Appendix P - Memos to NJ Transit and New Jersey Department of Environmental Protection
NJ Transit Rolling Gate Memo
Date: April 5, 2016
To: Mr. Jared Pilosio, Manager, Superstorm Sandy Recovery and Resilience Program - NJ Transit
From: William Hamilton, PE
Subject: RBDH – Location of Rolling Flood Protection Gate Crossing at NJ Transit Light Rail Tracks

Message:

As part of the “Resist” portion of the Rebuild by Design – Hudson River Resist, Delay, Store, Discharge Project, it will be necessary for the flood protection system to cross the NJ Transit Hudson-Bergen Light Rail tracks near the intersection of 19th Street and Waterfront Terrace in Weehawken, New Jersey. In order to maintain light rail service under normal conditions, this crossing will consist of a rolling gate that will remain in the open position until an impending flood event necessitates its closure. As per the letter addressed to your office dated January 21, 2016, we proposed a support structure for the rolling gate that is capable of supporting the applied flood loads without applying any additional loading to the NJ Transit light rail tracks or track substructure. (See attached SK-1)

The gate was originally proposed to be located north of the 19th Street light rail crossing to avoid interferences with existing poles, signage, etc. During a meeting with NJ Transit, it was suggested that the gate be relocated to the existing sidewalk and light rail crossing at 19th Street. The intended benefit of this suggested location was to reuse the existing sidewalk as the foundation for the gate and reduce or eliminate the need for track outages during construction. However, the existing sidewalk is likely constructed for pedestrian use only and is not suitable as a foundation for the proposed gate. If the gate were relocated to this location, the existing sidewalk would need to be removed and a pile-supported foundation would need to be constructed. This work would require track outages similar to the original proposed location. Additionally, relocating the gate to the sidewalk may require adjustments to NJ Transit standards including minimum clearances from existing rail infrastructure, which would likely not be the case with the original proposed location. (See attached SK-2)

Based on our review, it is our opinion that placing the rolling flood protection gate at the sidewalk and light rail crossing at 19th Street, rather than at the original proposed location, provides no particular advantage, as both options still will require similar track outages.

Attachments:
Attachment 1: SK-1 – Rolling Gate Elevations
Attachment 2: SK-2 – Rolling Gate at NJ Transit Crossing
Park Avenue Viaduct Memo
Date: March 31, 2016  
To: Frank Schwarz, Team Manager and Clay Sherman, Project Manager - NJDEP  
From: William Hamilton, PE  
Subject: RBDH – Park Avenue Viaduct

Message:

Per a letter from Weiner Lesniak, LLP, dated February 19, 2016, proposed alignments for the “Resist” portion of the Rebuild by Design – Hudson River Resist, Delay, Store, Discharge Project pass through private lots owned by DLJ Weehawken HOLDCO LLC, and in order to reduce or eliminate the need to encroach on private property, an alignment was proposed that runs up to the private lots, and then turns west under the Park Avenue Viaduct. This alignment extends under the viaduct to HBLR property, and then borders the property to rejoin the original alignment. A rolling gate crossing will be provided at Harbor Boulevard. Dewberry is aware that construction adjacent to the existing viaduct is a sensitive issue, and care will be taken to ensure that no additional loads are imposed on the existing structure during construction or during the service life of the flood wall. Existing drawings of the viaduct have not been reviewed, but it is assumed that the foundations are continuous transverse to the structure at the pier locations. The foundation for the proposed flood wall will be constructed between the existing foundations and separated from the existing structures with neoprene isolation pads. The wall superstructure will be designed to span horizontally over the existing foundations and transfer all loads to the proposed wall foundation. The entire structural system will be designed with sufficient rigidity to ensure no loads are transferred to the existing structures due to displacement of any one structural component during a flood event. (See SK-1)

After a site visit to this area on March 31, 2016, it was discovered that this option of relocating the structure underneath the viaduct is not feasible. According to the base flood elevations developed by Dewberry, the required wall elevation at this location is 15.5 feet. However, the measurement from the sidewalk to the bottom of the steel girder was determined to be approximately 11 feet at one location. The ground surface elevation here, provided through LIDAR, is roughly 5 feet, leaving only 6 inches of clearance between the proposed wall and the existing viaduct structure (See Photo 1 and SK-2). Additionally, due to the limited clearance at this location, there are constructability issues with building a wall in this area, such as forming the steel reinforcement and pouring the concrete.

