

NJTPA 2014 Local Concept Development Study Hudson & Essex Counties Clay Street Bridge over the Passaic River



Public Information Center

PROJECT STATUS

- Study Began January 2014
- Data collection completed Spring 2014
- Developed Project Purpose & Need Statement July 2014
- Developed Alternative Concepts, presented to Project Stakeholders – October/November 2014
- Evaluated Alternatives & Impacts (ROW, Environmental, Costs, etc.) – Fall 2014/Winter 2015
- Coordination with Regulatory Agencies – March/April 2015
- Selected Preliminary Preferred Alternative - May 2015



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Project Overview and Background

- Clay Street Bridge was built in 1908.
- Bridge is in need of major rehabilitation or replacement.
- Routine maintenance can no longer address deficiencies.
- NJTPA/Hudson & Essex County Local Concept Development (LCD) Study initiated January 2014.
- Federally funded process, requires NEPA documentation
- Delivery Process provides opportunity to advance projects with extensive public input and Regulatory Agency collaboration.



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Local Project Delivery Process

Local Concept Development	Local Preliminary Engineering	Final Design/ Right of Way Acquisition	Construction
Purpose and Need Statement	Approved Design Exception Report	Construction Contract Documents and PS&E package	Completed Construction
Data Collection and Environmental Screening Report	Cost Estimates (Final Design, ROW and Construction)	Environmental Reevaluations	As-Builts
Selection of Preliminary Preferred Alternative	Approved Environmental Document	Environmental Permits	Update and Finalize Design Communications Report
NEPA Classification	Approved Project Plan	Acquisition of ROW	Close-out Documentation
Concept Development Report	Preliminary Engineering Report	Update Design Communications Report	
Create Design Communications Report	Update Design Communications Report		

