

22. Safety and Security

22.1. Chapter Overview

22.1.1. Introduction

This chapter discusses the changes to potentially significant safety issues and security concerns that could occur due to transit improvements associated with the modification of the Preferred Alternative as presented in the Northern Branch DEIS. The revisions specifically related to safety and security include:

- Change in project terminus: the Preferred Alternative ends in Englewood; consequently, safety and security concerns north of Englewood are related to freight use of the Northern Branch. Previously, light rail service extended to Tenafly and presented some grade crossing concerns due to the frequency of service.
- West Side Avenue realignment: in response to comments received from the freight railroads regarding safety and operational efficiency, the alignment of the Northern Branch light rail service south of 85th Street in North Bergen has been realigned within West Side Avenue instead of within the existing rail yard.
- Pedestrian overpass in Leonia: in response to DEIS comments regarding the safety of Leonia High School students crossing the Northern Branch to access the high school athletic fields, a pedestrian overpass would be created in Leonia, north of Fort Lee Road. The overpass would also provide pedestrian access to Overpeck County Park from the north, providing a community benefit.
- Combined VBF/parking deck at Englewood Route 4: the DEIS Preferred Alternative located the Englewood Route 4 parking deck on the opposite side of the tracks from the alternate Englewood vehicle base facility (VBF) location. The SDEIS locates the two uses in the same building, with the VBF facility occupying the bottom level and commuter parking in a deck on top of the VBF.
- Shared use of Englewood Hospital and Medical Center parking deck: the DEIS Preferred Alternative included two parking deck facilities (Englewood Route 4 and Leonia), and the remaining two Englewood stations (Englewood Town Center and Englewood Hospital and Medical Center) were planned as walk-ups. In the revised Preferred Alternative, parking for the Englewood Hospital and Medical Center Station would be accommodated by an existing hospital parking deck. A shared use agreement would be negotiated between NJ TRANSIT and the hospital.
- Pedestrian overpass at the Englewood Hospital and Medical Center Station: a pedestrian overpass would be constructed over North Dean Street between the Englewood Hospital and Medical Center Station and the shared use parking deck to improve the safety of Northern Branch passengers crossing North Dean Street.

Nearly 200 comments addressing safety and security were submitted during the DEIS comment period. The majority of the comments were submitted by residents and leaders in Tenafly expressing concern over the frequency of light rail service and its perceived impact on emergency services and pedestrian safety. Residents and educational leaders in Leonia also submitted comments on safety issues associated with high school students crossing the Northern Branch alignment. The concerns of both Tenafly and Leonia were addressed through the modification of the Preferred Alternative.

22.1.2. Summary of Findings of the DEIS and SDEIS

The reintroduction of passenger rail service would intensify railroad activity along the right-of-way, and station locations would provide parking facilities along with their associated security concerns where no such facilities are accommodated today. Safety and security measures would be incorporated into the

Northern Branch project to protect both the users of the service and the communities through which the service travels. With these measures in place, the Northern Branch is not anticipated to result in the creation of safety or security concerns for the study area. Safety and security concerns and mitigation for the Preferred Alternative are as follows:

