4.8 CULTURAL RESOURCES

4.8.1 Introduction

This chapter identifies the effects to cultural resources that may result from implementing each of the proposed South Coast rail alternatives. This section describes the potential impacts to identified cultural resources within the Area of Potential Effect (APE) defined for the alternatives, as well as steps that may be taken to avoid, minimize, or mitigate any adverse impacts to significant historic and archaeological properties. Impact analyses are based on numerous cultural resource identification surveys that have been completed to date for the alternatives. Background information on the proposed South Coast Rail alternatives is provided in Chapter 3, *Alternatives*. The alternatives are shown in Figure 4.8-1.

4.8.1.1 Resource Definition

For the purposes of this assessment, "cultural resources" refer to historic above-ground buildings, structures, and areas/districts and below-ground archaeological sites and archaeologically sensitive areas within and adjacent to the various components of the alternatives.

Direct impacts to historic resources could occur during the construction phase from the physical alteration of buildings, structures, and landscape or setting components within areas/districts, including demolition. Indirect impacts on historic resources could result during construction and/or operations from elevated noise or vibration levels, changes to the visual setting, increased traffic, or other environmental conditions affecting historic buildings, structures, and areas/districts. Direct impacts to archaeological resources could result from ground-disturbing construction activities in places where recorded/documented and under-documented pre-contact/contact Native American and post-contact EuroAmerican resources are or could be present.

4.8.1.2 Methodology

The Corps methodology is described in Appendix C, Procedures for the Protection of Historic Properties[1] of 33 CFR Part 325 - Processing of Department of the Army Permits (Appendix C). Appendix C identifies the procedures to be followed by the Corps to fulfill the requirements set forth in the National Historic Preservation Act (NHPA), other applicable historic preservation laws, and Presidential directives as they relate to the regulatory program of the Corps (33 CFR Parts 320-334).

The central concept in the Corps methodology is the "Permit Area," as defined in Appendix C. The term "permit area" as used in Appendix C means those areas comprising waters of the United States that will be directly affected by the proposed work or structures and uplands directly affected as a result of authorizing the work or structures. The following three tests must all be satisfied for an activity undertaken outside the waters of the United States to be included within the "permit area":

- Such activity would not occur but for the authorization of the work or structures within the waters of the United States;
- Such activity must be integrally related to the work or structures to be authorized within waters of the United States. Or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program; and,

[1] AUTHORITY: 33 U.S.C. 401 et seq., 33 U.S.C. 1344, 33 U.S.C. 1413.

- Such activity must be directly associated (first order impact) with the work or structures to be authorized.

Pursuant to Appendix C, the Corps District Engineer must take into account the effects, if any, of proposed undertakings on historic properties both within and beyond the waters of the United States pursuant to Section 110(f) of the NHPA. The District Engineer, where the undertaking that is the subject of a permit action may directly and adversely affect any National Historic Landmark, shall, to the maximum extent possible, condition any issued permit as may be necessary to minimize harm to such landmark.

In addition to the requirements of the NHPA, all historic properties are subject to consideration under NEPA.[2] The Corps implements NEPA through the CEQ regulations in 40 CFR 1500-1588, its own NEPA regulations (33 CFR Part 325, Appendix B), and the Corps' public interest review requirements contained in 33 CFR 320.4.

In addition to the Corps' methodology for complying with the NHPA, the methodology based on the regulations of the Advisory Council on Historic Preservation 36 CFR 800.16(d), implementing Section 106 of the NHPA of 1966 are used by the Corps and Cooperating Agencies (USEPA, FRA, FTA and FHWA) in complying with the NHPA. The regulations of the Advisory Council on Historic Preservation 36 CFR 800.16(d) refer to the APE, which defines the areas in which a proposed undertaking may have an effect on an historic property, and the type of effect that may occur.

As defined in the Council's regulations, the APE for a project is the geographic area or areas within which an undertaking may directly, indirectly, or cumulatively cause changes in the character of historic properties that make them eligible for listing in the National Register of Historic Places (National Register), if any such properties exist [36 CFR 800.2(c)]. A direct impact APE is established to include the geographic area in which historic properties would be altered or otherwise used by construction activities or impacts related to project operations. An indirect impact APE typically consists of a larger area where auditory, pollution, noise, recreational visitor usage vibration, visual, and/or other types of environmental impacts resulting from an undertaking might affect the qualities for which a historic property is eligible for or listed in the National Register.

The South Coast Rail alternatives include 12 categories of potential work and operations types that may result in permanent or temporary and direct or indirect effects. The work types and operations expected for the project are:

- Increased train traffic on existing active track segments
- Minor repairs or rehabilitation of existing track in active use
- Constructing an additional track on an existing active track segment
- Restoring track and train traffic on out-of-service or abandoned rights-of-way
- Constructing commuter rail stations
- Constructing overhead catenary to allow electrified train service

[2] 42 U.S.C. 4321-4347.

- Layover and maintenance facilities
- Construction staging and laydown areas
- Operations noise and vibration (including horn blowing)
- Increased traffic queuing, intersection changes

These work types and operations may or may not be restricted to individual alternatives. Some of the proposed routes for the alternatives overlap and it is effective to look at track or corridor segments when defining the APE. Furthermore, an undertaking's APE may differ for above-ground resources (e.g., historic structures, buildings, and landscapes), below-ground resources (e.g., archaeological sites), and locations that are of traditional cultural significance to a particular individual or group including Native Americans (Traditional Cultural Properties or TCPs). Additional varying components of the project may result in more than one APE for the undertaking.

The various South Coast Rail project APEs were established by the Corps in terms of project alternatives and segments, work and operations (i.e., electrified and diesel) types, and resource class (see June 5, 2009 letter and final APE statement included in Appendix 4.8-A). The Massachusetts State Historic Preservation Office (SHPO) concurred with the Corps' definition of the South Coast Rail project APEs in a letter dated July 2, 2009.

The Wampanoag Tribe of Gay Head/Aquinnah indicated that the Hockomock and Pine swamps are regarded as traditionally culturally sensitive lands. These two swamps are located in the towns of Easton, Raynham, and Taunton, and may be affected by the Stoughton Alternative or Whittenton Alternative. The Mashpee Wampanoag Tribe and The Narragansett Indian Tribe may also be interested in these and other traditionally culturally sensitive lands. Should a location(s) of traditional cultural significance be identified within the project study area by individual(s) and/or groups, including the above federally recognized Indian Tribes, through the Corps' consultation with these groups, then the APE for such a location and its eligibility as a TCP would be determined through consultation between the Corps and the individual(s) and/or groups. The determination and treatment of any TCPs would be included in the Programmatic Agreement (PA) for the cultural resources of the South Coast Rail project. The Draft PA is included as Appendix 4.8-A.

Historic Resources Methodology

The South Coast Rail project would have direct and indirect, temporary and/or permanent, impacts on above-ground historic resources. Factors with potential to cause effects to historic above-ground properties that were considered in the definition of the APE for historic resources include:

- Atmospheric—resulting from trucks and machinery dust and exhaust during construction and train exhaust particulates during operation
- Noise—resulting from a variety of construction activities, and train wheels and horns sounding during operation
- Physical modification or demolition—changes to historic properties including bridges, culverts, and stations from actions including, but not limited to, noise insulation and barriers that alter historic buildings or their setting

- Traffic—changes in traffic patterns and traffic increases around grade crossings and stations
- Vibration—from construction activities and train pass-bys during operation
- Visual (setting)—changes to existing cultural landscape resulting from new construction (e.g., site preparation, signal and electrification equipment, grade crossings, new and modified bridges, right-of-way fences, noise walls, new and modified stations, new layover facilities, changes in land use, reduction of parcel sizes), vegetation clearing, and introduction of trains on corridors where service has been suspended since 1958; and cumulative impacts

The South Coast Rail project baseline APE for historic resources and for TCPs as defined by the Corps is summarized in Table 4.8-1. The areas listed in Table 4.8-1 encompass the direct APE, defined as the construction limits of the project, as well as the indirect APE. If a previously recorded or potential historic district or cultural landscape was identified, the APE would be broadened as necessary to encompass the boundary of the entire resource.

Direct impacts to historic resources were evaluated using preliminary engineering concept plans of project elements to identify the locations of historic buildings, structures, and areas/districts that are listed, determined eligible by the SHPO, or determined eligible for the National Register by the Corps in consultation with the SHPO within the APE for direct project impacts related to construction activities.

Indirect impacts to historic resources were evaluated by using environmental analyses for relevant impact categories including atmospheric, noise, traffic, vibration, visual, and cumulative impacts.

Table 4.8-1 APE Definitions by Work Types and Operations and Resource Class

Work Types and Operations	Below-ground	Above-ground	Traditional Cultural Properties
Rail corridors, baseline	Area of direct impact for proposed construction activities	800 feet (400 feet to either side of centerline) for electrification, 800 feet (400 feet either side of centerline) for diesel routes	To be determined in consultation with the Tribes
Stations (including stations, parking lots, access roads, and associated features)	Area of direct impact for proposed construction activities	250 feet from perimeter of proposed facility boundary	To be determined in consultation with the Tribes
Layover and maintenance facilities (lot only)	Area of direct impact for proposed construction activities	250 feet from perimeter of proposed facility boundary	To be determined in consultation with the Tribes
Construction laydown and staging areas (lot only)	Area of direct impact for proposed construction activities	250 feet from perimeter of proposed facility boundary	To be determined in consultation with the Tribes
Road, temporary and permanent access to proposed facility	Area of direct impact for proposed construction activities	400 feet from proposed road centerline	To be determined in consultation with the Tribes
Road, intersections	Area of direct impact for proposed construction activities	400 feet on either side of the intersection centerline	To be determined in consultation with the Tribes

Atmospheric

Atmospheric effects are considered in relation to USEPA and MBTA studies of emissions (nitrous oxide) and particulates (soot) from train diesel exhaust during operations that could potentially damage historic buildings. Air quality analyses have shown impacts to be minor for commuter rail lines and they are expected to be minimal for the South Coast Rail alternatives.

Noise

The analysis of noise impacts presented in Chapter 4.6, *Noise*, reports that properties could be impacted during service by changes in cumulative noise levels caused by train operations along the right-of-way and at layover facilities, and by warning horn blowing starting one-quarter mile prior to and at grade crossings. The FTA's noise impact criteria establish three levels of noise impacts, including no impact, moderate, and severe. These impact levels are calculated based on existing and projected new noise exposure, and the receptor and surrounding land use. Noise exposure at sensitive receptors along the rail right-of-way is expected to vary from 52 Ldn at locations up to 900 feet, to 70 or more Ldn at locations less than 125 feet from the track. Severe impacts are anticipated at locations where modeling predicts that the project noise exposure would exceed the sound levels in the FTA's noise impact criteria.

As identified in Chapter 4.6, *Noise*, the majority of noise sensitive receptors for the South Coast Rail alternatives within 1,000 feet of the rail corridor are single family and multi-family residences. The following definitions were used for the South Coast Rail alternatives per land use and receptors categories in FTA May 2006, pp 3-7, 3-8:

- Category 1 (quiet essential element for intended purpose): none (per FTA definition)
- Category 2 (buildings where people sleep): houses, inns, historic districts with houses (many in South Coast Rail project APE)
- Category 3 (institutional land uses with day and evening uses): schools, churches, libraries, lodges (a few in South Coast Rail project APE)
- Other sensitive historic categories with quiet settings:
    - Parks (passive and meditative)—per FTA are sensitive receptors (one in South Coast Rail project APE)
    - Cemeteries—not discussed in FTA report; however, historic cemeteries are places where a quiet setting is expected

Based on the noise analysis, transportation, industrial, commercial structures; parks with active recreational uses; and golf courses were not considered sensitive noise receptors.

Based on intensive survey level information and the generalized (not building by building) noise analysis, residences in historic districts with noise impacts would be affected. Noise level may have an effect on historic resources if noise increases reach the severe threshold at properties where a quiet setting is an important characteristic of National Register eligibility. There are five historic resources in the project APE where natural quiet is integral to the National Register setting. These are: Peirce and Haskins

Cemetery (PAL LA.024); North Burial Ground (PAL FR.K, FR.C); Neck of Land Cemetery (PAL Ta.029, Ta.C); Mount Pleasant Cemetery (PAL Ta.262); and the Blue Hills Multiple Resource Area (PAL De.A, Ca.E).

Noise may also affect an historic property if it is residential and if soundproofing measures such as barriers, insulated windows, or new doors are proposed that would affect the setting or appearance of the building or the setting of a district. Temporary noise from construction activities associated with utility relocation, grading, excavation, track and stations work, and installation of systems components is anticipated to be short term and to occur mostly during the day.

Physical Modification or Demolition

Physical modification or demolition to historic properties may occur from the application of noise proofing (discussed above); building demolition; bridge and culvert demolition, repair, and replacement; and the replacement or demolition of existing railroad infrastructure.

Traffic

Traffic impacts that could affect the setting of historic resources during operations include additional traffic around stations at certain times of day, and vehicle queuing at grade crossings or traffic control device during train pass-bys. Major changes in traffic could introduce or dramatically increase vehicles where none or few existed and/or alter access to and from historic properties by vehicles and pedestrians. Temporary traffic changes that could affect the setting of historic resources during construction would consist of the introduction of large machinery and vehicles, and redirected traffic. Potential impacts are analyzed in terms of traffic study thresholds to determine what, if any, locations are expected to have significant levels of impact. Traffic impacts to historic properties are expected to be minor for the South Coast Rail alternatives.

Vibration

The analysis of vibration impacts presented in Chapter 4.7, *Vibration*, shows that properties would be impacted by vibration where vibration levels reach 80 VdB or above. Based on the FTA Generalized Ground-Surface Vibration Curves Table included in the chapter, properties within approximately 90 feet of the center line of a locomotive powered passenger or freight rail line could be impacted by vibration levels of 80 VdB or more. Vibration may impact historic resources if the vibration levels are sufficiently high to result in structural damage to a building or structure, which is a threshold of 100 VdB for minor damage to fragile buildings. The vibration analyses for each of the diesel and electric alternatives indicate that the vibration levels from train pass-bys are below the threshold to cause structural damage to surrounding buildings or structures. It should also be noted that most of the buildings or structures eligible for inclusion in the National Register are in a context of functioning passenger and/or freight railroads in the past.

Temporary vibration from pile driving during construction could generate structurally damaging vibration levels of 104 VdB or more within 25 feet of the work site. This would be anticipated in the vicinity of certain bridges only.

Visual (Setting)

The analysis of visual impacts presented in Chapter 4.5, *Visual Resources and Aesthetic Resources*, provides information regarding the certain types of project work with new or substantially increased

(beyond what is already present) modern elements that could potentially change the setting of historic properties. Elements that may have a permanent effect on viewsheds and setting of historic resources include: new catenary, traction power facilities, and other electrification infrastructure; vegetation clearing and grading along new or improved rights-of-way; new grade crossing and signal shed equipment; traffic controls and road realignment; new right-of-way fences; noise walls; new or enlarged parking lots, new layover facilities and other site/landscaping work; and modification or demolition of existing buildings and structures, or new construction. Temporary visual effects may occur from construction staging areas. The quality of visual impacts is influenced by land contours and terrain, existing vegetation that remains, the view along streets not blocked by buildings, and the presence of intervening buildings. Introduction of new visual elements that are not out of character, either inherently or with mitigation measures applied, to the historic character of adjacent historic resources or areas would have low to moderate impacts. High impacts would occur where new visual elements are out of character with factors that qualify an historic property for inclusion in the National Register.

Cumulative

Cumulative effects are defined as the result of incremental effects of the project when added to other past, present, and reasonably foreseeable future actions. Cumulative effects on cultural resources are expected to be minor for the South Coast Rail alternatives. A description of indirect effects and cumulative impacts is provided in Chapter 5.

Archaeological Resources Methodology

The South Coast Rail project baseline APE for below-ground archaeological resources as defined by the Corps is described below.

The APE for archaeological resources is the direct APE where ground disturbances are planned for the construction of project elements. These elements include the active and inactive railroad right-of-way and active road right-of-way segments; new station locations; new layover/maintenance facility(s); and any other ancillary work areas and land takings identified as part of the alternatives.