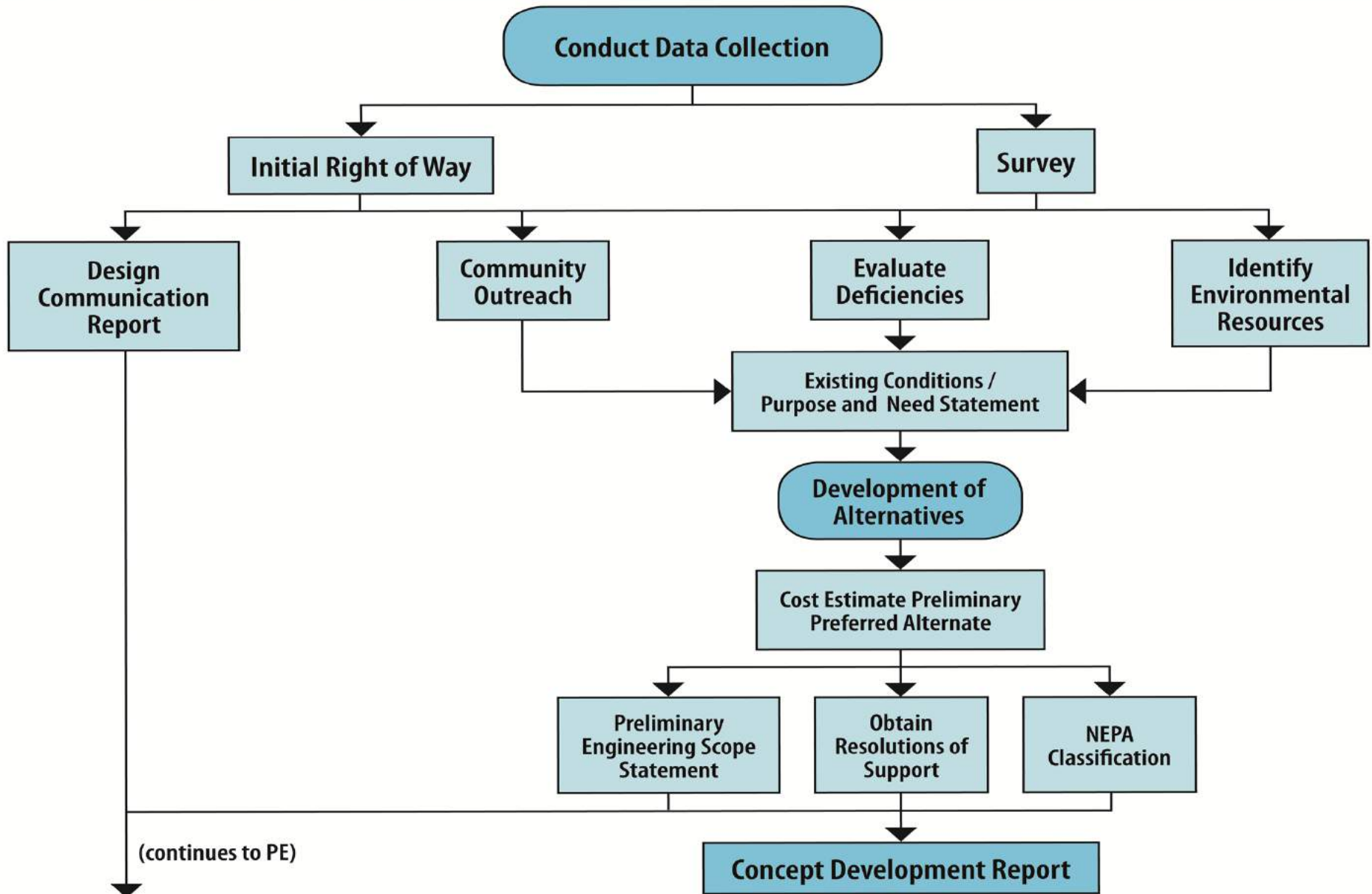


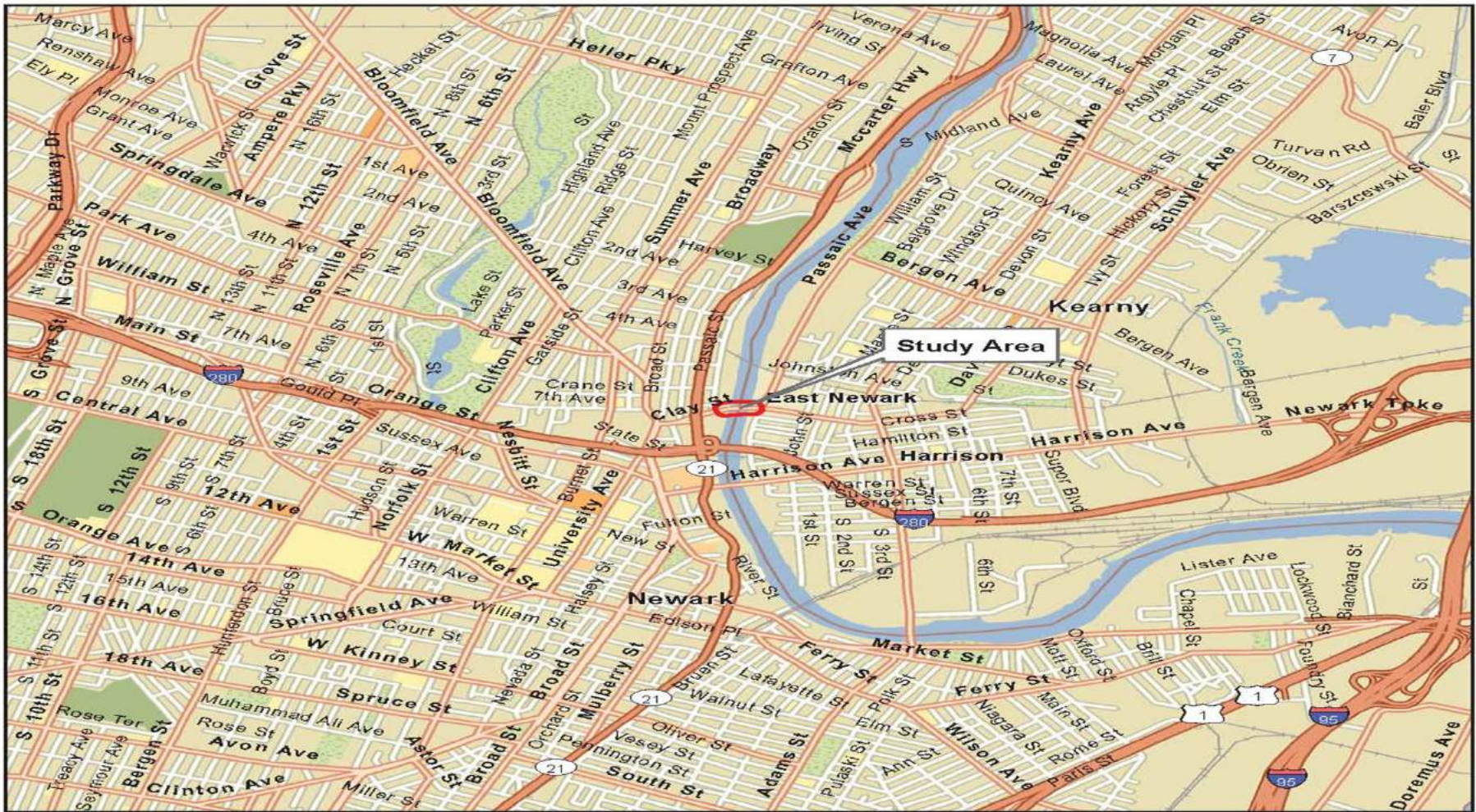
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Local Concept Development Process



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Legend

 Clay St. Bridge Study Area



**Figure 1
Site Location Map**

FY 2014 Local Concept
Development Studies
Hudson County Bridge
(Structure # 0700-H01)
Clay Street over the Passaic River
Borough of East Newark, Hudson County &
City of Newark, Essex County, New Jersey

ASGECI Project # 3640



3,000
Feet

**AMY S. GREENE
ENVIRONMENTAL
CONSULTANTS-**

Source:
ESRI Street Map North America, Tele Atlas North America, Inc.,
published by ESRI@Data & Maps, Redlands, California, 2010.

Clay Street Bridge Data

- Spans the Passaic River connecting the City of Newark and the Borough of East Newark
- Located at River Mile 6.0
- ADT = 12,747 (2014), Truck % = 4.1
- Year Built: 1908 (rehab. 1942, 1958, 1975, 1992, & 1997)
- Overall Bridge Length = 328 feet
- Width = 59'-11" (two 18'-4" lanes & 9'-2" sidewalks)
- Bridge type: 3 spans- with a riveted Warren truss rim-bearing swing center span (236 ft)



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Clay Street Bridge Data

- Bottom chords of thru-truss are fracture critical members
- Bridge Opens On-Call (4 hours advance notice)
- Bridge Clearance in closed position = 8.2' (at MHW)
- Detour Length = 1 mile



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Bridge Opening Logs

Clay St Bridge (RM 6.1) & Rt. 7 (Bellville Tpk) Bridge RM 8.9)

<u>Year</u>	<u>Clay Street # Openings</u>	<u>Route 7 # Openings</u>
2009	36	0
2010	26	0
2011	4	116
2012	5	58
2013	34	56
2014	24	53
2015*	0	0

*January through March

- **Openings were primarily for dredging operations and river clean-up**
- **Recent dredging work (Lyndhurst) completed by Great Lakes Bridge & Dock, LLC used standard height tugs with flat top barges with excavators on top – operations required no openings for I-280 Stickle Bridge**
- **Current primary users of river between the two bridges are recreational scull boats and kayaks**



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Bridge Project Area & Constraints



Photo 1: Bridge Approach Roadway Looking East – note substandard angle point



Photo 2: Looking west from bridge – note substandard outside shoulder width

Bridge Project Area & Constraints



Photo 3: East approach to bridge looking east



Photo 4: Looking downstream from bridge – I-280 Stickle Bridge in background



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Bridge Project Area & Constraints



Photo 5: South Elevation



Photo 6: Looking upstream from bridge



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StructNum: 0700H01

NJDOT SI and A Sheet

Name: CLAY STREET OVER PASSAIC RIVER **S.R.:** 33.0 **SD/FO-** 1 -Structurally Defici..