Due to these field conditions, it is our opinion that the proposed alternative alignment is no longer a feasible option.

Attachments:
Attachment 1: SK -1: Weehawken Cove Alternate Alignment  
Attachment 2: SK-2: Park Avenue Viaduct Section  
Attachment 3: Photo 1
Washington Street Improvements Memo
MEMORANDUM

Date: June 6, 2016
To: Frank Schwarz, Team Manager and Clay Sherman, Project Manager - NJDEP
From: Sandri Lamo and Rahul Parab, PE, CFM, D.WRE - Dewberry
Subject: RBDH – Impacts of City of Hoboken’s Washington Street Improvements Project on RBDH “Resist” Alignments

Washington Street (Between 15th and 13th Streets)

Based on striping plan prepared by T&M dated March 11, 2016 for the Washington Street Redesign project, the City of Hoboken proposes to maintain the existing curb lines and preserve the angled parking spaces located along both sides of Washington Street between 15th and 13th Streets. Since the proposed angled parking spaces occupy large portion of roadway width, it is our understanding that the city of Hoboken proposed shared bikes lanes for the subject segment of Washington Street. The Washington Street redesign’s proposed striping plan for this segment is provided in Attachment 1.

As part of the RBDH project, Dewberry proposes to offset the existing western curb line to the east by 12 feet between the subject segments of Washington Street in order to gain the necessary space for the resist barrier including sliding gate, and urban features, as well as maintain the existing sidewalk width which provides outdoor seating to various adjacent restaurants. By shifting the western curb line east, the existing angled parking along the western side will need to be converted to parallel parking spaces while maintaining the existing roadway centerline. The conversion from angled to parallel parking spaces for the western side of Washington Street between 15th and 13th Streets will result in a total loss of 7 spaces for Alternative 3 and 13 spaces for Alternative 2. The existing and proposed roadway typical sections are provided in Attachment 2 and the site plan related to the proposed RBDH improvements are provided in Attachment 3.

Washington Street (Observer Hwy. and Newark Street)

Based on striping plan prepared by T&M dated March 11, 2016 for the Washington Street Redesign project, the City of Hoboken proposes to add bike lanes for each travel way while maintaining the existing curb lines and parallel parking along both sides of Washington Street between Observer Highway and Newark Street. The Washington Street redesign’s proposed striping plan for this segment is provided in Attachment 4.

The existing sidewalk adjacent to the parking lot located along the southeast portion of Washington Street is significantly narrow with a width of approximately 7 feet. Such narrow sidewalk cannot provide the necessary space to allow for the proposed gate, gate enclosure, resist barrier, and any urban design features while maintaining pedestrian access along Washington Street. We propose to offset the eastern curb line to the west by 12 feet between the subject segment of Washington Street in order to gain the necessary space for the resist improvements proposed as part of the RBDH project. The existing and proposed roadway typical sections for the subject segment are provided in Attachment 5. The site plan related to the proposed RBDH improvements in this segment is provided in Attachment 6. By shifting the eastern curb line west, the roadway width will be reduced leaving no space for bike lanes.

We recommend the City of Hoboken converts the subject segment of Washington Street to shared bike lanes as opposed to dedicated bike lanes for each travel way. Since we are maintaining the parallel parking spaces, there will be no loss in parking spaces under the proposed RBDH improvements.
Overall Recommendations -

In order to avoid additional costs, Dewberry recommends that the City of Hoboken should not propose any improvements along the proposed resist barrier on Washington Street as part of the Washington Street Redesign project, since any concrete curb, sidewalk and other obstructions within the limit of disturbance will be removed and replaced in kind during the RBDH construction phase.