Preliminary engineering concept plans of project elements (dated 2009) were used to determine if recorded archaeological sites and sensitive areas occurred within areas scheduled for direct impact. Concept plans were used to further inform on the direct project impacts to recorded archaeological resources and areas defined as archaeologically sensitive. In areas that were deemed archaeologically sensitive, intensive (locational) survey was conducted to identify archaeological sites within the APE so that potential adverse effects to archaeological resources could be assessed.

The scope of the intensive locational survey was established for the preferred alternative through consultation between the Corps and MassDOT. The intensive archeological survey was completed in April 2013 and conclusions of the intensive survey are summarized in this chapter. The Corps' Scope of Work also indicated that the proposed intensive archaeological subsurface testing was subject to change based on continuing Corps tribal consultations with federally recognized Indian Tribes. The intensive survey did not include archaeological testing for TCPs that may be identified for the project during the ongoing Corps tribal consultations.

Table 4.8-2 presents the proposed and actual subsurface testing conducted for the sensitive project rights-of-way and Stoughton Line stations summarized above in the intensive survey research design. The Corps' proposed testing methodologies for sensitive right-of-way areas were refined using

information provided in the 2012 supplemental reconnaissance survey for the Whittenton Alternative and the review of the current project conceptual design track and station plans depicting existing topography and limits of work areas for the Stoughton and Whittenton Alternatives. The subsurface testing included manually excavated test pits and machine assisted trenches.

Table 4.8-2 Archaeologically Sensitive Areas, Testing, and Results

Project Alternative	Sensitivity Assessment	Results of Intensive (Locational) Survey
Stoughton and Whittenton Alternatives	10 Areas	5 post-contact sheet refuse deposits not NR eligible 3 post-contact sites, 1 pre-contact site, not NR eligible 7 precontact sites, NR eligible
Stoughton Alternatives only	3 Areas	2 post-contact sheet refuse deposit, not NR eligible 3 precontact sites, NR eligible
Whittenton Alternatives only	2 areas	4 pre-contact sites NR eligible

4.8.2 Existing Conditions

4.8.2.1 Historic Resources

The historic resources discussed in this section are the properties determined eligible for listing in the National Register by the Corps in consultation with SHPO. The characterization of existing conditions was undertaken in two phases of historic survey, along with supplemental survey information and National Register determinations by the Corps and SHPO. An initial historic resources reconnaissance survey was conducted that included the Stoughton Alternatives followed by supplemental surveys which included the Whittenton Alternatives as well as additional survey information on the Stoughton Alternatives. The reconnaissance surveys were designed to identify historic resources that may be eligible for listing in the National Register and previously designated historic properties that are listed in, determined eligible for, or considered by the SHPO to be eligible for inclusion in the National Register. The subsequent intensive survey collected information on potentially National Register-eligible historic resources and produced recommendations for eligibility. This section presents the results of the intensive survey for the Stoughton and Whittenton Alternatives (Appendix 4.8-B) and the determinations of National Register eligibility made by the Corps and the SHPO in their review of the intensive survey results and recommendations. A summary of historic properties subject to consideration for project effects is in Table 4.8-3. The Whittenton Alternatives are the same as the Stoughton Alternatives, except that it proposes to use the Whittenton Branch of the Stoughton Line. Historic properties associated only with the Whittenton Alternatives are located only in Taunton, and are discussed separately in the discussion of properties in Taunton. Properties surveyed for the Stoughton Alternatives only are identified as such in the following discussion; these properties are in Raynham (one property) and Taunton (nine properties).

The intensive survey for the Stoughton Alternatives identified areas/districts and individual properties within the APE for the rail corridor and proposed stations that meet any of the following characteristics:

- Properties listed in the National Register
- Properties previously determined eligible by the Massachusetts SHPO for listing in the National Register
- Properties eligible for listing in the National Register

- Designated National Historic Landmarks (NHL)

Table 4.8 3 presents a summary of the historic resources identified for the Stoughton and Whittenton Alternatives that were previously listed in or determined eligible for listing in the State and National Registers. One property, the Quechechan River Bridge in Fall River has been determined eligible through consensus by the SHPO and MassDOT since the DEIS/DEIR survey, and has therefore been added to this group. A summary of the number of identified historic properties in each category—NHL, National Register listed, or National Register determined eligible—is presented in Table 4.8 3.

Table 4.8-3 Summary of Historic Resources

Project Location	Resource Type	NR Eligible *	NR Listed or Previously Determined Eligible**	Not Eligible, Demolished or Out of APE*
Canton	Areas/Districts	2	1	1
	Individual	3	2	0
Stoughton	Areas/Districts	1	0	0
	Individual	3	3	1
Easton	Areas/Districts	4	2 [1 NHL]	0
	Individual	1	1	0
Raynham	Areas/Districts	1	0	1
	Individual	2	0	0
Taunton	Areas/Districts	7	4	2
	Individual	2	22	6
Berkley	Areas/Districts	1	0	0
	Individual	1	0	0
Lakeville	Areas/Districts	1	0	0
	Individual	1	0	1
Freetown	Areas/Districts	1	1	0
	Individual	1	1	0
New Bedford	Areas/Districts	1	2	1
	Individual	6	3	1
Fall River	Areas/Districts	3	9	2
	Individual	10	11	3
TOTAL		52	62	19

* Historic Resources Intensive Survey, Evaluation and Effects, Table 4-2 (May 2013)

** Historic Resources Intensive Survey, Evaluation and Effects, Table 3-2 (February 2013)

The following summary addresses those historic resources that are listed in or determined eligible for the National Register, by the SHPO, for the rail corridors and stations in these two alternatives.

Lists of these properties are provided for each alternative, indicating their association with a proposed or existing station as defined by the project or a grade crossing identified on the project base maps. These lists are included in the Historic Properties Intensive Survey included as Appendix 4.8-B. The results are based on archival research and walkover surveys of project elements new to the South Coast Rail alternatives, as well as updates to previous assessments of project elements for the Stoughton Alternatives of the New Bedford/Fall River Commuter Rail Extension Project conducted in 2001. The

results of these tasks are summarized below by project alternative and town. The surveyed properties discussed below are mapped on Figures 4.8-2 through 4.8-16, and are labeled according to "Map No." These resources are described in greater detail in the Cultural Resources Reconnaissance Survey, Volumes III and IV and the Historic Resources Intensive Survey, Evaluation and Effects.

Stoughton Alternatives

The Stoughton Alternatives (diesel and electric) consist of the Stoughton Line (active and inactive CSX and commuter) railroad right-of-way, a short section of the Attleboro Secondary (active CSX) railroad right-of-way, six proposed stations (North Easton, Easton Village, Raynham Park, Taunton [Dean Street], and Taunton Depot and Stoughton), and two existing stations (Canton Center, and Canton Junction). The Whittenton Alternatives (diesel and electric) use the Whittenton Branch (inactive) railroad right-of-way and the Attleboro Secondary between Whittenton Junction and Weir Junction. One alternate station is associated with the Whittenton Alternatives, the Dana Street (Taunton) Station. All alternatives (Whittenton and Stoughton) use the Southern Triangle, including the New Bedford Mainline and the Fall River Secondary.

The Stoughton/Whittenton Alternatives results are discussed below from north to south by community, station site, and layover facility/traction power site. The surveyed properties discussed below are mapped in Figures 4.8-2 through 4.8-16.

Canton

Approximately 2.3 miles of the Stoughton Line rail right-of-way, one traction power facility, and two existing stations (Canton Junction Station and Canton Center Station), are located within Canton as part of the Stoughton Alternatives. The Stoughton Line rail corridor in Canton is not National Register-eligible.

The following historic properties located along the Stoughton Line in Canton are eligible for National Register listing. The Canton Junction Railroad Station (Map No. Ca.001) is a Richardsonian Romanesque style, granite and red sandstone building erected in 1892 that is located at 666 Sherman Street, immediately east of the Stoughton Line at the point where it diverges from the Amtrak Northeast Corridor. The Revere Copper Company Railroad Embankment (Map No. Ca.002) is a linear earth mound feature with a single stone culvert from 1835 that is set in a wooded area south of Canton Junction, between the Stoughton Line and Amtrak's Northeast Corridor. The Revere Copper Company Works Area (Map No. Ca.B) is a 33-acre, multiple-building, active industrial complex purchased by Paul Revere in 1801, that is located 800 feet southwest of the Stoughton Line at 104 Revere Street. A portion of the original Revere Copper Company lot line, which is currently used as a parking lot, extends into the APE. The area was the site of the first copper rolling mill in the United States. The Washington Street Commercial and Institutional Area (Map No. Ca.C) is a neighborhood of approximately 55 commercial, civic, and residential buildings centered on Washington Street that straddles the Stoughton Line between Church Street to the south and Chapel Street to the north. It encompasses the Canton Center Area (Map No. Ca.H) and the Canton Public Library (Map No. Ca.006). The library is a cruciform-plan, limestone and brick, Classical Revival style building constructed in 1901 that is located at 786 Washington Street, approximately 600 feet north of the Stoughton Line. The Forge Pond Railroad Bridge (Map No. Ca.007) carries the Stoughton Line over a short waterway connecting Forge Pond and Kinsley Pond and is a single span stone arch and reinforced concrete bridge built between 1845 and 1890. The Canton Water Works (Map No. Ca.024) is a Romanesque-style industrial building constructed circa 1835 that is located at 44 Pine Street approximately 100 feet northeast of the Stoughton Line.

One traction power facility is proposed within Canton as part of the Stoughton Alternatives.

- TP-02, Switching Station (SWS-1) is located near a late-twentieth century residential subdivision, with a proposed access road that would extend through the driveway of an industrial loft (not eligible). A National Register-eligible stone and concrete arch Forge Pond Railroad Bridge (Ca.007), constructed between 1845 and 1890, is located to the northeast of TP-02.

Stoughton

Approximately 4.1 miles of the Stoughton Line rail right-of-way with one existing and one proposed station are located within Stoughton as part of the Stoughton Alternatives. No proposed traction power sites are within Stoughton as part of the Stoughton Alternatives. The existing Stoughton Station is located at Wyman Street and the proposed North Easton Station site is located in Stoughton at the town boundary with Easton. The Stoughton Line rail corridor in Stoughton is not National Register-eligible.

The following historic properties are located along the Stoughton Line in Stoughton. The Downtown Stoughton Area (Map No. St.B) radiates out from Stoughton Station and consists of approximately 386 properties developed with civic, commercial, industrial, and residential buildings between the mid-19th through the mid-twentieth century. The area is eligible for National Register listing. The Pearl Street Cemetery (Map No.St.022) is the oldest burial ground in Stoughton and is located approximately 1,100 feet northeast of the Stoughton Line near the town center. It consists of a 1.6-acre lot with approximately 400 burial markers from 1737 to 1965 and is eligible for National Register listing. The Stoughton Town Hall (Map No. St.023) is a Romanesque Revival style building constructed in 1881 that is located at 10 Pearl Street, approximately 400 feet northeast of the Stoughton Line and 600 feet from Stoughton Station. It has been determined eligible for National Register listing. The Mystic Rubber Company Building (Map No. St.024) is a brick mill loft constructed in 1877 that is located at 2 Canton Street, on the southwest side of the Stoughton Line near Stoughton Station and the Wyman and Porter street railroad crossings. It is eligible for National Register listing. The Stoughton Old Colony Railroad Station (Map No. St.025) is a National Register-listed Romanesque Revival style granite building constructed in 1888 that is located at 45-47 Wyman Street, near the Wyman Street railroad crossing serving the Stoughton Line. The Lucius Clapp Memorial Library (Map No. St.026) is a National Register-listed Classical Revival style brick building constructed in 1903 that is located at 6 Park Street, approximately 600 feet northeast of the Stoughton Line at Stoughton Station and the Wyman Street crossing. The Meade Rubber Company Building (Map No. St.046) is a brick mill loft constructed in 1916 that is located at 25 Brock Street on the west side of the Stoughton Line and an existing layover facility, and adjacent to the Brock Street railroad crossing. It is determined as eligible for National Register listing.

Stoughton (Proposed Station)

The proposed relocated Stoughton Station is not within any National Register Historic District or Area, and is south of the downtown Stoughton area (eligible for listing). The site contains one property that has been determined eligible for listing in the National Register: the Meade Rubber Company Building (MHC No. STG.1) at 25 Brock Street. The building is a two-story brick mill loft constructed in 1916 with arched window openings and brick piers. The company manufactured shoe heels and soles as well as rubberized fabrics for use in hospital sheets. Meade Rubber Company was one of several companies engaged in the rubber fabric industry in Stoughton in the early twentieth century. The Meade Rubber Company Building is potentially eligible for National Register listing at the local level under Criteria A and

C for its associations with the locally significant rubber industry as an intact example of an early twentieth century industrial loft. The proposed relocated station would require that this building be demolished, resulting in an adverse effect.

Easton

Approximately 6.6 miles of the Stoughton Line rail right-of-way, two traction power sites and one station, the Easton Village Station, are located in Easton as part of the Stoughton Alternatives. The Stoughton Line rail corridor is not National Register eligible, with the exception of approximately 2,000 feet of the Stoughton Line that is part of the Dighton and Somerset/Old Colony Railroad, Fall River Line Railroad Corridor (Map No. Ea.A) right-of-way that extends through the existing North Easton National Register Historic District. This portion is National Register-eligible as a contributing element of the historic district.

The following historic properties located on the Stoughton Line in Easton are listed in the National Register. The H.H. Richardson Historic District of North Easton (Map No. Ea.D) is a noncontiguous NHL district of five properties containing Richardson Romanesque style buildings designed by Henry Hobson Richardson. The Oliver Ames Free Library (1877) and Oakes Ames Memorial Hall (1879) are located on Main Street, approximately 400 feet west of the proposed Easton Village Station on the Stoughton Line. The Old Colony Railroad Station (1881) is located immediately north of the proposed station and directly abutting the rail right-of-way. The two remaining structures that comprise the NHL are outside the APE. The North Easton Historic District (Map No. Ea.B) encompasses the Stoughton Line between Main and Elm streets, and the proposed Easton Village Station. The district is listed in the National Register and includes approximately 160 buildings and six landscapes that date from the late eighteenth to the early twentieth century, including the Ames Company Shovel Shop complex located adjacent to the proposed Easton Village Station. The Stoughton Line right-of-way (Map No. Ea.A) track structure—including bridges, cuts and fills; retaining walls; and signal infrastructure—is important to the setting of this district. The Old Colony Railroad Station (Map No. Ea.003), located on the east side of the Stoughton Line between the Oliver Street grade crossing to the north and the proposed Easton Village Station to the south, is an H.H. Richardson Richardsonian Romanesque granite and brownstone building constructed in 1881. The station is individually listed in the National Register and is a contributing property to the H.H. Richardson Historic District NHL and the North Easton Historic District.

The following historic properties located on the Stoughton Line in Easton are eligible for National Register listing. The Holmes-Linden Street Area (Map No. Ea.C) encompasses approximately 400 feet of the Stoughton Line and consists of approximately 78 simple, wood-frame residences constructed in the mid- to late-nineteenth century to house laborers employed at the Ames Shovel Works and nearby shoe factories. The Center Street Area (Map No. Ea.E) encompasses approximately 0.5 mile of the Stoughton Line and includes approximately 343 wood-frame houses that demonstrate the expansion of North Easton out from its center at the Ames Company Shovel Shop complex from the early nineteenth to the early twentieth century. The Easton Center Area (Map No. Ea.F) encompasses approximately 0.5 mile of the Stoughton Line right-of-way and includes 120 civic and residential buildings from the late eighteenth through the twentieth centuries. The Hayward-Pool Area (Map No. Ea.G) abuts approximately 1,000 feet of the Stoughton Line at its west edge. It contains residences, a cranberry bog with associated agricultural buildings, and a burial ground developed between 1778 and 192. The Stoughton Line: Dighton and Somerset/Old Colony Railroad, Fall River Line Railroad Corridor (Map No. Ea.A) is an inactive section of the Stoughton Line right-of-way, originally constructed in 1866. Because of the poor integrity and condition of the Stoughton Line corridor, it is not as eligible for the National Register as an

independent historic district. However, the 2,000 foot-long portion of the Stoughton Line railroad right-of-way within the North Easton Historic District (MHC Nos. EST.E and EST.B) between Main and Elm streets is eligible for the National Register as a contributing element to the existing North Easton Historic District.