- Increased rail traffic would necessitate safety improvements at grade crossings along the alignment. Grade crossing protection will include four-quadrant gates and additional protective measures ranging from flashers to pedestrian gates. NJ TRANSIT would provide measures to educate the public within corridor municipalities.
- The West Side Avenue realignment would eliminate freight-light rail conflicts south of 85th Street, improving operational safety for the light rail service.
- A pedestrian overpass would be constructed to connect Leonia High School on the east side of the Northern Branch alignment with the athletic fields in Overpeck County Park located on the west side. Presently there is no protected crossing. The pedestrian overpass would also provide community access to the Henry Hoebel Area of Overpeck County Park from the north. In the present configuration, the only access into Overpeck County Park is from the entrance on Fort Lee Road. The overpass would help discourage unprotected pedestrian crossings by park users originating from the residential areas north of Fort Lee Road and east of the Northern Branch.
- The VBF and Englewood Route 4 Station parking deck would be combined into one facility with the VBF on the bottom floor and parking on the floors above. The structure would be designed so that passenger cars destined for the deck do not accidentally access the VBF. The VBF facility would include security cameras and access key doors to limit access to NJ TRANSIT personnel.
- South of, and including, Englewood Route 4 Station, development patterns are concentrated east of the right-of-way with emergency service responders similarly located. As a result, increased rail traffic and frequent grade crossings do not present an impact to emergency response times in North Bergen, Fairview, Ridgefield, Palisades Park, Leonia, or Englewood south of Route 4.
- The rail alignment between Englewood Route 4 Station and Englewood Hospital and Medical Center Station bisects the City, with emergency responders located west of the right-of-way and residential uses and businesses on both the east and west sides. Coordination between emergency medical services (EMS) dispatch and NJ TRANSIT dispatch would reduce the potential for grade-crossing conflicts between EMS responders and the proposed light rail service.
- A pedestrian overpass would be constructed to connect the Englewood Hospital and Medical Center Station with the shared parking deck across North Dean Street. Currently there is no protected crossing.
- All station areas and parking decks would be patrolled by NJ TRANSIT police who would work in concert with local police jurisdictions. The stations would be equipped with lighting as well as video surveillance, monitored by NJ TRANSIT, which functions as a preventative safety measure and vandalism deterrent.
- NJ TRANSIT's Safety Education Program, administered and staffed by NJ TRANSIT safety specialists, would offer communities and stakeholders a program that promotes proper behavior in and around stations, facilities, tracks, and equipment.

22.2. Methodology

A corridor level review was conducted to identify potential safety and security considerations associated with the proposed project that were related to substantial changes to the project as described in the DEIS. Minor revisions were not reassessed for safety and security. For example, 91st Street Station's relocation from the south side of 91st Street to the north side did not constitute a revision requiring analysis for safety and security because station amenities and location were similar enough to those described by the DEIS that the DEIS analysis remained applicable. Substantial changes, such as the realignment to West

Side Avenue, the new parking decks, and the combined VBF/parking deck at the Englewood Route 4 Station were assessed for safety and security issues.

The safety mitigation measures described in the mitigation section are the similar to those described in the DEIS and include:

- NJ TRANSIT's Safety Education Program
- Temporal and physical separation of light rail service and freight service
- Use of grade crossing protection including visual and audible warning devices, markings, and four-quadrant automated gates. The addition of four-quadrant gates as a safety measure for light rail operation, regardless of whether Quiet Zones are implemented, is a revision to what was described in the DEIS.
- Platform and parking deck safety devices including security cameras, lighting, and call-for-aid boxes along with fire detection and suppression systems

22.3. Environmental Review

22.3.1. Existing Conditions

Currently, the Northern Branch Corridor serves only diesel-powered freight rail traffic, which operates infrequently. Some grade crossings are protected by gates and flashers while others are not.

22.3.2. Potential Impacts and Mitigation

22.3.2.1. No Build Alternative

There are no changes to the impacts associated with the No Build Alternative as compared with the DEIS. There are currently no plans to modify existing grade-crossing protection or install protection where protection is currently missing.

22.3.2.2. Preferred Alternative

The reintroduction of passenger rail service would intensify railroad activity along the right-of-way and station locations would provide parking facilities, along with their associated security concerns, where no such facilities exist today. The grade crossing security measures described in the DEIS apply to the SDEIS: grade crossing protection, including four-quadrant automated gates, would be provided for all grade crossings associated with the Northern Branch light rail from North Bergen to Englewood. Should the crossings north of Englewood be designated as Quiet Zones, NJ TRANSIT would install four-quadrant automated gates at those crossings as well.

As described in the introduction, some SDEIS improvements are themselves safety measures developed in response to comments submitted during the DEIS comment period. These improvements are not associated with impacts, but are instead preemptive of security and safety issues that would be expected to arise in their absence. The following narrative describes all of the SDEIS elements and their relationship to safety and security.

Change in project terminus, Tenafly

The Preferred Alternative now terminates in Englewood, which eliminates daytime and evening impacts associated with frequent light rail service through Tenafly. Concerns over frequent at-grade crossings and emergency services remain a concern in Englewood, north of the proposed Route 4 Station. NJ TRANSIT has coordinated with the City of Englewood to develop dispatch coordination measures to

ensure that emergency services are not delayed when traveling east-west across the Northern Branch during the hours of light rail operation.