<p style="text-align: center;">IDENTIFICATION</p> <p>1 State: 34 New Jersey 8 Struc Num: 0700H01 7 Facility Carried: CLAY STREET 9 Location: 0.25 MI N OF I-280</p> <p>5A Rte (On/Under): Route On Structure 5B Rte. Signing Prefix: 5 -City Street 5C Level of Service: 1 -Mainline 5D Rte. Number: 00000 6E Directional Suffix: 0- Not Applicable % Responsibility: NA 2 SHD District: 01- North 3 County Code: Essex 4 Place Code: Newark, Essex 11 Mile Post: 0.000 mi</p> <p>6 Feature Intersected: PASSAIC RIVER 16 Latitude: 40d 45' 03.93" 17 Longitude: 074d 09' 56.97" 98 Border Bridge Code: -1 Unknown (P) 99 Border Bridge Number: NA</p>	<p style="text-align: center;">INSPECTION</p> <p>91 Frequency: 24 months 90 Inspection Date: 11/28/2012 Next Inspection: 11/28/2014 92A FC Frequency: 24 months 93A FC Inspection Date: 11/28/2012 Next FC Inspection: 11/28/2014 92B UW Frequency: 24 months 93B UW Inspection Date: 5/7/2013 Next UW Inspection: 5/7/2015 92C SI Frequency: 12 months 93C SI Date: 11/28/2012 Next SI: 11/28/2013 Element Frequency: 24 months Element Inspection Date: 11/28/2012 Next Elem. Insp. Due: 11/28/2014</p>
<p style="text-align: center;">STRUCTURE TYPE AND MATERIALS</p> <p>46 Number of Approach Spans: 2 45 Number of Spans Main Unit: 2 43A/B Main Span Material/Design: 3 -Steel 17 -Movable-Swing 44A/B Approach Span Material/Design: - 20 -Mixed types</p> <p>107 Deck Type: 1- Conc -Cast-in-Place 108A Wearing Surface: 1 -Monolithic Concrete 108B Membrane: 0- None 108C Deck Protection: 1- Epoxy Coated Reinfor.</p>	<p style="text-align: center;">CLASSIFICATION</p> <p>100 STRAHNET Highway: 0 -Not a STRAHNET hwy 101 Parallel Structure: N -No bridge exists 102 Direction of Traffic: 2 -2-way traffic 103 Temporary Structure: -1 104 Highway System: 0 -Not on NHS 112 NBIS Length: Y - Long Enough 20 Toll Facility: 3 -On free road 26 Functional Class: 16- Urban Minor Arterial 37 Historical Significance: 2 -Eligible for NRHP 22 Owner: 02 County Hwy Agency 21 Custodian: 02 County Hwy Agency</p>
<p style="text-align: center;">AGE AND SERVICE</p> <p>27 Year Built: 1908 106 Year Reconstructed: 1976 42A Type of Service On: 5 -Highway-pedestrian 42B Type of Service Under: 5 -Waterway 28A Lanes on: 2 28B Lanes Under: 0 19 Detour Length: 1.0 mi 29 ADT: 23,000 109 Truck ADT: 4 % 30 Year of ADT: 2012</p>	<p style="text-align: center;">CONDITION</p> <p>58 Deck: 6 -Satisfactory 59 Super: 3 -Serious 60 Sub: 5 -Fair 62 Culvert: N -Not applicable 61 Channel/Channel Protection: 4 -Protection Undermined</p>
<p style="text-align: center;">GEOMETRIC DATA</p> <p>48 Length Max Span: 118.0 ft 49 Structure Length: 328.0 ft 50A Curb/Sdwk Width L: 8.0 ft 50B Curb/Sidewalk Width R: 8.0 ft Width Curb to Curb 51: 36.6 ft 52 Width Out to Out: 39.5 ft 32 Approach Roadway Width: 38 ft 33 Median: 0 No median (w/ shoulders) Deck Area: 12,959.7 sq. ft 34 Skew: 0.00 ° 35 Structure Flared: 0 -No flare 53 Minimum Vertical Clearance Over Bridge: 16.5 ft 54A Minimum Vertical Underclearance Reference: N -Feature not hwy or RR 54B Minimum Vertical Underclearance: 0.00 ft 55A Minimum Lateral Underclearance Reference R: N -Feature not hwy or RR 55B Minimum Lateral Underclearance R: 0.00 ft 56 Minimum Lateral Underclearance L: 0.00 ft</p>	<p style="text-align: center;">LOAD RATING AND POSTING</p> <p>65 Inventory Rating Method: 1 -LF Load Factor 63 Operating Rating Method: 1 -LF Load Factor 66 Inventory Rating: HS20.0 64 Operating Rating: HS34.0 31 Design Load: 0 -Unknown 70 Posting: 5 -At/Above Legal Loads 41 Posting status: A -Open, no restriction</p>
<p style="text-align: center;">PROPOSED IMPROVEMENTS</p> <p>94 Bridge Cost: \$54,000 75 Type of Work: 38 95 Roadway Cost: \$1,000 76 Length of Improvement: 236 ft 96 Total Cost: \$73,000 114 Future ADT: 28,000 97 Year of Cost Estimate: 2012 115 Year of Future ADT: 2032</p>	<p style="text-align: center;">APPRAISAL</p> <p>36A Bridge Rail: 0 -Substandard 36C Approach Rail: N -N/A or not required 36B Transition: N -N/A or not required 36D Approach Rail Ends: N -N/A or not required 67 Str. Evaluation: 3 68 Deck Geometry: 4 Tolerable 69 Underclearance, Vertical and Horizontal: N -Not applicable 71 Waterway Adequacy: 9 -Above Desirable 72 Approach Alignment: 6 -Equal Min Criteria 113 Scour Critical: 3 -SC - Unstable</p>
<p style="text-align: center;">NAVIGATION DATA</p> <p>38 Navigation Control: 1 1 -Permit Required 39 Vertical Clearance: 7.0 ft 40 Horizontal Clearance: 75.0 ft 111 Pier Protection: 3 -In-Place, Deteriorated 116 Lift Bridge Vertical Clearance:</p>	