Two proposed traction power sites are located in Easton as part of the Stoughton Alternatives.

- TP-03, Paralleling Station (PS-1) is located south of the proposed North Easton Station, near a shopping center and contemporary residential subdivisions. No National Register listed or eligible historic properties have been identified in the APE.

- TP-04, Substation (TPSS-1) is located in a forested area near Hockomock Swamp. One National Register eligible historic property has been identified in the APE.

Raynham

Approximately 4.9 miles of the Stoughton Line and 1.2 miles of the Whittenton Branch rail rights-of-way, along with one proposed station, the Raynham Park Station, are located within Raynham as part of the alternative. The Raynham Park Station is on the Stoughton Line near the Easton town boundary. There are no proposed traction power sites in Raynham. The portion of the Stoughton Line rail right-of-way corridor located in Raynham is not National Register eligible.

The following properties along the Stoughton Line and Whittenton Branch in Raynham are eligible for National Register Listing. The Carver Street Area (Map No. Ra.B) is located on the east side of the Stoughton Line at the Carver Street railroad crossing and consists of six civic, religious, and residential properties constructed between 1865 and 1905. The Broadway-Center Street Area (Map No. Ra.C), which is centered on Broadway (State Route 138), encompasses portions of the Stoughton Line and abuts the west side of the Whittenton Branch. The area includes residential, commercial, and civic properties constructed between approximately 1860 and 1960. The Dog Kennel and Track Property (Map No. Ra.011) is located at 385 Thrasher Street along the east side of the Stoughton Line near the Britannia Street railroad crossing and the Taunton city boundary. It includes a wood-frame farmhouse constructed circa 1870, a fenced kennel and dog run complex, and a large, oval dirt track with an announcer's podium that abuts the railroad.

The property at 521 (formerly 87) Prospect Hill Street (Map No. Ra.001) is a farmstead that extends between Prospect Hill Street and the west side of the Stoughton Line, and includes a wood-frame house constructed circa 1890 and several outbuildings. The property is eligible for listing in the National Register.

Approximately 0.7 mile of the New Bedford Main Line rail right-of-way extends through Taunton. There are no properties listed in, or determined as eligible for the National Register along the New Bedford Main Line in Taunton. Approximately 2.0 miles of the Stoughton Line is located within Taunton as part of the Stoughton Alternatives, as well as approximately 1.6 miles of the Attleboro Secondary rail right-of-way between Weir Junction and Cotley Junction that connects the Stoughton Line to the New Bedford Main Line. Two new stations are proposed in Taunton for the Stoughton Alternatives: Taunton (Dean Street) and Taunton Depot, as well as one traction power site (TP-05, Paralleling Station PS-2). The portion of the Stoughton Line rail corridor located in Taunton has been determined not eligible for the National Register.

The Taunton Multiple Resource Area (MRA) (Map No. Ta.C) includes five National Register Historic Districts and 87 properties individually listed in the National Register, which are located within the city limits of Taunton. The South Coast Rail project APE encompasses one historic district and 10 individual properties included in the Taunton MRA.

The following properties located between the Raynham town boundary and the junction of the Stoughton Line with the Attleboro Secondary are listed in the National Register. These properties are all within the Taunton Center Area (Map No.Ta.B, see below). The Dean-Hartshorn House (Map No. Ta.018, Ta.C) is a Georgian style building constructed circa 1798 that is located approximately 600 feet east of the Stoughton Line at 68 Dean Street. The Old Colony Railroad Station (Map No. Ta.019, Ta.C) is a brick structure constructed in 1876 that is located on the west side of the Stoughton Line between the Dean Street railroad crossing and the proposed Dean Street Station. The William Woodward House (Map No. Ta.020, Ta.C) is a Federal style house constructed circa 1830 that is located at 117 Arlington Street, approximately 200 feet west of the Stoughton Line, near the Dean Street crossing and the proposed Dean Street Station. The house was originally located on Dean Street, where it was used as a depot by the Old Colony and Newport Railroad from 1866 to 1881. The Charles R. Atwood House (Map No. Ta.021, Ta.C) is an Italianate style, wood-frame building constructed circa 1850 that is located at 30 Dean Street, approximately 400 feet west of the Stoughton Line near the Dean Street railroad crossing. The Theodore Dean House (Map No. Ta.022, Ta.C) is a wood-frame building constructed in 1866 that is located approximately 500 feet west of the Stoughton Line at 26 Dean Street. The C.J. H. Bassett House (Map No. Ta.023, Ta.C) is an irregular-plan Gothic Revival style wood-frame building constructed in 1851 that is located approximately 950 feet west of the Stoughton Line at 20 Chestnut Street. The Abiezar Dean House (Map No. Ta.028, Ta.C) is a Federal style wood-frame building constructed circa 1835 that is located approximately 800 feet west of the Stoughton Line at 57 Summer Street. The Neck of Land Cemetery (Map No. Ta.029, Ta.C), which dates from 1687 to 1889, is located on Summer Street, approximately 100 feet west of the Stoughton Line. The cemetery is Taunton's oldest burial ground and contains the graves of many of Taunton's early prominent figures.

The following properties located between Raynham Junction (the Raynham town boundary) and Weir Junction (the junction of the Stoughton Line with the Attleboro Secondary) are eligible for National Register listing. The Taunton Center Area (Map No. Ta.B) is a large, irregularly shaped area located along the north and west sides of the Taunton River east and west of the Stoughton Line. It encompasses the Church Green National Register Historic District (outside the APE), the larger Church Green Local Historic District (within the APE), and the Ashland Street Area (within the APE, no map number). The High Street Area (Map No. Ta.D) is a residential neighborhood bounded by the Mill River to the north, the Stoughton Line to the east, the Attleboro Secondary to the south, and Winthrop Street to the west. It encompasses approximately 200 properties, the majority of which are Victorian period residences constructed between 1870 and 1910.

Whittenton Alternatives

The Whittenton Alternatives diverge from the Stoughton Alternatives at Raynham Junction in the Town of Raynham and extends 2.1 miles along the Whittenton Branch to Whittenton Junction, where it follows the Attleboro Secondary for 2.4 miles to Weir Junction, at which point the two alternatives are identical.

One property on the Whittenton Branch in Taunton is listed in the National Register. The Whittenton Mills Complex (Map No. Ta.G, Ta.C) is bounded by the Whittenton Branch right-of-way to the east, Whittenton Street to the south, and the Mill River to the west. The 20-acre industrial complex contains

ten major attached and freestanding brick and wood-frame industrial buildings dating from circa 1858 to 1895.

The following properties on the Whittenton Branch and Attleboro Secondary in Taunton are eligible for National Register listing. The Whittenton Mills Area (Map No. Ta.F) is centered on Whittenton Street, east of the Mill River, and located east and west of the Whittenton Branch. The area encompasses approximately 80 properties developed with worker housing and industrial buildings associated with the National Register listed Whittenton Mills Complex (Map No. Ta.G) discussed above. The Reed and Barton Mill Village (Map No. Ta.H) is a compact neighborhood of worker housing located along Meadow, Cottage, and Lawrence streets, to the southeast of Whittenton Branch near the proposed Whittenton Station site. It encompasses approximately 87 wood-frame residences constructed between the mid- to late nineteenth century. The Ancient Whittenton Area (Map No. Ta.I) is a linear area located on Whittenton and Warren streets that intersects the Whittenton Branch at the Warren Street railroad crossing and encompasses approximately 40 properties from the eighteenth and nineteenth century. Cohannet Mills No. 3 (Map No. Ta.089) located at 120 Ingell Street, is a rectangular, 426-foot by 107-foot, multi-bay, brick loft constructed in 1890 with a flat roof, segmental arch windows, a granite block foundation, and slow-burning interior construction. A boiler/engine house with a round brick chimney is attached to the west side of the building. Mill No. 3 is the only surviving building of three cotton spinning plants built in Taunton by Cohannet Mills. The mill was recently rehabilitated into 64 loft apartments. The Cohannet Mills No. 3 was individually listed in the National Register in 2006. The N.S. Mason House (Map No. Ta.181, Ta.C) is a two-and-one-half-story, wood-frame, front gabled, Italianate style house constructed circa 1865. The N.S. Mason House was listed in the National Register at the local level under Criteria A and C as part of the 1984 Taunton MRA, for its associations with the nineteenth-century development of Taunton and as an example of the Italianate style.

The St. Thomas Episcopal Church (Map No. Ta.208, Ta.C)is located at 111-115 High Street is a Gothic Revival style stone church with a basilica plan designed by Richard Upjohn and constructed between 1857 and 1859. The church retains coursed granite walls, limestone trim, buttresses, pointed arch windows, and round stained glass clerestory windows. The McKinstrey House (Map No. Ta.209, Ta.C) property is a two-story, five-bay by two-bay, Georgian style brick house constructed circa 1760.The house is currently used as the St. Thomas Episcopal Church rectory. The McKinstrey House was listed in the National Register as part of the 1984 Taunton MRA. The Henry G. Brownell House property (Map No. Ta.211, Ta.C) is a two-and-one-half story, three-bay-wide, Classical Revival style, wood-frame building constructed by local builder L.M. Witherell for Henry G. Brownell in 1893. The Henry G. Brownell House was listed in the National Register as part of the 1984 Taunton MRA. The Lord-Baylies-Bennett House (Map No. 245, Ta.C) is a one-and-one-half story, five-bay-wide, stone, Greek Revival style building constructed in 1831 with a portico. It retains its historic, low-pitched front gable roof with four interior brick chimneys, floor length rectangular window openings, stone lintels, and a central entrance with a transom and side lights. The portico has recessed panels on the cornice and is supported by 12 Doric columns. The Lord-Baylies-Bennett-House was listed in the National Register as part of the 1984 Taunton MRA. The Samuel Washburn House (Map No. 246, Ta.C) is located at 68 Winthrop Street is a two-story, three-bay by two-bay, Italianate style stone villa constructed circa 1860. The house retains its original near-flat hipped roof with deep overhanging eaves, stuccoed walls, and a cornice line belt course. The Samuel Washburn House was listed in the National Register as part of the 1984 Taunton MRA.

The Samuel Colby House (Map No. 254, Ta.C) is located at 74 Winthrop Street. The house is a two-story, three-bay by four-bay Italianate style, stone and stucco mansion constructed circa 1869. The building

retains its original flat roof with a rectangular belfry, overhanging bracketed eaves, rectangular window hoods; and a full-width, one-story Stick style porch. The Sarah A. Haskins House (Map No. Ta.259, Ta.C, Ta. D, Ta.V) is located at 18 Harrison Street. The house is a two-and-one-half story, three-bay-wide, Italianate style, wood-frame house was constructed circa 1852 with a front gable roof and stone foundation. The property is also located within the National Register eligible High Street area which incorporates the surveyed Harrison Street area (Map Nos. Ta.D and Ta.V). The Mount Pleasant Cemetery (Map No. Ta.262) is located at 19 Crocker Street. The cemetery encompasses an approximately 10-acre polygonal lot and contains more than 500 burials dating from 1710 through the mid-twentieth century. At least one-quarter of the plots in the cemetery are the burial sites of soldiers from the American Revolution, War of 1812, Civil War, Spanish-American War, World War I, World War II, and the Korean War. The J. C. Bartlett House (Map No. Ta.266, Ta.C) is located near the Winthrop Street grade crossing, at 12 Walnut Street. The house is a two-and-one-half-story, three-bay-wide, Second Empire style, wood-frame building constructed circa 1880. The J. C. Bartlett House was listed in the National Register at the local level under Criteria A and C as part of the 1984 Taunton MRA. The Albert Field Tack Works (Map No. Ta.293, Ta.C, Ta.Y, Ta.D) is located at 19 Spring Street. The Albert Field Tack Works consists of a two-and-one-half story, three-bay-wide, Italianate style brick office constructed in 1868, attached to a two-story brick loft with an exterior stair tower. The office has a central, pedimented bay with a round arched entrance set within an entrance porch. The tower has a steeply pitched hip roof with pedimented dormers.

The H. B. Lothrup Store (Map No. Ta.294, Ta.C, Ta.D) is located approximately 500 feet northeast of the Attleboro Secondary right-of-way on the Whittenton Alternatives, at 210 Weir Street. The house is a two-and-one-half story, three-bay-wide Italianate style, wood frame building constructed circa 1855 with a front gable roof and clapboard siding. The William Lawrence House (MHC No. TAU.334) is a two-and-one-half story, three-bay-wide, Second Empire style wood-frame mansion constructed circa 1870 and retains its original mansard roof with a rectangular belfry, shallow brackets and dentils, and arched dormers; clapboard siding, rectangular windows with protruding lintels, and granite foundation. A one-story full-width porch extends across the facade and defines a central entrance with a round-arched opening.

Dana Street Station

The Dana Street Station is proposed on a parcel between Dana Street and the Attleboro Secondary in Taunton. Dana Street replaces the Downtown Taunton Station that was previously under consideration at a different location. The Taunton State Hospital property (Map No. Ta.S), which is listed in the National Register, is located on the opposite side of Dana Street to the east. The Staples Coal Company (Map No. Ta.160) is located at 28 Dana Street south of the station APE.

Southern Triangle: New Bedford Main Line and Fall River Secondary

The Southern Triangle consists of the existing Fall River Secondary (active MassCoastal) railroad right-of-way, the existing New Bedford Main Line (active MassCoastal) railroad right-of-way, and five proposed stations: Freetown, Fall River Depot, Battleship Cove, King's Highway, and Whale's Tooth. The Southern Triangle also includes four proposed layover facility sites (one in Freetown, two in New Bedford and one in Fall River) and seven proposed traction power sites located along the existing Fall River Secondary (active MassCoastal) and the existing New Bedford Main Line (active MassCoastal) railroad rights-of-way in Berkley, Freetown, New Bedford, and Fall River. The Southern Triangle is common to both the Stoughton and Whittenton Alternatives.

The Southern Triangle results are discussed below from north to south by community and station, and are listed in the Historic Resources Intensive Survey, Appendix A. The surveyed properties discussed below are mapped on Figures 4.8-9 through 4.8-16. The following are descriptions of the areas/districts and individual properties identified during the survey as either listed in or determined eligible for listing in the National Register. No properties within the APE in the Southern Triangle have been designated as NHLs.

Berkley

Approximately 2.8 miles of the New Bedford Main Line and 0.7 mile of the Fall River Secondary rail rights-of-way, and one traction power site, are in Berkley as part of the Stoughton Alternatives. The junction of the New Bedford Main Line and Fall River Secondary with grade crossings at Myricks and Mill streets occurs within the Myricks Area (Map No. Be.C), a nineteenth-century railroad village. The New Bedford Main Line passes within 50 feet of 1 Macomber Street (Map No. Be.006) at the Padelford Street grade crossing, which is an Italianate style farmhouse constructed circa 1860. Both properties are eligible for National Register listing.

One traction power site (TP-06/TP-27) is proposed in Berkley as part of the Stoughton and Whittenton Alternatives.

- TP-06, Switching Station (SWS-2) as part of the Stoughton and Whittenton Alternatives, is located at the Myricks Street grade crossing of the New Bedford Main Line, within the National Register-eligible Myricks Area of mid-nineteenth- to early-twentieth-century residences (Map No. Be.C).

Lakeville

Approximately 3.5 miles of the New Bedford Main Line and 0.3 mile of the Fall River Secondary Line rail rights-of-way are in Lakeville as part of the Stoughton Alternatives. The Pierce and Haskins Cemetery (Map No. La.024), which is located 200 feet east of the Fall River Secondary right-of-way and is accessible from Adams Lane in Berkley, contains approximately 45 slate and granite headstones dating from 1785 to 1892. Bridge No. 18.37 Over the Assonet River (Map No. La.025), constructed in 1906, carries the Fall River Secondary over the Assonet River in Lakeville and is a rare surviving example of a two-span timber deck railroad bridge with timber abutments. The Assonet Cedar Swamp Area (Map No. La.C) in Lakeville is a cultural landscape encompassing the majority of the New Bedford Main Line that extends through Lakeville. It is comprised of approximately 2,670 acres of natural resources and cultural resources dating from the early eighteenth to early twentieth century. These three properties are eligible for National Register listing.