West Side Avenue realignment

The DEIS Preferred Alternative proposed to align the light rail service along the western edge of the existing CSX North Bergen Yard, requiring easements and operational modifications on the part of the freight railroads. In response to comments received from the freight railroads regarding safety and operational efficiency, the alignment of the Northern Branch light rail service south of 85th Street in North Bergen has been realigned to run on the western side of West Side Avenue. This realignment provides for improved safety by completely removing light rail improvements from the freight facility.

Pedestrian Overpass in Leonia

The increase in light rail service on the Northern Branch presents a change in conditions that without mitigation represents a safety concern for Leonia High School. Leonia High School is located on the east side of the Northern Branch right-of-way, at 100 Christie Heights Road, near the dead end of Willow Tree Road. The school's athletic fields are located on the west side of the Northern Branch within an area adjacent to the Henry Hoebel Area of Overpeck County Park. To access the fields today, students cross the right-of-way at an unprotected at-grade crossing. This circumstance presents an unacceptable safety risk under the operating plan for the SDEIS Preferred Alternative.

The DEIS recognized the safety issue and proposed a protected at-grade crossing for students; however, the frequency of crossings presented an operational concern for NJ TRANSIT and potential for crossing against the protection remained a concern for educators and residents in Leonia. As a result, NJ TRANSIT modified the Preferred Alternative to include an elevated pedestrian crossing. This measure is considered a project element of the SDEIS and a safety mitigation measure. Grade separation provides for a safer crossing than the at-grade solution previously proposed and also enables the Northern Branch light rail service to operate without interruption between Leonia Station and Englewood Route 4 Station, which helps maintain the operating schedule.

Combined VBF/parking deck at Englewood Route 4

The DEIS Preferred Alternative located the Englewood Route 4 parking deck on the opposite side of the tracks from the alternate Englewood VBF location. The revised Preferred Alternative locates the two uses in the same building, with the VBF occupying the bottom level and commuter parking in a deck on top of the VBF.

A parking deck potentially provides an enclosed place conducive to criminal activity harmful to both individuals and personal property. To mitigate the potential for criminal activity, the parking deck would be lit, monitored with security cameras, and provided with emergency call boxes. In addition, all NJ TRANSIT facilities are patrolled by NJ TRANSIT police, who work in cooperation with local law enforcement.

The co-location of the VBF and the parking deck site provides some unique security challenges. All NJ TRANSIT maintenance and operations facilities are secure facilities requiring security clearance to enter and staff escorts for visitors. The VBF would be equipped similarly to other NJ TRANSIT facilities with access key doors, security gates, security lighting, back-up generators, and full-time security personnel. To ensure that commuters do not enter the VBF (a measure for their safety as well as for the security of the VBF), automobile entrance to the parking deck would be separate from the entrance to the VBF. The VBF entrance would be guarded by a security gate. With these measures in place, the combined VBF/parking deck would not pose safety or security concerns.

Shared use of Englewood Hospital and Medical Center parking deck

The DEIS Preferred Alternative included two parking deck facilities (Englewood Route 4 and Leonia), and the remaining two Englewood stations were planned as walk-ups. The revised Preferred Alternative would share the use of the Englewood Hospital and Medical Center parking deck.

Mitigation measures provided for the parking deck facility to mitigate safety and security issues are the same as those described above for the Englewood Route 4 parking deck: lighting, security cameras, emergency call boxes, and regular patrols by NJ TRANSIT police. The Preferred Alternative also includes the construction of a pedestrian overpass across North Dean Street to connect the shared parking deck and Englewood Hospital and Medical Center Station.

Construction Phase Impacts

Construction phase safety and security measures are addressed in Chapter 27. Adherence to federal and state workplace safety rules and best management practices would ensure that the public and construction personnel would not be exposed to unreasonable safety risks during construction.