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
0	26/4	Conc Deck/Coatd Bars	(SF)	12,956	100 %	12,956	0 %	0	0 %	0	0 %	0	0 %	0
0	104/4	P/S Conc Box Girder	(LF)	790	100 %	788	0 %	2	0 %	0	0 %	0	0 %	0
0	107/4	Paint Stl Opn Girder	(LF)	170	0 %	0	59 %	100	38 %	65	3 %	5	0 %	0
0	113/4	Paint Stl Stringer	(LF)	5,544	55 %	3,056	35 %	1,930	10 %	550	0 %	0	0 %	8
0	121/4	P/Stl Thru Truss/Bot	(LF)	472	0 %	0	85 %	400	11 %	52	3 %	15	1 %	5
0	126/4	P/Stl Thru Truss/Top	(LF)	472	0 %	0	58 %	272	32 %	150	8 %	38	3 %	12

Existing Bridge Condition

2012 Bridge Reevaluation Report – Cycle 13

- Bridge in serious overall condition and is Structurally Deficient
- Sufficiency Rating = 33.0 (out of 100)
- Superstructure in serious condition: Rating = 3 out of 10 (localized advanced material losses to steel truss members and to girders & floor beams in swing span)
- Deck = 6 out of 10 (Satisfactory) – isolated spalls in underside
- Substructure = 5 out of 10 (Fair) – spalls in west abutment
- Channel Protection = 4 out of 10 (Poor) – failed bulkhead at SW channel embankment



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Existing Bridge Condition (continued)

- Structure is classified as scour critical
- Bridge is susceptible to seismic forces and does not meet current seismic design criteria
- Mechanical Inspection Report – span drive machinery in fair condition
- Electrical System – fair to poor condition
- Bridge opening duration (10 minutes) does not meet AASHTO standards (1 minute to both open and close)
- Needs approx. \$ 6M in remedial repairs



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Existing Bridge Condition



Photo 7: South truss bottom chord , severe deterioration to gusset plate, heavy rust throughout connection



Photo 8: South truss gusset plate, severe rust with section loss

Existing Bridge Condition

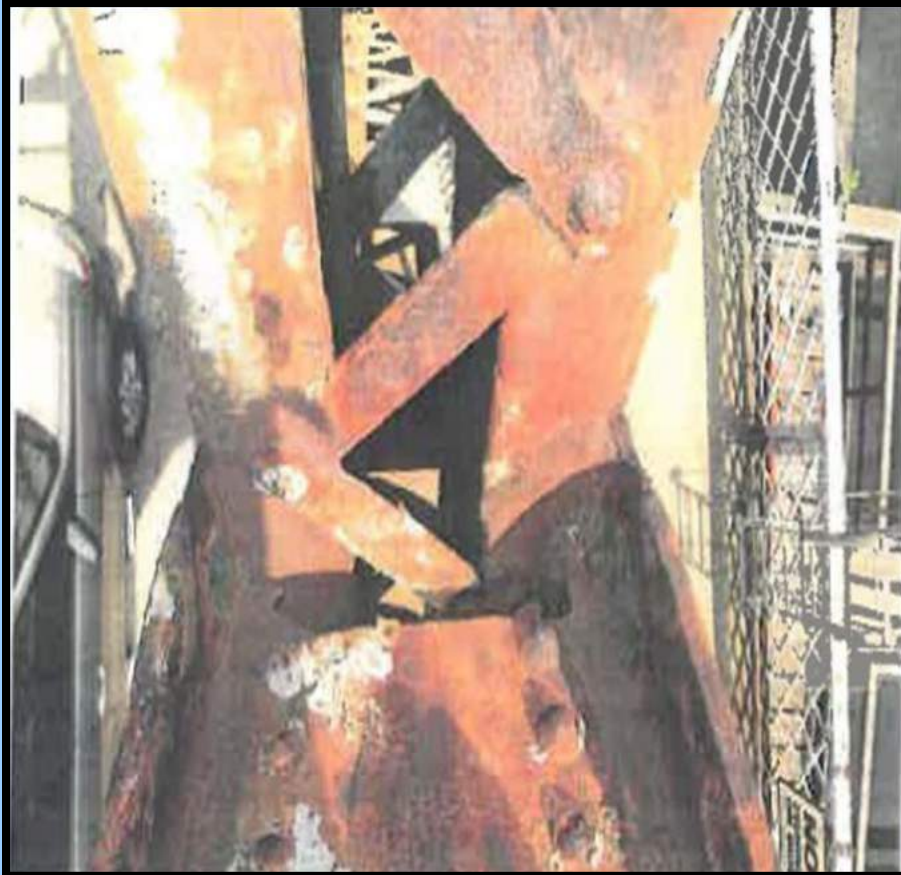


Photo 11: South truss connection, material loss to member angles connection plates, and lacing bars



Photo 12: North truss; section loss in angle leg of member

Existing Bridge Condition



Photo 13: Localized rusting and material loss to top chords and diagonal truss members



Photo 14: Bottom chord of south truss –severe rusting and localized section loss

Existing Bridge Condition



Photo 15: Severe rusting and hole in bottom flange angle leg of floor beam (FB12) of swing span

