

decision-making process. Final mitigation measures may be adopted as conditions of the DA permit and documented in the Record of Decision (ROD).

4.16 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

4.16.1 Methods and Impact Definitions

Socioeconomic and Environmental Justice impacts were evaluated based on a comparison of existing community conditions in the study area to projected conditions during and after construction of Alternative 1 (Proposed Project) and the alternatives. Sources of information reviewed for this analysis include U.S. Census data, regional socioeconomic projections, and data from local mapping, plans, policies, and regulations. The analysis also considers observations from field visits as well as information received from scoping, interviews with local planners, community leaders, and citizens in an effort to document community resources along with community vision, values, and goals.

Adverse impacts to the community may occur if they disrupt community cohesion or stability, have detrimental effects on the economy of the area, result in a loss of community facilities, reduce mobility, increase emergency response times, or cause recurring impacts to neighborhoods impacted by previous projects. Impacts to Environmental Justice populations are considered significant if they are disproportionately high and adverse compared to the adverse effect that would be suffered by the non-minority and/or non-low-income population. A disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- 1) Is predominately borne by a minority population and/or a low-income population; or
- 2) Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

A project may also have beneficial impacts to socioeconomic resources by providing employment opportunities for the local community and the region.

Table 4.16-1
Impact Definitions, Socioeconomics and Environmental Justice

Negligible	Minor	Major
<ul style="list-style-type: none"> • No impacts to economic and business resources. • No loss of mobility or access. • No increase in emergency response times over the existing condition. • No impacts to neighborhoods or community resources. • No barriers to the elderly or handicapped persons. • No impacts to Environmental Justice communities. 	<ul style="list-style-type: none"> • Loss of 10 or fewer businesses. • Short-term adverse construction related impacts that result in changes in access, but no loss of mobility. • Short-term adverse construction related impacts and long-term adverse operational impacts to emergency response times that are longer than response times under the No-Action Alternative. Alternate routes for emergency response are available. • Loss of 10 or fewer residential units from area neighborhoods and/or community resources but no loss of function. • Temporary barriers to the elderly or handicapped persons during construction. • An impact to Environmental Justice communities, but not a disproportionate impact. 	<ul style="list-style-type: none"> • Loss of more than 10 businesses and/or insufficient relocation sites available in neighborhood. • Long-term changes in access or loss of access and/or mobility. • Increase in emergency response times under the action alternatives compared to the No-Action Alternative. No emergency response alternate routes are available. • Loss of more than 10 residential units in a neighborhood and/or loss of connections between neighborhoods. • Continued adverse impacts to previously impacted neighborhoods. • Loss of community resources with no replacement sites available. • Long-term and/or permanent barriers to the elderly or handicapped persons. • Disproportionately high and adverse impact on Environmental Justice communities.

The following sections describe the socioeconomic and Environmental Justice impacts associated with the No-Action Alternative, Alternative 1 (Proposed Project), and Alternatives 2–7. Figure 4.16-1 is a key map of notable features in the study area. Figures 4.16-2 through 4.16-8 show the alternatives in relation to socioeconomic resources. Potential impacts discussed in this section

include both temporary construction impacts and permanent impacts resulting from operation of the proposed Navy Base ICTF. The types of impacts addressed include:

- Community resources, cohesion, and stability impacts (Socioeconomics)
 - Economic and business resource impacts
 - Mobility and access impacts
 - Community safety and emergency response impacts
 - Community and neighborhood impacts
 - Barriers to the elderly and handicapped persons
- Environmental Justice considerations

4.16.2 No-Action Alternative

Under the No-Action Alternative, the Project site and River Center project site would continue to be used for mixed-use industrial activities. Activities would likely include the demolition of existing buildings and infrastructure and the installation of new buildings and structures necessary to support the light industries and warehousing/shipping entities.

Economic and Business Resource Impacts. The light industrial and mixed-use development that is anticipated under the No-Action Alternative would likely create indirect, long-term economic benefits to the regional and local community, as employment opportunities are directly and indirectly created as a result of future redevelopment within the Project site and River Center project site. Therefore, the No-Action Alternative would result in minor beneficial impacts to economic and business resources.

Mobility and Access Impacts. Temporary detours during construction of light industrial and mixed-use development anticipated under the No-Action Alternative may increase travel times, change or remove access to properties, and/or limit mobility in the study area. These indirect adverse impacts would be short-term and localized to the study area. Implementation of a traffic control plan and the provision of safe and efficient detour routes and advance notice of road closures would minimize impacts; therefore, the intensity of construction-related mobility and access impacts from private developers is anticipated to be minor.

Long-term mobility and access impacts associated with the No-Action Alternative would be dependent upon the location and intensity of light industrial and mixed-use development; however, road and/or rail improvements would likely result in minor adverse impacts to mobility and access so long as multiple access routes to/from the CNC are maintained, and new at-grade rail crossings have similar daily average time delays for commuters as those under existing conditions.

Community Safety and Emergency Response Impacts. The No-Action Alternative would have negligible impacts to safety and emergency response if redevelopment occurred to include rail-served warehousing and distribution facilities. Daily average time delays for commuters would be similar to those experienced under existing conditions.

Community and Neighborhood Impacts. Construction and operation of light industrial and mixed-use development would result in the loss of Sterett Hall (a community recreation center closed and demolished in 2016) and surrounding arts facilities. As described in Section 3.16 (Socioeconomics and Environmental Justice), Sterett Hall was an important community resource that offered recreational opportunities, an auditorium, and meeting space not available elsewhere in the community. Until recently, the City of North Charleston's Cultural Arts Department used two buildings adjacent to Sterett Hall for classrooms, artist studios, rehearsal space, and summer camps. The City of North Charleston is currently leasing Sterett Hall from Palmetto Railways. Removal of these resources would have long-term, indirect impacts to the neighborhoods surrounding the Project site due to the loss of a community gathering space and individual and organized recreational and arts opportunities.

Opportunities for replacement of the programs and services provided at Sterett Hall may exist in the Chicora Life Center at the corner of McMillan Avenue and Spruill Avenue, which is planned to include a recreational facility. Per the 2012 Settlement Agreement between South Carolina Public Railways (Palmetto Railways) and the City of North Charleston, which includes the transfer of the Project site (including Sterett Hall) from the City of North Charleston to Palmetto Railways, Palmetto Railways would pay a total of \$8 million to the City of North Charleston by 2016 as mitigation for rail access impacts and Palmetto Railways would assume \$6.5 million in outstanding Tax Increment Financing (TIF) obligations from the City of North Charleston. With mitigation, overall intensity of impacts is anticipated to be minor adverse while the replacement facility is under construction. However, if no replacement is provided for services and programs currently located at Sterett Hall, the adverse impact to the community would be major adverse. Under the No-Action Alternative, there would be no adverse direct or indirect impact to the unnamed community park, the Chicora-Cherokee Neighborhood Park, or Riverfront Park.

Barriers to the Elderly and Handicapped. The Americans with Disabilities Act (ADA) of 1990 (PL 110-325) provides for equal opportunity for individuals with disabilities to access public and private facilities. Construction of rail served warehousing and mixed-use development would be built in compliance with ADA requirements. Therefore, the No-Action Alternative would not result in physical impacts in terms of new barriers to the elderly and handicapped.

Environmental Justice Considerations. Environmental Justice principles would not apply to the No-Action Alternative since no federal action would be involved and the future development would be undertaken in accordance with local zoning regulations.

4.16.3 Alternative 1: Proposed Project (South via Milford / North via Hospital District)

Economic and Business Resource Impacts. Alternative 1 (Proposed Project) would result in the relocation of six businesses with a total of approximately 50 displaced employees. These businesses are located along the proposed northern and southern rail connections. An estimated \$150 million dollars will be used to develop and construct Alternative 1 (Proposed Project). This expenditure would result in a major short-term benefit to the local and regional economy. As noted in a study completed in 2015 by Frank Hefner with the College of Charleston, 3,032 temporary construction jobs within the region would be created from construction, and a total of 55 direct jobs at the site after its completion (Hefner, 2016). In addition, Alternative 1 (Proposed Project) would provide indirect, long-term economic benefits to the regional and local community as employment opportunities are directly and indirectly created as a result of the Proposed Project. Palmetto Railways estimates that the Navy Base ICTF would employ approximately 96 people by 2038. According to a study completed in 2015 by the University of South Carolina, for every 10 jobs that are directly supported by SCPA operations, an additional 14 jobs are indirectly created elsewhere with companies that do business through the SCPA (Von Nessen, 2015). The purpose of the Navy base ICTF is to improve efficiency within the intermodal container transportation network to and from the port. This increased efficiency in local intermodal transport is expected to attract economic activity and provide a competitive advantage for the ports. The study also indicates that the total economic impact of the SCPA corresponds to \$53 billion in annual economic output, creating 187,206 jobs and over \$10.2 billion in labor income in the state that would not exist otherwise (Von Nessen, 2015).

The main gate for trucks and employees to access the ICTF would be located on Hobson Avenue, to the north of Supply Street. If trucks are queuing along Hobson Avenue and blocking access to Supply Street, this activity would have an indirect adverse impact on businesses along the water that are accessed via Supply Street, including Pierside Boatworks, the H.L. Hunley Confederate Submarine (museum and tourist site), and the Clemson University Restoration Institute. This was a concern noted by business owners in the area during public meetings. Palmetto Railways has configured the facility and proposed road improvements (e.g., turning lanes) to minimize the potential for trucks obstructing access to Supply Street (and other streets near the Navy Base ICTF).

Alternative 1 (Proposed Project) has the potential for long-term indirect adverse impacts to businesses near the Project site if noise or aesthetic impacts cause a loss of customers. For example, the owner of a special events facility on the east side of North Carolina Avenue in the Chicora-Cherokee neighborhood expressed concerns during the scoping process that people will not want to rent his facility if there are noise impacts from trains and visual impacts from cranes and containers. Similarly, the owner of a software company on North Carolina Avenue at Success Street expressed reservations during scoping about investing in additional improvements to his property because the

Navy Base ICTF would operate only a few hundred feet away. All scoping comments can be found in Appendix C. Proposed mitigation to minimize noise and aesthetic impacts include features such as the vegetated earthen noise berm, sound walls, and electric wide-span gantry cranes. These mitigation measures by Palmetto Railways would help mitigate the minor indirect adverse impacts to these businesses. Additional noise and visual resources mitigation measures are identified in Sections 4.12 and 4.11, respectively.

The northern arrival/departure track through the Hospital District has the potential to directly impact the Lowcountry Orphan Relief (see Figure 4.16-2) due to noise. However, the Applicant and the Lowcountry Orphan Relief have reached an agreement to minimize and compensate for impacts to the property. The southern arrival/departure tracks would require ROW acquisition for a southern rail connection through existing industrial properties just north of Milford Street. The majority of the properties are vacant or storage lots. Businesses that could be displaced include Fraziers Ironworks, Willie Transport, Inc., eLifespaces, Glassburn, The Loft Pilates Center, and Applied Building Sciences Inc. These business relocations will comply with The Uniform Act.

Overall, impacts to economic and business resources as a result of Alternative 1 (Proposed Project) would be minor adverse in light of mitigation measures. Specific mitigation measures regarding employment, job training, and educational opportunities are listed in 4.16.12 and Chapter 6.

Mobility and Access Impacts. Temporary detours during construction would likely increase travel times, change or remove access to properties, and limit mobility in the Project site. These indirect adverse impacts would be short-term and localized to the study area. Implementation of a traffic control plan, the provision of safe and efficient detour routes, and advance notice of road closures would minimize impacts; therefore, the intensity of construction-related mobility and access impacts is anticipated to be minor short-term adverse. Specific mitigation measures regarding community and social infrastructure mitigation are listed in 4.16.12 and Chapter 6.

At the northern end of the Project site, Alternative 1 (Proposed Project) would realign and grade-separate Cosgrove Avenue, over new rail tracks, from Spruill Avenue connecting to McMillan Avenue near Noisette Boulevard. This action would allow for the undisturbed flow of both vehicular and rail traffic. Cosgrove Avenue would serve as one of the main vehicular access points to the Proposed Project and would provide direct access to I-26. McMillan Avenue from Kephart Street to St. Johns Avenue would be eliminated. The remainder of McMillan Avenue would become an extension of St. Johns Avenue connecting to Spruill Avenue. Turnbull Avenue would be closed. Alternative 1 (Proposed Project) would affect access and mobility through the Hospital District due to the location of the northern arrival/departure track. Rental homes on the former Navy Base and Lowcountry Orphan Relief are currently accessed from Noisette Boulevard via Turnbull Avenue. These properties are located on the west side of the proposed northern arrival/departure track on the Hospital District. Access will be maintained through improved connections from St. Johns Avenue to Truxtun Avenue and from St. Johns Avenue to Avenue H. Access to rental homes, offices, and a non-profit

organization (Family Corps) on the CNC east of the proposed northern arrival/departure track could be maintained from Noisette Boulevard, assuming no additional construction is proposed on the remainder of the Hospital District. At the southern end of the Project site, the Viaduct Road Overpass would be closed and removed. Bainbridge Avenue and North Hobson Avenue would be realigned, including improvements to their intersection. With the removal of Viaduct Road, vehicular access to the southern end of the CNC would use the new local port access road. Stromboli Avenue would be elevated from its existing at-grade configuration. The construction of the local access segment of the Port Access Road, including the elevation of Stromboli Avenue, would be an independent project undertaken by the SCDOT, and would be completed before the closure and removal of Viaduct Road. New rail tracks would create one new major at-grade rail crossing on Meeting Street.

