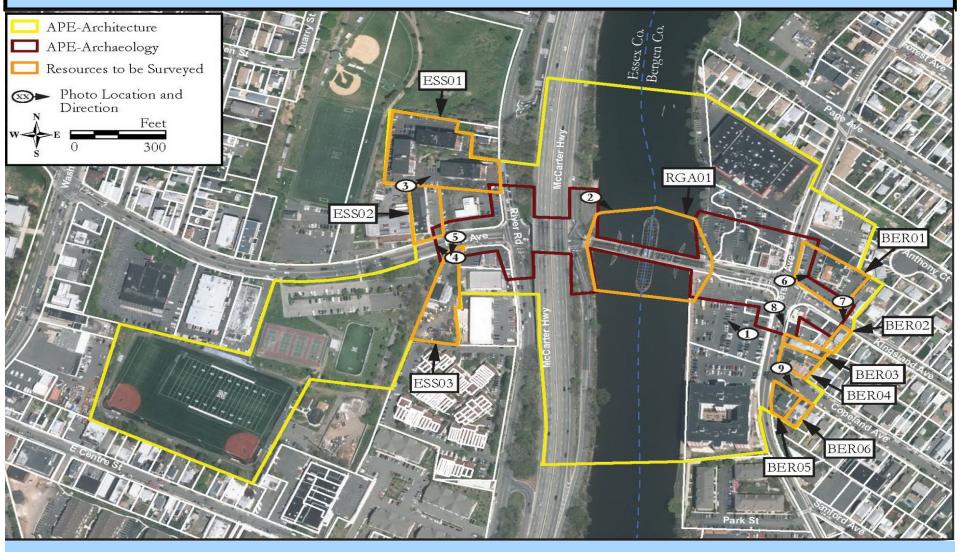








Cultural Resources













Project Status

- Work began June 2016
- Data Collection On-Going
 - 1. Project Mapping & Field Survey
 - 2. Environmental Screening
 - 3. Cultural Resources Study
 - 4. Verification of Utilities
 - 5. Obtain Bridge Inspection Reports, Traffic Data, Crash Data
 - 6. Conduct Traffic Counts & Perform Traffic Analysis
 - 7. Identify Existing Substandard Design Elements
 - 8. Local Officials, Stakeholders and Public Outreach & Input
 - 9. Project Fact Sheet
 - 10. Develop Project Purpose and Need











Project Schedule

- 18 to 21 month completion schedule
- Major Milestones
 - 1. Project Purpose and Need Fall 2016
 - 2. Development of Conceptual Alternatives Winter 2017
 - 3. Determine Preliminary Preferred Alternative (PPA) Fall 2017
 - 4. Submit Draft Concept Development Report Fall 2017
 - 5. Completion of Concept Development Phase Winter 2018











Community Involvement

- Community Involvement Schedule
 - 1. Local Officials Briefings: Project Purpose & Need July 25, 2016 (Twp. of Nutley); July 27, 2016, Twp. of Lyndhurst
 - 2. Stakeholders Meeting No. 1: Purpose & Need Sept. 29, 2016
 - 3. Public Information Center Meetings (No. 1): Project Purpose & Need Oct. 17, 2016 (Townships of Nutley & Lyndhurst)
 - 4. Stakeholders Meeting No. 2: Input on Alternatives Winter/ Spring 2017
 - 5. Local Officials Briefings (No. 2): Input on Alternatives & Determine Preliminary Preferred Alternative Spring/Summer 2017











Community Involvement (continued)

- 6. Public Information Center Meetings (No. 2): Input on Alternatives & Determine Preliminary Preferred Alternative Spring/Summer 2017 (Townships of Nutley & Lyndhurst)
- 7. Local Officials Briefings (No. 3): Obtain Resolution of Support for Preliminary Preferred Alternative (Town of Harrison & City of Newark)











Local Officials Briefings (7/25 & 7/27/16)

Comments from Local Officials Briefings No. 1 (Townships of Nutley & Lyndhurst)

- Need to maintain and improve pedestrian and bicycle access and connectivity
- Need wider bridge for the addition of outside shoulders
- There is heavy traffic congestion on the bridge at peak hours that extends to Park Avenue & Route 21 & Riverside Avenue & Kingsland Avenue
- Results of Navigation Impact Study at Clay Street Bridge will impact any replacement bridge at Kingsland Avenue











Stakeholders Meeting (9/29/16)

Comments from Stakeholders Meeting No. 1

- Need to provide bicycle access and connectivity
- Need wider bridge for emergency vehicle access
- Traffic signals within the project limits not synchronized
- Clay Street, Bridge Street, and Kingsland Avenue Bridge projects should not be constructed concurrently
- Provide interim improvements to relieve traffic congestion













FY 2016 BERGEN COUNTY AND ESSEX COUNTY LOCAL CONCEPT DEVELOPMENT STUDIES

ORGANIZATION CHART







NJTPA PROGRAM MANAGEMENT / PROJECT SPONSOR

PRINCIPAL-IN-CHARGE Glen Schetelich, PE*

CONSTRUCTABILITY REVIEWS Brendan O'Shea, PE*

PROJECT MANAGER Bruce Riegel, PE*

QUALITY ASSURANCE / QUALITY CONTROL

Tom Faranda, PE

TRAFFIC ENGINEERING TEAM LEADER Matthew Witkowksi, PE*

TRAFFIC DATA COLLECTION & CRASH **ANALYSIS**

Matthew Witkowski. PE

TRAFFIC MANAGEMENT STUDIES & OPERATIONAL ANALYSIS

Matthew Witkowski, PE

HIGHWAY LIGHTING ANALYSIS Lee Adams, PE

UTILITY ENGINEERING TEAM LEADER Pankil Patel, PE* (NCG)

UTILITY DISCOVERY & COORDINATION Pankil Patel, PE (NCG)

RISK MANAGEMENT Charlie Geer. PE*

* Denotes resume included in proposal.

