

Appendix C: Historic and Cultural Resources

C-2 Letters of Effects and Supplemental Finding Documentation



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

June 6, 2012

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Albany, NY 12207
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In Reply Refer To:
HDO-NY

Mr. Daniel P. Hitt, RLA
Acting Co-Director, Office of Environment
New York State Department of Transportation
50 Wolf Road
Albany, New York 12232

Subject: Tappan Zee Hudson River Crossing Project (11PR06692) Section 106,
Rockland and Westchester Counties

Dear Mr. Hitt:

We have received a copy of your June 5th letter to the State Historic Preservation Officer (SHPO) requesting concurrence Adverse Effect finding for the Tappan Zee Hudson River Crossing (TZHRC) Project, due to the proposed removal and demolition of the existing Tappan Zee Bridge, which is eligible for listing on the National Register of Historic Places. The project is subject to Section 106 of the National Historic Preservation Act and Section 4(f) of the United States Department of Transportation Act.

The Federal Highway Administration (FHWA), in coordination with the New York State Thruway Authority (NYSTA) and New York State Department of Transportation (NYSDOT), have prepared a Draft Environmental Impact Statement (DEIS) for this project in accordance with the National Environmental Policy Act, and made the Draft EIS available to the public in January 2012. Input has also been solicited from Section 106 Consulting Parties through meetings and distribution of project information.

We have reviewed the Preliminary Assessment of Effects in the DEIS, the Supplemental Finding Documentation: Section 106 Effect Finding, input from the public, project stakeholders and the Section 106 Consulting Parties and the June 6th letter from the SHPO stating their concurrence in the Effect Finding. We have also reviewed the Draft Memorandum of Agreement (MOA), which has been drafted to resolve the Adverse Effect and to formalize commitments to satisfy remaining Section 106 obligations for archaeological resources. We note that efforts have been made through additional engineering analysis that avoids adverse effects to the two contributing resources in the South Nyack Historic District.

Based upon the above information and documentation, we concur that the TZHRC Project will have an Adverse Effect due to the proposed removal and demolition of the existing Tappan Zee Bridge. We also approve advancing a Memorandum of Agreement (MOA) to resolve the Project's adverse effect.

If you have any questions or concerns, please contact me at 518-431-8875.

Sincerely,

A handwritten signature in black ink, appearing to read "John Burns".

John Burns
Tappan Zee Bridge Major Project Engineer

cc:

Ruth L. Pierpont, Acting Deputy Commissioner for Historic Preservation (11PR06692)

Mary Santangelo, NYSDOT

Michael Anderson, NYSDOT

Dave Capobianco, NYSTA



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189

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Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

June 5, 2012

Mr. Daniel P. Hitt, RLA
Co-Director, Office of the Environment
State of New York Department of Transportation
Albany, New York, 12232

Re: United States Federal Highway Administration/ New York Department of Transportation/
New York State Thruway Authority **PIN 8TZ1.00**
Tappan Zee Hudson River Crossing Project: Supplemental Finding Documentation
Westchester and Rockland Counties
11PR06692

Dear Mr. Hitt:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) concerning your project's potential impact/effect upon historic and/or prehistoric cultural resources. Our staff has reviewed the submitted documentation for the *Tappan Zee Bridge Hudson River Crossing Project: Supplemental Finding Documentation*. This information was received by our office via electronic mail June 5, 2012. The project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and its implementing regulation 36 *CFR Part 800 – Protection of Historic Properties*.

As the result of comments received by the public and Section 106 Consulting Parties, the Project Team explored design modifications to develop reasonable alternatives to the proposed project that would minimize adverse effects to historic properties identified in the Section 106 evaluation process. As a result, the Replacement Alternative has been refined to incorporate a revised vertical alignment of the proposed Tappan Zee Bridge near the Rockland County shoreline.

As a result of this process, some previously identified adverse effects on historic properties have been minimized, or completely avoided. A summary of these reduced project impacts is provided below.

- The vertical alignment of the new crossing has been modified in the river near the Rockland shoreline, thus eliminating the need to replace the South Broadway Bridge and eliminating the need for property takings at 78 Smith Avenue and 21 Cornelison Avenue in the South Nyack Historic District.

Mr. Daniel P. Hitt

June 5, 2012

11PR06692

Page 2

- Revisions to the Replacement Bridge Alternative result in a reduced footprint, compared to the Replacement Bridge Alternative as presented in the Draft Environmental Impact Statement.
- The change in vertical alignment results in a lower profile of the Rockland landing and connecting roadways, thus the elevation of the roadway deck height would be lowered.
- Under the Short Span Option, the depth of the superstructure would be reduced including the superstructure over River Road.
- Under the Long Span Option, the superstructure over River Road would also be reduced.

All of the changes in project impacts are in Rockland County. There are no changes to the project impacts in Westchester County relevant to the assessment of effects to historic properties. Furthermore, revisions to the Replacement Bridge Alternative will cause no new or additional effects to historic properties that were not previously disclosed and evaluated as part of the Draft Section 106 Finding Documentation.

The Federal Highway Authority, in coordination with the New York Department State Department of Transportation and the New York State Thruway Authority, and in consultation with the Advisory Council for Historic Preservation and our office, has applied the Criteria of Adverse Effect [*as per* 36 CFR Part 800.5(a)(1)] to identify historic properties within the area of potential effects (APE), and finds the Project will have an *Adverse Effect* under the Replacement Bridge Alternative due to the proposed removal and demolition of the existing National Register-listed Tappan Zee Bridge.

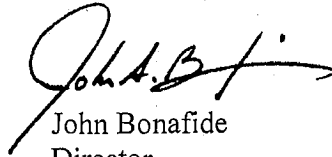
In order to resolve these adverse effects and to complete ongoing identification, evaluation, and mitigation as needed for potential archaeological resources in the Hudson River, a Memorandum of Agreement (MOA) is being developed for the Project. The executed MOA will be incorporated into the Final Environmental Impact Statement as part of the project and to memorialize commitments to ongoing steps in the Section 106 consultation process.

Based upon the provided information and ongoing consultation with our agency, this office concurs the provided finding of *Adverse Effects* for the Project due to the proposed removal and demolition of the existing Tappan Zee Bridge.

Mr. Daniel P. Hitt
June 5, 2012
11PR06692
Page 3

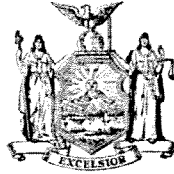
This consultation conforms to the Section 106 consultation process as outlined in the implementing regulations *36 CFR Part 800 – Protection of Historic Properties*. Should you have any questions, please feel free to contact me at (518) 237-8643.

Sincerely,



John Bonafide
Director
Bureau for Technical Preservation Services

cc: Jonathan D. McDade, Federal Highway Administration (*via email*)
John Burns, Federal Highway Administration (*via email*)
Michael Anderson, New York State Department of Transportation (*via email*)
Mary Santangelo, New York State Department of Transportation (*via email*)
Elizabeth Novak, New York State Thruway Authority (*via email*)
Mr. Robert Conway, AKRF, Inc. (*via email*)
Ms. Claudia Cooney, AKRF, Inc. (*via email*)



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JOAN McDONALD
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ANDREW M. CUOMO
GOVERNOR

June 5, 2012

John Bonafide
Director, Bureau of Technical Preservation Services
Division for Historic Preservation
NYS Office of Parks, Recreation & Historic Preservation
P.O. Box 189 - Peebles Island State Park
Waterford, New York 12188-09

Re: Tappan Zee Hudson River Crossing Project (11PR06692)
Section 106 - Adverse Effect Finding

Dear Mr. Bonafide:

The Federal Highway Administration (FHWA), in coordination with the New York State Thruway Authority (NYSTA) and New York State Department of Transportation (NYSDOT), prepared a Draft Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969, as amended, the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and FHWA regulations (23 CFR Part 771), and made the Draft EIS available to the public in January 2012. The Project is also subject to review in accordance with Section 106 of the National Historic Preservation Act, as amended, and its implementing regulation (36 CFR Part 800 – Protection of Historic Properties), Section 4(f) of the United States Department of Transportation Act of 1966, and other applicable environmental laws and regulations.

Preliminary Assessment of Effects

The Draft EIS examined potential environmental effects associated with the proposed replacement of the existing Tappan Zee Bridge, including consideration of Short Span and Long Span Options under the Replacement Bridge Alternative. Appendix C-1 of the Draft EIS included a preliminary assessment of the Replacement Bridge Alternative's effects on architectural properties under Section 106, documented in accordance with 36 CFR Part 800.11(e). An assessment of effects on archaeological properties was deferred, pending the results of ongoing investigations to identify and evaluate potential Hudson River resources. At that time, a preliminary adverse effect finding for the Project was based on the proposed demolition of the existing bridge, a structure eligible for listing in the National Register of Historic Places, and the proposed demolition of two contributing resources within the National Register eligible South Nyack Historic District in Rockland County.

J. Bonafide
June 5, 2012

The public review period for the Draft EIS, extended to March 30, 2012, and public hearings held on February 28 and March 1, 2012, solicited input from the public and stakeholders in response to the Draft EIS. This included the opportunity to comment on potential effects to historic and cultural resources, as addressed through the Section 106 process. In addition, the Project Team distributed the Draft Finding documentation to Section 106 Consulting Parties on February 1, 2012 in advance of a February 16th meeting to provide Consulting Parties an opportunity to express their views concerning the preliminary findings and potential measures to mitigate adverse effects on historic properties.

Based on verbal and written comments from the public and Section 106 Consulting Parties, the Project Team revised and distributed the Draft Finding Documentation to the State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), and other Consulting Parties for a second 30-day review period, beginning April 13-16, 2012.

Concurrent with this second review period, the Project Team continued engineering analysis for the proposed bridge replacement. Considering public input, the views of the SHPO and ACHP, and obligations under both Section 106 and Section 4(f), the Project Team explored design modifications to develop reasonable alternatives that minimize impacts to Section 106 and Section 4(f) properties. As a result, the Replacement Alternative has been refined to incorporate a revised vertical alignment of the proposed Tappan Zee Bridge near the Rockland County shoreline, thereby eliminating the need for replacement of the existing South Broadway Bridge in South Nyack. These revisions to the Project eliminate the need for demolition of two contributing resources in the South Nyack Historic District, and avoid adverse effects to the South Nyack Historic District.

A Supplemental Effect Finding is enclosed, documenting revised effects on historic properties based on revisions to the Replacement Bridge Alternative. At this time, we respectfully request the concurrence of the SHPO with an Adverse Effect finding for the Project, due to the proposed removal and demolition of the existing Tappan Zee Bridge.

With the concurrence of the SHPO and by copy of this letter, we request that the FHWA issue an Adverse Effect determination for the Project, and approve advancing a Memorandum of Agreement (MOA) to resolve the Project's adverse effect. The MOA also formalizes commitments to satisfy remaining Section 106 obligations for archaeological resources.

In order to move forward, we would appreciate your response by June 5, 2012. Please forward any questions or comments to my attention at dhitt@dot.state.ny.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel Hitt", with a stylized flourish at the end.

DANIEL P. HITT, RLA
(Acting) Co-Director, Office of Environment

J. Bonafide
June 5, 2012

DPH/MCS

cc.: John Burns, FHWA
Carol Legard, ACHP
Michael Anderson, NYSDOT
Elizabeth Novak, NYSTA
Robert Conway, AKRF

**SUPPLEMENTAL FINDING DOCUMENTATION: SECTION 106 EFFECT FINDING
PIN 8TZ1.00/ 11PR06692
TAPPAN ZEE HUDSON RIVER CROSSING PROJECT
WESTCHESTER AND ROCKLAND COUNTIES**

1. PROJECT DESCRIPTION

OVERVIEW

The Tappan Zee Hudson River Crossing (“Project”) is a federally funded project being undertaken by the Project Sponsors – New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA) –with the Federal Highway Administration (FHWA), serving as the federal lead agency under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act. The purpose of the project is to maintain a vital link in the regional and national transportation network by providing an improved Hudson River crossing between Rockland and Westchester Counties, New York.

A Final Environmental Impact Statement (EIS) is being prepared that proposes a Replacement Bridge Alternative. The existing and proposed replacement bridge are 3.1 miles in length, and the tie-in work in Rockland and Westchester Counties will be limited to the minimum work necessary to match existing highway geometry at the landings. The Project will not require alteration of existing interchanges or other highway features beyond the project limits.

The Section 106 review process is being progressed in accordance with its implementing regulations (36 CFR Part 800), and in coordination with the EIS. The Draft EIS, made available for public comment in January 2012, examined potential environmental effects of the proposed Replacement Bridge Alternative, including Short Span and Long Span Options. Appendix C-1 of the Draft EIS included a preliminary assessment of effects on historic properties under Section 106, documented in accordance with 36 CFR Part 800.11(e).

On February 1, 2012, the Draft Finding Documentation was distributed to Section 106 Consulting Parties and on February 16, 2012, a meeting was held to provide Consulting Party members an opportunity to express their views concerning the preliminary findings and potential measures to mitigate adverse effects on historic properties. Written comments were requested from Consulting Parties by March 17, 2012. The public comment period for the Draft EIS was extended to March 30, 2012.

Based on verbal and written comments from the public and Section 106 Consulting Parties, the Project Team revised and distributed the Draft Finding Documentation to the State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), and other Consulting Parties for a second 30-day review period, beginning April 13-16, 2012.

Concurrent with this second review period, the Project Team continued engineering analysis for the proposed bridge replacement. Considering public input, the views of the ACHP, and obligations under both Section 106 and Section 4(f) of the U.S. Department of Transportation Act of 1966, the Project Team explored design modifications to develop reasonable alternatives that minimize impacts to Section 106 and Section 4(f) historic properties. As a result, the Replacement Alternative has been refined to incorporate a revised vertical alignment of the proposed Tappan Zee Bridge near the Rockland County shoreline, thereby eliminating the need for replacement of the existing South Broadway Bridge (SBB) in South Nyack.

This Supplemental Finding Documentation presents a re-assessment of the Project’s effects on historic properties, based on reduced impacts associated with the revised Replacement Bridge Alternative.