Alternative 1 (Proposed Project) would change the way residents of the Chicora-Cherokee neighborhood access destinations on the east side of the Project site, such as the Free Harvest Medical Clinic and employment opportunities at Detyens Shipyard. These residents would no longer be able to use Reynolds Avenue or Viaduct Road to travel east to Hobson Avenue; they would have to travel farther north on Spruill Avenue to use the new Cosgrove Avenue extension (approximately a 0.5-mile detour), or travel farther south to use the new Stromboli Avenue extension (approximately a 0.7-mile detour). The Applicant has committed to include a pedestrian and multiuse path as part of the raised overpass connecting Spruill Avenue to North Hobson Avenue which will provide safe and uninterrupted access to existing and future development on the former CNC. The City of North Charleston could connect the multiuse path to Riverfront Park in the future.

Employees of Detyens Shipyard currently use the parking lot on the south side of McMillan Avenue, west of Noisette Boulevard, and then walk east along McMillan Avenue to access the shipyard. Alternative 1 (Proposed Project) would eliminate this parking lot and would also remove this section of McMillan Avenue, both of which would adversely impact parking access to the shipyard for employees; however, Palmetto Railways has held discussions with affected stakeholders about constructing a parking structure at the surface lot on the west side of Noisette Boulevard. If a parking structure is built, then there would be no adverse impact to Detyens Shipyard employee parking. According to the Applicant, they have come to an agreement with Detyens Shipyard for an alternative location for parking. The long-term goal for all local property owners is to construct a parking structure but there is currently no timeline nor funding mechanism in place.

Increased rail traffic from the Project would have a long-term, indirect effect on mobility in neighborhoods to the north and south of the Project site (Park Circle area) in the form of longer and/or more frequent delays at at-grade rail crossings. In addition to increased delays and reduced mobility at existing at-grade crossings, Alternative 1 (Proposed Project) would also introduce one new at-grade crossing at Meeting Street. Additional delays at rail crossings was a major concern voiced by residents at public meetings who felt they currently experience lengthy delays. The

intensity of this adverse impact is minor, and a discussion about the impact can be found in the traffic analysis located in Section 4.8 (Transportation).

According to the traffic analysis, in 2018 the new crossing at Meeting Street would have a daily average of 4 crossings at approximately 6 minutes each. In 2038, this would increase to a daily average of 4 crossings at approximately 11 minutes each. This additional crossing would have a minor impact on mobility in the Project site.

Alternative 1 (Proposed Project) may impact the mobility of bus routes in the area. Specifically, CARTA Route 104 currently travels along McMillan Avenue to Noisette Boulevard and service could be interrupted during construction of the Cosgrove/McMillan Overpass. CARTA Routes 10 and 11 would be delayed by lengthy closures of Meeting Street at the new at-grade crossing. These interruptions to bus routes would result in a minor adverse temporary impact, because CARTA will coordinate with Palmetto Railways on timing of construction activities and prepare alternate routes (personal communication, Geoffrey Burns, BCDCOG, October 21, 2016). Access to areas that would be serviced by Routes 104, 10, and 11 would likely be maintained.

Community Safety and Emergency Response Impacts. Community safety and emergency response impacts associated with Alternative 1 (Proposed Project) are related to the construction of an additional at-grade crossing and an increase in truck volumes on local streets. Construction of the rail and ROW improvements at Meeting Street for the southern rail connection would result in one new major at-grade rail crossing. This new at-grade rail crossing would have a minor indirect adverse impact to community safety by introducing a new conflict point between trains and automobiles, bicycles, and pedestrians. There are existing bike lanes and sidewalks along Meeting Street at the location of this proposed new at-grade crossing.

This new at-grade crossing may also have a minor adverse impact on emergency response times for certain locations, because there is the potential for Meeting Street to be blocked for approximately 11 minutes⁹¹, four times a day in design year 2038, when trains are entering and leaving the Navy Base ICTF. Detour routes are available, such as the elevated Stromboli Avenue and Cosgrove-McMillan Overpass, but the detour could increase response times, depending on the location of the emergency. The community of Union Heights would also experience a minor adverse impact to emergency response if an ICTF train was blocking access on both east and west access points as it navigated the U-turn.

In the northern portion of the Navy Base ICTF, the grade separation of Cosgrove Avenue with multi-use path over proposed rail tracks on the Project site would preserve east-west mobility for

⁹¹ Based on an 8,000-foot train traveling at 10 miles per hour through the crossing.

automobiles, bicycles, and pedestrians, and would preserve access to the eastern portion of the northern study area for emergency responders.

While there are short-term adverse construction related impacts and long-term adverse operational impacts to emergency response times under Alternative 1 (Proposed Project), the overall impact is minor. Response times would be longer than those under the No-Action Alternative; however, alternate routes for emergency response are available.

Community and Neighborhood Impacts. Communities and neighborhoods surrounding the Project site could experience noise, air quality, and visual impacts. These impacts and proposed mitigation for them are discussed in detail in Section 4.12 (Noise), Section 4.13 (Air Quality), and Section 4.11 (Visual Resources and Aesthetics). Information from these sections is included in this section as applicable when discussing the overall range and intensity of impacts that communities and neighborhoods may experience as a result of the Project alternatives. The socioeconomic impacts discussed above combined with the physical impacts discussed in other sections of this EIS have an overall impact on the communities and neighborhoods surrounding the Project site. The Chicora-Cherokee Neighborhood directly borders the western boundary of the Project site and would be subjected to noise, air quality, aesthetic, mobility, access, and community cohesion impacts as a result of Alternative 1 (Proposed Project). According to the Applicant, Alternative 1 (Proposed Project) would result in ROW acquisitions that would result in the relocation of approximately 134 residential units from the Chicora-Cherokee Neighborhood. Any person(s) whose property needs to be acquired as a result of Alternative 1 (Proposed Project) would be compensated in accordance with the U.S. Constitution and the Uniform Act of 1970, as amended (see Chapter 8 Relevant Laws, Regulations, and Executive Orders). The loss of this housing represents approximately 8 percent of the housing units in the neighborhood. Approximately 126 of the 134 residential units are renter occupied. Available housing is not available in the Chicora-Cherokee Neighborhood for all the relocatees to stay within the neighborhood, especially if they were all relocated at the same time. However, the Applicant plans to conduct phased relocations to address this impact.

The loss of this housing and associated population is a major adverse direct impact to the community. The indirect effect of this housing loss would exacerbate the current trend of population loss in the neighborhood as previously identified in Section 3.16.2.1. However, the Applicant has included measures in the Community Mitigation Plan (included in Appendix N) for the affected communities that includes the establishment of a revolving fund for affordable housing to be stewarded by the Metanoia Community Development Corporation. This fund will assist with offsetting the trend of population loss in the neighborhood by providing affordable housing opportunities in the neighborhood. There is an additional mitigation measure in the Community Mitigation Plan which states that for a period of 3 years after the official opening of the ICTF, the Applicant shall provide relocation services, consistent with the Uniform Act, to qualified (Appendix N) owner-occupied

residences. Residents choosing to exercise this mitigation option would indirectly contribute to population losses previously identified in Section 3.16.2.1.

Noise impacts in the Chicora-Cherokee Neighborhood are detailed in Section 4.12. There would be a minor to moderate adverse daytime exterior noise impact to the residential structures closest to the vegetated earthen berm. Exterior nighttime noise impacts for residential structures during operation of the ICTF would be major. Refer to subsection 4.12.3.5 for information on exterior to interior noise reduction. Interior noise levels are not anticipated to disrupt sleep. Air quality impacts are detailed in Section 4.13.

Aesthetic impacts to the neighborhood include views of a landscaped earthen berm, a 103- to 125-foot crane, and 85-foot mast lights, which would operate every night from dusk until dawn. To mitigate these impacts, the Applicant has committed to build an aesthetically pleasing noise/visual barrier which may incorporate a community mural project or other design. In addition, the vegetated earthen berm and sound walls between the ICTF and the adjacent Chicora-Cherokee Neighborhood will be appropriately landscaped with native, non-invasive vegetation and permanently maintained by the Applicant (Chapter 6).

Mobility and access impacts, as discussed above, include changes in the way residents of the neighborhood access destinations on the east side of the Project site (e.g., the Harvest Free Medical Clinic and Riverfront Park), employment opportunities at the shipyard, and potential changes and delays to bus routes.

Sterett Hall and two buildings used by the North Charleston Arts Department (recently closed) would be displaced under the No-Action Alternative and, as such, there would be a negligible impact to this community resource under Alternative 1 (Proposed Project). Numerous comments on the DEIS expressed concerns regarding the loss of Sterett Hall and the need to replace the programs and services that it provided to the community. As a result, the Applicant agreed in the Community Mitigation Plan (Appendix N) to commit \$3 million for the construction of a community recreation center on property to be provided by the City of North Charleston (in the area of the Chicora Tank Farm). Plans for the new center propose 10,000 square feet of gymnasium space and approximately 5,000 square feet of fitness space, office space and bathroom facilities. In addition, the Applicant agreed to support the City of North Charleston in the rehabilitation and repair of the Chicora Elementary School for the benefit of the community. The Corps anticipates that these repairs, in combination with the funds committed by the Applicant, will serve to replace the Sterett Hall facilities that were once provided to the community.

Alternative 1 (Proposed Project) would not directly impact the unnamed community park, Riverfront Park, or the Chicora-Cherokee Community Park. Users of the parks may be indirectly impacted due to increased noise and visually through the presence of wide-span gantry cranes that might be seen above existing vegetated buffers. To increase recreational opportunities in the community, the

Applicant will support the City of North Charleston and the Community Mitigation Working Group in the establishment of Quitman's Marsh as a recreational area (Chapter 6).

The Olde North Charleston Neighborhood generally includes the portion of the study area north of Noisette Creek, but also includes subdivisions south of Noisette Creek such as Hunley Waters and residences along St. Johns Avenue. The southern portion of this neighborhood has the potential for minor adverse noise, mobility, and safety impacts as a result of the proposed northern rail line, as well as the daily addition of, on average, 1-2 commodity trains travelling through the neighborhood to and/or from CSX's Ashley Junction. As discussed in Section 4.8, the additional commodity trains are a result of the operation of the Navy Base ICTF; however, approximately 11 trains currently travel along the same route, and with equal average delays at existing at-grade rail crossings (approximately 7 to 8 minutes). However, to address the noise impact, the Applicant has committed to adding sound walls adjacent to St. Johns Avenue and Avenue F under Alternative 1 (Figure 4.12-15).

The Park Circle and Oak Park neighborhoods in the northern portion of the study area would be indirectly impacted by increased rail traffic on existing tracks and at-grade crossings on the eastern edge of the Park Circle Neighborhood along Virginia Avenue, along the northern edge of the Park Circle and Oak Park neighborhoods (parallel to I-526), and within Park Circle as 1-2 additional commodity trains would traverse on existing rail across Spruill Avenue to CSX's Ashley Junction. This impact includes additional rail traffic at the at-grade crossing of North Rhett Avenue, where several people at the public meetings commented that they already experience long wait times. Based on the traffic analysis, increased rail traffic at this crossing with Alternative 1 (Proposed Project) would result in only a minor impact (approximately 4 additional trains per day in 2018 and four additional trains per day in 2038).

The Howard Heights and Union Heights neighborhoods to the south of the Navy Base ICTF would also experience an increase in rail activity on their eastern and western boundaries. Up to 4 new trains would enter and exit the Navy Base ICTF. Noise and air quality impacts would be a minor to moderate and minor adverse effect, respectively, as discussed in Sections 4.12 and 4.13. While there is already existing train traffic to the west of Union Heights along the CSX and NS rail lines, the approximate three trains per day in 2018 under existing condition would increase to seven trains per day (including the additional ICTF trains) under Alternative 1 (Proposed Project). The Navy Base ICTF trains would result in an 11-minute average delay at the Meeting Street at-grade crossing. As a result, residents of Union Heights and Howard Heights would experience a minor adverse impact to mobility and access.