SUBCONSULTANT KEY

McCormick Taylor, Inc. (MTI) Naik Consulting Group (NCG) M.A. Culbertson, LLC (MAC) Amy Greene Environmental (ASGEI) Richard Grubb & Assoc., Inc. (RGA) Stokes Creative Group (SCG) Jacobs Engineering Group (JEG)

STRUCTURAL DESIGN TEAM LEADER Robert Supino, PE*

STRUCTURAL ALTERNATIVES

Robert Supino. PE David Gerber, PE

STRUCTURAL EVALUATIONS

Joseph Solis, PE Maria Yap, PE

MECHANICAL / ELECTRICAL DESIGNS Steve Mikucki, PE*

MECHANICAL ENGINEERING

Craig Johnson, PE* John Gimblette, PE

ELECTRICAL ENGINEERING

Alec Noble, PE* Robyn Eisensmith, PE

GEOTECHNICAL TEAM LEADER

Raymond Mankbadi, PE*

SUBSURFACE INVESTIGATIONS

Raymond Mankbadi, PE Yuanzhi Lin, PhD, PE

TEST BORING DRILLER

ROADWAY DESIGN TEAM LEADER Michael Swietanski. PE*

GEOMETRICS / ROADWAY ALTERNATIVES

Brian Medino, PE (Kingsland Avenue)

MAINTENANCE & PROTECTION OF TRAFFIC

Michael Swietanski, PE Jun Liu, PE

HYDRAULICS AND HYDROLOGY TEAM LEADER Lee Adams, PE*

DRAINAGE & STORMWATER MANAGEMENT

Lee Adams, PE

BRIDGE SCOUR ANALYSIS

Lee Adams, PE

SURVEYING / ROW ENGINEERING TEAM LEADER

Richard Baron, PLS* (NCG)

VALUE ENGINEERING ANALYSIS Richard LaRuffa, PE *(JEG)

TECHNICAL SUPPORT SERVICES Interactive Communications - Cost Estimation - Primavera Scheduling - MicroStation CADD

ENVIRONMENTAL SCIENCE TEAM LEADER William Romaine, PWS* (ASGEI)

ENVIRONMENTAL SCREENING

William Romaine, PWS (ASGEI) Robert Piel, Jr. (ASGEI)

WETLANDS DELINEATION

William Romaine, PWS (ASGEI)

CULTURAL RESOURCES

Paul McEachen* (RGA)

ENVIRONMENTAL CONSTRAINTS AND DOCUMENTATION

William Romaine, PWS (ASGEI)

PUBLIC OUTREACH

Martine Culbertson* (MAC)

COMMUNITY INVOLVEMENT

Martine Culbertson (MAC) Bruce Riegel, PE (PE)

PROJECT WEBSITE & SOCIAL MEDIA (TWITTER)

Matthew Touhey * (SCG)

Project Contact Information

- Joseph Baladi, Bergen County Project Manager, <u>ibaladi@bergen.nj.us</u>, (201) 336-6428
- Luis Rodriguez, Essex County Project Manager, lrodriguez@essexcounty.nj.org, (973) 226-8500
- Kingsland Avenue Bridge Project Web Site address:
 - www.KingslandAvenueBridge.com

Power Point Presentation will be posted on Web Site

- Social Media (Twitter)
- Written comments towards Project Purpose & Need will be received until Friday, November 18, 2016









DO YOU USE THE KINGSLAND AVENUE BRIDGE OR PASSAIC RIVER?

Please visit: www.kingslandavenuebridge.com

FIND OUT WHAT KINGSLAND AVENUE BRIDGE LOCAL CONCEPT DEVELOPMENT STUDY IS ALL ABOUT



North Jersey Transportation Planning Authority (NJTPA) Local Concept Development (LCD) Study for Kingsland Avenue (De Jessa Memorial) Bridge Township of Lyndhurst, Bergen County Township of Nutley, Essex County

LOCAL CONCEPT DEVELOPMENT STUDY FOR KINGSLAND AVENUE BRIDGE OVER PASSAIC RIVER

The Kingsland Avenue Bridge is such an important transportation link for so many people in the region and local communities, the NJTPA and Counties would like to encourage everyone to follow, participate and provide input on the bridge study. Please visit the project website and attend public meetings. Community involvement is a vital part of the LCD Study; your participation and comments are welcome.

ESTUDIO DE DESARROLLO DEL CONCEPTO LOCAL DEL PUENTE DE KINGSLAND AVENUE SOBRE EL RÍO PASSAIC

El Puente de Kingsland Avenue es un vínculo de transporte tan importante para tanta gente de la región y de las comunidades locales que la NJTPA y los Condados desean fomentar que todos sigan, participen y proporcionen información para el estudio del puente. Por favor, visite el sitio web del proyecto y asista a las reuniones públicas. La participación de la comunidad es una parte vital del Estudio de Desarrollo del Concepto Local (LCD); su participación y sus comentarios serán bien recibidos.











Questions