There are currently no proposed layover facilities or traction power sites in Lakeville. One bridge noted as having insufficient information in the March 2009 report, Bridge over Cedar Swamp River (Map No. La.022, Photo No. 237), was surveyed and found to not be National Register eligible.

Freetown

Approximately 3.5 miles of the New Bedford Main Line and 5 miles of the Fall River Secondary rail rights-of-way, two traction power sites, one layover facility and the proposed Freetown station, are in Freetown as part of the Stoughton Alternatives. The Richmond Road/Maple Tree Crossing Bridge (Map No. Ft.009), situated approximately 100 feet north of the Fall River Secondary Line near the grade

crossings at Richmond and Beechwood roads, is a dry-laid stone three-arch structure built in 1820–1824 and determined eligible for National Register listing. The National Register-listed Assonet Historic District (Map No. Ft.D) on the Fall River Secondary Line is a town center dating from 1720 to the mid twentieth century. It encompasses one property, a cattle pound, which extends into the APE. The Slab Bridge Road Area (Map No. Ft.C) is adjacent to or overlaps three grade crossings on the Fall River Secondary and is an intact neighborhood of late 18th to early twentieth century residential architecture.

Two traction power sites (TP-08 and TP-10) are proposed in Freetown as part of the Stoughton Alternatives.

- TP-08, Paralleling Station (PS-3), is located in a forested area on the New Bedford Main Line, near an existing electrical transmission line. There are no National Register listed or determined eligible properties in the APE.

- TP-10, Paralleling Station (PS-4), is located at the Copicut Road grade crossing of the Fall River Secondary rail right-of-way. No National Register listed or eligible historic properties have been identified in the APE.

New Bedford

Approximately 7.4 miles of the New Bedford Main Line rail right-of-way, three traction power sites, one layover facility and two stations—King's Highway and Whale's Tooth—are located in New Bedford as part of the Stoughton Alternatives. All the historic resources identified in New Bedford are along the New Bedford Main Line and south of Route 140. In the general vicinity of King's Highway Station between Route 140 and King's Highway Station/Tar Kiln Road, is the massive, reinforced concrete Belleville Warehouse Company Cotton Storage Building (Map No. NB.012) constructed in 1916. The warehouse is located on the east side of the New Bedford Main Line near the Nash Road railroad crossing and was determined eligible for National Register listing by the Keeper of the National Register. The following resources are eligible for listing in the National Register. The Manomet Mills Cotton Mill No. 4 (Map No. NB.011), located at 91 King Street on the east side of the New Bedford Main Line, is a brick loft constructed in 1920 for the purpose of spinning cord tire fabric. The Lambeth Rope Corporation Complex (Map No. NB.010) is a brick loft constructed between 1894 and 1918 to manufacture pulley ropes for textile mills, and is located at 627 to 637 Tarkiln Hill Road along the west side of the New Bedford Main Line, near the Tarkiln Hill Road railroad crossing.

Along the APE in between King's Highway Station/Tar Kiln Road and Route I-195, the following properties are National Register eligible. Connected early-twentieth-century brick buildings comprise the Pierce Brothers Textile Mill Complex (Map No. NB.026), manufacturers of fine cotton cloth products, that is located west of the New Bedford Main Line at 1125 County Street. The Gothic Revival-style, wood-frame Christ Presbyterian Church (Map No. NB.029), located approximately 250 feet west of the New Bedford Main Line at 1097 County Street, was constructed circa 1890. The Purchase Street Fire Station (Map No. NB.053) on the west side of the New Bedford Main Line at 2071 Purchase Street is a Renaissance Revival brick building constructed circa 1910.

The area between I-195 and Route 6 includes the following National Register listed properties. The Acushnet Heights Historic District (Map No. NB.C) is a nineteenth century residential neighborhood located west of the rail right-of-way near Acushnet Avenue. The Wamsutta Mills Historic District (Map No. NB.D), comprised of a cotton cloth mill established in 1847 and associated worker housing, is located east and west of the New Bedford Main Line where it crosses Acushnet Avenue. The Union

Street Railway Carbarn (Map No. NB.063) at 1959 Purchase Street in Weld Square, is a Classical Revival style, two-story, brick structure constructed in 1910. The Dawson Building (Map No. NB.065) at 1851 Purchase Street is a Classical Revival style, brick office building with cast-iron storefronts built in 1896. Both are also within the Acushnet Heights Historic District.

The following properties located between I-195 and Route 6 are eligible for National Register listing. The Classical Revival Style, brick New Bedford Textile School (Map No. NB.069) constructed between 1899 and 1911 sits one block west of the New Bedford Main Line at 1213 Purchase Street across John F. Kennedy Highway from the proposed Whale's Tooth Station. The Guardian Angel Parochial Schoolhouse (Map No. NB.064) constructed in 1896 and located 300 feet east of the New Bedford Main Line at 844 Acushnet Avenue is not eligible.

Three traction power sites and one layover facility are proposed in New Bedford as part of the Stoughton Alternatives.

TP-07, Substation (TPSS-2) is located south of Samuel Barnett Boulevard on the New Bedford Main Line, near the existing electrical transmission line. No National Register listed or eligible historic properties have been identified in the APE.

- TP-09, Paralleling Station (PS-6) is located on the New Bedford Main Line within 400 feet of four National Register listed resources: the Acushnet Heights Historic District (Map No. NB.C), Wamsutta Mills Historic District (Map No. NB.D), Union Street Railway Carbarn (Map No. NB.063), and the Dawson Building (Map No. NB.065).

- The Church Street Layover Facility is located on the west side of the New Bedford Main Line rail right-of-way near Church Street. No National Register listed or determined eligible historic properties have been identified in the APE.

- The Wamsutta Street Layover Facility is located on the east side of the New Bedford Main Line rail between Wamsutta Street and the proposed Whale's Tooth Station. The National Register Listed Wamsutta Mill Historic District (Map No. NB.D) and the National Register eligible Revere Copper Products mill (Map No. NB.080) are both located about 400 feet to the north.

Fall River

Approximately 6.5 miles of the Fall River Secondary line rail right-of-way, one traction power site and two stations, Fall River Depot and Battleship Cove, are located in Fall River as part of the Stoughton Alternatives. All of the historic resources in Fall River are situated along the Fall River Secondary rail corridor. The Southern Triangle encompasses seven historic districts and six individual properties included in the Fall River MRA (Map No. FR.C). The boundaries of the Fall River MRA are the city limits. The entire MRA consists of five National Register Historic Districts, 90 properties individually listed in the National Register, and four districts and one individual property determined eligible for National Register listing.

The following properties located between the Freetown town line and Route 79 are listed in the National Register. The William Collins House (Map No. FR.005, FR.C) is Federal style Cape Cod cottage constructed circa 1800 that is approximately 300 feet east of the Fall River Secondary at 3775 North Main Street. The North Christian Congregational Church (Map No. FR.006, FR.C) is a Gothic Revival style

wood-frame building constructed circa 1842 that is located 100 feet west of the Fall River Secondary at 3538 North Main Street. The Borden-Winslow House (Map No. FR.010, FR.C) is a wood-frame, Georgian style house constructed circa 1740 that is located approximately 400 feet east of the Fall River Secondary at 3063 North Main Street. The Squire William B. Canedy House (Map No. FR.012, FR.C) is a wood-frame, Federal style house constructed circa 1806 that is located approximately 100 feet east of the Fall River Secondary at 2634 North Main Street.

The following properties located between the Freetown town line and Route 79 are eligible for National Register listing. The North Main Street Area (Map No. FR.D) is an approximately 1-mile-long residential corridor roughly bounded by the Fall River Secondary to the west. It encompasses a neighborhood developed between the early nineteenth to the early twentieth century. The William J. Wiley Middle School (Map No. FR.013) is a Classical Revival style, steel and concrete building with red brick sheathing and brownstone trim constructed from 1911 to 1912. The school is located approximately 500 feet east of the Fall River Secondary at 2613 North Main Street within the potentially National Register eligible North Main Street Area.

The following properties located between Route 79 and President Avenue are listed in or eligible for listing in the National Register. The Border City Mills (Map No. FR.E, FR.C) are located on both sides of Weaver Street west of the Fall River Secondary and were constructed between 1872 and 1889 adjacent to a railroad spur connecting the Fall River Branch Railroad to a wharf on the Taunton River. The Sagamore Mill Nos. 1 and 3 Complex (Map No. FR.F, FR.C) consists of brick and granite textile mills built between 1888 and 1907, which are located on both sides of Ace Street on the west side of the Fall River Secondary. The Sagamore Mill No. 2 (Map No. FR.G, FR.C) is a five-story granite loft constructed in 1881, located at 1822 North Main Street across the Fall River Secondary right-of-way from the rest of the Sagamore Mills complex. The Foster Spinning Company (Map No. FR.H, FR.C) was constructed in 1916 at 119 Cove Street, west of the Fall River Secondary. The mill was the last new textile manufacturing facility established in Fall River. The Narragansett Mills complex (Map No. FR.J, FR.C) is comprised of nine brick buildings constructed between 1872 and 1895, located at the corner of North Main Street and Narragansett Street, approximately 400 feet east of the Fall River Secondary. The North Burial Ground (Map No. FR.K, FR.C) is a rectangular property bounded by the Fall River Secondary to the west, Brightman Street to the north, North Main Street to the east, and Cory Street to the south. It is the city's oldest municipal cemetery, established circa 1810 and purchased by the City of Fall River in 1825. The Border City Mill No. 2 (Map No. FR.015, FR.C) is an Italianate style brick mill loft with an exterior stair tower constructed in 1873 for the manufacture of woolens that is located approximately 300 feet west of the Fall River Secondary at 1 Weaver Street. The Weaver Street Bridge (Map No. FR.016) over the Fall River Secondary is a single-span, built-up, riveted steel plate, deck girder structure constructed in 1910 that was previously determined National Register eligible by the SHPO. The bridge was rebuilt in 1960, but is notable for its highly decorative cast-iron railings and battered stone abutments. The Hathaway Brightman House (Map No. FR.026, FR.C) is a wood-frame, Gothic Revival style house constructed circa 1858 that is located approximately 400 feet east of the Fall River Secondary at 205 Crescent Street. The St. Joseph's Roman Catholic Church Complex (Map No. FR.066, FR.C) is located approximately 800 feet east of the Fall River Secondary at 1355 North Main Street across from the North Burial Ground. The complex consists of a High Victorian Gothic style, brick church and Second Empire style, wood-frame rectory built circa 1880, and a school constructed in 1930.

The following properties located between Route 79 and President Avenue are eligible for National Register listing. The Wellington-Brownell Street Area (Map No. FR.I) is an approximately 0.5-mile-long neighborhood bounded by the Fall River Secondary to the east. The area encompasses a late-

nineteenth- and early-twentieth-century residential neighborhood formerly known as Mechanicsville and is eligible for National Register listing. The 311 Crescent Street House (Map No. FR.017) is a Second Empire style, multi-family, wood-frame residence constructed circa 1880 that is located approximately 400 feet east of the Fall River Secondary in the Border City Mills neighborhood. The St. Michael's Roman Catholic Church (Map No. FR.050) is a Neo-Gothic Revival style brick building constructed in 1896 that is located approximately 250 feet west of the Fall River Secondary at 199 Essex Street. The Cotton Warehouse (Map No. FR.67) located on the west side of the Fall River Secondary at 7 Oregon Street, was constructed of brick pier and spandrel walls with iron interior posts circa 1910.

The St. Matthew's Convent (Map No. FR.052) is a Colonial Revival style brick and concrete building constructed circa 1920 that is located approximately 300 feet west of the Fall River Secondary at 189 Wellington Street. The St. Matthew's School (Map No. FR.053) is a Colonial Revival style brick and concrete building constructed circa 1920 that is located on the west side of the Fall River Secondary at 221 Wellington Street. Based on the results of the intensive survey, the Corps, in consultation with the Massachusetts SHPO has determined these two properties to be ineligible.

The following properties located between President Avenue and Route I-195 are listed in the National Register. The Diners of Massachusetts Multiple Property Submission (Map No. FR.M) encompasses individual diners throughout Massachusetts, including Al Mac's Diner (Map No. FR.070, FR.M), which is located in the APE at 135 President's Avenue, approximately 300 feet west of the Fall River Secondary. Al Mac's is a stainless steel diner opened by Fall River's McDermott Lunch Company in 1954 and moved to its current location in the mid-1970s. The Lafayette-Durfee House (Map No. FR.082) is a wood-frame Georgian style building constructed circa 1747 that is located approximately 400 feet east of the Fall River Secondary. It was moved to its current location at 94 Cherry Street in 1874.

The following properties are located between President Avenue and Route I-195. The Pearce-Durfee Street Area (Map No. FR.L) is a large, 1-mile-long residential area bounded by the Fall River Secondary to the west. The area is defined by early nineteenth-century through the twentieth-century residential buildings that filled in a street grid originally laid out by 1850. The Pearce Durfee Street Area is eligible for listing on the National Register. The 800 Davol Street Inn (Map No. FR.073) is a wood-frame, Second Empire style building constructed circa 1870 that is located approximately 400 feet from the proposed Fall River Depot Station on the Fall River Secondary. The Davol Inn has been determined not eligible for listing on the National Register due to loss of the original historic fabric and replacement with modern materials. The 524 Durfee Street House (Map No. FR.081) is a wood-frame Italianate style house constructed circa 1870 that is located approximately 200 feet east of the Fall River Secondary. The Central Street Bridge over Quequechan River (Map No. FR.084) is located west of the Fall River Secondary, below the I-195 Braga Bridge. It is a single-span stone arch bridge constructed in 1903 in the course of a Fall River railroad grade elimination project and has been determined eligible for listing in the National Register.

The following property located between I-195 and the south terminus of the Fall River Secondary at Battleship Cove Station is listed in the National Register. The American Printing Company–Metacomet Mill (Map No. FR.N, FR.C) is a complex of masonry buildings constructed between 1847 and the early twentieth century along Anawan Street. The portion of the complex to the east of the Fall River Secondary contains the earliest buildings.

The following properties, located between I-195 and the south terminus of the Fall River Secondary at Battleship Cove Station, are eligible for National Register listing. The American Printing Company

Machine Shop (Map No. FR.088) is located approximately 400 feet west of the Fall River Secondary near Battleship Cove Station, at the corner of Anawan and Water streets. The machine shop is a brick mill loft constructed circa 1900 for the neighboring American Printing Company-Metacomet Mill, which is listed in the National Register. The Borden and Remington Company (Map No. FR.089) consists of a brick loft with connected brick structures constructed as a paint mixing factory circa 1890. The mill is located at 105 Anawan Street on the west side of the Fall River Secondary near Battleship Cove Station.

One traction power site is proposed in Fall River as part of the Stoughton Alternatives.

- TP-11, Paralleling Station (PS-05) as part of the Stoughton Alternatives is located in a dense urban area on the Fall River Secondary, near the proposed Fall River Depot Station, across from the National Register-eligible Pearce-Durfee Street Area (FR.L), a neighborhood constructed between 1870 and 1920.

Stations

Three of the proposed stations (Whale's Tooth, Fall River Depot, and Battleship Cove) have at least one historic resource within the APE that is an NHL or is listed in, eligible for the National Register. The proposed Whale's Tooth Station on the New Bedford Main Line is across John F. Kennedy Highway from the National Register-eligible New Bedford Textile School. The proposed Fall River Depot Station on the Fall River Secondary is adjacent to the Pearce-Durfee Street Area which is eligible. The proposed Battleship Cove Station at the terminus of the Fall River Secondary is adjacent to the National Register listed American Printing Company-Metacomet Mill complex, and the National Register- eligible American Printing Company Machine Shop, and Borden and Remington Company. The remaining two proposed stations (Freetown and King's Highway) do not have any historic resources within the APE that are designated as NHLs or listed in, or determined eligible for the National Register.