The Navy Base ICTF is not consistent with the City of North Charleston's previous vision (i.e., the Noisette Master Plan) for a mixed-use new urban community on the northern portion of the CNC. Moreover, the concept of an industrial intermodal rail facility is not what the community has been expecting based on the previous local plan. As a result, the Navy Base ICTF may indirectly impact the stability of many new businesses and residential developments that were developed in the area

under the impression that they would be part of a mixed-use new urban community. At public meetings and neighborhood meetings, the community has voiced concerns that the Project may reverse the positive investments and changes that have been made in the area in recent years.

In summary, impacts to community and neighborhoods include: negligible impact from displacement of Sterett Hall and surrounding arts facilities as they would be displaced with or without Alternative 1 (Proposed Project); major adverse impacts to Chicora-Cherokee Neighborhood from approximately 134 residential displacements; minor to moderate impact to Chicora-Cherokee Neighborhood from visual and noise impacts; minor adverse noise impacts to Olde North Charleston; and minor to moderate noise impacts to Howard Heights/Union Heights/Windsor neighborhoods. The Applicant has collaborated with the cities of Charleston and North Charleston and multiple neighborhood organizations to develop various mitigation measures, which are included in the Applicant's Community Mitigation Plan, that help improve the quality of life in the surrounding community. Neighborhood organizations included the Chicora-Cherokee Neighborhood Association, the Union Heights Community Council, the LAMC, and the Metanoia Community Development Corporation. LAMC represents seven neighborhoods (Accabee, Chicora/Cherokee, Union Heights, Howard Heights, Windsor Place, Five Mile, and Liberty Hill). The Applicant and the groups entered into a Memorandum of Agreement (MOA) on October 18, 2016 (see the Community Mitigation Plan and Community MOA in Appendix N for additional details). As part of this agreement, the Applicant has committed \$1 million to mitigate effects to neighborhoods and communities (in addition to the funds for the community recreation center).

Barriers to the Elderly and Handicapped. The Project site is located on flat, level terrain that would not create barriers to access for the elderly or handicapped. Facility buildings would be built in compliance with ADA requirements. Designated ADA compliant parking spaces would be provided to assure the availability of parking and decrease the distance for elderly and disabled visitors to facility buildings. Mobility and access impacts from Alternative 1 (Proposed Project) would be short-term and localized to the Project study area. ADA compliant sidewalks would be included with the Cosgrove Avenue flyover. The general population would experience delays by trains at at-grade rail crossings. A delay would not constitute a physical barrier. As a result, Alternative 1 (Proposed Project) would not result in new barriers to the elderly and handicapped and impacts would be negligible. Interruptions to bus routes would result in a minor adverse temporary impact because alternate routes would be employed by CARTA and access to areas that would be serviced by Routes 104, 10, and 11 would likely be maintained.

Environmental Justice Considerations. The adverse impacts associated with Alternative 1 (Proposed Project) would be predominantly borne by the minority and low-income population of the Chicora-Cherokee Neighborhood, and are appreciably more severe than the adverse effects that would be suffered by the non-minority and non-low-income population of the City of North Charleston and Charleston County. With regard to benefits and burdens, the benefits of Alternative 1

(Proposed Project) would extend to the greater Charleston region, while the burdens would largely be borne by the Environmental Justice community adjacent to the Project site. Therefore, the benefits and burdens of Alternative 1 (Proposed Project) are not equitably distributed. However, the Applicant and community groups entered into a Memorandum of Agreement on October 18, 2016 (see the Community Mitigation Plan and Community MOA in Appendix N for additional details). Measures outlined in this agreement would mitigate the adverse burdens borne by the Environmental Justice community.

4.16.4 Alternative 2: Proposed Project Site (South via Milford / North via S-line)

Economic and Business Resource Impacts. Economic and business resource impacts under Alternative 2 would be similar to those under Alternative 1 (Proposed Project), with the exception that the proposed northern rail connection in the vicinity of the Spruill Avenue/Aragon Avenue/Bexley Street intersection would directly impact commercial properties (Reddy Ice, Z-Bar, and some vacant properties) in the southwest quadrant of the Spruill Avenue/Aragon Avenue/Bexley Street intersection.

Mobility and Access Impacts. Mobility and access impacts under Alternative 2 would be similar to those under Alternative 1 (Proposed Project), with the exception that a cul-de-sac would be constructed at the intersection of St. Johns Avenue and McMillan Avenue. This closure of St. Johns Avenue would have adverse indirect impacts to properties accessed from St. Johns Avenue, including small businesses, a church, a school, and many residences; however, the connection of Turnbull Avenue to St. Johns Avenue would be opened and, as a result, would mitigate the loss of access to a minor adverse impact by providing an alternate route that connects to Noisette Boulevard.

Community Safety and Emergency Response Impacts. Impacts to community safety and emergency response under Alternative 2 would be similar to those under Alternative 1 (Proposed Project); however, there are several differences. In Alternative 2, the northern rail connection for NS would be relocated along Spruill Avenue within existing CSX ROW to the S-line, and turn east along Aragon Avenue to the existing NCTC rail line. As a result of the rail alignment, a cul-de-sac would be constructed at the southern end of St. Johns Avenue. The former Charleston Naval Complex gate at Turnbull Avenue will be open to provide future access between St. Johns Avenue and Noisette Boulevard. Same as Alternative 1 (Proposed Project), Alternative 2 creates a new at-grade rail crossing at the intersection of Meeting Street and Herbert Street and at O'Hear Avenue south of Bexley Street.

Alternative 2 results in a minor adverse impact to human health from delay to emergency response times for the same reasons as Alternative 1 (Proposed Project).

Community and Neighborhood Impacts. Community and neighborhood impacts associated with Alternative 2 would be similar to the impacts associated with Alternative 1 (Proposed Project); however, there are the following differences. The northern rail connection in Alternative 2 is located in an Environmental Justice community. An Environmental Justice analysis has been conducted (see Section 3.16) to assess whether the population meets the criteria for the presence of minority and/or low-income population. This area of potential impact is located within block groups CT 37 BG 3 and CT 55 BG 1 (see Figure 4.18-1). CT 37 BG 3 and CT 55 BG 1 both have Black or African American minority Environmental Justice populations (see Table 3.16-19). In addition, CT 55 BG 1 also has a low-income Environmental Justice population (see Table 3.16-20). As a result, impacts within this section of the study area would result in additional impacts to the Environmental Justice community impacted by the project. Specifically, Alternative 2 would have 33 additional residential relocations over Alternative 1 (Proposed Project) for a total of 167 residential relocations.

Also, residential homes along Bexley Street would be directly impacted by long-term noise impacts and train headlamps at nighttime as a result of trains operating along a new rail track just south of Bexley Street. Similarly, properties between Spruill Avenue and St. Johns Avenue, including residential homes and St. John Catholic Church and School, would be directly impacted by long-term noise impacts from trains operating along a new rail track on the east side of Spruill Avenue (see Figure 4.16-3).

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 2 would be the same as those under Alternative 1 (Proposed Project).

Environmental Justice Considerations. Environmental Justice impacts under Alternative 2 would be similar to Alternative 1 (Proposed Project), with an additional 33 residential relocations within an Environmental Justice community.

4.16.5 Alternative 3: Proposed Project Site (South via Kingsworth / North via Hospital District)

Economic and Business Resource Impacts. Economic and business resource impacts under Alternative 3 would be similar to those under Alternative 1 (Proposed Project), except the businesses north of Milford Street for the southern rail connection would be unaffected.

Mobility and Access Impacts. Mobility and access impacts under Alternative 3 would be similar to those under Alternative 1 (Proposed Project), with the exception that construction of the rail and ROW improvements under Alternative 3 would result in an at-grade crossing of Spruill Avenue and Meeting Street, west of Cooper Yard.

Community Safety and Emergency Response Impacts. Impacts to community safety and emergency response under Alternative 3 would be similar to those under Alternative 1 (Proposed

Project); however, there are several differences. The southern rail connection would connect to an existing rail line near Kingsworth Avenue (and adjacent to existing rail ROW); therefore, the existing at-grade crossings of Pittsburgh Avenue and Discher Street would not be impacted with ICTF train occurrences and the new at-grade crossing of Meeting Street at Herbert Street would not be created. However, Alternative 3 would create at-grade crossings, of both Meeting Street and Spruill Avenue near Kingsworth Avenue.

The new at-grade rail crossings would have a minor indirect adverse impact to community safety by introducing new conflict points between trains and automobiles, bicycles, and pedestrians. There are existing bike lanes and sidewalks along Meeting Street and Spruill Avenue at the location of these proposed new at-grade crossings.

These new at-grade crossings may also have a moderate adverse impact on emergency response times for certain locations because there is the potential for Meeting Street and Spruill Avenue to be blocked for approximately 11 minutes⁹², four times a day, when the CSX trains are entering and leaving the Navy Base ICTF. Detour routes are available such as the elevated Stromboli Avenue and Cosgrove-McMillan Overpass, but the detours could increase response times, depending on the location of the emergency. The communities of Union Heights, Windsor, and Howard Heights might also experience a moderate adverse impact to emergency response time if a train related to Alternative 3 was blocking access on both east and west access points as it navigated the U-turn.

Community and Neighborhood Impacts. Community and neighborhood impacts associated with Alternative 3 would be similar to the impacts associated with those under Alternative 1 (Proposed Project). In addition, the new ROW acquisition for rail track and the at-grade rail crossing would directly impact the Union Heights Neighborhood and would result in the need for relocation of eight residential units. The loss of these eight residential units represents 1 percent of the housing units in the neighborhood and would be considered a minor impact to community cohesion since the units are currently separated from the rest of the neighborhood by the existing access ramps from Spruill Avenue to I-26. Overall, a total of approximately 142 residential relocations would occur under Alternative 3. The southern portion of the Union Heights neighborhood would also be directly impacted by long-term noise impacts from train operations along the new rail track (see Figure 4.16-4).

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 3 would be similar to those under Alternative 1 (Proposed Project).

⁹² Based on an 8,000-foot train traveling at 5 miles per hour through the crossing.

Environmental Justice Considerations. Environmental Justice impacts under Alternative 3 would be the similar to Alternative 1 (Proposed Project); however, there would be the additional relocation of eight residential units in the Union Heights Neighborhood.

4.16.6 Alternative 4: Proposed Project Site (South via Milford)

To the north of the intermodal facility, a rail spur or tail track, is proposed to extend from the facility through the River Center Neighborhood, as is identified for Alternative 1 (Proposed Project), but would stop short of Noisette Creek (see Figure 4.16-5).

Economic and Business Resource Impacts. Economic and business resource impacts under Alternative 4 would be similar to those under Alternative 1 (Proposed Project), with the exception that there would be no residential and/or business impacts within the Hospital District.

Mobility and Access Impacts. Mobility and access impacts under Alternative 4 would be similar to those under Alternative 1 (Proposed Project), with the exception that there would be no road and rail improvements, and associated mobility and access impediments and/or impacts, to the north of the ICTF facility.

Community Safety and Emergency Response Impacts. Impacts to community safety and emergency response under Alternative 4 would be the similar to those under Alternative 1 (Proposed Project); however, there are several differences. Alternative 4 is a variation of Alternative 1 (Proposed Project), where NS and CSX would also enter and exit the Navy Base ICTF from a southern rail connection. Proposed rail through the Hospital District would stop short of Noisette Creek.

Under Alternative 4, trains would use the southern rail alignment to Milford Street and there would be no impact to the at-grade crossings of Rivers Avenue, Virginia Avenue, and Avenue B. Alternative 4 would have twice as many ICTF train occurrences as Alternative 1 (Proposed Project), eight per day, at the at-grade crossings along the southern alignment. The community of Union Heights might also have a localized moderate adverse impact to emergency response if a train was blocking access on both east and west access points as it navigated the U-turn.

Community and Neighborhood Impacts. Community cohesion and stability impacts associated with Alternative 4 would be similar to those under Alternative 1 (Proposed Project).

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 4 would be similar to those under Alternative 1 (Proposed Project).

Environmental Justice Considerations. Environmental Justice impacts associated with Alternative 4 would be the same as those under Alternative 1 (Proposed Project).

4.16.7 Alternative 5: River Center Project Site (South via Milford / North via Hospital District)

Economic and Business Resource Impacts. Similar to Alternative 1 (Proposed Project), the construction and operation of the River Center ICTF would result in major short-term and indirect long-term economic benefits to the local area and region. Switching the location of the ICTF facility to the River Center project site under Alternative 5 would also eliminate the need to relocate the approximately 134 residential units associated with the Chicora-Cherokee Neighborhood. Alternative 5 would result in new noise and visual impacts to offices and businesses located on the east side of Noisette Boulevard adjacent to the ICTF, including the Berkeley-Charleston-Dorchester Council of Governments and 10 Storehouse Row; however, the noise abatement wall proposed along the eastern boundary of the River Center ICTF would help minimize these adverse impacts. Alternative 5 would result in the relocation of 62 residences and 18 commercial properties, including 60 units from the West Yard Lofts low-income housing complex and the Lowcountry Innovation Center (see Figure 4.16-6), which houses more than 15 companies. The relocation of these businesses and low-income residents would have major short-term, localized direct adverse impacts. The owner of West Yard Lofts is under contract to provide low-income housing and is concerned about violating their contract if they are forced to relocate; however, in compliance with the Uniform Act of 1970, these impacts would be minimized by providing relocation assistance and working with business owners and residents to find replacement facilities.