2. STEPS TAKEN TO IDENTIFY HISTORIC PROPERTIES

AREA OF POTENTIAL EFFECTS

There is no change in the Project's Area of Potential Effects (APE) as a result of revisions to the Replacement Bridge Alternative. Within the APE, the area subject to direct effects will be reduced in the vicinity of the South Broadway Bridge, as a result of eliminating the proposed replacement of the existing structure crossing I-87/287.

There is no change in National Register listed and eligible architectural properties within the Project's APE. As described in the Section 106 Draft Finding Documentation distributed on April 13-16, 2012, there are no archaeological resources within the land portion of the APE. Phase II archaeological investigations are currently underway to gather sufficient data to evaluate Target 001, a potential shipwreck in the Hudson River, and to complete geotechnical studies to assess a Paleo-landform on the Rockland County river shore. Ongoing archaeological investigations and evaluation will be completed in accordance with stipulations in the Memorandum of Agreement (MOA).

3. EVALUATION OF PROJECT IMPACT ON IDENTIFIED HISTORIC PROPERTIES

SUMMARY OF ENGINEERING ANALYSIS LEADING TO PROJECT REVISIONS

The need to replace the South Broadway Bridge stemmed from the staging requirements at the Rockland landing with elevations dictated from the initial 155 ft clearance at the Main Spans. The DEIS Short Span Option had a constant approach grade and a superstructure depth of 15 feet. Combined with an increased underclearance above River Road of 16'6", this raised the bridge roadway elevation such that the tie-in to the Rockland Landing I-287 highway would fall beyond (west of) the South Broadway Bridge. This created both an underclearance problem below the SBB to I-287 below, and construction staging difficulties, which were resolved by the proposed replacement of the South Broadway Bridge with a longer, single span having a shallow depth superstructure and greater underclearance.

To mitigate the visual impact of the higher western approach profile, the Project Team refined the design and reduced the depth of the superstructure from 15 feet to 10 feet in the Short Span Option. The depth of the superstructure over River Road was further reduced to approximately 6 to 8 feet, made possible by the introduction of a shorter span length over River Road to the abutment. This lowers the Rockland approach roadway elevation such that the tie-in to the existing I-287 highway is completed before the South Broadway Bridge and the construction staging can be accomplished without replacing the South Broadway Bridge. The Rockland approach profile would remain a constant but slightly steeper grade than originally designed. This includes the clearance at the Main Spans reduced from 155 feet to 139 feet.

The Draft EIS Long Span Option had a 40 foot deep deck truss superstructure, also with a constant profile grade on the Rockland approach. The 40 foot deep superstructure would raise the Rockland approach profile by more than the Short Span Option, moving the tie-in to the I-287 highway even further west beyond the South Broadway Bridge, again requiring the replacement of the South Broadway Bridge and taking of Section 4(f) properties in the South Nyack Historic District.

To address this issue, the Project Team developed an alternative superstructure type at the Rockland Landing that would increase gradually in depth from approximately 10 feet east of River Road to its full depth of 40 feet at Pier 5 in the Hudson River. This would be combined with a shallower depth superstructure over River Road, similar to that for the Short Span Option, made possible by introducing a shorter span length over River Road to the abutment. While a change from a 40 foot deep superstructure to a 6 - 8 foot deep span would be both visually

and structurally problematic, a transition from a 10 to 18 foot deep superstructure to a 6 - 8 foot depth would be feasible both visually and structurally. This would again eliminate the need to replace the South Broadway Bridge and Section 4(f) property takings. The Rockland approach profile would remain a constant but slightly steeper grade.

In summary, the replacement of the South Broadway Bridge is removed from the Final EIS and the historic properties in the South Nyack Historic District do not need to be acquired.

NOISE BARRIERS

In Rockland County, the DEIS included one noise barrier to the south of Interstate 87/287. Per NYSDOT and NYSTA noise policies and FHWA regulations, a noise barrier must be deemed “reasonable” to be recommended in an environmental document. Part of this reasonableness determination includes the solicitation of viewpoints of the property owners and residents of the “benefited receptors” (i.e., those who would receive a noise reduction of at least 5 db(A)). For the TZHRC project, viewpoints were obtained through mailed ballots and informational meetings in May 2012. NYSDOT and NYSTA noise policies specify that for a noise abatement measure to be deemed reasonable, responses shall be obtained from at least half of the benefited receptors, and a majority of the responses must favor the measure.

Regarding the Rockland County noise barrier, of the 60 total ballots for this barrier, responses were obtained from at least half of the benefited receptors, and the majority concurred with the barrier. Thus, the noise barrier has been deemed reasonable, and will be included in the Replacement Bridge Alternative for the project.

REDUCED PROJECT IMPACTS ON IDENTIFIED HISTORIC PROPERTIES

As a result of revisions to the Replacement Alternative, the Project’s impacts on identified historic properties in Rockland County are reduced compared to impacts described in the Draft EIS.

- The vertical alignment of the new crossing has been modified in the river near the Rockland shoreline. This results in the ability to meet existing grade east of South Broadway, eliminating the need to replace the South Broadway Bridge, and eliminating the need for property takings at 78 Smith Avenue and 21 Cornelison Avenue in South Nyack.
- Revisions to the Replacement Bridge Alternative result in a reduced footprint, compared to the Replacement Bridge Alternative as presented in the DEIS. The change is shown in revised Bridge Approach Plans (Attachment B), with the limit of construction along I-87/287 located approximately 300 feet east of the South Broadway Bridge. On the north side of the highway, the proposed shared use path connects to Smith Avenue east of the South Nyack Historic District, avoiding takings from contributing properties at 78 Smith Avenue and 21 Cornelison Avenue.
- The change in vertical alignment results in a lower profile of the Rockland landing and connecting roadways. As a result of decreasing the depth of the superstructure, the elevation of the roadway (deck height) would be lowered as well.
- Under the Short Span Option, the depth of the superstructure would be reduced from 15 feet to 10 feet, with the depth of the superstructure over River Road further reduced to a depth of 6 to 8 feet.
- Under the Long Span Option, the superstructure over River Road would be reduced to a depth of approximately 6-8 feet, transitioning to a superstructure that increases gradually in depth from about 10-12 feet east of River Road to about 28 feet at Pier 3 in the Hudson River. By about Pier 5 the superstructure has a depth of 40 feet, which remains consistent over the main channel.

Changes in project impacts that affect Rockland County are summarized in Table 1 (below). There are no changes in project impacts in Westchester County relevant to the assessment of effects on historic properties.

Table 1 Changes in Project Impacts – Rockland County	
Replacement Bridge Alternative – Draft EIS	Replacement Bridge Alternative with Revisions – Final EIS
Western limit of construction on I-87/287 ends approximately 150 feet west of South Broadway Bridge	Western limit of construction on I-87/287 ends approximately 300 feet east of the South Broadway Bridge
Reconfiguration of the Rockland Landing would require reconstruction of the South Broadway Bridge slightly east of its existing location	Revisions to the vertical alignment of the Rockland landing eliminate the need to replace the South Broadway Bridge
Proposed demolition of 78 Smith Ave and 21 Cornelison Ave, contributing resources in South Nyack Historic District	No property acquisition, demolitions, or easements within South Nyack Historic District
Increase in elevation of western approach roadway in proximity to 3 River Road / Bight Lane - approximately 4-7 feet under the Short Span Option, compared to the existing approach, and up to 30 feet under the Long Span Option, as presented in the DEIS	Increase in elevation of western approach roadway in proximity to 3 River Road / Bight Lane - approximately 5 feet over existing elevation for both the Short and Long Span, with addition of noise wall based on input from property owners and residents
Superstructure depth as it crosses River Road – approximately 15 feet under the Short Span and 40 feet under the Long Span	Superstructure depth as it crosses River Road – approximately 6-8 feet under the Short and Long Spans. Superstructure depth under the Short Span – 10 feet. Superstructure depth under the Long Span – 10- 40 feet between Rockland Landing and Pier 5, and 40 feet for remainder of superstructure.

ARCHAEOLOGICAL RESOURCES

Project impacts on potential archaeological resources in the Hudson River are associated with construction of the bridge foundation and staging and dredging activities at the Rockland and Westchester landings. There is no difference in proposed impacts to potential Hudson River archaeological resources as a result of revisions incorporated in the Replacement Bridge Alternative.

ARCHITECTURAL RESOURCES

Tappan Zee Bridge

The Replacement Bridge Alternative proposes the removal and replacement of the existing Tappan Zee Bridge, with two new structures (one each for eastbound and westbound traffic) to the north of the existing location.

South Nyack Historic District

The South Nyack Historic District, comprised of 130 contributing and 34 non-contributing resources, is a property determined eligible for the National Register of Historic Places. The district's contributing resources include two architectural properties within the Project's APE, 21 Cornelison Avenue and 78 Smith Avenue. As presented in the Draft EIS, the Replacement Bridge Alternative proposed the replacement of the South Broadway Bridge and northward shift in the highway to align with the new bridge and roadway, and to accommodate a new shared-use path north of the highway. This proposal required the acquisition and demolition of the early 20th century contributing properties at 21 Cornelison Avenue and 78 Smith Avenue.

As a result of revisions incorporated in the Replacement Bridge Alternative, the acquisition and demolition of these properties are eliminated, and there are no new acquisitions or easements within the South Nyack Historic District. Project impacts to the South Nyack Historic are avoided under the revised Replacement Bridge Alternative.

Other Architectural Resources

There are 22 additional architectural properties located within the APE, including the River Road Historic District and 6 individual properties in Rockland County, and 4 historic districts and 11 individual properties in Westchester County. Revisions to the Replacement Bridge Alternative will not cause direct effects to architectural properties, other than the existing Tappan Zee Bridge.

Visual Changes

Visual changes in the physical surroundings may constitute indirect effects on historic properties when they alter characteristics that qualify the properties for the National Register and diminish the integrity of setting. Those surroundings may include both natural and manmade features such as topography, vegetation, and relationship between the property and other buildings or open space (NR Bulletin 15, rev. 2002).

For this Project, the assessment of potential visual effects included consideration of the proposed removal of the existing Tappan Zee Bridge and visual changes associated with a new crossing comprised of paired structures north of the existing alignment. The project was designed to minimize visual impacts by limiting tie-in work in Rockland and Westchester Counties to match the existing highway geometry at the landings, and to avoid alterations of natural topography, landforms, or other natural features that help define and contribute to the project's Hudson River setting.

The assessment of effects is based on a comparison of existing and proposed conditions, with the understanding that the character of the Hudson River setting and views that existed during the 19th and early 20th centuries have been altered by later development, including construction of the Interstate transportation corridor. Since 1955, the existing Tappan Zee Bridge has been a prominent feature of the landscape, carrying the Interstate highway over the Hudson River. The bridge was determined eligible for the National Register and an exceptional element of the Federal Interstate Highway System based on its engineering characteristics, not its design or aesthetic elements. Post-dating the period during which surrounding historic properties attained their significance, the Tappan Zee Bridge has not been identified as a contributing resource to any historic district, or as a historically significant component of the contributing setting of any historic district or individual historic property. The change in bridge design associated with the Replacement Alternative will not impact architectural properties other than the existing Tappan Zee Bridge.

Existing statements of eligibility indicate that individual architectural properties and historic districts qualify for the National Register primarily for their architectural merit, and for their historic significance. These statements acknowledge the location and setting overlooking the river, but do not identify specific views of the Hudson River or attributes of the viewshed as characteristics that qualify these properties for the National Register. Visual aesthetics, including views of the Hudson River, may have been a factor in selecting building sites and orientation, but research establishing historic significance indicates the importance of other determining factors such as the role of river transportation, industrial and commercial growth, and residential development from the mid-18th through the mid-20th century.

In summary, Hudson River viewsheds have not been identified as contributing elements of the setting for identified architectural properties within the APE. Visual changes to the physical surroundings associated with the Replacement Alternative will not diminish the ability of identified architectural properties to convey their significance within the context of their location and setting overlooking the Hudson River. FHWA, in coordination

with NYSDOT and NYSTA, considers visual quality impacts as an issue to be addressed within the context of an interdisciplinary approach in accordance with NEPA requirements, rather than Section 106.

Summary of Project Impacts

Table 1 summarizes changes in project impacts to identified architectural properties within the APE associated with the Replacement Bridge Alternative as revised, and effects on individual properties.

Revisions to the Replacement Bridge Alternative will cause no new or additional effects to historic properties that were not previously disclosed and evaluated as part of the Draft Section 106 Finding Documentation (April 2012).