Two of the proposed stations (Easton Village and Taunton [Dean Street]) have at least one historic resource within the APE that is designated as an NHL, or listed in, previously determined eligible for, or recommended as eligible for the National Register. The proposed Easton Village Station on the Stoughton Line in Easton is located immediately adjacent to the Old Colony Railroad Station (Map No. Ea.003), which is part of a NHL district and is within the North Easton Historic District. The proposed station site abuts important contributing properties of this district that are associated with the Ames Shovel Works. The railroad also contributes to the setting of the district. The proposed Taunton (Dean Street) Station in Taunton is adjacent to the National Register-eligible Taunton Center Area.

The remaining three proposed stations (North Easton, Raynham Park, East Taunton [North]) do not have any historic resources within the APE that are designated as an NHL or listed in, or determined eligible for the National Register.

Two existing stations are historic resources: Canton Junction (Map No. Ca.001) at the junction of the Stoughton Line and Amtrak Northeast Corridor and Stoughton Station (Map No. St.025), which is also within the Downtown Stoughton Area. The third existing station, Canton Center, is not a historic resource but is adjacent to the Canton Center Area.

4.8.2.2 Archaeological Resources

The survey of areas of where archaeological sites may occur was undertaken in two phases. An initial reconnaissance survey was conducted which included the Stoughton Alternatives followed by

supplemental surveys which included the Whittenton Alternatives as well as additional survey information on the Stoughton Alternatives and identified areas of archaeological sensitivity. The second phase of survey was an intensive (locational) survey which was conducted in areas determined as archaeologically sensitive by the prior reconnaissance surveys. The intensive (locational) survey included areas identified as potentially sensitive by PAL and supplemented by additional information provided by the Corps.

This section presents the results of the intensive (locational) survey for the Stoughton and Whittenton Alternatives. Fifteen sensitive areas within the right-of-way and three station locations previously determined to be sensitive were subjected to intensive (locational) survey. The following discussion is organized by project element and sensitive area. The Intensive (Locational) Survey is provided as Appendix 4.8-B.

Stoughton Alternatives

The Stoughton Line portion of the Stoughton Alternatives consists of the Stoughton Line (active and inactive freight and commuter) railroad right-of-way, and five proposed stations (Stoughton, North Easton, Easton Village, Raynham Park, and Taunton Depot). There are also additional project elements that have been identified for this alternative including a new frontage road in Stoughton along the rail right-of-way, a grade separation (tunnel) crossing at Route 138 in Raynham, and a new third track (outside of the right-of-way) associated with the Taunton Depot Station. High sensitivity areas were assessed for the railroad right-of-way in Easton. These consist of an area north of Foundry Street that contains a documented nineteenth-century house lot and the area between Elm Street and the Stoughton town line that contains documented eighteenth- and nineteenth century domestic sites.

As identified during the 2001 survey, the sections of the Stoughton Line right-of-way that run through Hockomock and Pine swamps in Easton and Raynham are raised railroad embankments. The rail embankment traverses areas considered to have a high archaeological sensitivity for pre-contact resources.

Four of the proposed stations (Stoughton, North Easton, Easton Village, and Freetown) were identified as containing moderate and high sensitivity areas for potentially significant pre-contact sites and documented/recorded post-contact resources. The third track at the East Taunton Station was also assessed as having moderate sensitivity for pre-contact sites.

Intensive (Locational) Survey Results—Stoughton & Whittenton Alternatives, Not Including the Southern Triangle

The intensive (locational) archaeological survey resulted in the identification of 16 archaeological sites in Easton, Raynham, Taunton, Freetown, and Fall River, five of which are situated within the Lower Taunton River Basin archaeological district. These sites include two sites located in or near proposed stations, 10 pre-contact period sites within the proposed limit of work for the Stoughton Alternatives right-of-way, and four within the proposed limit of work for the Whittenton Alternatives right-of-way. Each of these 16 newly identified archaeological sites has been assessed for its research value/potential and eligibility for listing in the National Register. The survey also resulted in the identification of low density nineteenth and twentieth century sheet refuse/refuse scatters of cultural materials in two of the proposed station locations and all of the tested right-of-way segments. None of these sheet refuse/refuse scatters are associated with identified sites and none are considered to meet the criteria of eligibility for listing in the National Register.

North Easton Station—The intensive survey identified a low density of post-contact (likely late nineteenth-twentieth century) cultural materials within the sensitive portion of the North Easton Station project area. The materials are interpreted as sheet refuse and together with the stone wall suggest that premodern period agricultural activities took place within the project parcel. However, given the lack of cultural features other than the remnant stone wall, the sheet refuse is not considered to represent an archaeological site and is not eligible for listing in the National Register. No additional archaeological investigations are recommended within the North Easton Station project area.

Easton Village Station—The intensive survey identified railroad-related cultural deposits and fill strata within the sensitive portion of the Easton Village Station project area. The cultural deposits including structural remains and artifact assemblage are designated the Easton Village Railroad Station Site. Structural remains consist of: 1) the concrete piers in MT-04 (present parking lot) belonging to the documented early twentieth-century railroad water tower that was located south of the historic railroad station (extant Easton Historical Society building); and 2) a rectangular stone foundation, investigated in JTP-01 (wooded area), belonging to the documented late nineteenth/early twentieth century railroad shed located on Mechanic Street.

The cultural material assemblage consists exclusively of post-contact cultural materials (structural and domestic items). No structural remains or artifacts relating to documented pre-nineteenth century railroad industrial activities in this area were identified during the intensive survey. No pre-contact period artifacts or features were encountered in the trenches. Undisturbed, natural soils were encountered in only one trench, MT-03, and these intact soils were void of cultural materials. The fill episodes recorded in all of the excavated trenches represent three campaigns of railroad construction: the initial laying of the railroad track by the Dighton & Somerset Railroad Line between Stoughton and North Easton 1855, the Old Colony Railroad Line's 1866 extension of the track to points south of North Easton, and the installation of an adjacent second track by the Old Colony Railroad in 1888. In each instance, large amounts of fill were required to raise the railroad roadbed to final grade. Photographs of the railroad from the late nineteenth century and early twentieth century illustrate the drastic changes the railroad brought to the landscape of the area. The identified railroad water tower pier remains possess poor physical integrity and the railroad shed foundation possesses fair integrity. The post-contact period artifact assemblage represents sheet refuse related to the railroad and modern period parking lot land uses, and is consistent with the documented mid-nineteenth to mid-twentieth century occupation of the railroad depot at this location. Given the limited complexity of the identified structural remains and artifacts and known period of occupation, they are considered to have a low research potential to provide significant new information relating to the historical record of the mid-nineteenth to mid-twentieth century Easton Village railroad depot and its role in the greater Old Colony Railroad transportation network. The Easton Village Railroad Station Site is therefore recommended as not eligible for listing in the National Register. No additional archaeological investigations within the Easton Village Station project area are recommended.

Freetown Station—The intensive survey identified a low density of post-contact nineteenth- to twentieth century) cultural materials and pre-contact lithic chipping debris within highly disturbed stratigraphic contexts in the Freetown Station project area. Due to the lack of associated features and the disturbed context of the post-contact cultural materials, they are interpreted as refuse scatter manipulated by late-twentieth century earthmoving activities. Given their geographic location within the Lower Taunton River Basin archaeological district and proximity to two known site areas, they are designated the Landowner's Folly Site. However, the disturbed nature of their contexts and the lack of associated diagnostic artifacts, artifact concentrations, or features preclude their potential to yield

information important to the prehistory of the area. The Landowner's Folly Site is not eligible for listing in the National Register. No further archaeological investigations within the Freetown Station project area are recommended.

Elisha Harvey Gravesite—Preliminary research was conducted for the Captain Elisha Harvey Gravesite located adjacent to the South Coast Rail project railroad right-of-way in Easton, Massachusetts. The preliminary research consisted of collecting available information on the location and historical context of the gravesite. As part of the reseach effort, Mr. Frank Meninno of the Easton Historical Society was contacted for any information that is locally known about the gravesite. No parcel-level documentary (deed) research, contact with the Easton Historical Commission or Cemetery Commission, or field survey was conducted.

The Captain Elisha Harvey Gravesite is located within the YMCA property at 25 Elm Street on the west side of the railroad right-of-way, approximately one block north of the proposed Easton Village Station (Figure 4.8-17). The gravesite is indicated by a single granite marker inscribed as follows: "LOCATION OF CAPT. ELISHA HARVEY CEMETERY 1775." An aluminum post adorned with an American veteran's flag and small plaque that says "CAPT. ELISHA HARVEY 1757" is adjacent to the stone memorial. The monument is situated at the north end of the YMCA Wellness Center parking plot, and the grave's location is believed to have been near the northeast corner of the lot. The town of Easton placed and maintains the stone monument and marker at this location. The gravesite is located on town property, Assessor map U11-Lot 057, and is listed in the Town of Easton's Historic Preservation Plan as having been established in 1775. The Corps, in consultation with the Massachusetts SHPO, has determined that the Elisha Harvey Gravesite is eligible for listing in the National Register. The adjacent railroad right-of-way is at grade at this location on both sides of Elm Street.

There are no individual grave stones and the stone memorial information comes from town records. The gravesite is not included in the MHC inventory of historic and archaeological assets of the Commonwealth. It is physically located within the North Easton Historic District boundaries, although it is not mentioned in the 1972 National Register of Historic Places Inventory-Nomination Form. According to the Town of Easton Cemetery Database (last updated December 11, 2012), the gravesite contains nine burials associated with the Carr, Harvey, Packard, and Simmons families, including Elisha Harvey and his wife. The earliest recorded burial is Elizabeth Simmons in 1759, who was the daughter of Mrs. Eseck Carr and her first husband. The last dated burial is that of Captain Harvey in 1790. No other birth or death dates are known for the other recorded interments.

According to the Bristol County Massachusetts Cemeteries Database, the cemetery was abandoned in the mid-nineteenth century and later became part of the fields on a property owned by E.W. Gilbert "near where his hinge-factory stands."[3] At that time, Chaffin indicates that there was a graveyard containing about 15 graves in the field owned by E.W. Gilbert. According to Chaffin, the graves of Rev. Eseck Carr and his wife were reportedly removed to the Washington Street cemetery by their son when the Gilmore hinge-factory was built on the property. The remains of Capt. Elisha Harvey and his wife were left with others in the field "only a few feet from the northwest corner of the factory." Chaffin indicates that Elizabeth Simmons "died as early as the Revolutionary War," and hers was the first burial in this yard," offering a more recent burial date than that of 1759 recorded in the town's cemetery database.

[3] Chaffin, William L. 1886. History of the Town of Easton, Massachusetts.

No cemetery is indicated at this location on mid-eighteenth through mid-twentieth century town maps of Easton. The 1756 (Cobb) map suggests that the cemetery may have been established on property belonging to John Whitman Jr., or John and Samuel Randall at that time. An 1825 map of Easton depicts the property on the south side of Elm Street near this location as belonging to J. Packard, and containing one dwelling. The railroad was put through North Easton to Oliver Street by 1855 (Easton Branch Railroad), and extended to Weir Junction in Taunton in 1866. The 1855 (Walling) map of Easton shows the railroad, but does not indicate a cemetery or other structures adjacent to the west side of the tracks and Elm Street. The 1871 (Beers) map depicts the vacant property belonging to E.W. Gilmore west of the railroad and south of then-named Stoughton (Elm) Street. By the 1886 (Walker) map, the hinge factory building had been constructed adjacent to the railroad tracks south of Elm Street. The hinge factory was still present at the time of the 1895 (Everts and Richards) map. There is no indication of a cemetery on any of these later nineteenth-century maps, and the reported cemetery location at the northwest corner of the factory was depicted as vacant land. The 1942 (Hayward and Hayward) map of Easton also does not depict a cemetery at this location. According to Mr. Meninno of the Easton Historical Society, the Gilmore hinge factory was owned by the Gilmore family in the 1930s, and later absorbed into the Ames Shovel complex for use as a warehouse. The factory building burned in 1959 and was razed.

According to Mr. Meninno there are no known historical maps or boundaries of the cemetery, except for the description provided by William Chaffin in his 1886 history of the town. It is possible that additional documentary research (including parcel level deed work and interviews with members of the Easton Historical Commission and Easton Cemetery Commission) could provide more definitive historic property boundaries for the cemetery in relation to the railroad right-of-way. This information would be used to assist in the effects analysis for the gravesite and develop a written avoidance and protection plan.

Easton, North of Elm Street—The intensive survey identified a low density of post-contact (late nineteenth-twentieth century) cultural materials and one quartz chipping debris within disturbed railroad right-of-way/rail bed soil strata north of Elm Street in Easton. Due to the lack of associated features and the disturbed context, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Easton, North of Elm Street right-of-way segment.

The two fieldstone foundations of the previously identified Site EST-HA-25 are situated outside of the right-of-way and beyond the limit of project-related disturbances on private property. Postcontact artifacts recovered from the portion of the project area closest to the site cannot be conclusively associated with it due to the residential nature of the surrounding area and railroad-related soil manipulations. However, since the foundations have not been investigated for their significance and National Register eligibility, and given their close proximity (2 meters [6.5 feet]) to the project right-of-way, they would be protected prior to and during project construction activities through the installation of high visibility fencing to avoid inadvertent disturbances.

Easton, North of Depot Street—The intensive survey identified a low density of post-contact (late nineteenth-twentieth century) cultural materials within disturbed railroad right-of-way/rail bed soil strata north of Depot Street in Easton. Due to the lack of associated features and the disturbed context, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The right-of-way extends through residential areas and is

visited by local residents. Much of the bottle glass recorded in test pits is likely indicative of the unauthorized recreational use of the area rather than evidence of historic occupation. The materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Easton, North of Depot Street right-of-way segment.

Easton, North of Prospect Street—The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata north of Prospect Street in Easton. Due to the lack of associated features and the disturbed context, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The right-of-way is visited by local residents, and most of the bottle glass recovered is likely indicative of the recreational use of the area rather than evidence of historic occupation. The materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Easton, North of the Prospect Street right-of-way segment.

Easton, North of Foundry Street—The intensive survey identified a low density of post-contact (late nineteenth-twentieth century) cultural materials within disturbed railroad right-of-way/rail bed soil strata north of Foundry Street in Easton. No structural remains or artifacts associated with the nearby nineteenth-century Pool family homestead and workshop were identified within the right-of-way. Due to the lack of associated features and the disturbed context, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Easton, North of Foundry Street right-of-way segment.

Stoughton Alternatives Right-of-way

The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Hockomock Swamp raised railroad embankment. Due to the lack of associated features and the disturbed context of these materials, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The post contact materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register.

Two pre-contact Native American archaeological sites were identified during the intensive survey, designated the Skunk Trapper Site and the Saws Wood Site. While the intensive survey testing did not identify diagnostic artifacts or cultural features at either site area, the presence of chipping debris and variety of lithic material types (rhyolite, quartz, and argillite) suggests that additional classes of data including diagnostic tools and subsistence-related features and activity areas may be present. The Skunk Trapper Site and Saws Wood Sites therefore have the potential to yield information that is important in the region's precontact period archaeological record, and the Corps, in consultation with the Massachusetts SHPO has determined that they both meet Criterion D of eligibility for listing in the National Register.

The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Pine Swamp raised railroad embankment. Due to the lack of associated features and the disturbed context of these materials, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The post-contact materials are not considered to represent an archaeological site and are not eligible for listing in the National Register.

Three additional pre-contact Native American archaeological sites were identified during the intensive survey of the Stoughton right-of-way, designated the King Philip Street Site, the Chickering Road Site, and the East Britannia Street Site. At all three locations, the cultural deposits could extend beyond the limits of the right-of-way. While the intensive survey testing did not identify diagnostic artifacts or cultural features in the site areas, the presence of chipping debris, stone tools, and variety of lithic material types (quartz, argillite) suggests that additional classes of data including diagnostic tools and subsistence-related features and activity areas may be present. The King Philip Street Site, Chickering Road Site, and East Britannia Street Site therefore have the potential to yield information that is important in the region's pre-contact period archaeological record, and the Corps, in consultation with the Massachusetts SHPO and the Wampanoag Tribe of Gay Head (Aquinnah) Tribal Preservation Officer has determined all three sites meet Criterion D of eligibility for listing in the National Register.