Alternative 5 would also lead to the termination of existing leases with businesses on the west side of Noisette Boulevard on the River Center project site, including Department of Defense offices, a furniture store, and a large marine container manufacturer. This alternative may also require the termination of leases for local non-profit organizations and residential properties located on the western portion of the River Center project site, depending upon the final design.

Lowcountry Orphan Relief is located in the vicinity of the River Center project site, but would not be directly impacted as currently designed. Lowcountry Orphan Relief includes a donation center and is heavily reliant on volunteers. It also hosts several large outdoor events each year. This facility would be indirectly impacted if the volunteers lose easy access for donors and volunteers, or if outdoor events are affected by the presence of the River Center ICTF. Palmetto Scholars Academy relocated⁹³ to another location several miles from the River Center project site; therefore, no impacts would occur.

For Alternative 5, the main gate for trucks coming from I-26 would be located on an extension of Cosgrove Avenue. Based on the traffic analysis, the annual average daily volume of trucks on Cosgrove Avenue east of Spruill Avenue would be approximately 2,200 in 2018 under Alternative 2 compared to 85 under the No-Action Alternative. This volume of trucks would have a long-term,

⁹³ As of December 2016, this relocation has occurred.

indirect adverse impact on businesses located along Cosgrove Avenue, including small shops and offices, a hair salon, a bank, and the Charleston County Department of Social Services. Customers may have a difficult time accessing these businesses, and may be deterred from patronizing these businesses, if there is an increase in the volume of trucks along the road.

Mobility and Access Impacts. As with Alternative 1 (Proposed Project), temporary detours during construction of Alternative 5 would likely increase travel times, change or remove access to properties, and limit mobility to River Center project site. These indirect, minor adverse impacts would be short-term and localized to the study area. Implementation of a traffic control plan and the provision of safe and efficient detour routes and advance notice of road closures would minimize adverse impacts.

Alternative 5 would result in a minor long-term adverse impact to east-west mobility as it would make it more difficult for residents of neighborhoods west and south of the River Center ICTF to access destinations to the east of it, including Riverfront Park. Similar to Alternative 1 (Proposed Project), this alternative would adversely impact parking access for Detyens Shipyard employees using the parking lot along McMillan Avenue; however, as with Alternative 1 (Proposed Project), Palmetto Railways has come to an agreement with Deytens Shipyard for an alternative location for parking. The long-term goal for all local property owners is to construct a parking structure but there is currently no timeline nor funding mechanism in place. Alternative 5 would result in a minor adverse impact to CARTA Route 104, which currently runs along Spruill Avenue, Noisette Boulevard, and McMillan Avenue in the study area. Alternative 5 would eliminate access between Spruill Avenue and Noisette Boulevard in the vicinity of McMillan Avenue, and no alternate route is provided. Therefore, CARTA Route 104 would have to be re-routed. In addition, access to the CARTA Superstop at the corner of Cosgrove Avenue and Rivers Avenue would likely be impacted by a high volume of trucks travelling on Cosgrove Avenue to access the ICTF. This traffic may make it difficult for buses and riders to access the facility, and may also pose a potential safety issue due to high pedestrian activity near the Superstop, resulting in the potential for a minor adverse impact.

Alternative 5 would introduce additional traffic onto St. Johns Avenue due to the location of the employee entrance on St. Johns Avenue at Turnbull Avenue. This traffic may result in adverse access impacts for St. John Catholic Church and School, which is located adjacent to the proposed employee entrance; however, Alternative 5 has an increase of only approximately 600 vehicles per day on St. Johns Avenue over the No-Action Alternative. This is a relatively small increase over a 24-hour period. Additionally, St. Johns Avenue and the ICTF employee driveway would operate at acceptable levels of service in both 2018 and 2038. Therefore, any access impacts to St. John Catholic Church and School would be negligible.

Community Safety and Emergency Response Impacts. Community safety and emergency response impacts associated with Alternative 5 are generally related to the construction of the additional at-grade crossing and an increase in truck volumes on local streets.

Alternative 5 would result in a potential major adverse impact to emergency response times due to delays at at-grade crossings compared to the No-Action Alternative, because it would eliminate several east-west routes in the study area. McMillan Avenue and Reynolds Avenue would no longer provide a connection from Spruill Avenue to Noisette Boulevard. Cosgrove Avenue east of Spruill Avenue would only provide access to the River Center project site. The closest EMS station is located on Dorchester Road west of the DCIA. Emergency responders coming from the west side of the DCIA would have to go north of Noisette Creek then east to connect to Noisette Boulevard to access properties along the Cooper River. Emergency responders dispatching from Fire Station 2 on the corner of Carner Avenue and Clement Avenue would have to travel south to the future Stromboli Avenue Bridge over rail tracks then north on the improved Bainbridge Avenue to access properties on the Cooper River.

Similar to Alternative 1 (Proposed Project), construction of the rail and ROW improvements at Meeting Street for the southern rail connection would result in one new major at-grade rail crossing. This new at-grade rail crossing would have a potential minor, direct adverse impact to community safety by introducing a new conflict point between trains and automobiles, bicycles, and pedestrians. There are existing bike lanes and sidewalks along Meeting Street at the location of this proposed new at-grade crossing.

Similar to Alternative 1, there would be the potential for Meeting Street to be blocked by a train for approximately 11 minutes⁹⁴, four times a day, when the trains are entering and leaving the River Center ICTF. The CARTA Superstop is located at the corner of Cosgrove Avenue and Rivers Avenue. Alternative 5 would result in a high volume of trucks (2,161 trucks per day in 2018) traveling on Cosgrove Avenue to access the ICTF. These trucks could pose a safety concern to pedestrians walking to and from the buses.

Community and Neighborhood Impacts. Communities and neighborhoods surrounding Alternative 5 would experience similar noise, air quality, and visual impacts as those under Alternative 1 (Proposed Project). Neighborhoods within the study area (shown on Figure 3.16-2) include Olde North Charleston, Chicora-Cherokee (made up on Chicora Place and Cherokee Place), Windsor, Howard Heights, and Union Heights. Alternative 5 would directly impact the Chicora-Cherokee, Olde North Charleston, and Union Heights neighborhoods and the West Yard Lofts low-income community, and would indirectly impact the Park Circle and Oak Park neighborhoods.

Alternative 5 includes the extension of arrival/departure tracks, to the south, and a drayage road adjacent to the Chicora-Cherokee neighborhood between Reynolds Avenue and Viaduct Road. The drayage road would expose the neighborhood to noise impacts from trains on the arrival/departure tracks as well as noise and air quality impacts from diesel trucks on the drayage road. These direct, long-term impacts would occur 24 hours per day. It should be noted that due to a longer drayage

⁹⁴ Based on an 8,000-foot train traveling at 5 miles per hour through the crossing.

road between the ICTF and the port, Alternative 5 would require twice as many trucks traveling on the drayage road to transport the same volume of containers as Alternative 1. The combined noise from trains and trucks would result in a major localized noise impact (see Section 4.12.10) to the Chicora-Cherokee Neighborhood.

The Corps assumes that the Project site would still be developed with industrial or warehousing uses as indicated under the No-Action Alternative. Therefore, Sterett Hall and the arts building would still be lost, and community resources, cohesion, and stability impacts associated with the No-Action Alternative would also apply to Alternative 5 without a replacement facility.

Alternative 5 would not directly impact the unnamed community park, Riverfront Park, or the Chicora-Cherokee Community Park; however, it would create indirect impacts as a result of increased noise from rail and truck traffic and visual impacts as a result of the wide-span gantry cranes.

Similar to Alternative 1 (Proposed Project), the eastern portion of the Olde North Charleston Neighborhood has the potential for minor, indirect noise, mobility, and safety adverse impacts as a result of the proposed rail lines and existing at-grade crossings along Virginia Avenue as part of Alternative 5. The River Center Neighborhood would experience a negligible exterior daytime impact and moderate to major exterior nighttime impact from operational noise. Additionally, there would be a moderate adverse rail noise impact to the Union Heights Neighborhood. Alternative 5 would also cause a major adverse impact to the River Center Neighborhood from displacement of approximately 62 residential units, which includes West Yard Lofts (60-unit, low-income housing development that opened in 2011). The Park Circle and Oak Park neighborhoods would experience similar impacts associated with a River Center ICTF as those under Alternative 1 (Proposed Project).

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 5 would be the similar to those under Alternative 1 (Proposed Project).

Environmental Justice Considerations. Alternative 5 has the potential for disproportionately high and adverse impacts to Environmental Justice populations, primarily the residents associated with West Yard Lofts. The adverse impacts associated with Alternative 5 would be predominantly borne by the minority and low-income populations and are appreciably more severe than the adverse effects that would be suffered by the nonminority and non-low-income population of the City of North Charleston and Charleston County. With regard to benefits and burdens, the benefits of Alternative 5 would extend to the greater Charleston region, while the burdens would be borne by the Environmental Justice community adjacent to the Project. Therefore, the benefits and burdens of Alternative 5 are not equitably distributed. However, measures outlined in any agreements made under Alternative 5 could mitigate the adverse burdens borne by the Environmental Justice community.

4.16.8 Alternative 6: River Center Project Site (South via Kingsworth / North via Hospital District)

Alternative 6 is similar to Alternative 5 with the exception that the southern rail connection would connect to an existing rail line near Kingsworth Avenue (and adjacent to existing rail and ROW). Construction of the rail and ROW improvements under Alternative 6 would result in a new at-grade crossing at Spruill Avenue and Meeting Street. This new track and at-grade rail crossing would directly impact the Union Heights Neighborhood from ROW acquisition and residential relocations. The southern portion of the neighborhood would also be directly impacted by long-term noise impacts from operating along the new rail track (see Figure 4.16-7).

Economic and Business Resource Impacts. Economic and business resource impacts under Alternative 6 would be similar to those under Alternative 5, with the exception that the businesses north of Milford Street for the southern rail connection would be unaffected.

Mobility and Access Impacts. Mobility and access impacts under Alternative 6 would be similar to those under Alternative 5.

Community Safety and Emergency Response Impacts. Impacts to community safety and emergency response under Alternative 6 would be similar to those under Alternative 5; however, there are differences. The southern rail connection would connect to an existing rail line near Kingsworth Avenue (and adjacent to existing rail and ROW), therefore the existing at-grade crossings of Pittsburgh Avenue and Discher Street would not be impacted with ICTF train occurrences and the new at-grade crossing of Meeting Street at Herbert Street would not be created for Alternative 6. Alternative 6 would create at-grade crossings of both Meeting Street and Spruill Avenue near Kingsworth Avenue.

The new at-grade rail crossings would have a minor indirect adverse impact to community safety by introducing new conflict points between trains and automobiles, bicycles, and pedestrians. There are existing bike lanes and sidewalks along Meeting Street and Spruill Avenue at the location of these proposed new at-grade crossings.

These new at-grade crossings may also have a major adverse impact on emergency response times for certain locations because there is the potential for Meeting Street and Spruill Avenue to be blocked for approximately 11 minutes⁹⁵, four times a day, when the trains are entering and leaving the Navy Base ICTF. Detour routes are available along the southern rail connection such as the elevated Stromboli Avenue. There would be no detour route available in the northern portion of the River Center project site and no Cosgrove-McMillan Overpass, increasing response times depending on the location of the emergency. The community of Union Heights, Windsor, and Howard Heights

⁹⁵ Based on an 8,000-foot train traveling at 5 miles per hour through the crossing.

might also have a moderate adverse impact to emergency response if a train related to Alternative 6 was blocking access on both east and west access points as it navigated the U-turn.

The City of Charleston's planned public service operation center would not be impacted by Alternative 6.

Community and Neighborhood Impacts. Community and neighborhood impacts associated with Alternative 6 would be similar to those under Alternative 5, with the exception that eight residential units would be displaced in the Union Heights Neighborhood for new rail tracks. This loss of these eight residential units represents 1 percent of the housing units in the neighborhood and would be considered a minor adverse impact to community cohesion since the units are currently separated from the neighborhood by the existing access ramps from Spruill Avenue to I-26. A total of approximately 70 residential relocations would be required as part of Alternative 6.

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 6 would be similar to those under Alternative 1 (Proposed Project).

Environmental Justice Considerations. Environmental Justice impacts associated with Alternative 6 would be similar to Alternative 5; with the addition of eight residential units requiring relocation in the Union Heights neighborhood. These additional relocations are not considered to be a disproportionate adverse impact to this Environmental Justice community.