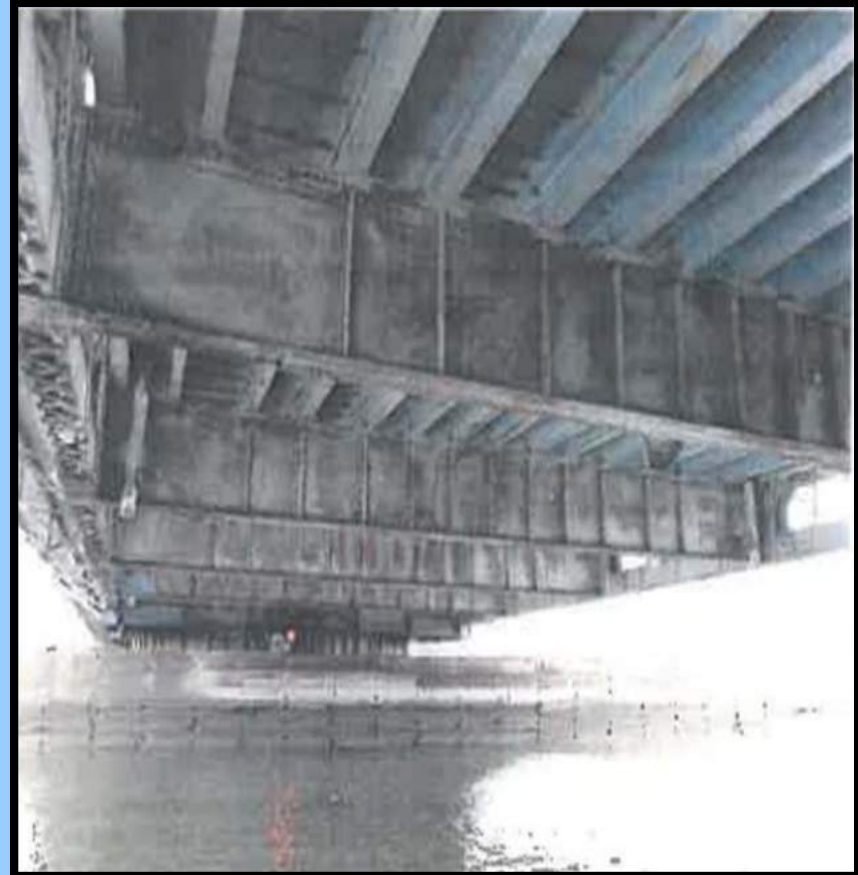


Photo 16: Floor beams in west half of swing span – corrosion and localized section losses

Existing Bridge Condition



Photo 17: Section loss in bottom of support girder in swing span



Photo 18: Severe rusting and localized section loss of steel stringers supporting sidewalk in swing span

Existing Bridge Condition



Photo 19: Hole in exterior girder of west approach span



Photo 20: Rusting and localized section loss in girders and floor beams of west approach span

Existing Bridge Condition



Photo 21: East approach span and east abutment



Photo 22: East approach span superstructure (pre-stressed concrete box beam)

Existing Bridge Condition



Photo 23: Northwest approach embankment undermining



Photo 24: Undermining of south interior girder at west abutment

Existing Bridge Condition



Photo 25: Rim bearing assembly of swing span – fair condition with corrosion build on exposed surfaces



Photo 26: Swing span drum girders and machinery radial support beams, moderate rusting

Controlling Substandard Design Elements

- **Minimum Curve Radius (CSDE)**

Angle Point between Clay Street and the Bridge over Passaic River (EB/WB)

Existing: None

Required: 100 feet

- **Stopping Sight Distance at Non- Signalized Intersection (CSDE)**

- Clay Street at Passaic Street (WB)

Existing Left Turn: 300 feet

Required Left Turn: 510 feet

Existing Right Turn: 300 feet

Required Right Turn: 465 feet

- **Outside Shoulder Width (CSDE)**

Central Ave. from Bridge over Passaic River to just east of Passaic Avenue

Existing: 0 feet

Required: 8 feet

Crash Analysis

- Crash data associated with the Controlling Substandard Design Elements (CSDEs) identified within the project limits was obtained for the years 2011 – 2013 for the Clay Street & Passaic Avenue intersection. (There was no data available for the Clay St. & Passaic St. intersection).
- There were a total of 40 crashes reported at the intersection during those years. The only significant crash pattern is that of same-direction, rear-end crashes; which are frequently the result of congestion.
- Of the 25 rear end crashes reported, 13 occurred on the Southbound Passaic Avenue approach.
- There were 4 pedestrian crashes during those years (2011-2013).
- The overall analysis of the crash data indicates no significantly statistical overrepresented indicator crash rates associated with any of the CSDEs.



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Utilities

Utility	Owner	Facilities
Electric (Newark & East Newark)	PSE&G	Utility poles, Overhead and underground primary and secondary electric lines
Telephone	Verizon	Overhead and underground telephone conduits and manholes
Cable	Cablevision	Overhead cable lines
Gas	PSE&G	Underground transmission and distribution
Water/Sewer	Newark Water & Sewer Utilities Dept.	Underground sewer, underground water mains, hydrants, and valves
Water	City of Newark	Underground water mains, hydrants, and valves
Sewer	City of Newark	Underground sewer