Table 2
Architectural Resources within the APE

Ref No.¹	Name	Location	Replacement Bridge Alternative – as presented in DEIS	Changes - Replacement Bridge Alternative (Revised)	Revised Finding of Effect
1	Tappan Zee Bridge (BIN 5516340)	Interstate I-87/287 over the Hudson River	Demolition and removal – Adverse Effect	No change from DEIS	Adverse Effect
<i>Rockland County</i>					
2	South Nyack Historic District*	South Nyack	Demolition and removal of 2 contributing properties – Adverse Effect	No building demolition	No Adverse Effect
3	129 Piermont Avenue*	South Nyack	No Adverse Effect	No changes from DEIS	No Adverse Effect
4	135 Piermont Avenue*	South Nyack	No Adverse Effect	No changes from DEIS	No Adverse Effect
5	147 Piermont Avenue*	South Nyack	No Adverse Effect	No changes from DEIS	No Adverse Effect
6	2 Shadyside Avenue*	South Nyack	No Adverse Effect	No changes from DEIS	No Adverse Effect
7	10 Ferris Lane*	Orangetown	No Adverse Effect	No changes from DEIS	No Adverse Effect
8	Wayside Chapel**	24 River Road Grand-View-on-Hudson	No Adverse Effect	No changes from DEIS	No Adverse Effect
9	River Road Historic District*	River Road Grand-View-on-Hudson	No Adverse Effect	Lowered profile and depth of superstructure over River Rd	No Adverse Effect
<i>Westchester County</i>					
10	Tarrytown Lighthouse ***	Kingsland Point Park Route 9, Sleepy Hollow	No Adverse Effect	No change from DEIS	No Adverse Effect
11	Tarrytown Sewage Treatment Plant*	Pierson Park, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
12	Tarrytown Railroad Station	1 Depot Plaza, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
13	Tappan Landing Historic District*	Tappan Landing Road & North Tappan Rd Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
14	Washington Irving Gardens*	300 South Broadway, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
15	Old Croton Aqueduct ***	Route 9, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
16	99 White Plains Road*	Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
17	100 White Plains Road*	Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
18	Irving Historic District*	Van Wart & Paulding Avenues, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect

Ref No. ¹	Name	Location	Replacement Bridge Alternative – as presented in DEIS	Changes - Replacement Bridge Alternative (Revised)	Revised Finding of Effect
<i>Westchester County</i>					
19	Hope United Presbyterian Church*	500 South Broadway, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
20	Glenwolde Park Historic District*	Glenwolde Park, Water Street, and Willowbrook Avenue, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
21	Lyndhurst ***	635 South Broadway, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
22	New County Park	Route 9, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
23	Sunnyside ***	1 West Sunnyside Lane, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect
24	South End Historic District*	West side of Route 9, Tarrytown	No Adverse Effect	No change from DEIS	No Adverse Effect

4. BASIS FOR RECOMMENDED PROJECT FINDING

Measures to Avoid or Minimize Effects

The planning for the Replacement Bridge Alternative considered a footprint that would maximize the use of existing NYSTA right-of-way while minimizing effects on existing highway infrastructure in Rockland and Westchester Counties. As a result of these and other considerations, a new crossing north of the existing Tappan Zee Bridge was proposed in the Draft EIS. The project involves limited tie-in work in Rockland and Westchester Counties to match the existing highway geometry at the landings, and has been designed to avoid and/or minimize alterations of natural topography, landforms, or other natural features that may contribute to the natural or historic setting.

Recent design modifications and refinements incorporated in the Replacement Bridge Alternative further reduce impacts compared to the Replacement Bridge Alternative as presented in the DEIS, and evaluated in the Draft Finding Documentation distributed for review in April 2012.

South Nyack Historic District

As presented in the Draft EIS, the South Nyack Historic District would be adversely affected by proposed demolition of two contributing resources, residential properties at 78 Smith Avenue and 21 Cornelison Avenue. The acquisition and demolition of these properties was required due to the proposed replacement of the South Broadway Bridge. By revising the vertical alignment of the new crossing, the Replacement Bridge Alternative eliminates the need to replace the South Broadway Bridge, avoids demolition of the two contributing architectural properties in the South Nyack Historic District, and avoids any takings within the historic property.

Visual Quality

Measures to avoid or minimize visual impacts associated with replacement of the existing Tappan Zee Bridge are further incorporated in the project through provisions in the Design-Build contract that acknowledge “the unique environmental, social, aesthetic and physical character of the region and the river corridor within which the Project is located” (TZRHC Design-Build Contract Documents, Part 3-13.3.1, May 18, 2012). The Project Requirements establish general architectural and engineering design qualities inherent in the design of the

replacement structure, and require a collaborative and interdisciplinary strategy to involve the public and stakeholders, including the SHPO, ACHP, and Section 106 Consulting Parties. As described in the following section of the Contract Documents, the new bridge design will be advanced in accordance with the principles of Context Sensitive Solutions.

13.3.3.1. Context Sensitive Solutions

- The Design-Builder shall conduct its visual quality management work consistent with the principles of context-sensitive solutions using inclusive design approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context-sensitive solutions shall be reached through a collaborative, interdisciplinary approach involving all stakeholders.
- The Design-Builder shall ensure that the Crossing fits within the unique environmental, social, aesthetic and physical character of the region and the river corridor within which it is located. All environmental, social and physical contextual features, including any unique site specific elements, shall be identified, mapped, analyzed, recorded and incorporated into the design solution and throughout the construction process. The design shall fit the contextual character and unique corridor and site conditions in order that:
 - A. The Project satisfies both transportation and community needs, as discussed with all stakeholders;
 - B. The Project incorporates safe and innovative technical solutions that add value for both the user and the community; and
 - C. The Project shows measurable success in improving the community's environmental, scenic, historic and natural resources, above and beyond mitigation requirements (RFP Part 3-13.3.3.1, May 4, 2012).

FHWA, in coordination with NYSDOT and NYSTA, finds that individually, architectural properties within the APE will not be adversely affected by the Replacement Bridge Alternative, with the condition of implementing the Design-Build contract commitments for a Public Involvement Plan inviting community input in a context-sensitive design compatible with the surrounding natural and historic setting of the Tappan Zee Hudson River Crossing.

Adverse Effect Finding

FHWA, in coordination with NYSDOT and NYSTA, and in consultation with the SHPO and ACHP, has applied the Criteria of Adverse Effect (36 CFR 800.5(a)(1)) to identified historic properties within the APE, and finds the Project will have an Adverse Effect under the Replacement Bridge Alternative, due to the proposed removal and demolition of the existing Tappan Zee Bridge, a National Register eligible structure.

Alternatives that would retain the existing bridge were previously documented by the Draft Section 106 Finding Documentation (April 2012) and the *Alternatives Analysis for Rehabilitation and Replacement of the Tappan Zee Bridge Report* (March 2009).

FHWA, in coordination with NYSDOT and NYSTA, and in consultation with the SHPO, ACHP and other consulting parties, is developing a Memorandum of Agreement to resolve adverse effects and to complete ongoing identification, evaluation, and mitigation as needed for potential archaeological resources in the Hudson River. The executed MOA will be incorporated in the Final EIS.

Commitments made as an outcome of the Section 106 process will be carried out through provisions in the Design-Build contract to ensure that all environmental and mitigation measures identified in the NEPA document are implemented.

5. PUBLIC INVOLVEMENT

- Public comment period for the Draft EIS, made available in January 2012, extended to March 30, 2012.
- The Final Request for Proposals (RFP), and information concerning the RFP and DEIS process were made available to the public through the web site “Replacing the Tappan Zee Bridge”:
www.thenewtzb.com

6. ATTACHMENTS

- A – Visualizations
- B – Drawings / Plan Sheets / Profiles – Replacement Alternative (revised)
 - Project Location
 - Existing Plan, Profile, and Photographs
 - Replacement Bridge Alternative
 - Short Approach Span and Long Approach Span Plans and Profiles, Rockland Co.
- C – Correspondence
 - March 30, 2012 - ACHP to DOT (comments on the Draft EIS)
 - March 30, 2012 - SHPO to DOT (comments on the Draft EIS)
 - April 12, 2012 - SHPO to NYS Museum, re: support of Section 233 permit application
 - April 12, 2012 - SHPO to DOT - review of Phase 1 Archaeology Survey Report and Addendum 1
 - April 16, 2012 – FHWA letter to participating Tribal Nations (Draft Effect Finding and Draft MOA)
 - April 23, 2012 - DOT to FHWA requesting concurrence with archaeology Technical Memo
 - April 24, 2012 - DOT to FHWA requesting concurrence with Phase 1 Archaeology Survey Report & Addendum 1
 - April 30, 2012 - FHWA to DOT re: concurrence with Phase 1 Archaeology Report & Addendum 1

7. REFERENCES CITED

- *Alternatives Analysis for Rehabilitation and Replacement of the Tappan Zee Bridge Report*, prepared by ARUP, March 2009.
- DRAFT Finding Documentation: Section 106 Effect Finding, PIN 8TZ1.00 / SHPO Project Review Number (11PR06692) – Tappan Zee Hudson River Crossing Project, Westchester and Rockland Counties, April 2012.
- New York State Thruway Authority, *Tappan Zee Hudson River Crossing Project: Design-Build Project, DB Contract Documents Part 3, Project Requirements – Revision (Addendum No. 4)*, May 18, 2012.
- Staff of the National Register of Historic Places, *National Register Bulletin (15): How to Apply the National Register Criteria for Evaluation*, U. S. Department of the Interior, National Park Service. Revised for Internet, 2002.

**TAPPAN ZEE HUDSON RIVER CROSSING PROJECT
SECTION 106 SUPPLEMENTAL EFFECT FINDING**

**ATTACHMENT A:
VISUAL SIMULATIONS**



Existing Conditions



Short Span Cable-Stayed Design Option



Short Span Option with Noise Wall



Long Span Cable-Stayed Design Option



Long Span Option with Noise Wall

Figure A-1

Visual Simulation Rockland County



Existing Conditions



Short Span Option



Short Span Option with Noise Wall



Long Span Option



Long Span Option with Noise Wall



Existing Conditions



Short Span Cable-Stayed Design Option



Short Span Option with Noise Wall



Long Span Cable-Stayed Design Option



Long Span Option with Noise Wall



Existing Conditions



Short Span Arch Design Option



Short Span Cable-Stayed Design Option



Long Span Arch Design Option



Long Span Cable-Stayed Design Option



Existing Conditions



Short Span Arch Design Option



Short Span Cable-Stayed Design Option



Long Span Arch Design Option



Long Span Cable-Stayed Design Option



Existing Conditions



Short Span Arch Design Option



Short Span Cable-Stayed Design Option



Long Span Arch Design Option

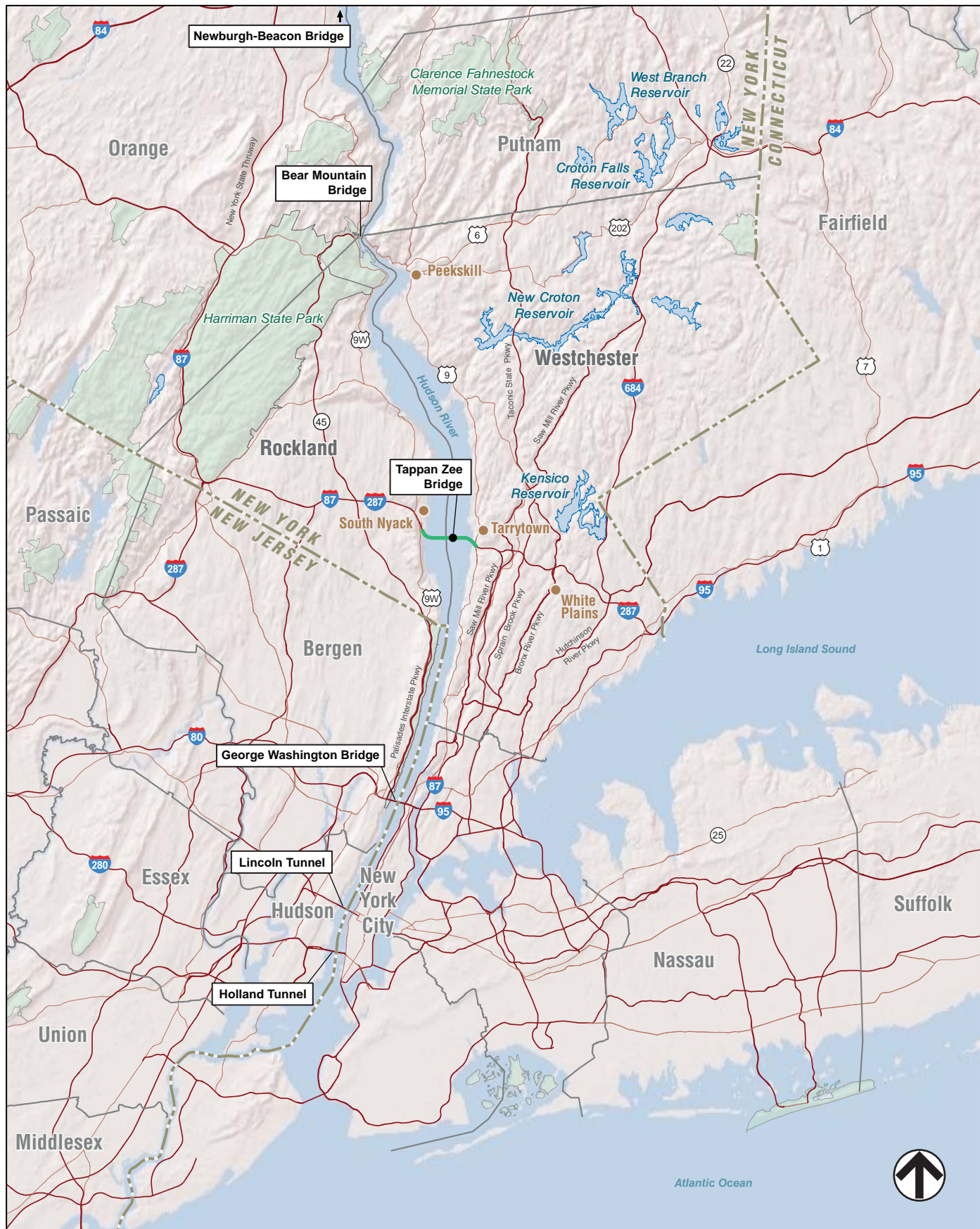


Long Span Cable-Stayed Design Option

**TAPPAN ZEE HUDSON RIVER CROSSING PROJECT
SECTION 106 SUPPLEMENTAL EFFECT FINDING**

ATTACHMENT B:

**PLANS, PROFILES, ELEVATIONS, SECTIONS FOR
REPLACEMENT BRIDGE ALTERNATIVE/LONG AND
SHORT SPAN OPTIONS**



0 10 MILES
SCALE



TAPPAN ZEE HUDSON RIVER CROSSING
Section 106 Supplemental Effect Finding Documentation