4.16.9 Alternative 7: River Center Project Site (South via Milford)

Economic and Business Resource Impacts. Economic and business resource impacts under Alternative 7 would be similar to those under Alternative 5.

Mobility and Access Impacts. Mobility and access impacts under Alternative 7 would be similar to those under Alternative 5.

Community Safety and Emergency Response Impacts. Impacts to community safety and emergency response under Alternative 7 would be similar to those under Alternative 5; however, there are several differences. Alternative 7 is a variation of Alternative 5 where trains would also enter and exit the Navy Base ICTF from a southern rail connection. Proposed rail through the Hospital District would stop short of Noisette Creek (Figure 4.16-8).

Under Alternative 7, both trains would use the southern rail alignment to Milford Street. Alternative 7 would have twice as many ICTF train occurrences than Alternative 5, eight per day, at the at-grade crossings along the southern alignment. The community of Union Heights would also have a major adverse impact to emergency response if a train related to Alternative 7 was blocking access on both east and west access points as it navigated the U-turn. In addition, the construction of the drayage

road from the River Center project site for Alternative 7 limits east-west mobility throughout the study area.

Community and Neighborhood Impacts. Community cohesion and stability impacts associated with Alternative 7 would be similar to those under Alternative 5.

Barriers to the Elderly and Handicapped. Barriers to the elderly and handicapped persons under Alternative 7 would be similar to those under Alternative 1 (Proposed Project).

Environmental Justice Considerations. Environmental Justice impacts associated with Alternative 7 would be the same as those under Alternative 5.

4.16.10 Related Activities

If the project is constructed, a section of unimproved CSX ROW would have to be activated with rail lines that would accept intermodal trains at the proposed new at-grade crossing at Meeting Street in the vicinity of Discher Street. This Related Activity would apply to Alternatives 1, 2, 4, 5, and 7. Under Alternatives 3 and 6, the Related Activity construction would begin at the proposed new at-grade crossing at Meeting Street in the vicinity of Kingsworth Avenue. Alternative 2 requires the reactivation of an out-of-service ROW and construction of a new railroad bridge to connect the NS arrival/departure track to the north from the ICTF across a portion of marsh that drains to Noisette Creek to the existing NCTC track along Virginia Avenue.

Economic and Business Resource Impacts. Direct or indirect impacts to economic and business resources are not anticipated from the Related Activities. There would be no relocations associated with the Related Activities.

Mobility and Access Impacts. Direct impacts to mobility and access would result from the reactivation of rail tracks and train lengths. The increased train activity is likely to increase delay to pedestrians and vehicle traffic at all associated at-grade rail crossings.

Community Safety and Emergency Response Impacts. Adverse indirect impacts to community safety and emergency response are anticipated from project Related Activities. Increased train activity could result in a delay for emergency responders at all associated at-grade rail crossings.

Community and Neighborhood Impacts. Direct impacts to community cohesion and stability are not anticipated from the Project Related Activities.

Barriers to the Elderly and Handicapped. Related Activities would not result in barriers to the elderly and handicapped.

Environmental Justice Considerations. Adverse indirect impacts from noise are anticipated from increased train activity with project Related Activities.

4.16.11 Summary of Impacts Table

Table 4.16-2 summarizes the environmental consequences to socioeconomics and Environmental Justice from Alternative 1 (Proposed Project) and all the alternatives.

Table 4.16-2
Summary of Impacts, Socioeconomics and Environmental Justice

Alternative	Community Resources, Cohesion, and Stability					Environmental Justice Considerations
	Economic and Business Resource Impacts	Mobility and Access Impacts	Community Safety and Emergency Response Impacts	Community and Neighborhood Impacts	Barriers to the Elderly and Handicapped	
No-Action	Negligible as there are no impacts to economic and business resources	Minor adverse impact from private developer construction.	Negligible impact as any delay would be similar to existing conditions.	Major impact from displacement of Sterett Hall and surrounding arts facilities.	Negligible as there is no physical impact in terms of new barriers to the elderly and handicapped.	Not applicable (no federal action).
1: Proposed Project: South via Milford / North via Hospital District	Major short-term and indirect long-term benefit to local and regional economy; minor indirect adverse impact to local businesses adjacent to project (access, relocations, and aesthetics)	Minor short-term adverse impacts from construction; minor adverse access impacts for Chicora-Cherokee residents; minor adverse mobility impacts from new at-grade rail crossings and increased delay at intersections and at-grade crossings.	Potential minor adverse emergency response time impacts due to delay at at-grade crossings compared to No-Action; however alternate routes available. Potential minor safety impacts due to an additional conflict point at Meeting Street at-grade crossing.	Negligible impact from displacement of Sterett Hall and surrounding arts facilities as they would be displaced with or without Alternative 1 (Proposed Project). Major adverse impacts to Chicora-Cherokee Neighborhood from approximately 134 residential displacements; minor to moderate impact from visual and noise impacts. Minor indirect impact from exacerbation of housing and population loss.	Negligible impact in terms of new barriers to the elderly and handicapped.	Major adverse impact from displacement of approximately 134 residential units would result in a disproportionately high and adverse impact to Chicora Cherokee Neighborhood.

Alternative	Community Resources, Cohesion, and Stability					Environmental Justice Considerations
	Economic and Business Resource Impacts	Mobility and Access Impacts	Community Safety and Emergency Response Impacts	Community and Neighborhood Impacts	Barriers to the Elderly and Handicapped	
				Minor adverse impacts to Olde North Charleston and minor to moderate adverse impacts to Howard Heights/Union Heights/Windsor neighborhoods from noise.		
2: South via Milford / North via S-line	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed project), with an additional minor adverse impact from creation of cul-de-sac at St. Johns Avenue and McMillian Avenue.	Similar to Alternative 1 (Proposed Project), but indirect minor adverse impacts (noise, light, and glare) to residents and businesses along Spruill Avenue and Bexley Street corridor.	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project). Same disproportionately high and adverse impact on Chicora-Cherokee neighborhood as Alternative 1 (Proposed Project). Additional 33 residential relocations within Olde North Charleston neighborhood.
3: South via Kingsworth / North via Hospital	Similar to Alternative 1 (Proposed Project); however, businesses north of Milford Street would be avoided.	Similar to Alternative 1 (Proposed Project). Location of 2 new at-grade crossings are located at Meeting Street and Spruill Avenue at Kingsworth Avenue.	Similar to Alternative 1 (Proposed Project) with localized moderate impacts to emergency response.	Similar to Alternative 1 (Proposed Project), but with approximately eight additional residential displacements from Union Heights neighborhood.	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project). Same disproportionately high and adverse impact on Chicora-Cherokee neighborhood as Alternative 1 (Proposed Project). Additional eight residential relocations from Union Heights neighborhood.

Alternative	Community Resources, Cohesion, and Stability					Environmental Justice Considerations
	Economic and Business Resource Impacts	Mobility and Access Impacts	Community Safety and Emergency Response Impacts	Community and Neighborhood Impacts	Barriers to the Elderly and Handicapped	
4: South via Milford	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project) with localized moderate impacts to emergency response.	Similar to Alternative 1 (Proposed Project).	Similar to Alternative 1 (Proposed Project).	Same disproportionately high and adverse impact on Chicora-Cherokee neighborhood as Alternative 1 (Proposed Project).
5: River Center Project Site: South via Milford / North via Hospital District	Major short-term and indirect long-term benefit to local and regional economy; direct adverse impacts to businesses on River Center project site; major direct adverse impacts to businesses relocations along Noisette Boulevard and the Lowcountry Innovation Center; minor adverse impact to properties adjacent to project (truck traffic, noise, aesthetics).	Minor, long-term adverse impact to east-west mobility for residents and businesses within the study area; Closure of McMillan Avenue would result in a minor adverse impact from the disruption of CARTA Route 104).	Potential for major adverse emergency response time impacts, due to delay at at-grade crossings compared to the No-Action Alternative and as a result of limited east-west access through the study area. Potential for minor safety adverse impacts due to an additional conflict point at the Meeting Street at-grade crossing.	Negligible impact from displacement of Sterett Hall and surrounding arts facilities as they would be displaced with or without Alternative 5. For the Chicora-Cherokee neighborhood, overall noise impacts would be minor to moderate adverse from rail and a localized major adverse noise impact from rail and drayage road. Chicora-Cherokee Neighborhood would have negligible visual impacts. Major adverse impact to River Center Neighborhood from displacement of approximately 62 residential units (includes 60-unit West Yard Lofts). Negligible exterior daytime impact and moderate to major exterior	Similar to Alternative 1 (Proposed Project).	Major adverse impact from displacement of the approximately 60-unit West Yard Lofts low-income housing development would result in a disproportionately high and adverse impact

Alternative	Community Resources, Cohesion, and Stability					Environmental Justice Considerations
	Economic and Business Resource Impacts	Mobility and Access Impacts	Community Safety and Emergency Response Impacts	Community and Neighborhood Impacts	Barriers to the Elderly and Handicapped	
				nighttime impact to the River Center Neighborhood from operational noise. Moderate adverse rail noise impacts to Union Heights Neighborhood.		
6: River Center Project Site: South via Kingsworth / North via Hospital	Similar to Alternative 5; however, businesses north of Milford Street would be avoided.	Similar to Alternative 5.	Similar to Alternative 5.	Similar to Alternative 5, with approximately eight additional residential displacements from the Union Heights Neighborhood.	Similar to Alternative 5.	Similar to Alternative 5.
7: River Center Project Site: South via Milford	Similar to Alternative 5.	Similar to Alternative 5.	Similar to Alternative 5.	Similar to Alternative 5.	Similar to Alternative 5.	Same as Alternative 5.

Socioeconomic Impacts and Environmental Justice Impact Definitions

Negligible = No impacts to economic and business resources No loss of mobility or access. No increase in emergency response times over the existing condition. No impacts to neighborhoods or community resources. No barriers to the elderly or handicapped persons. No impacts to Environmental Justice communities.

Minor = Loss of 10 or fewer businesses. Short-term adverse construction related impacts that result in changes in access, but no loss of mobility. Short-term adverse construction related impacts and long-term adverse operational impacts to emergency response times that are longer than response times under the No-Action Alternative. Alternate routes for emergency response are available. Loss of 10 or fewer residential units from area neighborhoods and/or community resources but no loss of function. Temporary barriers to the elderly or handicapped persons during construction. An impact to Environmental Justice communities, but not a disproportionate impact.

Major = Loss of more than 10 businesses and/or insufficient relocation sites available in neighborhood. Long-term changes in access or loss of access and/or mobility. Increase in emergency response times under the action alternatives compared to the No-Action Alternative. No emergency response alternate routes are available. Loss of more than 10 residential units in a neighborhood and/or loss of connections between neighborhoods. Continued adverse impacts to previously impacted neighborhoods. Loss of community resources with no replacement sites available. Long-term and/or permanent barriers to the elderly or handicapped persons. Disproportionately high and adverse impact on Environmental Justice communities.

4.16.12 Mitigation

4.16.12.1 Applicant's Proposed Avoidance and Minimization Measures

The Applicant has committed to several measures that avoid and/or minimize potential impacts of Alternative 1 (Proposed Project). These measures are taken from Palmetto Railways Mitigation Plan provided in Appendix N. Some of these measures are required under federal, state, and local permits; others are measures that Palmetto Railways has incorporated into the design and operations of Alternative 1 (Proposed Project). Each mitigation measure is also designated as one that either helps to avoid an impact or one that minimizes an impact.

These avoidance and minimization measures, except the items noted with an asterisk (*), have been considered in the preceding impact analysis. The complete list of Applicant-proposed avoidance and minimization measures related to socioeconomics and Environmental Justice is also provided in Chapter 6.

- Contributed \$8 million to the City of North Charleston as part of the 2012 settlement agreement to mitigate the impacts to the community⁹⁶. (Minimization)
- Residential properties that are forced to relocate will receive full compensation in accordance with the Uniform Relocation Assistance and Real Properties Act of 1970 (The Uniform Act). Affected property owners and displaced persons will receive assistance in accordance with The Uniform Act including (but not limited to) the following: relocation services to displaced tenants and owner occupants, minimum 90 days written notice to vacate, reimbursement for moving expenses, and payments for the added cost of renting or purchasing comparable replacement housing. (Minimization)
- The Applicant will provide relocation services for a period of three (3) years (after the official opening of the facility) to owner-occupied residential property owners who, as of the Effective Date of the Community MOA, reside in the Relocation Area from 100 feet of the Project up to North Carolina Avenue. (Minimization)
- Nonresidential properties (businesses, nonprofit organizations) will receive full compensation in accordance with The Uniform Act. The business located on the four parcels along Milford Street that are required to relocate will receive relocation assistance consisting of the following: inspecting and gathering information regarding each displacee and a search area for available replacement sites, conducting an inventory of personal property to be moved and securing a cost to relocate those items within a 50-mile radius, offering relocation assistance to displacees after establishing their eligibility and assist in getting them relocated from the site, providing the appropriate written notices to the displacees, coordinating securing the approximate payment, ensuring that displacees understand their options, and providing relocation services as necessary to advance the project. (Minimization)
- Developed the Community Mitigation Working Group, comprised of the Chicora- Cherokee Neighborhood Association, Union Heights Community Council, Lowcountry Alliance for

⁹⁶ This mitigation measure is based on lawsuit settled in December 2012 (Section 1.5.1).