Taunton and Mill River Bridge Crossings—The intensive survey identified a low density of post-contact (late eighteenth-nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Taunton and Mill River Bridge crossings portion of the Stoughton Alternatives right-of-way. Due to the lack of associated features and the disturbed context of these materials, they are interpreted as refuse scatter introduced and/or redeposited by nineteenth- and twentieth-century railroad construction and maintenance activities. The materials are not considered to represent an archaeological site and the Corps, in consultation with Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Taunton and Mill River Bridge crossings right-of-way segment.

Whittenton Alternatives

The Whittenton Alternatives consist of the Stoughton Line (active and inactive freight and commuter) railroad right-of-way as well as the Whittenton Branch right-of-way and portions of the Attleboro Secondary railroad right-of-way. It has the same stations as the Stoughton Alternatives, except for the Taunton (Dean Street) Station and includes one station exclusively associated with the Whittenton Alternatives: the Dana Street Station. The total right-of-way of the Whittenton Alternatives are the same as that of the Stoughton Alternatives except for the Whittenton Branch (inactive) railroad right-of-way, located west of Taunton and a short section of the Attleboro Secondary (active freight) railroad right-of-way. The Whittenton Alternatives do not include the portion of the Stoughton right-of-way extending through Pine Swamp, east of Taunton. The supplemental cultural resource survey conducted of the Whittenton Alternatives and included in the Whittenton Technical Report identified two areas considered archaeologically sensitive for pre-contact sites.

Whittenton Branch 1—The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Whittenton Branch 1 sensitivity area of the Whittenton Alternatives right-of-way. Due to the lack of associated features and the disturbed context of the majority of these materials, they

are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The post-contact materials are not considered to represent an archaeological site and the Corps, in consultation with the Massachusetts SHPO, has determined that they are not eligible for listing in the National Register.

Three pre-contact Native American archaeological sites were identified during the intensive survey, designated the Mel's Diner Site, the Pine Crest Site, and the ATV Trail Site. The testing at the Mel's Diner Site resulted in the recovery of five quartz chipping debris. The Pine Crest Site is situated to the south of the Mel's Diner Site. While the intensive survey testing did not identify diagnostic artifacts or cultural features in the site areas, the presence of chipping debris and a hammerstone suggests that additional classes of data including diagnostic tools and subsistence-related features and activity areas may be present. The Mel's Diner Site, Pine Crest Site, and ATV Trail Site within the Whittenton Branch right-of-way therefore have the potential to yield information that is important in the region's pre-contact period archaeological record, and the Corps, in consultation with the Massachusetts SHPO and Aquinnah Tribal Historic Preservation Officer (THPO), has determined that all three sites meet Criterion D of eligibility for listing in the National Register.

Whittenton Branch 2—The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Whittenton Branch 2 sensitivity area of the Whittenton Alternatives right-of-way. Due to the lack of associated features and the disturbed context of the majority of these materials, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The post-contact materials are not considered to represent an archaeological site and Corps, in consultation with the Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. One pre-contact Native American archaeological site was identified during the intensive survey, designated the Cedar Swamp Site. The Cedar Swamp Site within the Whittenton Branch right-of-way therefore has the potential to yield information that is important in the region's pre-contact period archaeological record, and the Corps, in consultation with the Massachusetts SHPO and Aquinnah THPO, has determined that the three sites meet Criterion D and are eligible for listing in the National Register.

Attleboro Secondary—No archaeologically sensitive areas were identified within the rail right-of way that includes the Attleboro Secondary from Whittenton Junction to Weir Junction. Proposed impacts for track improvements within the rail right-of-way are not anticipated to extend outside previously disturbed soil contexts, with the possible exception of the overhead catenary structure support footings that would be needed within the Attleboro Secondary right-of-way for the electrification option.

Stoughton and Whittenton Alternatives—Southern Triangle

The Southern Triangle consists of the existing Fall River Secondary railroad right-of-way, the existing New Bedford Main Line railroad right-of-way, and five proposed stations: Freetown, Fall River Depot, Battleship Cove, King's Highway, and Whale's Tooth. No archaeologically sensitive areas were identified within the rail rights-of way; however, several sensitive areas were found immediately adjacent to them. One of these areas is located along the Fall River Secondary. The other two areas are located along the New Bedford Main Line. They consist of pre-railroad origin cemeteries where the rail right-of-way appears to have cut through (in the case of Freetown) and/or cut along the historic cemetery properties. Both areas have the potential for unmarked burials in the right-of-way embankments.

The Freetown Station project area is identified as containing moderate and high sensitivity areas for potentially significant pre-contact sites and documented/recorded post-contact resources. The Freetown Station is located within the Lower Taunton River Basin Archaeological District, an area designated by the MHC as being highly sensitive for significant pre-contact and contact period Native American sites. A 1.6-mile section of the Fall River railroad right-of-way also lies within this archaeological district.

The remaining stations (Fall River Depot and Battleship Cove) along the Southern Triangle were assessed as having low sensitivity. This assessment is based primarily on the presence of historic and modern period disturbances that have severely compromised the below-ground soil integrity and potential for any meaningful archaeological contexts to be present.

Third Track at Taunton Depot Station—The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within the Third Track at Taunton Depot Station right-of-way segment. The materials identified in the disturbed railroad right-of-way/rail bed soil strata are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. Given the lack of cultural features and the disturbed stratigraphic context, these materials are not considered to represent an archaeological site and the Corps, in consultation with the Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. No additional archaeological investigations are recommended within the Third Track at East Taunton Station right-of-way segment.

Fall River Secondary—Lower Taunton River Basin Archaeological District—The intensive survey identified a low density of post-contact (nineteenth-twentieth century) cultural materials within primarily disturbed railroad right-of-way/rail bed soil strata in the Lower Taunton River Basin Archaeological District section of the Fall River Secondary right-of-way. Due to the lack of associated features and the disturbed context of these materials, they are interpreted as refuse scatter manipulated by nineteenth and twentieth-century railroad construction and maintenance activities. The post-contact materials are not considered to represent an archaeological site and the Corps, in consultation with the Massachusetts SHPO, has determined that they are not eligible for listing in the National Register. Five pre-contact Native American archaeological sites were identified within the Lower Taunton River Basin Archaeological District during the intensive survey. These sites are designated the Quartz Vein Site, the Circling Hawk Site, the Cold Toad Site, the Overlook Site North, and the Overlook Site South.

The Quartz Vein Site is located in close proximity to a previously identified site, which yielded quartz and rhyolite chipping debris and two quartz bifaces and was interpreted as a small temporary camp site focusing on lithic manufacture and/or maintenance. Since the Quartz Vein Site cannot be conclusively associated to the nearby site, the cultural deposits are being treated as a separate site area, though the boundaries are not completely defined. The site is adjacent to a large granitic rock outcrop with a visible quartz vein, just outside the right-of-way to the west.

The Quartz Vein Site is representative of Native American land use during the pre-contact, contact, and/or early historic periods. Given its geographic location within the Lower Taunton River Basin archaeological district and close proximity to several other sites, the Quartz Vein Site within the Fall River Secondary right-of-way has the potential to yield information that is important to the region's pre-contact period archaeological record and the Corps, in consultation with the Massachusetts SHPO, and the Aquinnah THPO, has determined that the site is eligible for listing in the National Register.

The Circling Hawk Site is located within the right-of-way and is within the boundaries for a previously recorded site. The MHC site file indicates that it is a large camp site identified by surface collections containing both Archaic and Woodland period cultural material but a description/list of these items is not included with the site form. The presence of a Narrow Stemmed projectile point indicates a Late Archaic through Early Woodland period (5000–1600 Before Present [B.P.]) occupation. While the intensive survey testing did not identify any cultural features, the variety of lithic material types and a finished tool indicates the presence of multiple lithic workshops on the site. The Circling Hawk Site is representative of Native American land use during the pre-contact, contact, and/or early historic periods. Given its geographic location within the Lower Taunton River Basin archaeological district and within the boundaries of a previously recorded site, the Circling Hawk Site within the Fall River Secondary right-of-way has the potential to yield information that is important to the region's pre-contact period archaeological record and the Corps, in consultation with the Massachusetts SHPO, and the Aquinnah SHPO, has determined that the site is eligible for listing in the National Register.

The Cold Toad Site is within the boundaries for a previously recorded site and is in close proximity to a second previously recorded site. The first site is a multicomponent site dating from the Late Archaic–Late Woodland periods (5000–450 B.P). The second site is a small lithic tool manufacture/maintenance site that contained chipping debris, shell, and bone but no finished tools or diagnostic artifacts. Subsurface testing at the Cold Toad Site recovered pre-contact cultural material including chipping debris (rhyolite, quartz), a rhyolite biface, fire-cracked rock, and an identified feature. The feature contained rhyolite chipping debris and fire-cracked rock and possibly represents a hearth or shallow cooking pit based on the visible profile. The cultural deposits could extend beyond the limits of the right-of-way. Since the Cold Toad Site cannot be conclusively associated with previously recorded sites in the area, the cultural deposits are being treated as a separate site area. The Cold Toad Site is representative of Native American land use during the pre-contact, contact, and/or early historic periods. Given its geographic location within the Lower Taunton River Basin archaeological district and its relationship to the encompassing and nearby sites, the Cold Toad Site has the potential to yield information that is important to the region's pre-contact period archaeological record and the Corps, in consultation with the Massachusetts SHPO and the Aquinnah THPO, has determined that the site is eligible for listing in the National Register.

The Overlook Site North is also within the boundaries for a previously recorded site mentioned above and is in close proximity to two others. One of these sites is identified as a lithic workshop and shell/trash midden dating to the Late Archaic Period (5000–3000 B.P.). Materials recovered from this site include a high density of chipping debris, lithic cores, stone tool bifaces, a scraper, and a hammerstone. Two diagnostic projectile points, an Atlantic-like broad dating to the Late or Transitional Archaic period (5000–2500 B.P.) and a Small Stemmed projectile point that dates from the Late Archaic through Woodland periods (5000–450 B.P.). Since the Overlook Site North cannot be conclusively associated to any known sites, the cultural deposits are being treated as a separate site area. The presence of aboriginal pottery indicates a Woodland period (3000–450 B.P.) occupation; however, the piece recovered was too small to refine the date further.

It is possible the shell deposit noted at the Overlook Site North is related to post-contact agricultural practice; however additional testing and/or dating of the shell would be required to make a determination. The Overlook Site North is representative of Native American land use during the pre-contact, contact, and/or early historic periods. Given its geographic location within the Lower Taunton River Basin archaeological district and its relationship to the encompassing and nearby sites the Overlook Site North has the potential to yield information that is important to the region's pre-contact

period archaeological record and the Corps, in consultation with the Massachusetts SHPO and the Aquinnah THPO, has determined that the site is eligible for listing in the National Register.

The Overlook Site South is situated within the boundaries for a previously recorded site and is in close proximity to a second. Since the Overlook Site South cannot be conclusively associated to the previously known sites, the cultural deposits are being treated as a separate site area. The Overlook Site South is representative of Native American land use during the pre-contact, contact, and/or early historic periods. Given its geographic location within the Lower Taunton River Basin archaeological district and its relationship to the encompassing and nearby sites, the Overlook Site South has the potential to yield information that is important to the region's pre-contact period archaeological record and the Corps, in consultation with the Massachusetts SHPO and the Aquinnah THPO, has determined that the site is eligible for listing in the National Register.

New Bedford Main Line—Braley Cemetery—The intensive survey included deed and documentary research for the historic Braley Cemetery located in Freetown between East Chipaway Road and the Freetown-Dartmouth/New Bedford town line (Figure 4.8-12). The research was conducted at the request of the Corps to fully demarcate both the historical and modern boundaries of the cemetery on each side of the contemporary rail right-of-way. The research involved close coordination with the Freetown Cemetery Commission to ascertain the modern boundaries of the cemetery, which consists of three individual lots, two under presumed Town jurisdiction and one privately owned. The historical boundaries in relation to the railroad right-of-way and surrounding parcels are less clearly defined and more research into town meeting and church records may provide additional information. Land evidence and town/cemetery commission records indicate that the oldest part of the Braley Cemetery was in existence prior to the construction of the railroad line in 1839-1840. A number of graves are present within 15 feet of the cut stone retaining wall along the right-of-way embankment, and it is considered possible that graves pre-dating the construction of the railroad were present in the strip of land included in the present-day New Bedford Main Line right-of-way. Presumably any such graves would have been moved by the families at the time of the transfer of property to the railroad company (1840, 1879), particularly since the right-of-way was constructed in a cut embankment. The Braley Cemetery (MHC #FRE.823) is not eligible for listing in the National Register, though steps would be taken to avoid disturbance to any marked and/or unmarked interments during construction.

Layover Facilities

The proposed Wamsutta layover facility in New Bedford was assessed as having high archaeological sensitivity for pre-contact/contact Native American habitation and resource procurement/processing sites and post-contact euro-american domestic, commercial/wharves, and railroad-related structures and cultural deposits below the clean fill-geotextile composition cap. The proposed Weaver's Cove West layover facility in Fall River was previously surveyed for the proposed Weaver's Cove LNG terminal and was assessed as archaeologically non-sensitive.

Additional Work Areas

Areas that possess a moderate sensitivity to project-related disturbances, such as from overhead catenary structures would extend beneath railroad fill and thus, potentially require intensive survey.

The survey would consist of additional background research, including review of soil borings data if and when available, along with subsurface testing in areas of current (or refined) moderate and high

sensitivity. The amount and type of subsurface testing would need to be determined for each archaeologically sensitive area where project impacts are planned.

Avoidance zones would be delineated on project maps for the sensitive off right-of-way work areas identified in Lakeville, Freetown and Easton where there are two pre-railroad cemeteries, and an historical archaeological site of unknown age lying just outside the right-of-way. Protection measures should be implemented during and after construction along the right-of-way property lines in these areas. These measures could consist of high visibility barriers (i.e., orange construction fencing) and staked hay bales put in place prior to construction work to ensure that soils containing important archaeological deposits and marked/unmarked graves are not inadvertently disturbed during clearing and excavation activities.

Recommendations for Surveyed Areas

No further archaeological investigations are recommended for the Stoughton and Whittenton Alternatives rail right-of-ways where project improvements are not anticipated to extend outside previously disturbed soil contexts resulting from construction, maintenance/improvements, and ongoing rail operations. These disturbed right-of-way areas include fill materials, ballast, ties, and rails.

Additional reconnaissance survey for overhead catenary structure support footings within railroad right-of-ways may also be needed to determine the potential for archaeologically sensitive strata below rail bed fill. This additional survey would consist primarily of a review of detailed soil profiles for the project right-of-ways based on soil borings when available. Intensive survey would be conducted in identified sensitive areas where support footings would extend below the rail bed disturbance/fill deposits.

Outstanding Work Areas

There are a number of potential work areas for the Stoughton and Whittenton Alternatives within the South Coast Rail APE that have not yet been subjected to an Intensive (locational) survey. The completion of these surveys would be undertaken when the design aspects of these project elements have been identified at a level sufficient for survey. The elements are addressed in the PA for the project; for the draft PA, see Appendix 4.8-A.

For both the Whittenton and Stoughton Diesel Alternatives this includes the following project elements:

- Portions of the proposed Stoughton Station proposed Dana Street Station
- Grade crossing/road intersection modifications, particularly where existing driveways would be relocated and other ground disturbances are planned outside of existing rail and road rights-of-way
- Temporary and permanent construction easements and property takings off right-of-way along the railroad corridors including utilities work, staging, and construction access roads

For the Whittenton and Stoughton Electric Alternatives, all of the above listed project elements in addition to:

- Electrification facilities (substations, switching stations, paralleling stations and associated access roads) along the Stoughton Line, Whittenton Branch, Attleboro Secondary, Fall River Secondary, and New Bedford Main Line railroad right-of-ways

In summary, a number of known post-contact sites have been identified as described above, and the Corps, in consultation with the Massachusetts SHPO has determined pursuant to 36 CFR 800 et seq. and Appendix C to 33 CFR 325 which of the sites are eligible for inclusion in the National Register. Descriptions of these areas are provided above. The Corps has also identified pre-contact Native American sites and determined that they are likewise eligible for the National Register. The Corps has obtained the concurrence from the Massachusetts SHPO on the eligibility of identified sites for listing in the National Register.