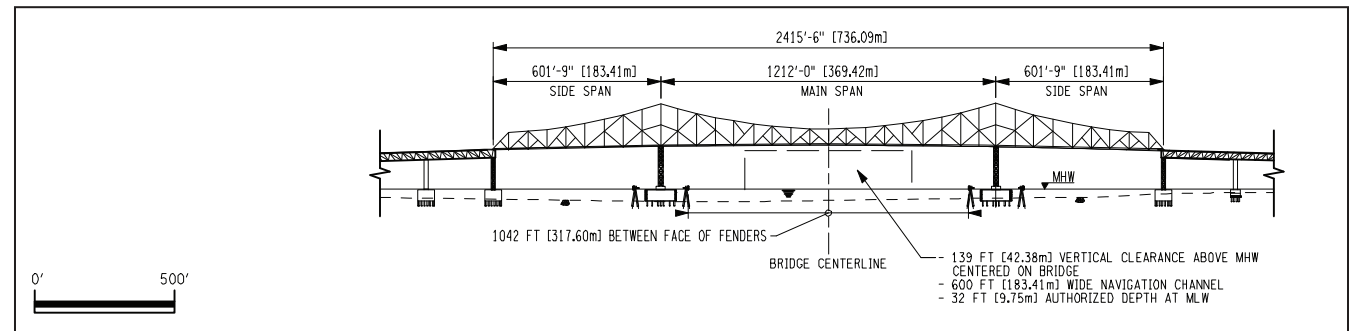
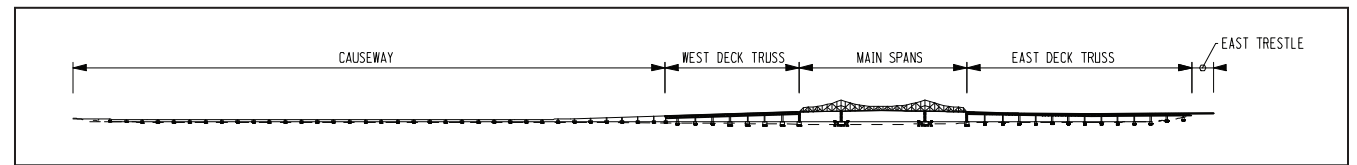
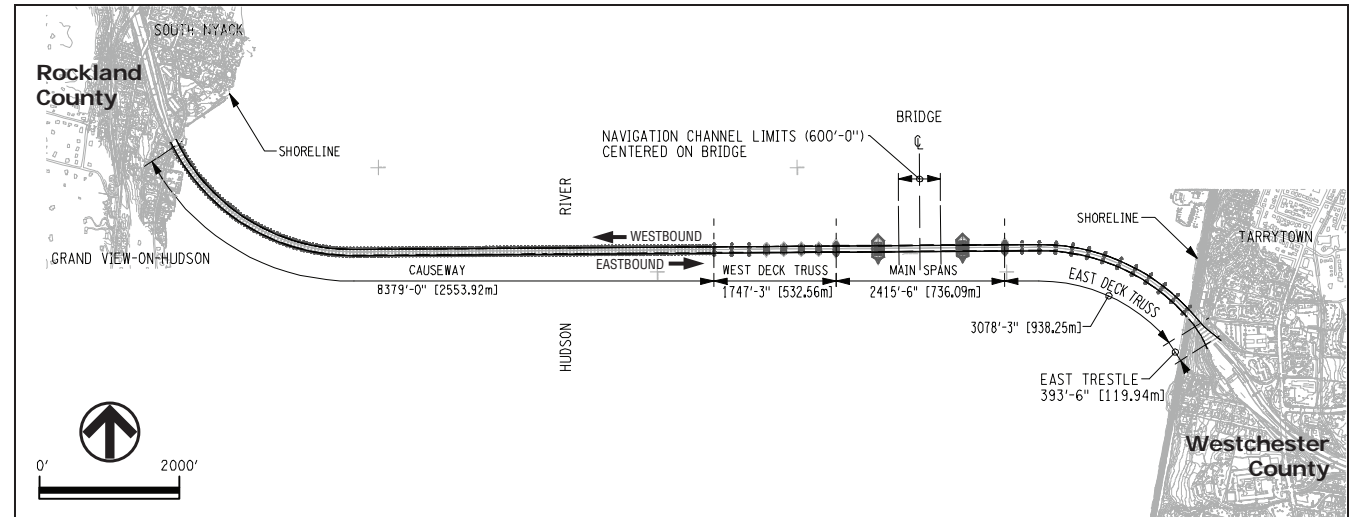
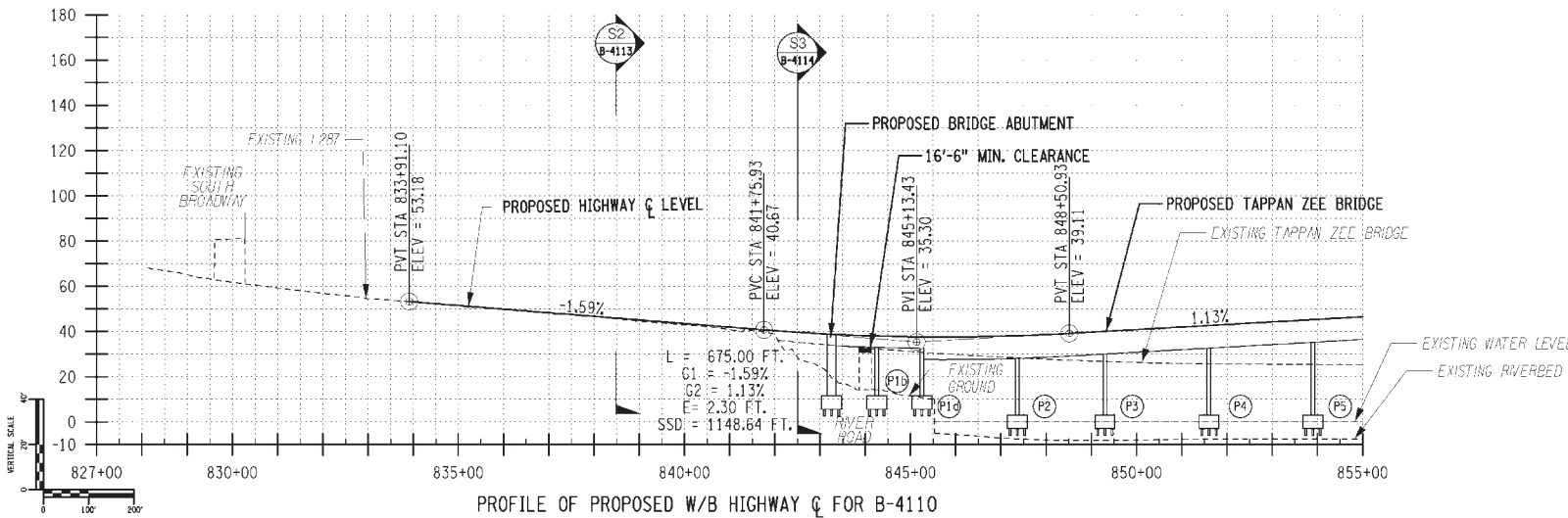
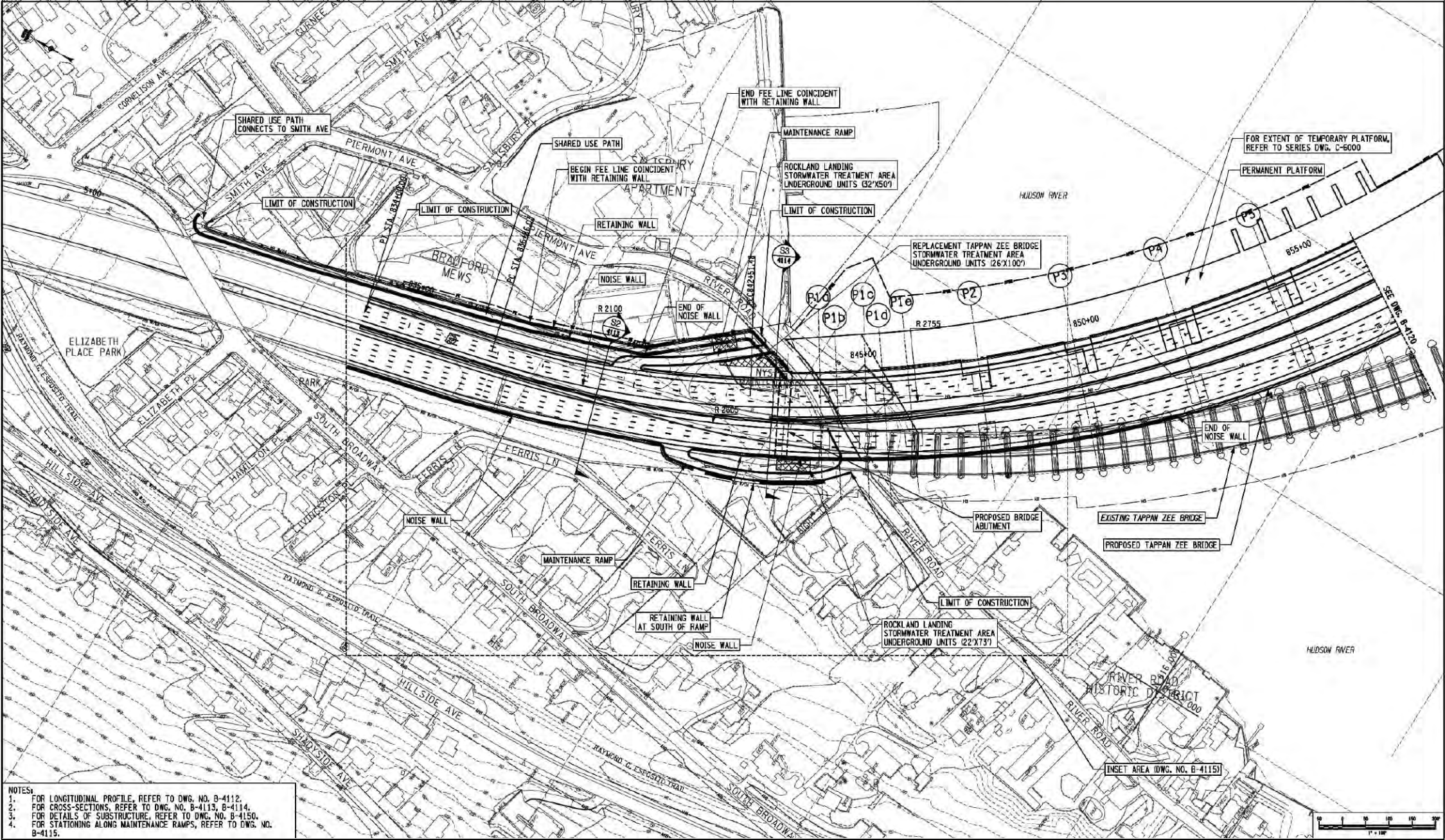


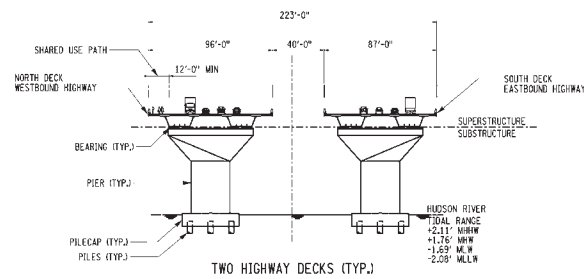
Figure B-2
Existing Bridge Plan, Profile, and Photographs



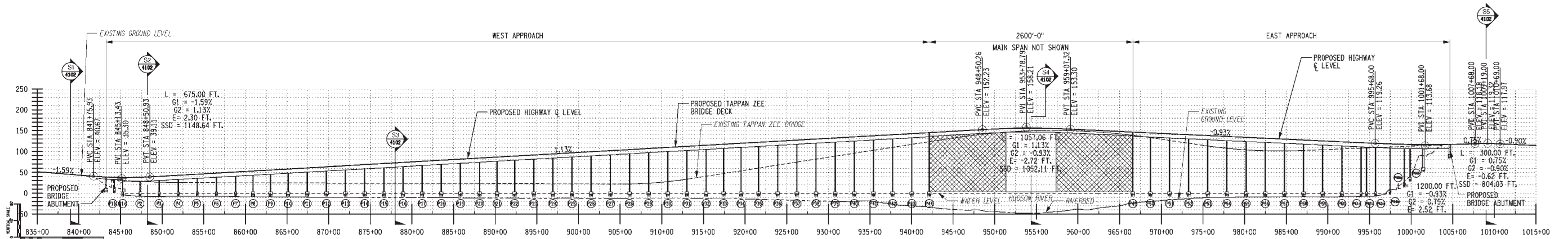
TAPPAN ZEE HUDSON RIVER CROSSING
Section 106 Supplemental Effect Finding Documentation