22.4. Summary of Potential Environmental Effects of the DEIS and SDEIS

As summarized in Table 22-1 below, there are 18 existing grade crossings within the five municipalities within the light rail project area; two of these crossings at 83rd Street would be closed and replaced with new crossings at 85th Street. NJ TRANSIT has committed to the installation of four-quadrant gates as a safety measure for light rail operation between North Bergen and Englewood. There are an additional 16 grade crossings north of Englewood that could be exposed to nighttime freight noise (refer to Table 22-2). Should these crossings be designated as Quiet Zones, NJ TRANSIT would install four-quadrant gates at these locations as well. In addition to the grade crossing protection, the Preferred Alternative includes three safety measures developed in response to comments on the DEIS. These improvements include the West Side Avenue alignment that eliminates interaction with freight service in North Bergen; the pedestrian overpass in Leonia, which would provide grade-separated pedestrian access across the Northern Branch, connecting Leonia High School to the Overpeck County Park athletic fields; and the pedestrian overpass at Englewood Hospital and Medical Center Station, which would provide safer crossing of North Dean Street between the hospital parking deck and the proposed station. The additional parking deck proposed with the SDEIS would be designed to include safety measures to protect against criminal activity. The VBF located below the Englewood Route 4 parking deck would be equipped with security measures to restrict access to the facility by unauthorized individuals. As a result, the Preferred Alternative would not result in new or unmitigatable safety and security impacts.

Table 22-1: Northern Branch Grade Crossing Locations

Location	Municipality	Safety Improvement
(1a) 83 rd Street crossing of the CSX Northern Branch	North Bergen	Close
(1b) 85 th Street crossing of the CSX Northern Branch (New Crossing)	North Bergen	Four-quadrant gates and flashers
(2a) 83 rd Street crossing of NYS&W	North Bergen	Close
(2b) 85 th Street crossing of NYS&W (New Crossing)	North Bergen	Four-quadrant gates and flashers
(3) 91 st Street	North Bergen	Four-quadrant gates and flashers
(4) Fairview Avenue/95 th Street	North Bergen	Four-quadrant gates and flashers
(5) Driveway (near Wolf Creek)	Ridgefield	Four-quadrant gates and flashers

Table 22-1: Northern Branch Grade Crossing Locations (continued)

Location	Municipality	Safety Improvement
(6) Linden Avenue	Ridgefield	Four-quadrant gates and flashers
(7) West Ruby Avenue	Palisades Park	Four-quadrant gates and flashers
(8) Roosevelt Place	Palisades Park	Four-quadrant gates and flashers
(9) West Central Boulevard	Palisades Park	Four-quadrant gates and flashers
(10) Fort Lee Road	Leonia	Four-quadrant gates and cantilevered mounted flashers
(11) Brookside Avenue/Cedar Lane	Englewood	Four-quadrant gates and flashers
(12) West Forest Avenue	Englewood	Four-quadrant gates and flashers
(13) Englewood Avenue	Englewood	Four-quadrant gates and flashers
(14) Palisade Avenue	Englewood	Four-quadrant gates, flashers, and pedestrian gates
(15) Demarest Avenue	Englewood	Four-quadrant gates and flashers
(16) Hamilton Avenue	Englewood	Four-quadrant gates and flashers
(17) Hudson Avenue	Englewood	Four-quadrant gates and flashers
(18) Ivy Lane	Englewood	Four-quadrant gates and flashers

Source: Jacobs, 2015.

Table 22-2: Northern Branch Grade Crossing Locations North of Englewood

Location	Municipality	Safety Improvement Should Quiet Zones be Designated
(19) Westervelt Avenue	Tenafly	Four-quadrant gates and flashers
(20) West Clinton Avenue	Tenafly	Four-quadrant gates, pedestrian gates, and cantilevered mounted flashers
(21) Washington Street	Tenafly	Four-quadrant gates and flashers
(22) Riveredge Road/Jay Street	Tenafly	Four-quadrant gates and flashers
(23) Central Avenue	Tenafly	Four-quadrant gates and flashers
(24) Madison Avenue	Cresskill	Four-quadrant gates and cantilevered mounted flashers
(25) Union Avenue	Cresskill	Four-quadrant gates and cantilevered mounted flashers
(26) Pedestrian Crossing at West Morningside	Cresskill	Pedestrian gates, flashers, fencing, and removal of vegetation
(27) Hardenburgh Avenue	Demarest	Four-quadrant gates and flashers
(28) Demarest Avenue	Closter	Four-quadrant gates and flashers
(29) High Street	Closter	Four-quadrant gates and flashers
(30) Closter Dock Road	Closter	Four-quadrant gates, flashers, and close secondary driveway
(31) Blanche Avenue	Closter	Four-quadrant gates and flashers
(32) Broadway Avenue	Norwood	Four-quadrant gates and flashers
(33) Paris Avenue	Northvale	Four-quadrant gates and flashers
(34) Pierron Street	Northvale	Four-quadrant gates and flashers

Source: Jacobs, 2015.