4.8.3 Analysis of Impacts

The following section identifies the potential direct and indirect, as well as the permanent and temporary construction impacts to historic and archaeological resources from implementation of the South Coast Rail project for each element of the alternatives as defined in Chapter 3, *Alternatives*. The potential impacts along the railroad and highway alignments, including traction power facilities for rail electrification, are described in Sections 4.8.3.1 through 4.8.3.5; the potential impacts at the station locations are described in Section 4.8.3.6; and the potential impacts at layover facilities are described in Section 4.8.3.7. Figure 1.4-1 shows the alternative alignments and existing and proposed stations. For each alternative and segment or element of alternative (e.g. station), direct, impacts on historic resources are discussed first, followed by the discussion of archaeological impacts for that alternative segment, or element. Impact analyses are based on the intensive level cultural resources identification completed to date. Specific project elements where additional reconnaissance survey work is anticipated are discussed below. Any additional Intensive-level surveys will be completed prior when more detailed design information is available, and are described in the PA (Appendix 4.8-A).

The effects analysis assessed the potential effects to historic properties based on two types of impacts: 1) direct, or physical impacts to a property; and 2) indirect noise impacts and indirect visual impacts caused by changes in the setting of a historic property or district or a cumulative increase in noise that will result from the project. Indirect noise impacts were classified as Train Noise generated by the operation of trains travelling on rails, Horn Noise generated by warning horn sounding, typically at grade crossings and ranked as Moderate, the potential to cause noticeably increased noise levels and Severe, the potential to cause a significant increase in noise. In many cases, these noise levels were classified as Moderate to Severe. Indirect visual impacts were classified as Minimal, Moderate, or Severe. Additional information regarding the effects analysis can be found in Appendix 4.8-B.

Figures 4.8-2 through 4.8-16 depict the locations of historic resources by alternatives. Appendix 4.8-B presents lists of historic resources and project impacts by alternatives with summaries of alternatives, stations, and layovers.

4.8.3.1 Stoughton Electric Alternative

The Stoughton Electric Alternative alignment would provide commuter rail service from Fall River and New Bedford to South Station through Stoughton, connecting to the existing Stoughton Line and an out-of-service railroad bed. This alternative would use the Northeast Corridor from South Station to Canton Junction. From Canton Junction, the existing Stoughton line would be used to the Stoughton Station.

From there, commuter rail service would be extended, reconstructing a railroad on the out-of-service railroad bed, south through Raynham Junction to Weir Junction in Taunton.

This alignment joins the New Bedford Main Line at Weir Junction, the northern end of the Southern Triangle. Existing commuter rail track would be upgraded to a double track, for the 7.26 miles from Canton Junction to just south of the proposed North Easton station. The remainder of the line south to Weir Junction would be single track, with a 1.19-mile-long double track section in Raynham, a 0.56-mile-long double track section in Taunton, and a 0.44-mile double track section approaching Weir Junction. Infrastructure improvements also include constructing, reconstructing, or widening 43 bridges. New catenary supports, wires, and a new traction power system would be constructed along the length of the line. In addition, three traction power facilities also would be constructed. These are:

- TP-05, Paralleling Station (PS-2) in Taunton
- TP-04, 115 KV Substation (TPSS-1) in Easton
- TP-02, Switching Station (SWS-1) in Canton

One existing train stations would be reconstructed (Canton Center) along the active Stoughton line segment and five new train stations would be constructed (Stoughton, North Easton, Easton Village, Raynham Park, and Downtown Taunton) in the inactive segment. No new layover facilities would be constructed.

A frontage road would be constructed in Stoughton to eliminate grade crossings, and a new grade separation would be constructed at Route 138 in Raynham. A 1.6-mile-long trestle section would be constructed in Raynham and Easton through the Hockomock Swamp.

A cultural resources intensive survey was conducted for the Stoughton Electric Alternative elements and impacts to identified resources are presented below. This section focuses on the existing and extended Stoughton line segment from Canton Junction to Weir Junction.

Historic Resources

The impacts to historic resources along the Stoughton Line segment of the Stoughton Electric Alternative may be permanent or temporary, direct or indirect. A total of 30 historic properties located within the Stoughton Line APE may be affected by the project. Figures 4.8-2 to 4.8-6 show the location of historic resources along the Stoughton Line. Appendix 4.8-B presents the potential impacts to historic resources for the Stoughton Electric Alternative.

Direct Impacts

Direct impacts for the Stoughton Line electric option would be similar to the other project electric alternatives.

The 2,000 feet of the Stoughton Line: Dighton and Somerset/Old Colony Railroad, Fall River Line Railroad Corridor (Map No. Ea.A; Figure 4.8-4) right-of-way that extends through the existing North Easton National Register Historic District will be affected by rebuilding of the rail bed, track, and equipment. This rail segment has been determined as contributing to setting of the district. The proposed changes will alter the physical appearance of the rail right-of-way, including rebuilding the Main Street Bridge.

The alterations would have an adverse effect on the physical properties of both the Stoughton Line segment and the North Easton National Register Historic District.

There will be no direct impacts to historic resources from work at grade crossings or at the three traction power facilities (listed above).

Indirect Impacts

Indirect impacts from the Stoughton Line electric option would be similar to the other electric alternatives. Clearing 60 to 100 feet of vegetation along the right-of-way and grading along the abandoned section of the Stoughton Line south of Stoughton Station would increase right-of-way visibility and affect the setting of historic resources.

The changes to infrastructure and the introduction of new structures along the Stoughton Line would have indirect visual effects on the H.H. Richardson Historic District (Map No. Ea.D, Figure 4.8-4) and the North Easton Historic District (Map No. Ea.B, Figure 4.8-4).

The H.H. Richardson Historic District of North Easton is a discontiguous NHL district consisting of five properties. These properties are the Oliver Ames Free Library (1877), Oakes Ames Memorial Hall (1879), Ames Gate Lodge (1880) and Ames Gardener's Cottage (1884) at Langwater, and the Old Colony Railroad Station (1881), currently owned by the North Easton Historical Society. Of this grouping, the Oliver Ames Free Library and the Oakes Ames Memorial Hall are approximately 400 feet west of the proposed Easton Village Station and the Old Colony Railroad Station is located immediately north of the proposed station abutting the rail right-of-way. The other two properties are well outside of the project APE (see PAL 2009: Volume 5, pg. 14). The proposed changes to the Stoughton Line and the introduction of a new station will affect the visual setting of the three historic properties closest to the project through the introduction of new elements. Adverse effects to National Historic Landmarks require special considerations to avoid, minimize, or mitigate adverse effects and options for mitigating visual impact through color or landscaping are recommended.

The North Easton Historic District (Map No. Ea.B) encompasses the Stoughton Line between Main and Elm streets and the proposed Easton Village Station site. The district includes the Ames Company Shovel Shop complex located adjacent to the proposed Easton Village Station. The Stoughton Line right-of-way (Map No. Ea.A) track structure—including bridges, cuts and fills, retaining walls, and signal infrastructure—is recommended as important to the setting of this district. The changes to the Stoughton Line will alter the appearance of the Stoughton Line: Dighton and Somerset/Old Colony Line segment as noted above. Construction of a new station platform, access and drop off area will occur adjacent to the North Easton Station and Ames Shovel Shop. The design of these changes will introduce new modern rail elements that will have a visual adverse effect.

The introduction of additional rail service will result in increased noise during operations from train noise and horn blowing at grade crossings that will cause moderate to severe noise, or severe at residential, contemplative, and quiet setting historic resources. The sound intrusions may be mitigated through the use of sound insulation or barrier mitigation. In addition to the potential for noise impacts, one historic resource would be affected by the introduction of modern power structures (from a traction power station) that will alter its historic setting. The grade crossings and traction power station facility and the historic properties and areas that would be affected are listed below.

- Washington Street grade crossing: Washington Street Commercial and Institutional District, Canton (Map No. Ca.C; Figure 4.8-2)
- School Street, Porter Street, and Wyman Street grade crossings: Downtown Stoughton Area, Stoughton (Map No. St.B; Figure 4.8-3)
- Oliver Street and Elm Street grade crossings: North Easton Historic District, Easton (Map No. Ea.B, Figure 4.8-4)
- Elm Street grade crossing: Holmes-Linden Street Area, Easton (Map No. Ea.C, Figure 4.8-4);
- Reynolds Street grade crossing: Center Street Area, Easton (Map No. Ea.E, Figure 4.8-4);
- Short Street and Depot Street grade crossings: Easton Center Area, Easton (Map No. Ea.F; Figure 4.8-4);
- Foundry Street grade crossing: Hayward-Pool Area, Easton (Map No. Ea.G, Figure 4.8-5);
- Carver Street grade crossing: Carver Street, Broadway, Raynham (Route 138) (Map No. Ra.B, Figure 4.8-6)
- Britton Street grade crossing: Broadway-Center Street Area, Raynham (Map No. Ra.C, Figure 4.8-6);
- West Brittania Street grade crossing: Dog Kennel and Track, Raynham (Map No. Ra.011, Figure 4.8-6);
- Dean Street grade crossing (Figure 4.8-6):
    - Taunton Center Area, Taunton (Map No. Ta.B)
    - William Woodward House, Taunton (Map No. Ta.020, Ta.C)
    - Charles R. Atwood House, Taunton (Map No. Ta.021, Ta.C)

Weir Street and Bow Street grade crossings and Traction power facility TP-05, Paralleling Station (PS-2): High Street Area, Taunton (Ta.D, Figure 4.8-6)

Table 4.8-4 summarizes the adverse effects likely to result from reconstructing the Stoughton Electric Alternative.

Table 4.8-4 Potential Adverse Effects to Historic Resources, Stoughton Line Electric Alternative

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ca.C	Canton	Washington Street	No	Yes: Moderate to severe train noise (in some locations)	Yes: Moderate, in vicinity of new catenary and station	Visual
Ca.H	Canton	Washington Street/Canton Center	No	Yes: Moderate to severe train noise (in some locations)	Yes: Moderate, in vicinity of new catenary and station	Visual
Ca.001	Canton	Canton Junction Railroad Station	Possible	n/a	Yes: Severe, adjacent to new catenary; Moderate, modifications to site	Physical (possible) Visual (possible)
Ca.006	Canton	Canton Public Library	No	No	Yes: Moderate, in vicinity of new catenary	Visual
Ca.007	Canton	Forge Pond Railroad Bridge	Possible	n/a	Yes: Severe, in close proximity to new catenary, and in vicinity of traction power facility	Physical
Ca.024	Canton	Canton Water Works	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
St.B	Stoughton	Downtown Stoughton Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	Yes: Moderate, in vicinity of new catenary	Noise Visual
St.022	Stoughton	Pearl Street Cemetery	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
St.023, St.B	Stoughton	Stoughton Town Hall	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
St.025	Stoughton	Stoughton Old Colony Railroad Station	No	n/a	Yes: Severe, adjacent to new catenary; Moderate, modifications to site	Visual
St.046	Stoughton	Meade Rubber Company	No	n/a	Yes: Severe, adjacent to new catenary and grade crossing systems	Demolition

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ea.B	Easton	North Easton Historic District	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new catenary, station, and grade crossing systems	Noise Visual
Ea.C	Easton	Holmes-Linden Street Area	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems	Noise Visual
Ea.D	Easton	H.H. Richardson Historic District	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new catenary, station, and grade crossing systems	Noise Visual
Ea.E	Easton	Center Street Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing	Noise Visual
Ea.F	Easton	Easton Center Area	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing	Noise Visual
Ea.G	Easton	Hayward - Pool Area	No	Yes: Moderate train and moderate to severe horn noise (at edge of area)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing	Noise Visual
Ea.003	Easton	Old Colony Railroad Station	No	n/a	Yes: Severe, adjacent to new catenary, Moderate station and site modifications, and grade crossing	Visual (possible)
Ea.008, Ea.A, Ea.B (contributing)	Easton	Dighton & Somerset Line	Yes: Construction and alteration	n/a	Yes: new catenary, and grade crossing	Direct Visual (possible)
Ra.B	Raynham	Carver Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems	Noise Visual

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ra.011	Raynham	Dog Kennel and Track Property	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, in vicinity of new catenary and grade crossing (at edge of property)	Visual
Ta.B	Taunton	Taunton Center Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	Yes: Moderate to severe, in vicinity of new catenary, station, and grade crossing	Noise Visual
Ta.C	Taunton	Taunton Multiple Resource Area	Refer to individual properties in Ta.C below (MPS)*	Refer to individual properties in Ta.C below (MPS)	Refer to individual properties in Ta.C below (MPS)	Refer to individual properties in Ta.C below (MPS)
Ta.D	Taunton	High Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary	Noise Visual
Ta.L	Taunton	Hart Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary	Noise Visual
Ta.18, Ta.C	Taunton	Dean-Hartshorn House	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary	Noise Visual
Ta.020, Ta.B, Ta.C	Taunton	William Woodward House	No	Yes: Severe train and horn noise	Yes: Moderate, in vicinity of new catenary and grade crossing	Noise Visual
Ta.021, Ta.B, Ta.C	Taunton	Charles R. Atwood House	No	Yes: Moderate train and severe horn noise	Yes: Moderate, in vicinity of new catenary and grade crossing	Noise Visual
Ta.022, Ta.B, Ta.C	Taunton	Theodore Dean House	No	Yes: Severe horn noise	Yes: Moderate, in vicinity of new catenary and grade crossing	Noise Visual
Ta.029, Ta.B, Ta.C	Taunton	Neck of Land Cemetery	No	Yes: Moderate to severe horn noise	Yes: Severe, adjacent to new catenary	Noise Visual

* MPS: Multiple Property Submission

Archaeological Resources

The Stoughton Electric APE includes the existing and abandoned railroad right-of-way, the proposed frontage road in Stoughton, the new grade separation at Broadway Street (Route 138) in Raynham, and

any other work areas including electrification infrastructure that would involve earthmoving outside of the previously disturbed railroad right-of-way.

Intensive (Locational) survey completed for the Stoughton Alternative identified 14 archaeological sites. The Corps, in consultation with the Massachusetts SHPO and the Wampanoag Tribe of Gay Head, have determined that 10 of the 14 sites are eligible for listing in the National Register. The following discussion begins with the Stoughton Line segment of the alternative. The archaeological sites identified during the Intensive (locational) Survey for the Stoughton Line portion are presented in Table 4.8-5. The proposed grade separation at the Broadway Street (Route 138) crossing is assessed as having a moderate sensitivity for pre-contact Native American and under-documented post-contact EuroAmerican archaeological sites. An intensive (locational) archaeological survey is needed to identify archaeological sites. Project impacts will be assessed once the intensive survey is completed and when more detailed design information is available. The Corps is developing a PA to ensure that all eligible historic properties are identified and addressed as site designs and/or construction plans progress. The draft PA is attached to this document as Appendix 4.8-A.

Table 4.8-5 Archaeological Sites Identified for the Stoughton Line Segment

Site Name	Identified Cultural Deposits	Preliminary (Approximate) Site Boundaries	NR Eligibility/ Recommendation	Project Alternative
Easton Village Station Railroad Site	Mid-19th-mid-20th c. railroad depot water tower and shed remains and artifact assemblage	Within proposed station footprint: 25-x-125 m (3125 sq. m)	Not NR eligible (low research value)	Stoughton and Whittenton Alternatives
Skunk Trapper Site	11 chipping debris	Within proposed substation footprint: 45-x-80 m (3600 sq. m)	NR eligible	Stoughton and Whittenton Alternatives
Saws Wood Site	4 chipping debris	Within right-of-way: 10-x-20 m (200 sq. m)	NR eligible	Stoughton and Whittenton Alternatives
King Philip Street	1 chipping debris and 1 projectile point tip	Within right-of-way: 10-x-20 m (200 sq. m)	NR eligible	Stoughton Alternatives
Chickering Road Site	39 chipping debris and 1 cobble cortex fragment	Within right-of-way: 10-x-20 m (200 sq. m)	NR eligible	Stoughton Alternatives
East Britannia Street Site	22 chipping debris and 1 quartz scraper	Within right-of-way: 10-x-20 m (200 sq. m)	NR eligible	Stoughton Alternatives

The proposed frontage road in Stoughton along the Stoughton line right-of-way is assessed as having low archaeological sensitivity. No impacts to archaeological sites are identified for this work element.