Figure B-4
Short Span Option - Rockland County

Short Span Option

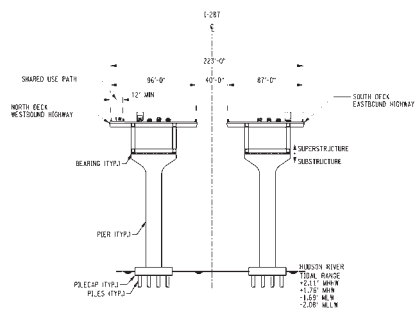


Short Span Cross-Section

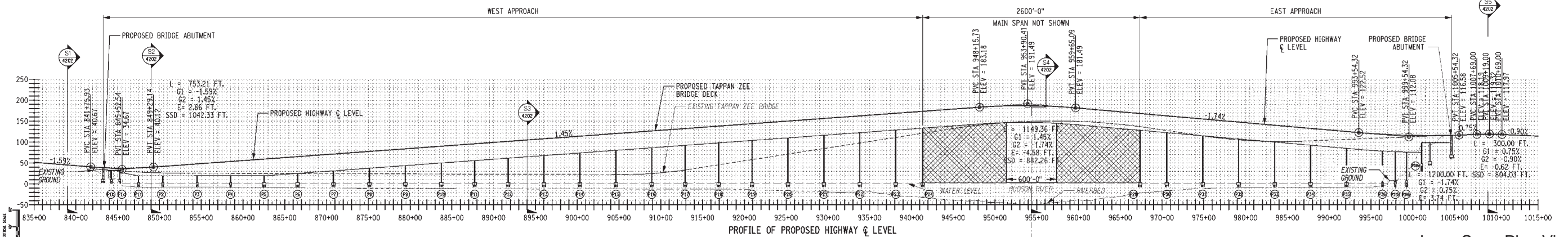


Short Span Plan View

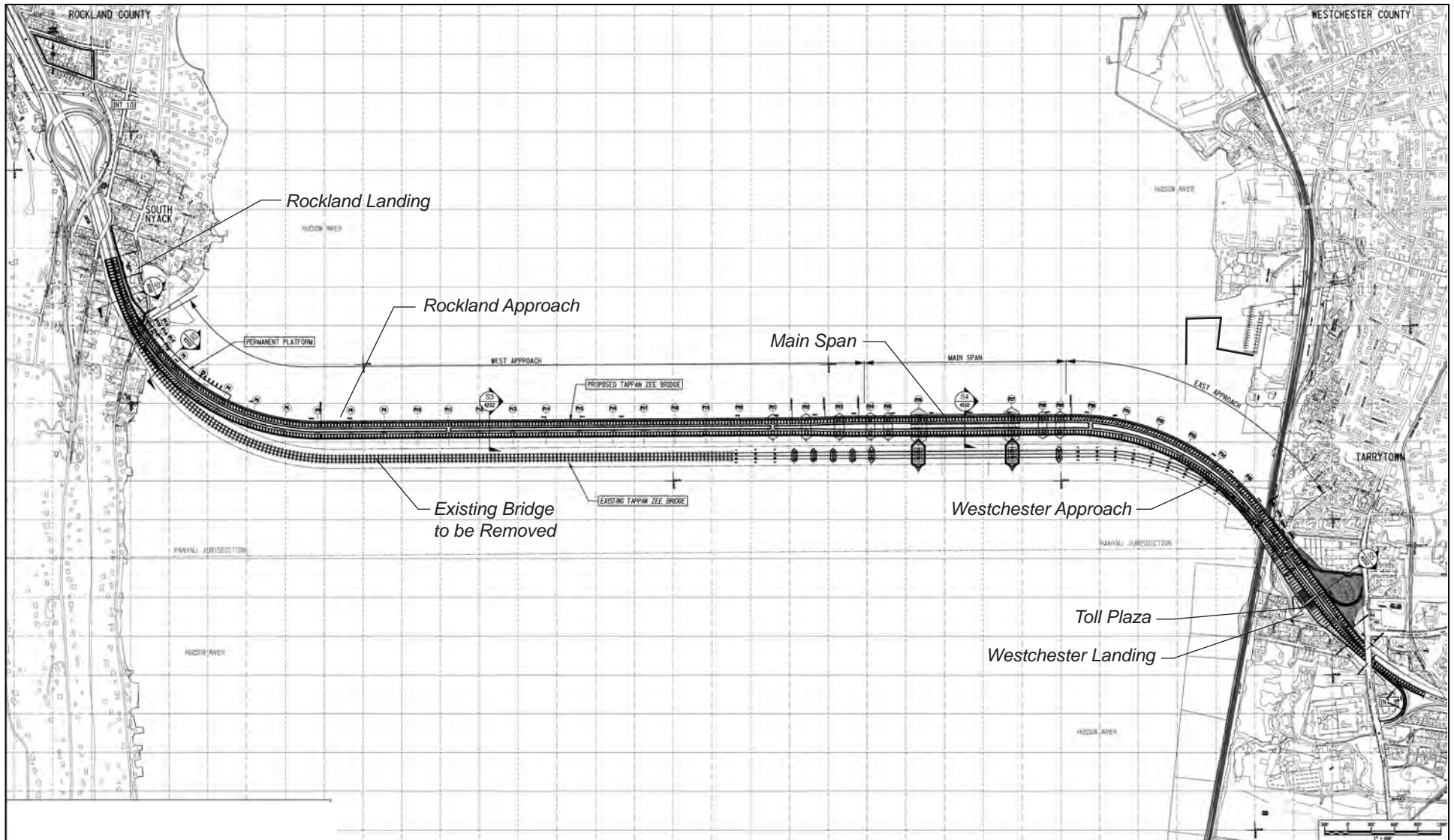
Long Span Option

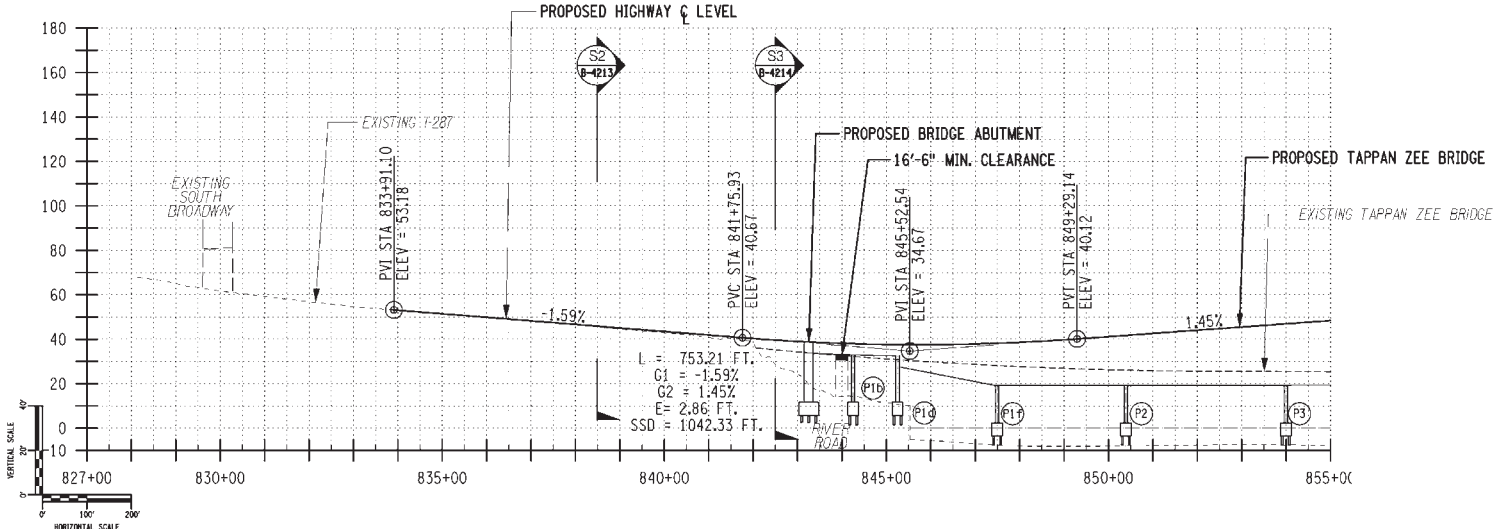
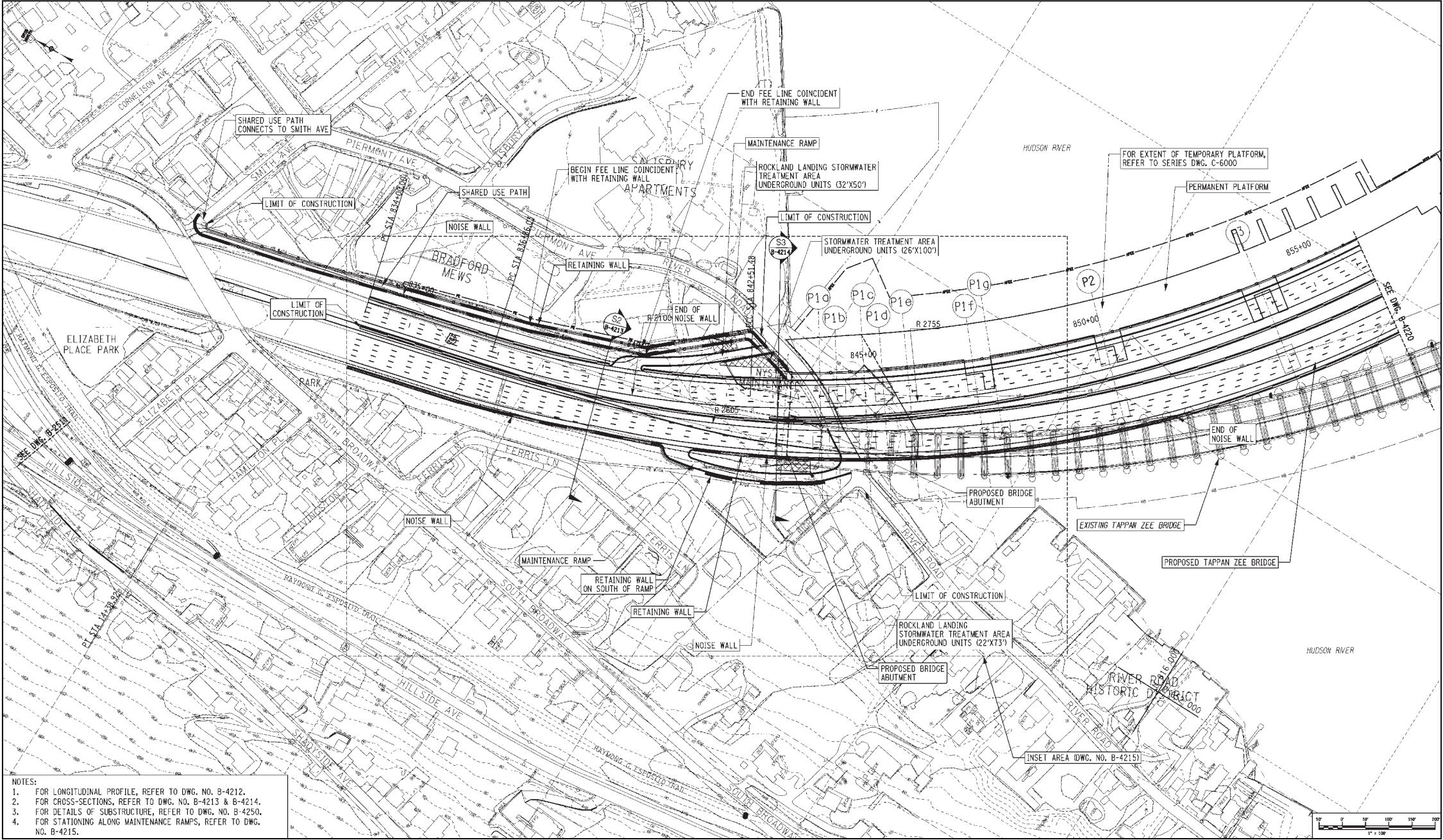


Long Span Cross-Section



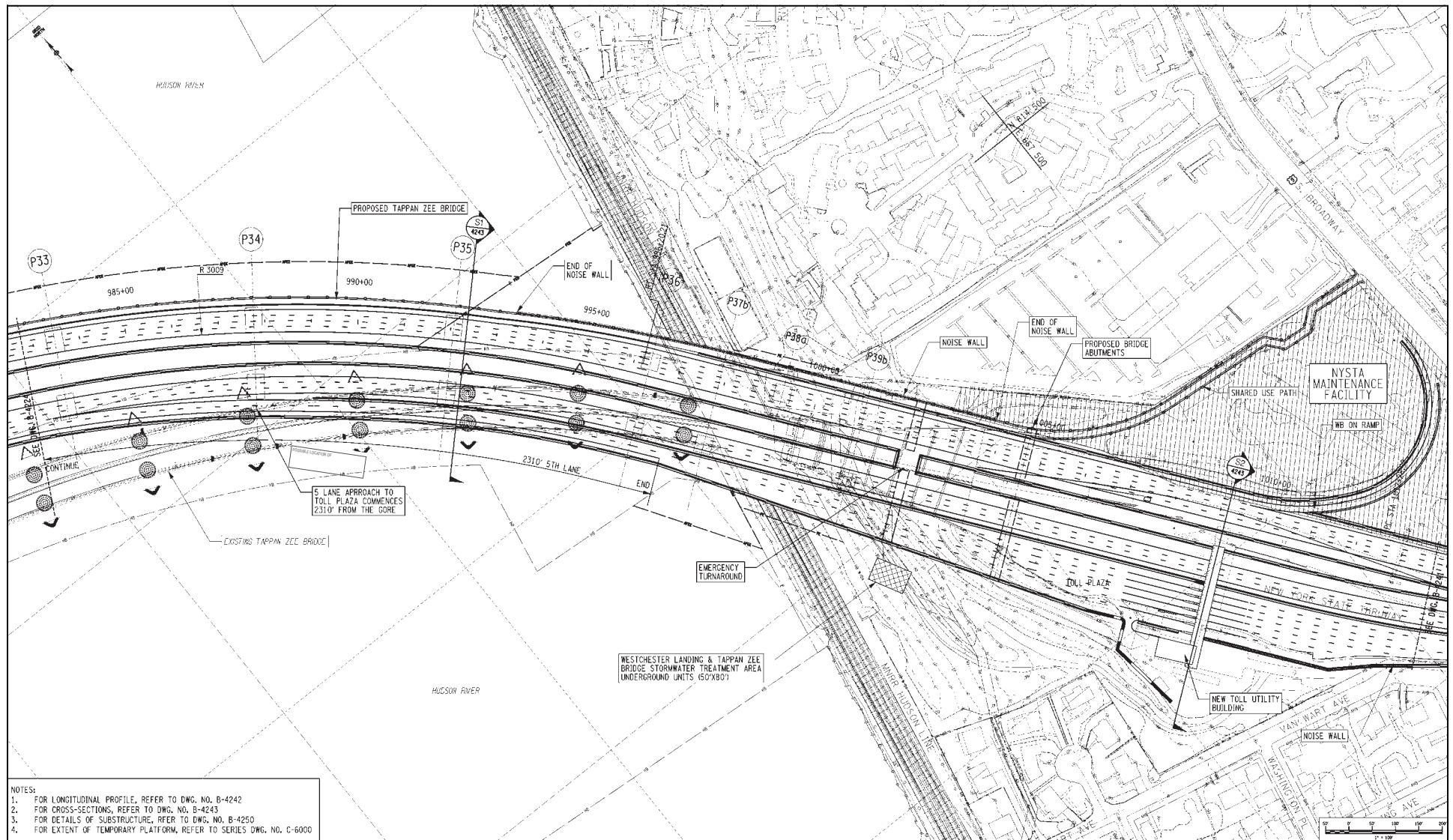
Long Span Plan View





TAPPAN ZEE HUDSON RIVER CROSSING
Section 106 Supplemental Effect Finding Documentation