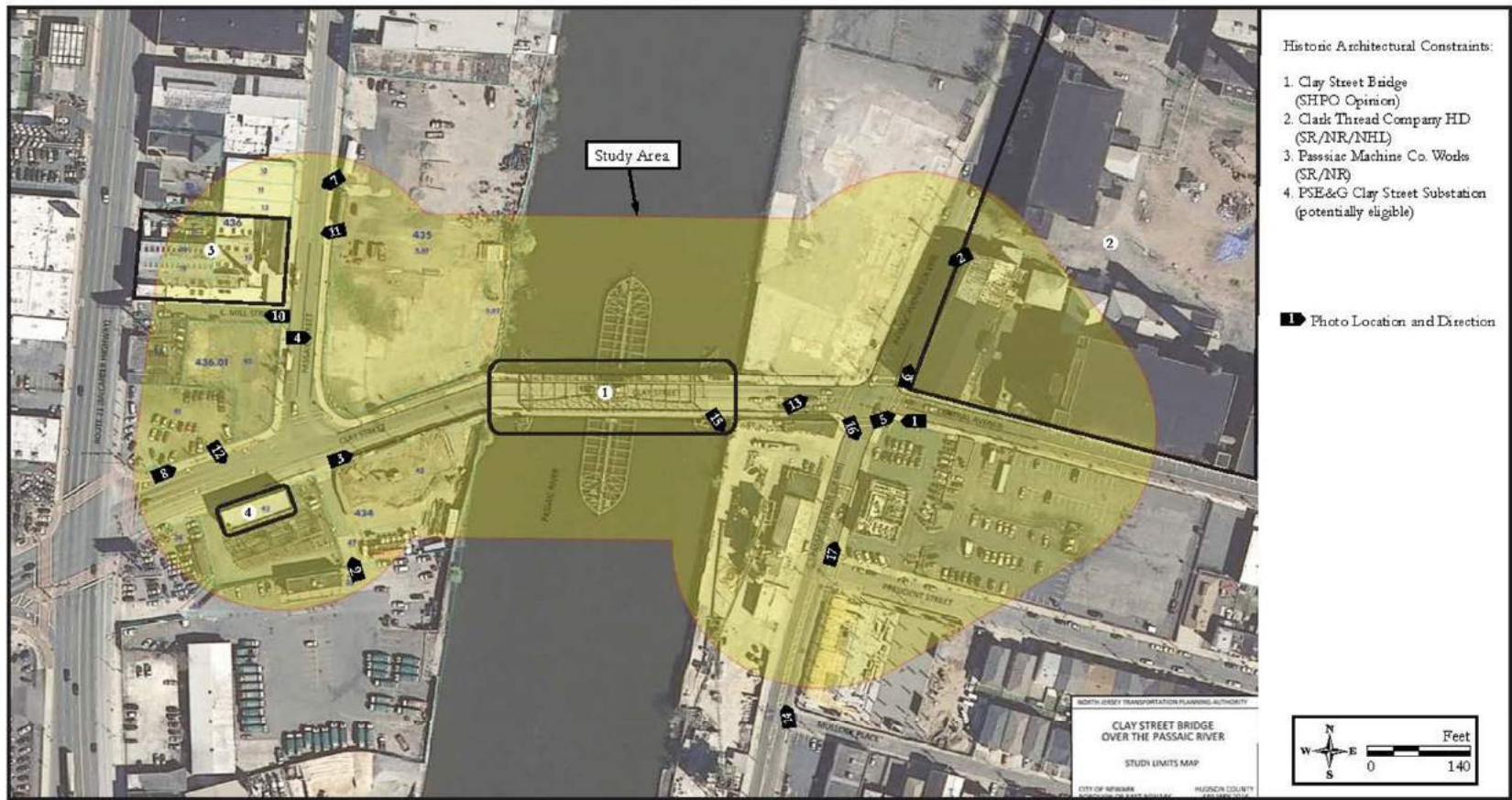
Environmental Screening

Environmental Screening completed June 2014

Advanced Coordination with SHPO for Cultural Resources completed by Project Team

- Clay Street Bridge eligible for National Register of Historic Places(NRHP) as rare bridge type (swing span)
- Clark Thread Company (NE Quadrant) – listed on NJ & NRHP and designated a National Historic Landmark
- Passaic Machine Works (SW Quadrant) – listed on NJ & NRHP





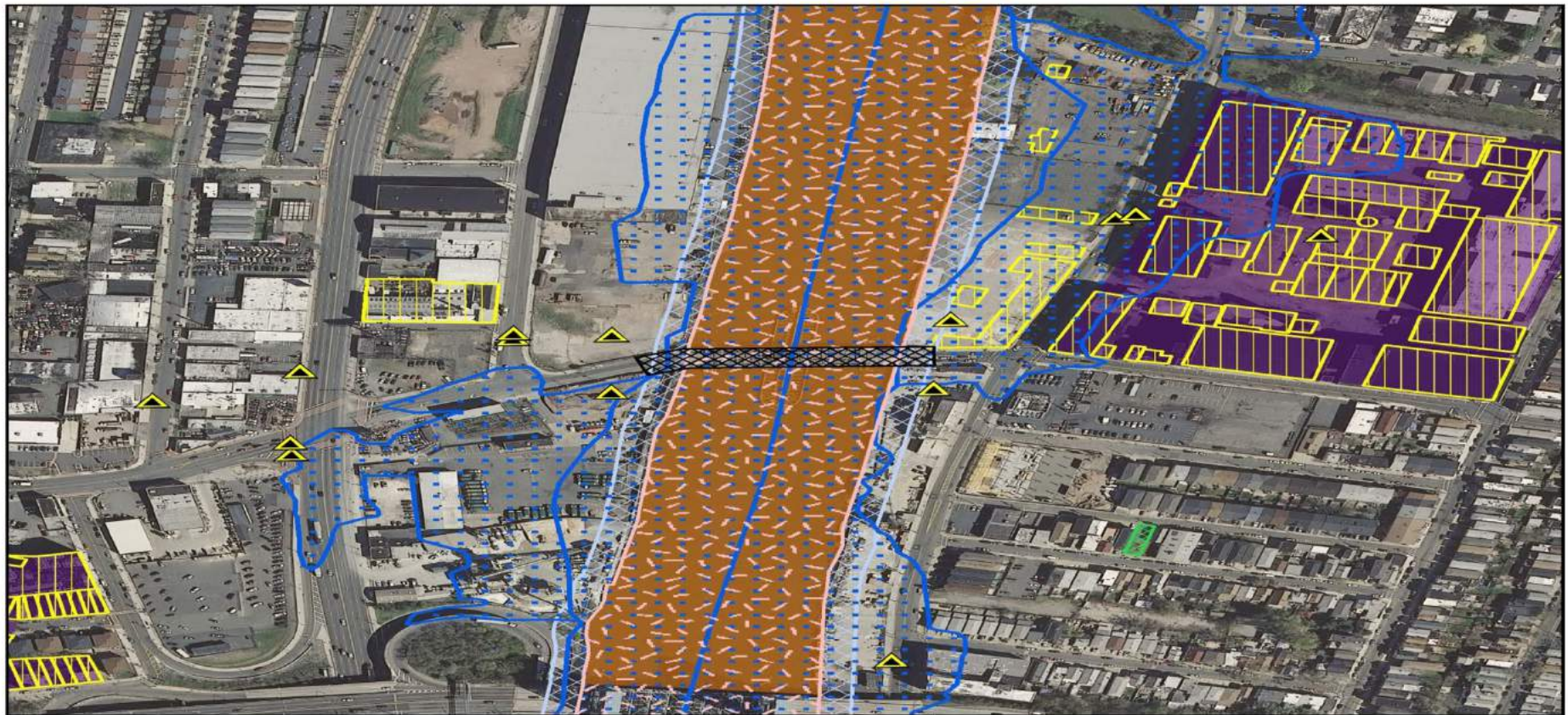
Appendix A, Figure 17: Project study limits with photo locations and historic architectural constraints. No previously identified archaeological resources were recorded in the study area (North Jersey Transportation Planning Authority 2013).