Model Communities (LAMC), and Metanoia Community Development Corporation. (Minimization).

- The Applicant and the Community Mitigation Working Group entered into a Memorandum of Agreement (MOA) related to the use of mitigation funds in connection with the impacts of the facility (details on the agreement can be found in Appendix N). The Community MOA specifically addresses the following activities:
 - The Applicant shall fund \$3 million for the construction of a community recreation center on property to be provided by the City of North Charleston, located in the area of the Chicora Tank Farm. The recreation center is proposed to include approximately 10,000 square feet of gymnasium space, 5,000 square feet of fitness facility space, office space, and bathrooms facilities. LAMC commits to provide \$200,000 for fitness equipment and \$50,000 for exterior fitness stations. The Applicant also supports the inclusion of an outdoor area that could be used as a community farmer’s market in the planning for the center. (Minimization)
 - The Applicant shall provide an additional \$1 million in mitigation funds for the impacts of the ICTF. The funding amount may be increased should the construction funds for the recreation center not be fully expended or utilized. The community mitigation funds shall be distributed as follows: 47% for affordable housing, 13% for job training, 13% for education, 13% for environmental research, 8% for a youth endowment, and 6% for an endowment for community organizations. (Minimization)
 - Development of an agreement with SCDHEC to address environmental impacts including support for operational efficiencies and Best Management Practices (BMPs) for intermodal facilities. (see Air Quality mitigation). (Minimization)
 - The Applicant will construct a 100-foot buffer with a landscaped earthen berm and noise wall between the ICTF and Chicora-Cherokee Neighborhood. The buffer will be appropriately landscaped with native, noninvasive vegetation. When appropriate, the Applicant will seek exceptions to the City of North Charleston’s Tree Preservation Ordinance for vegetation options that can support appropriate mitigation. The buffer will be permanently maintained by the Applicant. (Minimization)
 - For a period of 3 years after the official opening of the ICTF, the Applicant shall provide relocation services to owner-occupied residential property owners who, as of the Effective Date of the Community MOA, reside in the Relocation Area from the project area to North Carolina Avenue. The relocation services provided by will be consistent with the Uniform Act. (Minimization)
 - The Applicant will maintain its 5 percent (5%) set aside goal for Disadvantaged Business Enterprises (DBEs) in its construction contracts. They further commit to making the Community Mitigation Working Group aware of all job opportunities, through providing job announcements to the community, minority media, and local organizations. The Applicant will also support job fairs in the local community, internship and training programs, with regard to the facility in both its construction and operation stages. In addition, the Applicant will further investigate the possibility of summer internships for

- youth in partnership with the Community Mitigation Working Group. See Appendix N for specific details (Minimization)
- The Applicant will support the City of North Charleston and Class I Rail Carriers and the Community Mitigation Working Group to establish quiet zones for rail traffic within the affected communities.⁹⁷ (Minimization)
 - The Applicant will support the City of North Charleston to develop a truck route and restriction plan for the area and will work to inform truck drivers as to the approved routes to and from the facility. (Minimization)
 - The Applicant will support the City of North Charleston in the rehabilitation and repair of the former Chicora Elementary School in the Chicora-Cherokee area for the benefit of the community. The City of North Charleston's rehabilitation of the auditorium, which, when combined with the recreation center partially funded by the Applicant, will serve to replace the facilities that were once provided to the affected communities at Sterett Hall. Palmetto Railways assumes no responsibility or obligation, financial or otherwise, for the rehabilitation of the auditorium, which is not a part of the agreement. (Minimization)
 - The Applicant will support the City of North Charleston and the Community Mitigation Working Group in the establishment of Quitman's Marsh as a recreational area. (Minimization)
 - The Applicant and the Low County Orphan Relief have reached an agreement to minimize and compensate for impacts to the property. (Minimization)
 - The Applicant has developed an ongoing community engagement and awareness plan to keep stakeholders and the public engaged and informed, including the following activities:
 - Provide newsletters to the affected community on a biannual basis targeting the needs and opportunities for the affected community during the duration of construction. (Minimization)
 - Provide community presentations to organizations and the affected community throughout the project's duration. (Minimization)
 - Presenting the Community Mitigation Plan to the community during the draft and final stages. (Minimization)
 - Hold community leadership meetings in the affected community every six months after the Record of Decision (ROD) is posted to address community concerns. (Minimization)
 - Hold construction meetings with the affected community twice a year during construction to keep the public informed and gather comments and feedback from the public. (Minimization)
 - A Community Advisory Panel will be established with the affected community, interested stakeholders and businesses twice a year after construction is completed to gather

⁹⁷ In order to mitigate the effects of train horn noise, communities can establish "Quiet Zones" where horns are not needed due to safety improvements at the grade crossings. A guide to the quiet zone establishment process can be found at: www.fra.gov under Railroad Safety: "FRA Train Horn Rule and Quiet Zones."

- feedback and keep the public informed about the facility. The Community Advisory Panel will continue through operations. (Minimization)
- The Applicant agrees to provide a quarterly report to the Community Mitigation Working Group regarding the construction of the recreation center, until construction is completed. (Minimization)
 - The Palmetto Railways website (www.palmettorailways.com) will be used for community information about the facility and tours of the facility can be scheduled at any time during construction and operation. (Minimization)
 - Implement the Air Quality Memorandum of Agreement (MOA) with the SCDHEC to address certain concerns related to the environmental impacts of the Project. The Air Quality MOA provides for air quality initiatives including the contribution of \$50,000 from the Applicant to go towards ambient air quality initiatives in conjunction and coordination with SCDHEC and the Medical University of South Carolina on air quality initiatives in the Charleston region. (Minimization)
 - Incorporate design elements into the facility including a landscaped earthen berm, sound walls, 100-foot buffer, cut (trench) section, use directional lighting, container stacking limits, and implement other identified mitigation measures that minimize noise, vibrations, visual, and air quality impacts. (Minimization)
 - Continue to cooperate with the appropriate emergency services personnel within the Cities of North Charleston and Charleston to address emergency response coordination and other specific issues as they arise. (Minimization)
 - Examine emergency service benefits and gather input from local emergency service providers as part of the Surface Transportation Impact Study. See Appendix B for details on the study* (Minimization)
 - Study the need for grade separated crossings as part of the Crossing Analysis. See Appendix N for details. * (Minimization)

These avoidance and minimization measures, except the items noted with an asterisk (*), have been considered in the preceding impact analysis. The complete list of Applicant-proposed avoidance and minimization measures for the Navy Base ICTF is provided in Chapter 6, Table 6.1.

4.16.12.2 Additional Potential Mitigation Measures

No additional mitigation measures Socioeconomics and Environmental Justice have been recommended by the Corps. Additional avoidance, minimization, and mitigation may be considered by the Corps in its decision-making process. Final mitigation measures may be adopted as conditions of the DA permit and documented in the Record of Decision (ROD).



- A1 Dorcas Residential Care
- A2 Guardian Angels Residential Care
- A3 Evergreen Residential Care
- A4 Palmetto Residential Care of North Charleston
- A5 Ivory's Loving Care Residential Facility



- S1 (Temporary) Chicora Elementary School
- S2 Owens Christian Academy
- S3 (Future) Chicora Elementary School
- S4 Military Magnet Academy
- S5 Mary Ford Elementary School
- S6 Greg Mathis High School



- C1 Saint Johns Catholic Church
- C2 Washington United Methodist Church
- C3 St. Matthews Church
- C4 Emanuel Seed - Harvest Time Church
- C5 Salvation & Deliverance Church
- C6 The House of God North Union Heights
- C7 New Francis Brown United
- C8 New St. John Holiness Church
- C9 Bethlehem Baptist Church
- C10 Evening of Prayer Church of God In Christ
- C11 Mt. Olive Baptist Church
- C12 Grace Community Baptist Church
- C13 Calvary AME Church
- C14 Open Door United Bibleway Church of Christ
- C15 Masjid Al Jami Ar-Rsheed
- C16 Promised Land Pentecostal Holiness Church



- CM1 Saint Peter's Cemetery Extension



- E1 Charleston County EMS Reynolds Ave Station (Former)



- F1 City of North Charleston (Station 2)



- L1 Cooper River Memorial Library

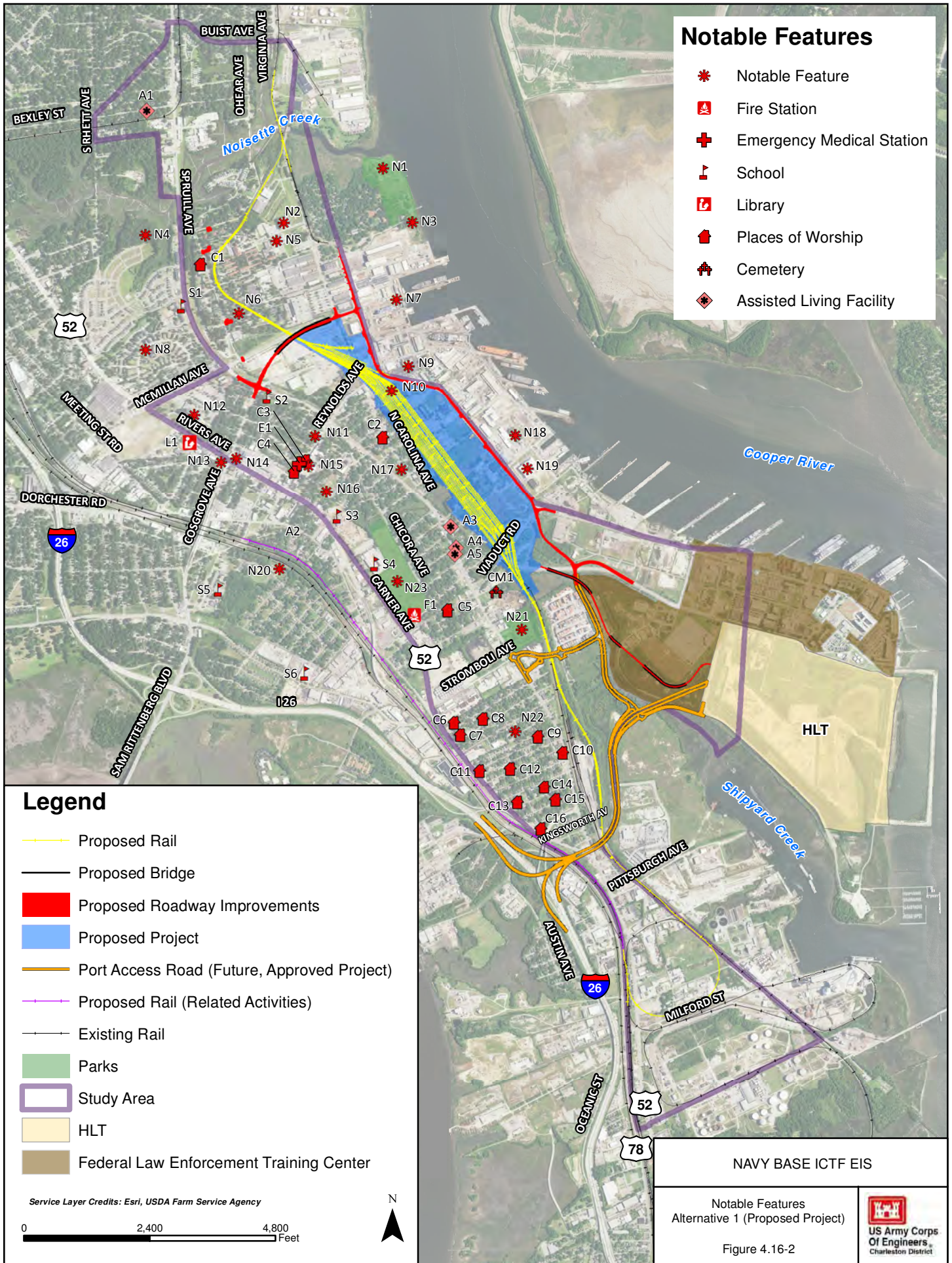


- N1 Riverfront Park
- N2 West Yard Lofts
- N3 Greater Charleston Naval Base Memorial
- N4 North Park Village Park
- N5 Lowcountry Innovation Center
- N6 Lowcountry Orphan Relief
- N7 Deytens Shipyard
- N8 St. Charles Place
- N9 Harvest Free Medical Clinic
- N10 Sterett Hall
- N11 Live Oak Senior Center
- N12 Chicora Life Center
- N13 North Charleston Police Station Bureau
- N14 CARTA Superstop
- N15 Metanoia
- N16 Gussie Greene Community Center
- N17 Chicora-Cherokee Park and Garden
- N18 HL Hunley Confederate Submarine
- N19 Clemson University Restoration Institute
- N20 Accabee Recreation Center
- N21 Park South (Former)
- N22 Gethsemani Community Center