Figure B-7
Long Span Option - Rockland County



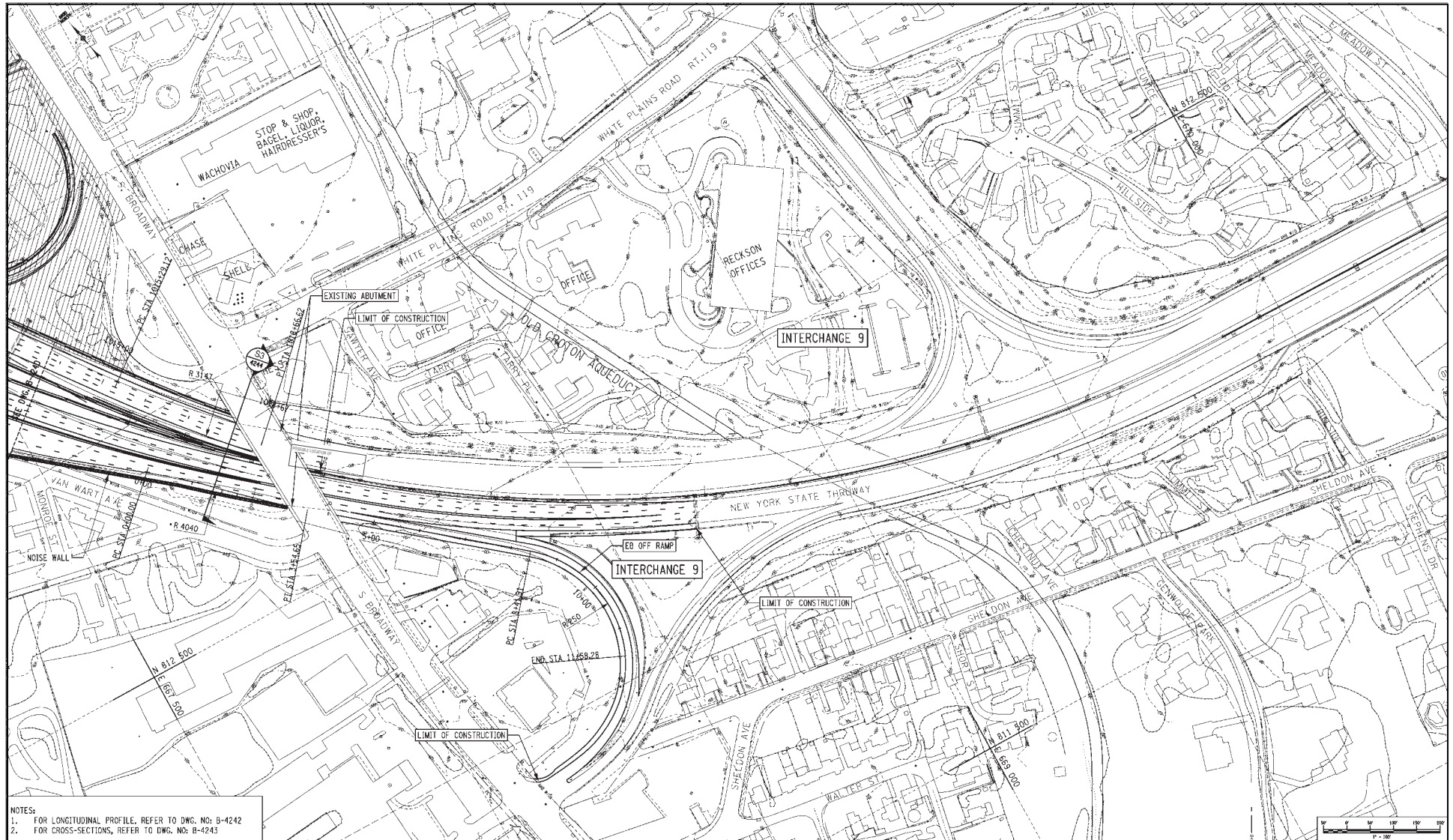


Figure B-9
**Westchester Landing -
 East of Route 9 (Broadway)**



Example of Cable-Stayed Option (Oresund Bridge, Denmark/Sweden)



Example of Arch Option (Lake Champlain Bridge, New York/Vermont)

**TAPPAN ZEE HUDSON RIVER CROSSING PROJECT
SECTION 106 SUPPLEMENTAL EFFECT FINDING**

**ATTACHMENT C:
CORRESPONDENCE**



New York State Office of Parks, Recreation and Historic Preservation

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518-237-8643

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Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

March 30, 2012

Mr. Michael P. Anderson
Project Director
New York State Department of Transportation
4 Burnett Boulevard
Poughkeepsie, New York 12603

Re: FHWA, DOT, NYSTA
Tappan Zee Hudson River Crossing Project: Draft DEIS
Rockland and Westchester Counties
11PR06692

Dear Mr. Anderson:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP)/ New York State Historic Preservation Office (NYSHPO) concerning the Draft Environmental Impact Statement (DEIS) for the proposed Tappan Zee Hudson River Crossing Project. The Federal Highway Administration (FHWA), the New York State Department of Transportation (NYSDOT), and the New York State Thruway Authority (NYSTA) propose to replace the existing Tappan Zee Hudson River crossing with a new crossing between Rockland and Westchester Counties, New York. The Replacement Bridge Alternative (Preferred Alternative) would incorporate portions of the existing Rockland and Westchester Counties' landings of the Tappan Zee Bridge into the new structure and would demolish the existing bridge, causeway, and approach spans. Our agency offers the following comments for your consideration.

Area of Potential Effects (APE)

The area of potential effects (APE) was developed in consultation between the lead agencies, consulting parties, and our office. The development of the APE took into account proposed work activities and the potential to cause both direct and indirect effects. Our office provided input as to appropriate areas of concern for both the built environment as well as for archaeological resources both terrestrial and submerged in the Hudson River.

Visual and Aesthetic Resources

Due to the unique environment and topography of the project study area, and the potential to introduce new elements into the viewshed, the existing visual character and quality of the affected environment provides the framework for assessing the change in visual character that may occur as a result of the project. It is the opinion of our office that the potential effects to visual and aesthetic resources was reasonably developed and appropriate consideration afforded to these resources. The visual analysis study area was carefully assessed and potential effects are addressed in this document.

Historic and Cultural Resources

Throughout the consultation process, our office has remained engaged with the lead agencies to provide timely input regarding our recommendations for identification and evaluation of potential significant historic properties that may be affected as a result of the proposed undertaking. This process has been iterative in nature and the lead agencies have cooperated by providing any additional information requested by our office.

Structures

The architectural survey for historic structures and historic districts meets all requirements. Currently, consultation continues with our office in order to conclude the final aspects of the addressing the potential effects to the historic built environment within the project area.

Archaeological Resources

Terrestrial Archaeological Resources

A Phase I archaeological survey to identify archaeological sites was conducted for the entire terrestrial portion of the APE. No archaeological resources were identified within the terrestrial archaeological APE.

Submerged Archaeological Resources

Based upon project research and preliminary geotechnical testing, it was determined that the project APE was sensitive for several types of submerged archaeological resources including the potential for a submerged Paleo landform along the western side of the Hudson River; sunken vessels and relicts of the rich regional maritime history of the river; and abandoned maritime infrastructure along the river including piers, docks, wharves, aids to navigation, and other potential resources associated with the maritime culture of the Hudson River.

Subsequent to the release of the Draft Environmental Impact Statement, the following methods were developed in consultation with our office to help determine the presence or absence of archaeological resources within the Hudson River portion of the APE, and to evaluate their eligibility for the National Register.

Submerged Paleo Landform

The New York State Department of Transportation will oversee implementation of the following measures to investigate deeply buried *in situ* marsh deposits and underlying river terraces that may be present approximately 45 to 50 feet below the Hudson River's bottom to the north of the bridge, and to avoid, minimize, or mitigate adverse effects to any deposits that may contain evidence of prehistoric activity dating to the beginning of the Early Archaic Period or the Paleo-Indian Period.

To determine the presence, extent, and significance of this landform, borings shall be undertaken in the potentially sensitive area and monitored by a professional archaeologist. The professional archaeologist shall also collect and analyze organic and/or soil samples recovered from the borings. A report documenting the findings of the soil boring program and soil analyses shall be prepared by the professional archaeologist and submitted to NYSTA, NYSDOT, and FHWA for distribution to the SHPO, the ACHP, Indian Tribes identified through the Section 106 outreach for the Project, and consulting parties as appropriate. If the deeply buried Paleo landform is determined to be present and significant, the soil boring analysis report will serve to document the deeply buried Paleo landform and will serve as mitigation in the event that the Project's impacts to this resource cannot be avoided.

Mr. Michael P. Anderson
March 30, 2012
11PR06692
Page 3

Submerged Historic Resources and Potential Shipwrecks

The APE is sensitive for potential shipwrecks and a small number of other potential archaeological properties. The following measures will be taken to investigate these potential historic properties, evaluate National Register eligibility of any confirmed resources, and consider measures to avoid, minimize, or mitigate the Project's effects on submerged historic resources and shipwrecks determined to be eligible for the National Register:

Remote sensing data shall be reviewed by a qualified maritime archaeologist to identify anomalies considered potential shipwrecks or submerged historic resources. Underwater investigations, such as diving, shall be undertaken to visually examine any anomalies that could constitute submerged historic resources and potential shipwrecks and to determine their significance.

A report, documenting the findings of the investigations and the Project's potential effects on any identified significant resources shall be prepared and submitted to NYSHPO, Indian Tribes identified through the Section 106 outreach for the Project, and consulting parties as appropriate. Measures to avoid, minimize, and mitigate adverse effects on any identified National Register eligible shipwrecks or other submerged historic resources, if identified, will be developed in consultation with NYSHPO, Indian Tribes identified through the Section 106 outreach for the Project, and consulting parties as appropriate. These measures shall be developed prior to FHWA's issuance of the Record of Decision (ROD) for the Project.

Finding of Effects

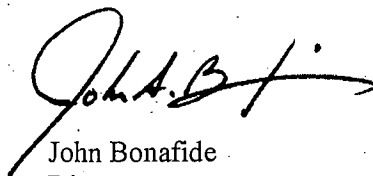
As the evaluation phase for eligibility and potential effects to submerged archaeological resources is still in process, we look forward to continued consultation until a Finding of Effects can be concluded for all historic properties.

Draft Memorandum of Agreement

Response to draft Memorandum of Agreement (MOA) will be submitted under separate cover.

Should you have any questions, please feel free to contact me at (518) 237-8643. If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,



John Bonafide
Director
Bureau for Technical Preservation Services

cc: Jonathan D. McDade, FHWA
John Burns, FHWA
Daniel Hitt, NYSDOT EAB
Mary Santangelo, NYSDOT EAB
Elizabeth Novak, NYSTA



Preserving America's Heritage

March 30, 2012

Michael Anderson
Project Director
New York State Department of Transportation
4 Burnett Boulevard
Poughkeepsie, New York 12603

RE: *Comments on the Draft Environmental Impact Statement for the Tappan Zee Hudson River Crossing, Interstate 87/287, Rockland and Westchester Counties, New York.*

Dear Mr. Anderson:

The Advisory Council on Historic Preservation (ACHP) has reviewed the DEIS for the Tappan Zee Hudson River Project and respectfully offers the following comments for your consideration. Overall, the document includes a tremendous amount of information and has been valuable to the ACHP in understanding the scope of the project, the differences between the two proposed alternatives, and the likely effects of the proposed project on historic properties. We hope that New York State Department of Transportation (NYSDOT) will find our comments helpful as you move forward with the environmental review.

Chapter 9: Visual and Aesthetic Resources

This chapter includes an excellent discussion of visual and aesthetic effects of the proposed project on residences in the vicinity of the bridge. Chapter 9 notes that at several locations, particularly south of the bridge, residences are situated along the narrow eastern slopes below the parklands, positioned and landscaped to optimize their views of the river. The bridge is visible from the east-facing yards and windows of nearly all residences built on the east slope of the Palisades Ridge and the Hudson riverfront, extending from the bridge to the Piermont Peninsula (see pg. 9-11). Many of these residences are either individually eligible for listing in the National Register of Historic Places or contributing properties to the River Road Historic District. The visual simulations are very helpful to understanding potential visual effects to historic properties and other resources. Clearly, residences located close to the bridge in Rockland County would be most affected by the undertaking's changes in access and the higher elevation of the new bridge.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

Chapter 10: Historic and Cultural Resources

Chapter 10-5 (Environmental Effects) is also informative and provides excellent background for Section 106 consultation. The ACHP agrees with FHWA's finding that the proposed Options would have an adverse effect on the Tappan Zee Bridge and the South Nyack Historic District. We do not agree, however, that the proposed undertaking has no potential to have adverse effects on the 23 architectural historic properties identified in the area of potential effects (see Table 10-2 and pg. 10-27). As noted in the DEIS, both options for the Replacement Bridge would raise the bridge's elevation. With a change of 4 to 7 feet for the Short Span Option, and approximately 30 feet with the Long Span Option, the difference in elevation would be noticeable, especially from 10 Ferris Lane and properties in the northern portion of the River Road Historic District.

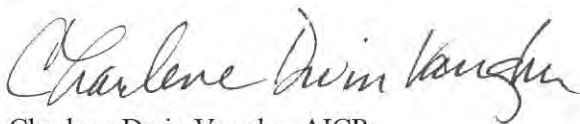
Without knowing the design of the new bridge, and more specifically how views would be altered, it is possible that the new bridge will diminish the setting, including the views of the river from these properties. While Chapter 9 of the DEIS accurately describes the importance of visual characteristics and aesthetics for properties located along this stretch of the Hudson River, Chapter 10 and Appendix C suggest that the setting does not contribute to the historic significance of historic properties whose views will change. Although the existing bridge was built after the period of significance for most of these properties, we would argue that the visual aesthetics of the Hudson River are important factors in the location of these historic properties. Furthermore we believe that alterations to the visual setting would be an "effect" on the historic properties. To address this concern and to minimize the potential for adverse effects to historic properties based on changes to the setting, we recommend including measures in the Memorandum of Agreement (MOA) that would help ensure that the new bridge, to be designed and built by a contractor under a design-build contract, is aesthetically attractive, context sensitive, and compatible with the surrounding historic and natural setting.