Environmental Constraints



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Legend

- | | |
|-----------------------------|----------------------|
| Clay St. Bridge Location | Historic Property |
| 100-year FEMA Floodplain | Historic District |
| Known Contaminated Site | Green Acres Property |
| National Priority List Site | Rank 4 Habitat |

Sources:
This (map/publication/report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized. New Jersey 2007-2008 High Resolution Orthophotography - JPEG2000 5K Tiles, State of New Jersey - Office of Information Technology (NJGIT), Office of Geographic Information Systems (OGIS), Trenton, NJ, October 2008. Green Acres Property taken from Green Acres Program Recreation and Open Space Inventory (ROSI) database, updated March 2013 and mapped using State of New Jersey Composite of Parcels Data, NJGIT, OGIS, Trenton, NJ, July 2011. Additional Contaminated Sites taken from EDR Radius Map Report # 3831486.2s, Environmental Data Resources, 2014. FEMA Floodplain Preliminary Work Map Data, an interim product created by FEMA in development of preliminary Flood

Figure 4
Environmental Constraints Map

FY 2014 Local Concept
Development Studies
Hudson County Bridge
(Structure # 0700-H01)
Clay Street over the Passaic River
Borough of East Newark, Hudson County &
City of Newark, Essex County, New Jersey

ASGECI Project # 3640



300

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Permits

Agency	Approval
Hudson, Essex, Passaic Soil Conservation District	Soil Erosion & Sediment Control Plan Certification
NJ State Historic Preservation Office	Determination of No Adverse Effect or Memorandum of Agreement
NJDEP	Letter of Interpretation
NJDEP	Water Quality Certificate
NJDEP	Flood Hazard Area Permit
NJDEP	Storm Water Management Plan Approval
NJDEP	Waterfront Development Permit
U.S. Army Corps of Engineers	Section 10 and Section 404 Permits
US Coast Guard, Bridge Administration Division	Bridge Permit

Environmental Documentation

No significant impacts and with community support for PPA; Categorical Exclusions Document (CED) anticipated



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Community Outreach

1. Local Officials Briefings: Project Purpose & Need - January 29, 2014 (Borough of East Newark); February 26, City of Newark
2. Stakeholders Meeting No. 1: Purpose & Need - March 24, 2014
3. Public Information Center Meetings (No. 1): Project Purpose & Need - April 7, 2014; 2 to 4 PM (Borough of East Newark) and 6 to 8 PM (City of Newark)
4. Stakeholders Meeting No. 2: Input on Alternatives – October 22, 2014 (City of Newark); November 7, 2014 (Borough of East Newark)
5. Local Officials Briefings: Preliminary Preferred Alternative - June 4, 2015 (City of Newark & Borough of East Newark)
6. **Project Website: www.claystbridge.com (300 hits per month)**



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Additional Project Outreach

1. NJ State Historic Preservation Office (SHPO): APE & List of Interested Consulting Parties – June 24, 2014
2. Regulatory Agency (US Coast Guard, US ACOE, US EPA & FHWA) Coordination Meeting: Concept Alternatives & Alternatives Analysis Matrix – March 3, 2015
3. NJ SHPO: Draft Cultural Resources Report, Concept Alternatives & Alternatives Analysis Matrix – March 9, 2015
4. Harbor Operations Committee: Concept Alternatives & Alternatives Analysis Matrix – April 1, 2015
5. NJDOT Subject Matter Experts (Value Solutions): Project Purpose & Need, Concept Alternatives & Alternatives Analysis Matrix – April 15, 2015



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Project Purpose & Need Statement

- The purpose of this project is to address the deficiencies of the structure carrying Clay Street over the Passaic River in order to provide a safer and more efficient crossing.
- The bridge provides a critical transportation connection for residents and commuters in Hudson County to and from the City of Newark's downtown business district. The existing bridge is rated in overall serious condition due to the localized advanced material losses to the steel truss members and to the girders and floor beams in the swing span. The bridge was built in 1908, has a Sufficiency Rating of 33.0, and is structurally deficient due to the superstructure, which is rated in serious condition. The bridge is scour critical and does not currently meet seismic design standards. The bridge opening duration does not meet desirable criteria. Additionally, the bottom chords of the steel truss are fracture critical members.