NAVY BASE ICTF EIS

Notable Feature Key
Figure 4.16-1





Notable Features

- * Notable Feature
- 🚒 Fire Station
- + Emergency Medical Station
- 🎓 School
- 📖 Library
- 🏠 Places of Worship
- ⚰ Cemetery
- 🏠 Assisted Living Facility

Legend

- Proposed Rail
- Proposed Bridge
- █ Proposed Roadway Improvements
- █ Proposed Project
- Port Access Road (Future, Approved Project)
- Proposed Rail (Related Activities)
- Existing Rail
- █ Parks
- █ Study Area
- █ HLT
- █ Federal Law Enforcement Training Center

Service Layer Credits: Esri, USDA Farm Service Agency


0 2,400 4,800 Feet

N

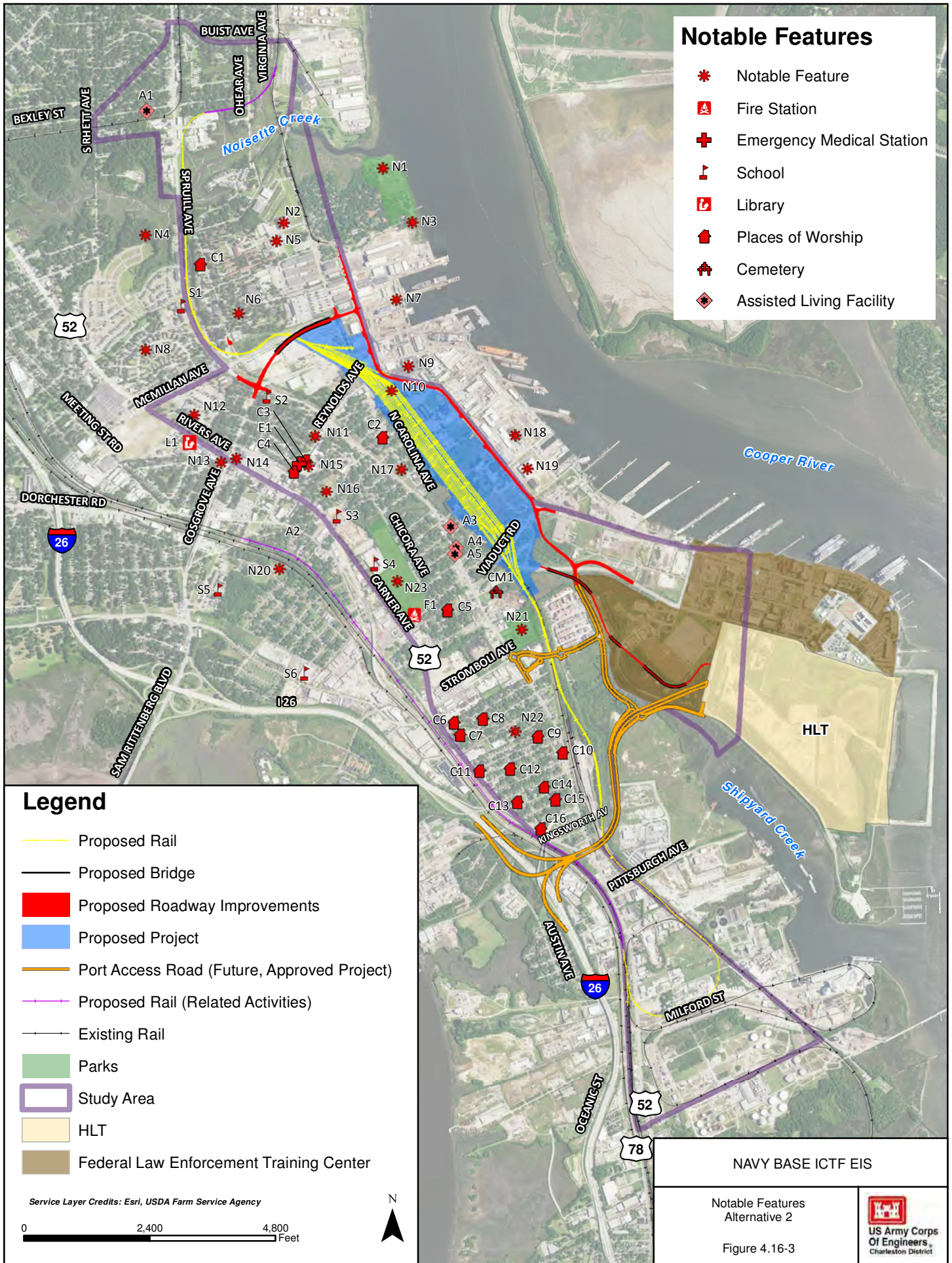
NAVY BASE ICTF EIS

Notable Features
Alternative 1 (Proposed Project)

Figure 4.16-2



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Notable Features

- * Notable Feature
- 🚒 Fire Station
- + Emergency Medical Station
- 🎓 School
- 📖 Library
- 🏠 Places of Worship
- ⚰ Cemetery
- 🏠 Assisted Living Facility

Legend

- Proposed Rail
- Proposed Bridge
- █ Proposed Roadway Improvements
- █ Proposed Project
- Port Access Road (Future, Approved Project)
- Proposed Rail (Related Activities)
- Existing Rail
- █ Parks
- █ Study Area
- █ HLT
- █ Federal Law Enforcement Training Center

Service Layer Credits: Esri, USDA Farm Service Agency

0 2,400 4,800 Feet

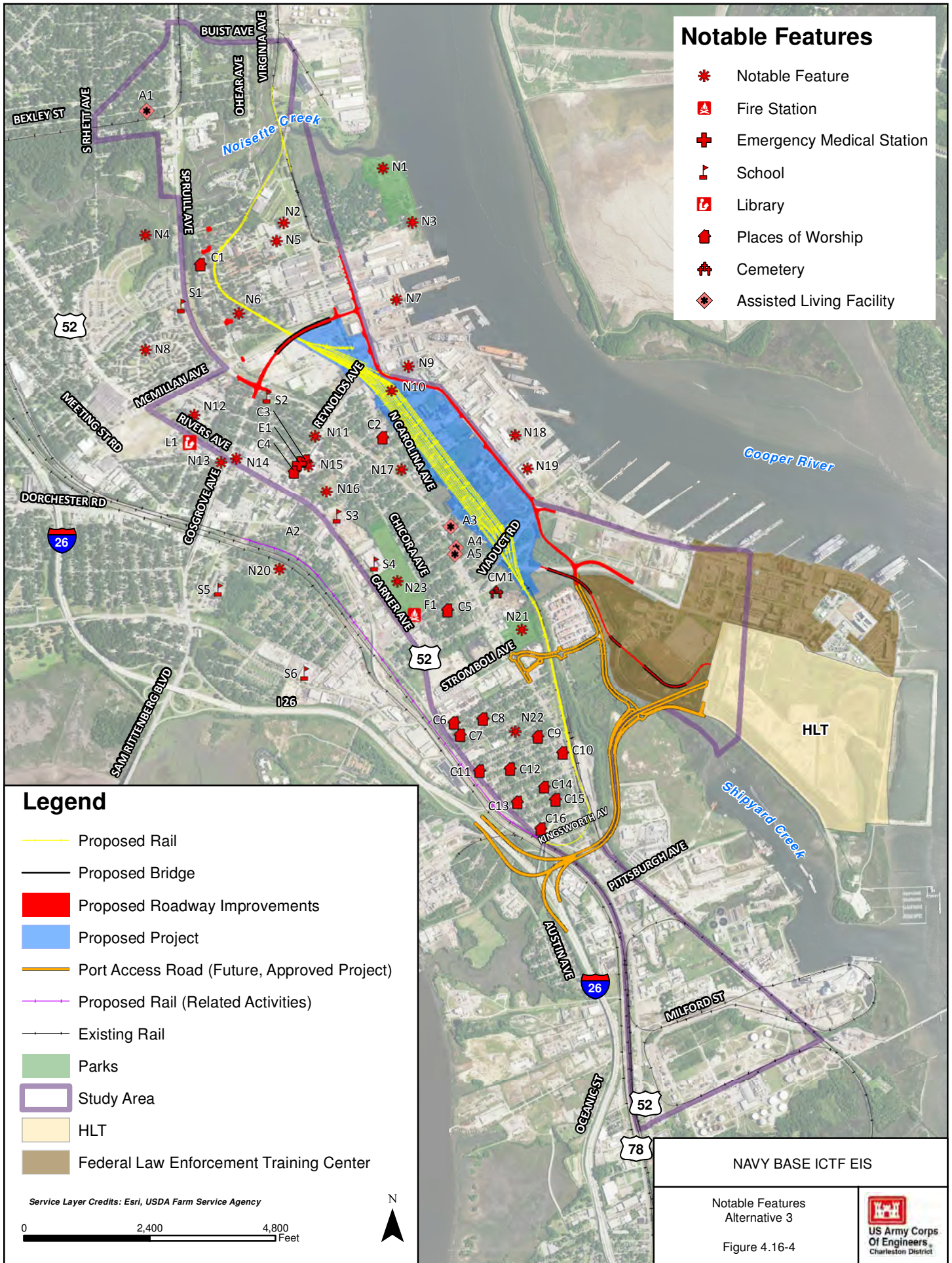
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NAVY BASE ICTF EIS

Notable Features
Alternative 2

Figure 4.16-3

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Notable Features

- Notable Feature
- Fire Station
- Emergency Medical Station
- School
- Library
- Places of Worship
- Cemetery
- Assisted Living Facility

Legend

- Proposed Rail
- Proposed Bridge
- Proposed Roadway Improvements
- Proposed Project
- Port Access Road (Future, Approved Project)
- Proposed Rail (Related Activities)
- Existing Rail
- Parks
- Study Area
- HLT
- Federal Law Enforcement Training Center