Appendix C-2: Memorandum of Agreement

A draft MOA was included as Appendix C-2 of the DEIS. We have reviewed this draft and find it to be generally well-drafted and thorough. We have proposed, in an attachment to this letter, stipulations for addressing the aesthetic issues in the MOA, and for ensuring public involvement in the design of the bridge. We have also included a number of additional recommendations.

Thank you for providing us an opportunity to comment on this DEIS, FHWA's findings of effect, and the draft MOA. If you have any questions or concerns about these recommendations, please feel free to contact Carol Legard of our staff at 202-606-8522 or via email at clegard@achp.gov.

Sincerely,



Charlene Dwin Vaughn, AICP
Assistant Director, FPLAS
Office of Federal Agency Programs



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

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April 12, 2012

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

Dr. Christina B. Rieth
Cultural Resource Survey Program
New York State Museum
Cultural Education Center 3122
Albany, New York 12230

Re: FHWA, NYSDOT, NYSTA
Tappan Zee Hudson River Crossing Project, Rockland and Westchester Counties
Section 233 Permit Application for Underwater Archaeology
11PR06692

Dear Dr. Rieth:

Thank you for providing our agency an opportunity to comment on the submitted Section 233 Permit Application by AKRF for continued evaluation of potential historic properties in the Hudson River as part of the Tappan Zee Hudson River Crossing Project in Rockland and Westchester Counties. The project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and it's implementing regulation *36 CFR Part 800 – Protection of Historic Properties*.

Since the inception of the current project, our office has worked closely with the joint lead agencies and their consultants as part of the required consultation process. Part of our role as the State Historic Preservation Office is to advise and assist Federal agencies in carrying out their Section 106 responsibilities and to ensure that historic properties are taken into consideration at all levels of planning and development [*as per 36 CFR Part 800.2(c)(1)(i)*].

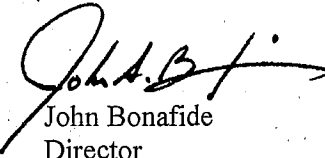
As part of this highly iterative process, the Federal Highway Administration, the New York State Department of Transportation, and the New York State Thruway Authority have been responsive to the requests of our agency and continue to work with our staff in a cooperative spirit. Furthermore, the additional archaeological investigations as part of the identification and evaluation process is being proposed as the result of recommendations made by our office.

As the New York State Historic Preservation Office, our agency fully supports the approval and issuance of the requested Section 233 Permit for the ongoing underwater investigations as part of the proposed project. We approve of all methods proposed to conduct the work and the subsequent proposed timeline for analyses and report completion.

Dr. Christina B. Rieth
April 12, 2012
11PR06692
Page 2

Should you have any questions, please feel free to contact me at (518) 237-8643.

Sincerely,

A handwritten signature in black ink, appearing to read "John B. F.", with a stylized flourish at the end.

John Bonafide
Director
Bureau for Technical Preservation Services

cc: Jonathan D. McDade, FHWA
John Burns, FHWA
Daniel Hitt, NYSDOT EAB
Mary Santangelo, NYSDOT EAB
Elizabeth Novak, NYSTA



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April 12, 2012

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

Mr. Michael P. Anderson
Project Director
New York State Department of Transportation
4 Burnett Boulevard
Poughkeepsie, New York 12603

Re: FHWA, NYSDOT, NYSTA
Tappan Zee Hudson River Crossing Project, Rockland and Westchester Counties
Draft Technical Memo: Status of Cultural Resource Identification Efforts in the Hudson River
11PR06692

Dear Mr. Anderson:

Our staff has reviewed the submitted documentation for the *Draft Technical Memo: Status of Cultural Resource Identification Efforts in the Hudson River*. This information was received by our office via email April 3, 2012. The project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and its implementing regulation 36 CFR Part 800 – *Protection of Historic Properties*.

It is the opinion of our office that the *Draft Technical Memo* accurately represents the results of ongoing consultation with our office. The Federal Highway Administration, the New York State Department of Transportation, and the New York State Thruway Authority have been responsive to the requests of our agency and continue to work in a cooperative spirit during this highly iterative process. We recognize that several commitments required to conclude the Section 106 consultation, as indicated in the *Draft Technical Memo*, will be memorialized in the Memorandum of Agreement. Our office looks forward to continued consultation on the proposed project.

Should you have any questions, please feel free to contact me at (518) 237-8643.

Sincerely,

John Bonafide
Director

Bureau for Technical Preservation Services

cc: Jonathan D. McDade, FHWA
John Burns, FHWA
Daniel Hitt, NYSDOT EAB
Mary Santangelo, NYSDOT EAB
Elizabeth Novak, NYSTA



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

April 12, 2012

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Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

Mr. Michael P. Anderson
Project Director
New York State Department of Transportation
4 Burnett Boulevard
Poughkeepsie, New York 12603

Re: FHWA, NYSDOT, NYSTA
Tappan Zee Hudson River Crossing Project, Rockland and Westchester Counties
*Phase I Archaeological Survey Report and Addendum 1: Status of Recent Cultural Resources
Identification Efforts and Proposed Evaluation Strategies (2 Volumes)*
11PR06692

Dear Mr. Anderson:

Our staff has reviewed the submitted *Phase I Archaeological Survey Report*, and *Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies (2 Volumes)*. This information was received by our office April 6, 2012. The project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and its implementing regulation *36 CFR Part 800 – Protection of Historic Properties*

Upon review of the submitted documents, it is evident that the *Phase I Archaeological Survey Report* largely contains information previously submitted to our office for review and comment as well as some editorial updates. However, no substantive changes to this version of the document were made.

The provided supplemental document *Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies* outlines the most recent steps taken to address to identify potential historic properties within the project area and to assess potential effects to them as a result of the proposed project. These actions include analyses of the remotely-sensed data, results of preliminary diver verification including data retrieval from Targets 001 and 003, the current status of the Geoarchaeological survey, recommendations for remaining work, and a proposed schedule for completion of these efforts including fieldwork, laboratory analyses, and report preparation and submittal.

All of these steps have been carefully coordinated with our office and we have been regularly updated of project progress by the joint lead agencies. It is the opinion of our office that the *Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies* accurately reflects the results of ongoing consultation with our office. The Federal Highway Administration, the New York State Department of Transportation, and the New York State Thruway Authority have been responsive to the requests of our agency and continue to work in a cooperative spirit during this process. Our office looks forward to continued cooperation on the proposed project to conclude the required Section 106 consultation process.

Mr. Michael P. Anderson

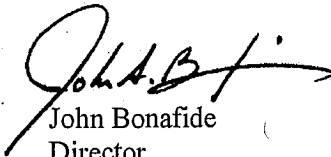
April 12, 2012

11PR06692

Page 2

Should you have any questions, please feel free to contact me at (518) 237-8643. If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

A handwritten signature in black ink, appearing to read "John Bonafide", with a stylized flourish extending from the end.

John Bonafide

Director

Bureau for Technical Preservation Services

cc: Jonathan D. McDade, FHWA
John Burns, FHWA
Daniel Hitt, NYSDOT EAB
Mary Santangelo, NYSDOT EAB
Elizabeth Novak, NYSTA



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

April 16, 2012

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Albany, NY 12207
518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Ms. Tamara Francis
Director, Cultural Resource Preservation
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Ms. Francis:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

Applying the criteria of adverse effects (36 CFR 800.5(a)(1)), the Federal Highway Administration (FHWA), in coordination with the New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA), finds the Project will have an Adverse Effect on identified historic properties within the Project's area of potential effects (APE). This finding has been made in consultation with the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and other Consulting Parties.

Enclosed is a revised version of the Draft 'Finding Documentation' included in the Draft Environmental Impact Statement (DEIS), Appendix C-1 (January 2012). Revisions reflect continuing consultation with the SHPO, ACHP, and other consulting parties, including input received at a consultation meeting on February 16, 2012. The document has also been updated to reflect the current status of ongoing archaeological investigations of potential Hudson River resources.

The revised Draft Finding Documentation is being distributed for a review period of 30 days, to provide Section 106 Consulting Parties a final opportunity to comment on the Project's effects.

At the end of this review period, FHWA in coordination with NYSDOT and NYSTA, will consider any comments in consultation with the SHPO and ACHP, finalize the document, and issue an Adverse Effect determination for the Project.

Memorandum of Agreement

The Section 106 process involves consultation to resolve adverse effects and to develop a Memorandum of Agreement (MOA) documenting actions that have been agreed upon to mitigate the Project's effects on identified historic properties. An earlier version of the Draft MOA was included in the DEIS, Appendix C-2. Since that time, the Draft MOA has been revised to update stipulations to complete archeological investigations of potential Hudson River resources, to provide additional detail on mitigation measures, and to document Project commitments for public input in the development of a new bridge design that is compatible with the surrounding historic and natural setting.

If you would like to comment on the revised Draft Finding Documentation or mitigation measures in the revised Draft MOA, please respond to the attention of msantangelo@dot.state.ny.us, NYSDOT Office of Environment. Any comments that are received by **May 16, 2012** will be taken into consideration in finalizing these documents. Thank you for your interest and participation in Section 106 consultation for the Project.

If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns
Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation
Carol Legard, Advisory Council for Historic Preservation
Michael P. Anderson, P.E., New York State Department of Transportation
Daniel P. Hitt, New York State Department of Transportation
Elizabeth Novak, New York State Thruway Authority



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

April 16, 2012

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518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Ms. Marguerite Smith
Office of Tribal Trustees/Legal
Shinnecock Indian Nation
100 Church Street
Shinnecock Community Center
Southampton, NY 11968

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Ms. Smith:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

Applying the criteria of adverse effects (36 CFR 800.5(a)(1)), the Federal Highway Administration (FHWA), in coordination with the New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA), finds the Project will have an Adverse Effect on identified historic properties within the Project's area of potential effects (APE). This finding has been made in consultation with the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and other Consulting Parties.

Enclosed is a revised version of the Draft 'Finding Documentation' included in the Draft Environmental Impact Statement (DEIS), Appendix C-1 (January 2012). Revisions reflect continuing consultation with the SHPO, ACHP, and other consulting parties, including input received at a consultation meeting on February 16, 2012. The document has also been updated to reflect the current status of ongoing archaeological investigations of potential Hudson River resources.

The revised Draft Finding Documentation is being distributed for a review period of 30 days, to provide Section 106 Consulting Parties a final opportunity to comment on the Project's effects.

At the end of this review period, FHWA in coordination with NYSDOT and NYSTA, will consider any comments in consultation with the SHPO and ACHP, finalize the document, and issue an Adverse Effect determination for the Project.

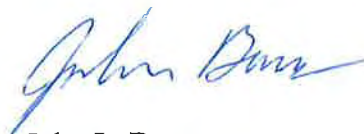
Memorandum of Agreement

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If you would like to comment on the revised Draft Finding Documentation or mitigation measures in the revised Draft MOA, please respond to the attention of msantangelo@dot.state.ny.us, NYSDOT Office of Environment. Any comments that are received by **May 16, 2012** will be taken into consideration in finalizing these documents. Thank you for your interest and participation in Section 106 consultation for the Project.

If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns
Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation
Carol Legard, Advisory Council for Historic Preservation
Michael P. Anderson, P.E., New York State Department of Transportation
Daniel P. Hitt, New York State Department of Transportation
Elizabeth Novak, New York State Thruway Authority



U.S. Department
of Transportation
**Federal Highway
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New York Division

April 16, 2012

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Albany, NY 12207
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New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Mr. Jason Ross
Section 106 Assistant
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Mr. Ross:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

Applying the criteria of adverse effects (36 CFR 800.5(a)(1)), the Federal Highway Administration (FHWA), in coordination with the New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA), finds the Project will have an Adverse Effect on identified historic properties within the Project's area of potential effects (APE). This finding has been made in consultation with the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and other Consulting Parties.

Enclosed is a revised version of the Draft 'Finding Documentation' included in the Draft Environmental Impact Statement (DEIS), Appendix C-1 (January 2012). Revisions reflect continuing consultation with the SHPO, ACHP, and other consulting parties, including input received at a consultation meeting on February 16, 2012. The document has also been updated to reflect the current status of ongoing archaeological investigations of potential Hudson River resources.

The revised Draft Finding Documentation is being distributed for a review period of 30 days, to provide Section 106 Consulting Parties a final opportunity to comment on the Project's effects. At the end of this review period, FHWA in coordination with NYSDOT and NYSTA, will consider any comments in consultation with the SHPO and ACHP, finalize the document, and issue an Adverse Effect determination for the Project.

Memorandum of Agreement

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If you would like to comment on the revised Draft Finding Documentation or mitigation measures in the revised Draft MOA, please respond to the attention of msantangelo@dot.state.ny.us, NYSDOT Office of Environment. Any comments that are received by **May 16, 2012** will be taken into consideration in finalizing these documents. Thank you for your interest and participation in Section 106 consultation for the Project.

If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns

Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation

Carol Legard, Advisory Council for Historic Preservation

Michael P. Anderson, P.E., New York State Department of Transportation

Daniel P. Hitt, New York State Department of Transportation

Elizabeth Novak, New York State Thruway Authority



U.S. Department
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**Federal Highway
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New York Division

April 16, 2012

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518-431-4127
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New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Dr. Brice Obermeyer
Delaware Tribe Historic Preservation Office
1420 C of E Drive, Suite 190
Emporia, KS 66801

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Dr. Obermeyer:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

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consider any comments in consultation with the SHPO and ACHP, finalize the document, and issue an Adverse Effect determination for the Project.