Attachments:
Attachment 1: Washington Street Redesign Striping Plans (Drawing SSP-15)
Attachment 2: Washington Street (15th to 13th) Typical Sections
Attachment 3: RBDH Site Plans (Drawing SP-8)
Attachment 4: Washington Street Redesign Striping Plans (Drawing SSP-1)
Attachment 5: Washington Street (Observer Hwy. to Newark St.) Typical Sections
Attachment 6: RBDH Site Plans (Drawing SP-1)
ATTACHMENT 5

EXISTING WASHINGTON STREET TYPICAL SECTION
BETWEEN OBSERVER HWY. AND NEWARK STREET ALONG EXISTING PARKING LOT

POTENTIAL WASHINGTON STREET TYPICAL SECTION
BETWEEN OBSERVER HWY. AND NEWARK STREET
Weehawken Cove Alternate Alignments Memo
MEMORANDUM

Date: March 3, 2016  
Revised March 8, 2016

To: Frank Schwarz, Team Manager and Clay Sherman, Project Manager - NJDEP

From: William Hamilton, PE

Subject: RBDH – Weehawken Cove Alternate Alignments

Message:

Per a letter from Weiner Lesniak, LLP, dated February 19, 2016, proposed alignments for the “Resist” portion of the Rebuild by Design – Hudson River Resist, Delay, Store, Discharge Project pass through private lots owned by DLJ Weehawken HOLDCO LLC. In order to reduce or eliminate the need to encroach on private property, we have developed three modified alignments for your consideration, as shown in the attached sketch. Note that the original alignment shown on the sketch is consistent with Alternative 3, but a similar approach is applicable for Alternative 2. Alternative 1 as originally proposed requires minimal encroachment on the private lots and is not addressed in this letter.

Option 1 follows the original alignment up to the private lots, and then turns east toward Weehawken Cove to avoid private property to the greatest extent possible. The alignment then follows a similar path as Alternative 1 along the waterfront and then turns inland at the northeast corner of the paved parking lot to rejoin the originally proposed alignment. A rolling gate crossing will be provided at Harbor Boulevard (Photo 1). Similar to Alternative 1, Option 1 requires minimal encroachment on the southeast corner of the private lots.

Option 2 follows a similar path to Option 1 but passes through the Hartz Mountain parking lot on the eastern boundary of the private lots. A rolling gate crossing will be provided at Harbor Boulevard (Photo 2), and Option 2 will rejoin the originally proposed alignment north of the rolling gate. Option 2 also requires minimal encroachment on the southeast corner of the private lots.

Option 3 follows the original alignment up to the private lots, and then turns west under the Park Avenue Viaduct (Photo 3). The alignment extends under the viaduct to HBLR property, and then borders HBLR property to rejoin the originally proposed alignment. A rolling gate crossing will be provided at Harbor Boulevard (Photo 4). Dewberry is aware that construction adjacent to the existing viaduct is a sensitive issue, and care will be taken to ensure that no additional loads are imposed on the existing structure during construction or during the service life of the flood wall. Existing drawings of the viaduct have not been reviewed, but it is assumed that the foundations are continuous transverse to the structure at the pier locations. The foundation for the proposed flood wall will be constructed between the existing foundations and separated from the existing structures with neoprene isolation pads. The wall superstructure will be designed to span horizontally over the existing foundations and transfer all loads to the proposed wall foundation. The entire structural system will be designed with sufficient rigidity to ensure no loads are transferred to the existing structures due to displacement of any one structural component during a flood event.

We request Hudson County to provide us with the foundation and bridge structural plans and vibration limitations on the structures for pile installation of our proposed structures.

Attachments:

Attachment 1: SK-1 – Weehawken Cove Alternate Alignments
Attachment 2: Photographs
Photograph 1 – Option 1 Harbor Blvd Rolling Gate Location

Photograph 2 – Option 2 Harbor Blvd Rolling Gate Location
Photograph 3 – Option 3 below Park Avenue Viaduct

Photograph 4 – Option 3 Harbor Blvd Rolling Gate Location