Service Layer Credits: Esri, USDA Farm Service Agency

0 2,400 4,800 Feet

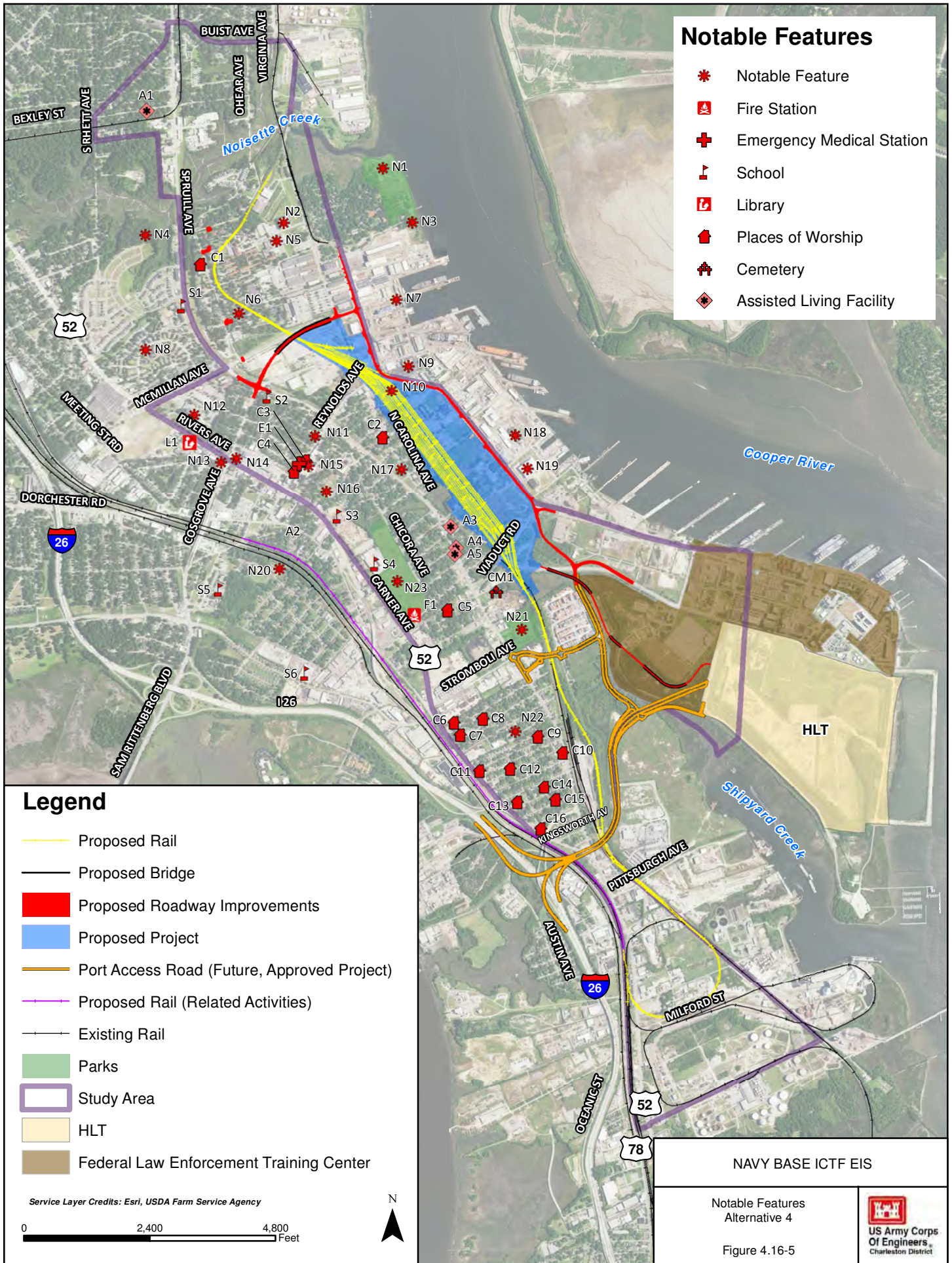
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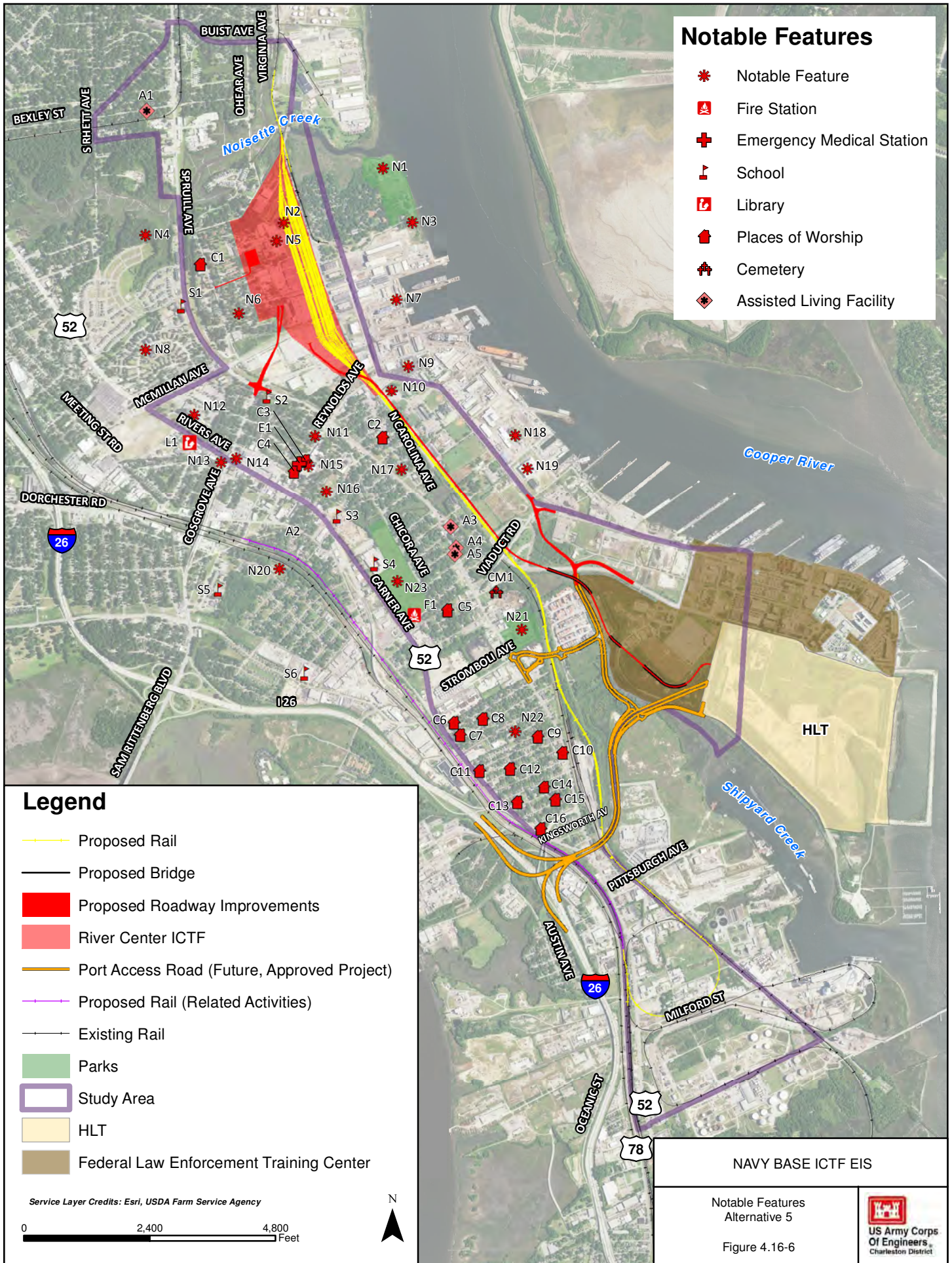
Notable Features
Alternative 3

Figure 4.16-4

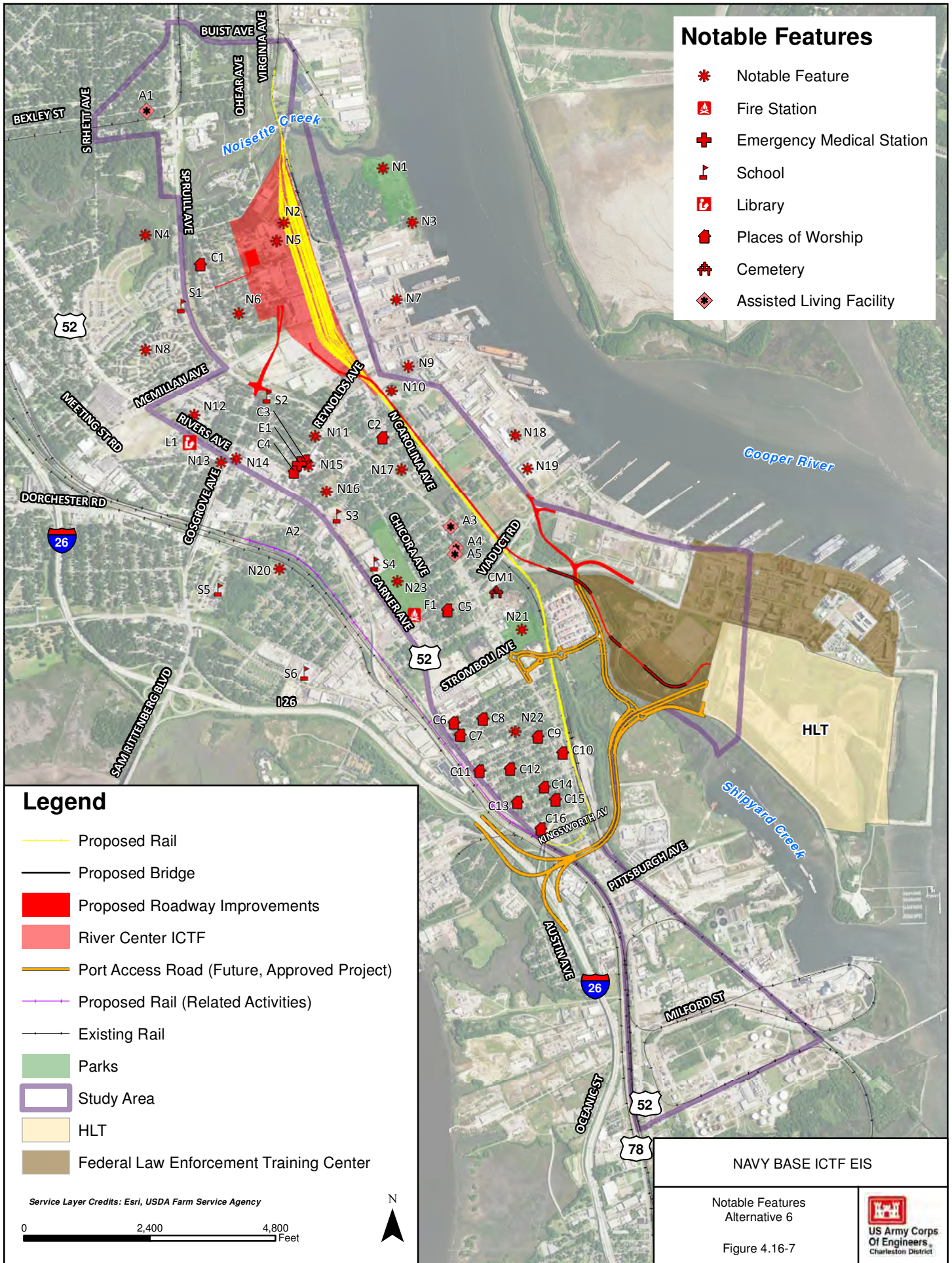
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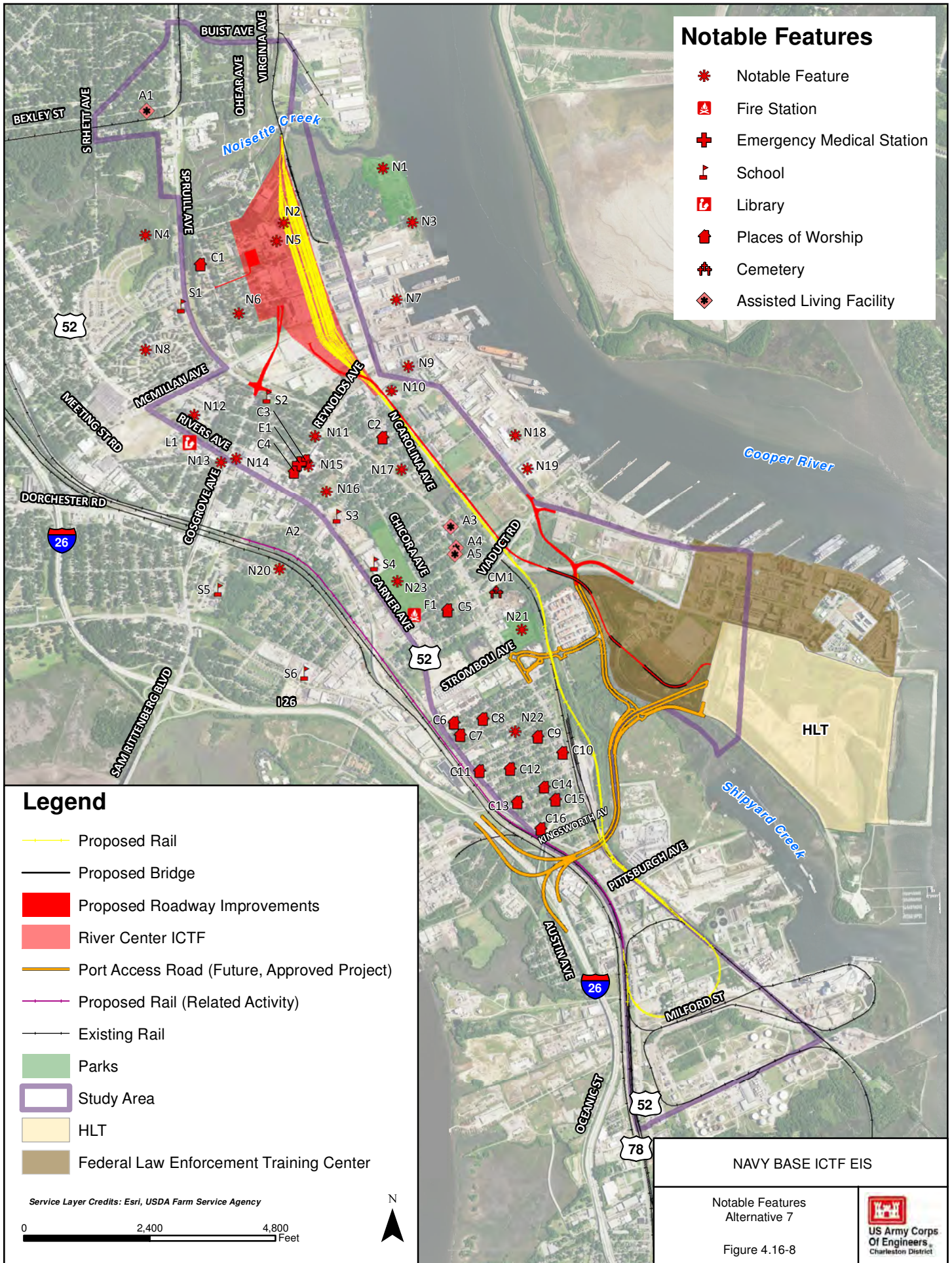
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