Memorandum of Agreement

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If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns

Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation

Carol Legard, Advisory Council for Historic Preservation

Michael P. Anderson, P.E., New York State Department of Transportation

Daniel P. Hitt, New York State Department of Transportation

Elizabeth Novak, New York State Thruway Authority



U.S. Department
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**Federal Highway
Administration**

New York Division

April 16, 2012

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In Reply Refer To:
HDO-NY

Ms. Sherry White
Tribal Historic Preservation Officer
Stockbridge-Munsee Band of Mohican Indians
W13447 Camp 14 Road
Bowler, WI 54416

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Ms. White:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

Applying the criteria of adverse effects (36 CFR 800.5(a)(1)), the Federal Highway Administration (FHWA), in coordination with the New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA), finds the Project will have an Adverse Effect on identified historic properties within the Project's area of potential effects (APE). This finding has been made in consultation with the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and other Consulting Parties.

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Memorandum of Agreement

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If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns
Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation
Carol Legard, Advisory Council for Historic Preservation
Michael P. Anderson, P.E., New York State Department of Transportation
Daniel P. Hitt, New York State Department of Transportation
Elizabeth Novak, New York State Thruway Authority



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

April 16, 2012

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11A Clinton Avenue, Suite 719
Albany, NY 12207
518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Mr. Arnold Printup, Jr.
Saint Regis Mohawk Tribe
Tribal Historic Preservation Officer
Saint Regis Mohawk Tribe
412 State Route 37
Hogansburg, NY 13655

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Mr. Printup, Jr.:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

Applying the criteria of adverse effects (36 CFR 800.5(a)(1)), the Federal Highway Administration (FHWA), in coordination with the New York State Department of Transportation (NYSDOT) and New York State Thruway Authority (NYSTA), finds the Project will have an Adverse Effect on identified historic properties within the Project's area of potential effects (APE). This finding has been made in consultation with the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and other Consulting Parties.

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Memorandum of Agreement

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If you would like to comment on the revised Draft Finding Documentation or mitigation measures in the revised Draft MOA, please respond to the attention of msantangelo@dot.state.ny.us, NYSDOT Office of Environment. Any comments that are received by **May 16, 2012** will be taken into consideration in finalizing these documents. Thank you for your interest and participation in Section 106 consultation for the Project.

If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,



John L. Burns
Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation
Carol Legard, Advisory Council for Historic Preservation
Michael P. Anderson, P.E., New York State Department of Transportation
Daniel P. Hitt, New York State Department of Transportation
Elizabeth Novak, New York State Thruway Authority



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

April 16, 2012

Leo W. O'Brien Federal Building
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Albany, NY 12207
518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HDO-NY

Chief Randy Hart
Saint Regis Mohawk Tribe
412 State Route 37
Hogansburg, NY 13655

Subject: Tappan Zee Hudson River Crossing Project
Section 106 Consultation - Adverse Effect Finding and Draft MOA

Dear Chief Randy Hart:

Please find enclosed for your information and review, updated documents prepared for the Tappan Zee Hudson River Crossing Project (the 'Project'), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800 – Protection of Historic Properties.

Adverse Effect Finding

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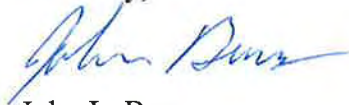
Memorandum of Agreement

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If you have any questions or would like to request any further information, please me at (518) 431-8875. Thank you for your interest in the Tappan Zee Hudson River Crossing Project.

Sincerely,

A handwritten signature in blue ink, appearing to read "John L. Burns".

John L. Burns

Major Projects Engineer

Enclosures

cc:

Ruth Pierpont, New York State Office of Parks, Recreation, and Historic Preservation

Carol Legard, Advisory Council for Historic Preservation

Michael P. Anderson, P.E., New York State Department of Transportation

Daniel P. Hitt, New York State Department of Transportation

Elizabeth Novak, New York State Thruway Authority



STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
ALBANY, N.Y. 12232
www.dot.ny.gov

JOAN McDONALD
COMMISSIONER

ANDREW M. CUOMO
GOVERNOR

April 23, 2012

John Burns
Major Projects Engineer, Tappan Zee Bridge Replacement Project
Federal Highway Administration, New York Division
Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, New York 12207

Re: Tappan Zee Hudson River Crossing Project (11PR06692)
Section 106 Review - Archaeology Technical Memo

Dear John:

On April 3, 2012, the New York State Department of Transportation (NYSDOT), on behalf of the Federal Highway Administration (FHWA) and New York State Thruway Authority (NYSTA), provided the New York State Historic Preservation Office (SHPO) with updated information on the status of archaeological investigations for the Tappan Zee Hudson River Crossing Project. This project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and its implementing regulation, *36 CFR Part 800 – Protection of Historic Properties*.

The Technical Memo submitted to the SHPO on April 3rd summarizes ongoing work since January 2012, including a review of remote sensing data, a magnetometer survey, and preliminary diving to investigate locations of potential shipwrecks or other historic resources. In addition, the Technical Memo reports on the status of geoarchaeological survey, represented by archaeological monitoring of borings in the portion of the Rockland County shoreline identified as sensitive for the presence of a submerged paleo landform. These investigations have been guided by continuing consultation among the SHPO, FHWA, NYSDOT, and NYSTA, to develop appropriate strategies and parameters for field work and analysis, as discussed during a conference call held on March 14, 2012, and during subsequent telephone conversations and electronic mail among the SHPO, NYSTA, and NYSDOT staff.

Based on information collected to date, and steps developed in consultation with the SHPO, the Technical Memo outlines a plan for additional investigations to confirm the presence of the paleo landform and to identify and evaluate target locations of potential resources in the Hudson River:

- Complete archaeological monitoring of test borings, in progress, and conduct testing and analysis of sediment samples, including flotation to recover light and heavy fractions, microanalysis of flora, fauna, and lithics, and radio-carbon dating
- For Target 003, conduct additional research, document review, and possible dating through dendrochronology of a timber retrieved from the location
- For Target 001, conduct Phase II-level investigations, including the removal of overburden and excavation of trenches to expose the vessel structure and identify characteristics such as the vessel type, structural materials, cargo type, age and use, to provide sufficient information for an evaluation of National Register eligibility

In a letter dated April 12, 2012 (attached), the SHPO concurs that the Technical Memo accurately represents the results of ongoing consultation, with the understanding that commitments required to conclude Section 106 consultation, as outlined in the Technical Memo, will be memorialized in the Memorandum of Agreement.

At this time, we respectfully request the concurrence of the FHWA that obligations for Section 106 consultation to identify and evaluate potential Hudson River resources will be satisfied by implementing the plan outlined in the Technical Memo. With FHWA concurrence, we will move forward to obtain all permits required to carry out this work.

Please forward any questions or comments to my attention at dhitt@dot.state.ny.us.

Sincerely,



DANIEL P. HITT, RLA
(Acting) Co-Director, Office of Environment

DPH/MCS

cc.: John Bonafide, NYSHPO
Brian Yates, NYSHPO
Michael Anderson, NYSDOT
Elizabeth Novak, NYSTA
Robert Conway, AKRF



STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
ALBANY, N.Y. 12232
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JOAN McDONALD
COMMISSIONER

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GOVERNOR

April 24, 2012

John Burns
Major Projects Engineer, Tappan Zee Bridge Replacement Project
Federal Highway Administration, New York Division
Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, New York 12207

Re: Tappan Zee Hudson River Crossing Project (11PR06692)
Section 106 - Phase I Archaeological Survey Report & Addendum

Dear John:

On April 6, 2012, the New York State Department of Transportation (NYSDOT), on behalf of the Federal Highway Administration (FHWA) and New York State Thruway Authority (NYSTA), submitted the *Phase I Archaeological Survey Report and Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies (2 Volumes)* for the Tappan Zee Hudson River Crossing Project to the New York State Historic Preservation Office (SHPO). This project is being reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966, *as amended*, and its implementing regulation, *36 CFR Part 800 – Protection of Historic Properties*.

The *Phase I Archaeological Survey Report* was previously submitted to the SHPO for review and comment, and a revised draft report was appended to the Draft Environmental Impact Statement (DEIS) in January 2012. This final report contains editorial updates, but no substantive changes from the previous version of the document. No archaeological properties were identified within the terrestrial portion of the Project's area of potential effects (APE).

Within the Hudson River portion of the APE, the Phase I report identified sensitivity for several types of submerged archaeological resources, including a paleo-landform along the western shore; sunken vessels and other relicts associated with the maritime history of the river; and potential remains of riverfront infrastructure including piers, docks, and wharves.

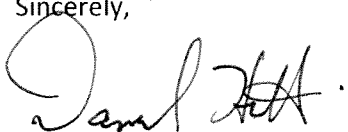
The Addendum report outlines steps taken since January 2012 to continue identification efforts for Hudson River resources, and proposed steps to complete these efforts, developed in consultation with the SHPO. This document was submitted to the SHPO as a Technical Memo on April 3, 2012. By

letter dated April 12, 2012, the SHPO concurred with proposed steps outlined in the Technical Memo as an accurate reflection of ongoing consultation regarding these investigations. On April 23, 2012, the NYSDOT requested FHWA concurrence with the Technical Memo for the purpose of obtaining all permits required to carry out Hudson River investigations.

At this time, we respectfully request the concurrence of the FHWA with the findings and recommendations in the *Phase I Archaeological Survey Report and Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies (2 Volumes)*, with the understanding that agreed-upon steps to complete Section 106 consultation for archaeological properties will be stipulated in the Memorandum of Agreement for the Project.

Please forward any questions or comments to my attention at dhitt@dot.state.ny.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel Hitt", with a stylized flourish at the end.

DANIEL P. HITT, RLA
(Acting) Co-Director, Office of Environment

DPH/MCS

cc.: John Bonafide, NYSHPO
Brian Yates, NYSHPO
Michael Anderson, NYSDOT
Elizabeth Novak, NYSTA
Robert Conway, AKRF



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Federal Highway
Administration

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New York Division

April 30, 2012

OFFICE OF ENVIRONMENT

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In Reply Refer To:
HDO-NY

Mr. Daniel P. Hitt, RLA
Acting Co-Director, Office of Environment
New York State Department of Transportation
50 Wolf Road
Albany, New York 12232

Subject: Tappan Zee Hudson River Crossing Project (11PR06692)
Section 106 Review - Archaeology Technical Memo and Phase I Archaeology Report
& Addendum, Rockland and Westchester Counties

Dear Mr. Hitt:

We received your letters dated April 23 and 24 requesting concurrence with the Archaeology Technical Memo and Phase I Archaeology Report for the Tappan Zee Hudson River Crossing Project.

Archaeology Technical Memo

We have reviewed the documentation relating to Archaeology Technical Memo that summarizes the ongoing work to investigate locations of potential ship wrecks or other historic resources. In addition, the Technical Memo reports on the status of geoarchaeological survey, represented by archaeological monitoring of borings in the portion of the Rockland County shoreline identified as sensitive for the presence of a submerged paleo landform. These investigations have been guided by continuing consultation among the SHPO, FHWA, NYSDOT, and NYSTA, to develop appropriate strategies and parameters for field work and analysis. Based on information collected to date, and steps developed in consultation with the SHPO, the Technical Memo outlines a plan for additional investigations to confirm the presence of the paleo landform and to identify and evaluate target locations of potential resources in the Hudson River. This plan includes the following:

- Complete archaeological monitoring of test borings, in progress, and conduct testing and analysis of sediment samples, including flotation to recover light and heavy fractions, microanalysis of flora, fauna, and lithics, and radio-carbon dating
- For Target 003, conduct additional research, document review, and possible dating through dendrochronology of a timber retrieved from the location
- For Target 001, conduct Phase I-level investigations, including the removal of overburden and excavation of trenches to expose the vessel structure and identify characteristics such as the vessel type, structural materials, cargo type, age and use, to provide sufficient information for an evaluation of National Register eligibility

We have also reviewed the response letter from the State Historic Preservation Officer (SHPO) dated April 12 that concurs that the Technical Memo accurately represents the results from ongoing consultation, with the understanding that commitments required to conclude Section 106 consultation, as outlined in the Technical Memo, will be memorialized in the Memorandum of Agreement. This statement was also distributed to the federally recognized Tribal Nations with an expressed interest in the project area, and to date we have received no response in terms of cultural and religious concerns.

Based upon our review of the information above, we concur that the obligations for Section 106 consultation to identify and evaluate potential Hudson River resources Tappan Zee Hudson River Crossing Project will be satisfied by implementing the plan outlined in the Technical Memo.

Phase I Archaeological Survey Report & Addendum: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies

We have reviewed the documentation relating to Phase I Archaeological Survey Report and agree that the report contains information previously appended to the Draft Environmental Impact Statement and no substantive changes to this version of the document were made. The Addendum report outlines steps taken since January 2012 to continue identification efforts for Hudson River resources, and proposed steps to complete these efforts, developed in consultation with the SHPO. This document was submitted to the SHPO as a Technical Memo on April 3.

We have also reviewed the response letter from the State Historic Preservation Officer (SHPO) dated April 12 that concurs with proposed steps outlined in the Technical Memo as an accurate reflection of ongoing consultation regarding these investigations. This report was also distributed to the federally recognized Tribal Nations with an expressed interest in the project area, and to date we have received no response in terms of cultural and religious concerns.

Based upon our review of the information above, we concur with the findings and recommendations in the Phase I Archaeological Survey Report and Addendum 1: Status of Recent Cultural Resources Identification Efforts and Proposed Evaluation Strategies with the understanding that agreed-upon steps to complete Section 106 consultation for archaeological properties will be stipulated in the Memorandum of Agreement for the Project.

If you have any questions or concerns, please contact me at 518-431-8875.

Sincerely,



John Burns

Tappan Zee Bridge Major Project Engineer

cc:

Ruth L. Pierpont, Acting Deputy Commissioner for Historic Preservation (11PR06692)

Mary Santangelo, Environmental Analysis Bureau, NYSDOT MO

Michael Anderson, NYSDOT Tappan Zee Bridge Project Manager, 4 Burnett Blvd, Poughkeepsie, NY 12603

Dave Capobianco, NYSTA Bureau of Structure Design