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Project Goals & Objectives

Important issues that should be considered in addressing the project purpose and need are the goals and objectives identified as follows:

- Provide bicycle compatibility and connectivity to the approach roadways
- Provide ADA compliant pedestrian facilities and crossings as well as connectivity to the approach roadways
- Upgrade bridge and approach roadway conditions to meet AASHTO and NJDOT safety standards including new parapets and guide rail
- Correct the controlling substandard design elements
- Avoid or minimize social, economic, and environmental impacts
- Provide for earthquake resistance of the structure so as to meet current design standards
- Modernize bridge mechanical and electrical components to meet current standards



Project Goals & Objectives (continued)

- Reduce the frequency of major bridge maintenance activities that disrupt traffic flow
- Maintain traffic operations and volume with minimal disruption and delay during construction; maintain pedestrian and vehicular access to properties at all times during construction and minimize detours
- Provide accommodations for commercial and recreational users of the Passaic River
- Address the high rate of vehicular and pedestrian crashes occurring at the Clay Street & Passaic Avenue intersection



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Development of Alternative Concepts

- **9 concepts** developed along with No Build & Major Rehabilitation alternatives
- Bridge Replacement Concepts include:
 1. Low-level fixed bridge (15' clearance over MHW over one or both of the existing 75' wide channels) on the same alignment, on a new alignment to the north; or a new alignment to the south (at President Street)
 2. High level fixed bridge (35' and 135' clearance over MHW) on the same alignment
 3. Movable bridge on the same alignment



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Development of Alternative Concepts (cont)

All bridge replacement concepts include:

- New Bridge width = 68'-0"; two 12' EB lanes, one 12' WB lane, 6' sidewalk & 1'-9" parapet on both sides, and 8' outside shoulder in each direction
- Addition of an exclusive right turn lane for the Passaic Avenue southbound approach to Clay Street to address high rate of vehicular crashes
- Intersection improvements (ADA-compatible curb ramps, pedestrian countdown heads and pushbuttons, crosswalks, etc.) at Passaic Avenue & Clay Street to address high rate of pedestrian crashes

Alternative Concepts

- **No Build**
- **Major Rehabilitation**

Bridge Replacement Alternative Concepts

- Concept 1 – North Alignment with Low-Level Fixed Bridge (15' over MHW – both waterway channels)
- Concept 2A – Existing Alignment with Low-Level Fixed Bridge (15' over MHW – both waterway channels)
- Concept 2B – Existing Alignment with Low-Level Fixed Bridge (15' over MHW – one waterway channel)
- Concept 3A – Existing Alignment with Movable Bridge spanning both 75' wide waterway channels

Alternative Concepts (continued)

Bridge Replacement Alternative Concepts (continued)

- Concept 3B – Existing Alignment with Movable Bridge spanning one 75' wide waterway channel
- Concept 3C – Existing Alignment with Movable Bridge spanning a 100' wide waterway channel
- Concept 4 – South Alignment with Low-Level Fixed Bridge (15' over MHW – both waterway channels), and rehabilitate and maintain existing bridge)
- Concept 5 – Existing Alignment with High -Level Fixed Bridge (35' over MHW – both waterway channels)
- Concept 6 – Existing Alignment with High -Level Fixed Bridge (135' over MHW – both waterway channels)

ALTERNATIVES ANALYSIS MATRIX RESULTS

- No Build does not meet Project Purpose & Need – bridge cannot be load posted nor permanently closed
- Major Rehabilitation dismissed as viable solution
 - does not meet Project Purpose & Need (cannot be widen existing bridge to provide bicycle compatibility)
 - does not address Controlling Substandard Design Elements
 - Not cost effective (Higher Life Cycle Costs than movable bridge replacement (3B & 3C) Life Cycle Costs

ALTERNATIVES ANALYSIS MATRIX RESULTS (cont)

- Concepts 1, 2, 2A, & 4 – Low-level fixed bridge alternatives (15' over MHW) dismissed due to not meeting goal and objective for providing accommodations for future commercial users of the Passaic River – 135' Clearance over MHW needed, per recommendations from Harbor Operations Committee
- Concept 5 – High-level fixed bridge (35' over MHW) dismissed due to not meeting goal and objective for providing accommodations for future commercial users of the Passaic River and also due to extensive environmental and Right of Way impacts
- Concept 6 – High-level fixed bridge (135' over MHW) dismissed due to highest cost and most extensive environmental and ROW impacts of all alternatives



ALTERNATIVES ANALYSIS MATRIX RESULTS (cont)

- Concept 3A – Movable Bridge over both existing channels dismissed due to higher construction and Life Cycle Costs relative to Concepts 3B & 3C
- Concept 3B – Movable Bridge over one (west) existing 75' wide channel dismissed due to not meeting goal and objective for providing accommodations for future commercial users of the Passaic River – 100' Channel Width needed, per recommendations from Harbor Operations Committee

Preliminary Preferred Alternative (PPA)

Concept 3C (PPA)

- Meets Project Purpose & Need and all goals and objectives
- Meets the recommendations from the Harbor Operations Committee for future commercial users of the Passaic River
- Supported by Community Stakeholders as a viable alternative
- Supported by City of Newark & Borough of Newark Officials
- Minimal ROW and Environmental impacts in comparison to all other alternatives
- Eliminates horizontal curve radius controlling substandard design element
- Significantly less costly and significantly less ROW and environmental impacts relative to the high level fixed bridge alternatives



PPA (Concept 3C) Cost

Roadway	\$12.6 M
Bridge	\$57.4 M
Right of Way	<u>\$ 0.05M</u>
Total:	\$ 70.0 M



NEXT STEPS

- Address Public Information Center comments
- Review/Finalize Preliminary Preferred Alternative
- Preliminary Preferred Alternative Selected
- Obtain Resolutions of Support for PPA (City of Newark, Borough of East Newark, Hudson & Essex County)
- Complete Local Concept Development Report
- Hold Inter-Agency (FHWA, NJTPA, NJDOT) Review Meeting for PPA
- Concept Development Phase completed (October 2015)



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Project Contact Information

- Joseph Glembocki, Hudson County Project Manager, jglembocki@hcnj.us, (201) 369-4340
- Luis Rodriguez, Essex County Project Manager, lrodriguez@essexcountynj.org, (973) 226-8500
- Clay Street Bridge Project Web Site address:
 - www.claystbridge.com
 - The PowerPoint Presentation will be posted on the Project Web Site
- Written comments towards the Preliminary Preferred Alternative Selection will be received until Friday, July 24, 2015



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Questions & Comments



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