There is the possibility that proposed overhead catenary structure support footings and deep pile foundations for the proposed trestle in the Hockomock Swamp could extend into archaeologically sensitive strata below rail bed disturbance and fill deposits. Specific sensitivity areas would be determined based on a review of soil borings and/or a detailed soil profile of the right-of-way using soil boring logs.

An intensive (locational) survey was conducted and resulted in the location of five archaeological sites which are eligible for the National Register. Additionally, four historic refuse deposits were identified but are not considered archaeological sites. This alternative would have no effect on these refuse deposits, but may affect the pre-contact archaeological sites.

The archaeological survey has not yet been conducted for track improvements including electrification infrastructure that would involve earthmoving outside of the previously disturbed railroad right-of-way within the APE. Project impacts to archaeological resources in these portions of the Stoughton Electric APE will be assessed when more detailed design information is available, as defined in the PA (Appendix 4.8-A).

Appendix 4.8-C presents the results of the archaeological survey within the Stoughton Line portion of the APE.

4.8.3.2 Stoughton Diesel Alternative

The Stoughton Diesel Alternative is identical to the Stoughton Electric Alternative with the exception of the electrical infrastructure including the substations and the overhead catenary system that are not required for the diesel-powered train service.

Cultural resources surveys were conducted for the Stoughton Diesel Alternative elements and impacts to identified resources are presented below.

Historic Resources

The impacts to historic resources along the Stoughton Line segment of the Stoughton Diesel Alternative may be permanent or temporary, direct or indirect. A total of 26 historic properties (located within the Stoughton Line APE may be affected by the project. Figures 4.8-2 to 4.8-6 show the location of historic resources along the Stoughton Line. Appendix 4.8-B, presents the potential impacts to historic resources for the Stoughton Diesel Alternative.

Direct Impacts

Direct impacts for the Stoughton Line segment of the Stoughton Diesel Alternative are identical to the electric option though the electrical infrastructure is not involved.

Indirect Impacts

Indirect impacts for the Stoughton Line segment of the Stoughton Diesel Alternative are similar to the electric option, with the exception of any impacts from the electrical power infrastructure. Therefore, the diesel option would result in less visual impact.

Table 4.8-6 summarizes the adverse effects likely to result from reconstructing the Stoughton Diesel Alternative.

Table 4.8-6 Potential Adverse Effects to Historic Resources, Stoughton Line Diesel Alternative

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ca.C	Canton	Washington Street	No	Yes: Moderate to severe train noise (in some locations)	Yes: Moderate, in vicinity of new catenary and station	Visual
Ca.H	Canton	Washington Street/Canton Center	No	Yes: Moderate to severe train noise (in some locations)	Yes: Moderate, in vicinity of new catenary and station	Visual
Ca.001	Canton	Canton Junction Railroad Station	Possible	n/a	Yes: Moderate, modifications to site	Physical (possible) Visual (possible)
Ca.007	Canton	Forge Pond Railroad Bridge	Possible	n/a	Yes: Severe, in vicinity of traction power facility	Physical
St.B	Stoughton	Downtown Stoughton Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	No	Noise
St.023, St.B	Stoughton	Stoughton Town Hall	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
St.025	Stoughton	Stoughton Old Colony Railroad Station	No	n/a	Yes: Moderate, modifications to site	Visual
St.046	Stoughton	Meade Rubber Company	No	n/a	Yes: Severe, adjacent to grade crossing systems	Demolition
Ea.B	Easton	North Easton Historic District	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new station, and grade crossing systems	Noise Visual
Ea.C	Easton	Holmes-Linden Street Area	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of grade crossing systems	Noise Visual
Ea.D	Easton	H.H. Richardson Historic District	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of new station, and grade crossing systems	Noise Visual

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ea.E	Easton	Center Street Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	Yes: Moderate to severe, in vicinity of grade crossing	Noise Visual
Ea.F	Easton	Easton Center Area	No	Yes: Moderate to severe train and horn noise (in some portions of district)	Yes: Moderate to severe, in vicinity of grade crossing	Noise Visual
Ea.G	Easton	Hayward - Pool Area	No	Yes: Moderate train and moderate to severe horn noise (at edge of area)	Yes: Moderate to severe, in vicinity of grade crossing	Noise Visual
Ea.003	Easton	Old Colony Railroad Station	No	n/a	Yes: Moderate station and site modifications, and grade crossing	Visual (possible)
Ea.008, Ea.A, Ea.B (contributing)	Easton	Dighton & Somerset Line	Yes: Construction and alteration	n/a	Yes: new catenary, and grade crossing	Direct Visual (possible)
Ra.B	Raynham	Carver Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, in vicinity of grade crossing systems	Noise Visual
Ra.011	Raynham	Dog Kennel and Track Property	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, in vicinity of grade crossing (at edge of property)	Visual
Ta.B	Taunton	Taunton Center Area	No	Yes: Moderate to severe train and horn noise (in some portions of area)	Yes: Moderate to severe, in vicinity of new station, and grade crossing	Noise Visual
Ta.C	Taunton	Taunton Multiple Resource Area	Refer to individual properties in Ta.C below (MPS)	Refer to individual properties in Ta.C below (MPS)	Refer to individual properties in Ta.C below (MPS)	Refer to individual properties in Ta.C below (MPS)
Ta.D	Taunton	High Street Area	No	Yes: Moderate to severe train and horn noise	No	Noise

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ta.L	Taunton	Hart Street Area	No	Yes: Moderate to severe train and horn noise	No	Noise
Ta.18, Ta.C	Taunton	Dean-Hartshorn House	No	Yes: Moderate to severe train and horn noise	No	Noise
Ta.020, Ta.B, Ta.C	Taunton	William Woodward House	No	Yes: Severe train and horn noise	Yes: Moderate, in vicinity of grade crossing	Noise Visual
Ta.021, Ta.B, Ta.C	Taunton	Charles R. Atwood House	No	Yes: Moderate train and severe horn noise	Yes: Moderate, in vicinity of grade crossing	Noise Visual
Ta.022, Ta.B, Ta.C	Taunton	Theodore Dean House	No	Yes: Severe horn noise	Yes: Moderate, in vicinity of grade crossing	Noise Visual
Ta.029, Ta.B, Ta.C	Taunton	Neck of Land Cemetery	No	Yes: Moderate to severe horn noise	No	Noise

Archaeological Resources

The effects to archaeological resources for the Stoughton Diesel Alternative will be the same as for the Stoughton Electric Alternative with the exception of any impacts from the electrical power infrastructure.

4.8.3.3 Whittenton Alternatives

The Whittenton Electric Alternative is a variant of the Stoughton Electric Alternative alignment described in Section 4.8.3.1. At Raynham Junction, the line would divert to the southwest, following the old, unused Whittenton Branch railroad line. This alignment would connect with the Attleboro Secondary near the Whittenton neighborhood in Taunton then continue on toward the southeast to connect with the New Bedford Main Line at Weir Junction.

This alternative would consist of 3.48 miles of single track on the Whittenton Branch, 1.62 miles of single track on the Attleboro Secondary, and 0.62 mile of double track on the Attleboro Secondary west of Weir Junction. New grade crossings would be built and equipment installed. New catenary supports, wires, and a new traction power system would be constructed along the length of the line. Stations along the Stoughton Line portion of this alternative are the same as Stoughton Alternatives, except for Taunton Station. No traction power facilities, new stations, or layover facilities would be constructed within the Whittenton Branch corridor.

The results of the cultural resources intensive surveys for the Whittenton Electric Alternative elements, and impacts to identified resources are presented below. This section discusses first the Whittenton Branch right-of-way, followed by the Attleboro Secondary right-of-way.

Whittenton Branch Right-of-way of the Whittenton Electric Alternative

Historic Resources

The impacts to historic resources along the Whittenton Branch segment of the Whittenton Electric Alternative of the project may be permanent or temporary, direct or indirect (Table 4.8-7). A total of 4 historic districts located within the Whittenton Branch Line APE may be affected by the project's electric option. Figures 4.8-7 and 4.8.8 show the location of historic resources along the Whittenton Branch Line. Appendix 4.8-B presents the potential impacts to historic resources for the Whittenton Branch of the Whittenton Electric Alternative. North of the Whittenton Branch and Raynham Junction, the Whittenton Electric Alternative may affect the properties located on the Stoughton Line as described above, in addition to the properties of the Southern Triangle described below.

Table 4.8-7 Potential Adverse Effects to Historic Resources, Attleboro Secondary and Whittenton Branch, Whittenton Electric Alternative

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ta.C	Taunton	Taunton Multiple Resource Area	See individual properties in Ta.C below	See individual properties in Ta.C below	See individual properties in Ta.C below	See individual properties in Ta.C below
Ta.F	Taunton	Whittenton Mill Area	No	Yes: Moderate to severe train and horn noise (in some locations)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems (in some locations)	Noise Visual
Ta.H	Taunton	Reed and Barton Worker Housing	No	Yes: Moderate to severe horn noise (in some locations)	Yes: Moderate, in vicinity of new catenary and grade crossing systems (in some locations)	Noise Visual
Ta.D	Taunton	High Street Area	No	Yes: Moderate train noise (at edge of area)	Yes: Moderate, in vicinity of new catenary, grade crossing, and traction power facility	Noise Visual
Ta.I	Taunton	Ancient Whittenton Area	No	Yes: Moderate to severe train and horn noise (in some locations)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems (in some locations)	Noise Visual
Ta.R	Taunton	Multiple	No	Yes: Moderate train and horn noise	Yes: Moderate, portions of area are in vicinity of new catenary	Visual

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ta.S	Taunton	Danforth St, Dana St	No	Yes: Moderate train and horn noise	Yes: Moderate, portions of area are in vicinity of new catenary	Visual
Ta.T	Taunton	Tremont St	No	Yes: Moderate train and severe horn noise	Yes: Moderate, portions of area are in vicinity of new catenary	Noise Visual
Ta.208, Ta.C	Taunton	St. Thomas Episcopal Church	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary and traction power facility	Visual
Ta.209, Ta.C	Taunton	McKinstrey House	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary and traction power facility	Visual
Ta.211, Ta.C	Taunton	Henry G. Brownell House (Elk's Lodge No. 150)	No	Yes: Moderate to severe horn noise	Yes: Moderate, in vicinity of new catenary and traction power facility	Noise Visual
Ta.245, Ta.C	Taunton	Lord-Baylies-Bennett House (Taunton Masonic Lodge)	No	Yes: Moderate train and severe horn noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
Ta.246, Ta.C	Taunton	Samuel Washburn House	No	Yes: Moderate to severe train and severe horn noise	Yes: Severe, adjacent to new catenary	Noise Visual
Ta.254, Ta.C	Taunton	Samuel Colby House	No	Yes: Moderate train and severe horn noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
Ta.259, Ta.C, Ta.V	Taunton	Sarah A. Haskins House	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary	Visual
Ta.262	Taunton	Mount Pleasant Cemetery	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary	Visual
Ta.266, Ta. C	Taunton	J.C. Bartlett House	No	Yes: Moderate train and severe horn noise	Yes: Severe, adjacent to new catenary	Noise Visual
Ta.294, Ta.C, Ta.D	Taunton	H.B. Lothrop Store	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary	Visual
Ta.309, Ta.C	Taunton	William Lawrence House	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of new catenary	Visual

Direct Impacts

Direct impacts for the Whittenton Branch electric option will be similar to the other electric alternatives, but will include clearing and grading and construction of new track and grade crossings along the abandoned line.

There will be no direct impacts to historic resources for new grade crossings work within the right-of-way, and no traction power facilities are proposed.

Indirect Impacts

Indirect impacts from the Whittenton Electric Alternative would be similar to the Stoughton Electric Alternative, but would also involve clearing that would increase the visibility of the newly reactivated right-of-way from nearby historic properties. The abandoned right-of-way crosses or is adjacent to five historic districts.

Train operations and horn blowing will result in moderate to severe, or severe noise that may require noise barrier or sound insulation at the following historic resources:

- Dean and Whittenton Streets grade crossings: Taunton MRA (Map No. Ta.C, Figure 4.8-8)
- Whittenton Street grade crossing (Figure 4.8-7):
    - Whittenton Mill Area (Map No. Ta.F)
    - Reed and Barton Worker Housing (Map No. Ta.H)
- Warren Street grade crossing: Ancient Whittenton Area (Map No. Ta.I, Figure 4.8-7).

Archaeological Resources

The Whittenton Electric APE includes the abandoned railroad right-of-way and any other work areas including electrification infrastructure that would involve earthmoving outside of the former railroad right-of-way. Table 4.8-8 presents the archaeological sites identified for Whittenton Branch and Attleboro Secondary segments of the Whittenton Alternatives.

Four archaeological sites are located within the Whittenton Electric former right-of-way portion of the APE along the Whittenton Branch alignment. The four sites have been determined by the Corps, in consultation with the Massachusetts SHPO and the Aquinnah THPO, to be eligible for the National Register. Project impacts to archaeological resources in the Whittenton Electric APE will be assessed when more detailed design information is available.

Table 4.8-8 Archaeological Sites identified for the Whittenton Branch Rail Segment

Site Name	Identified Cultural Deposits	Preliminary (Approximate) Site Boundaries	NR eligibility/ recommendation	Project Alternative
Mel's Diner Site	5 chipping debris	Within right-of-way: 10-x-10 m (100 sq. m)	NR eligible	Whittenton Alternative
Pine Crest Site	1 chipping debris	Within right-of-way: 10-x-20 m (200 sq. m)	NR eligible	Whittenton Alternative
ATV Trail Site	1 chipping debris and 1 hammerstone	Within right-of-way: 10-x-10 m (100 sq. m)	NR eligible	Whittenton Alternative
Cedar Swamp Site	35 chipping debris, fire-cracked rock, fire pit feature	Within right-of-way: 27-x-30 m (810 sq. m)	NR eligible	Whittenton Alternative

Attleboro Secondary Right-of-way of the Whittenton Electric Alternative

Existing freight track within the Attleboro Secondary would be upgraded and the line would be single track between the Whittenton Junction and Taunton, with the remaining 0.62 mile to Weir Junction being double track. New catenary supports, wires, and a traction power system would be constructed along the length of the line. One new train station would be constructed in Taunton (Dana Street Station). No new layover facilities would be constructed along this alternative segment.

Historic Resources

The impacts to historic resources along the Attleboro Secondary segment of the Whittenton Electric Alternative may be permanent or temporary, direct or indirect. A total of 15 historic properties located within the Attleboro Secondary APE may be affected by the project. Figures 4.8-8 to 4.8-9 show the location of historic resources along the Attleboro Secondary.

Direct Impacts

Direct impacts for the Attleboro Secondary electric option will be similar to the other project electric alternatives (discussed above).

The construction of the Attleboro Secondary segment of the Whittenton Electric Alternative will occur within the right-of-way. Both paralleling stations (listed above) would be constructed within existing right-of-way as well. There are no historic resources located within these construction areas. Therefore, there are no permanent direct impacts of the project on historic resources within the Attleboro Secondary APE.

Indirect Impacts

Indirect impacts for the Attleboro Secondary electric option will be similar to the other project electric alternatives described above.

The introduction of additional rail service will result in increased noise during operations from train noise and horn blowing at grade crossings. The noise increase will cause moderate to severe or severe noise at residential, contemplative, and quiet setting historic resources at the following grade crossing locations. These specific areas and resources would likely require sound insulation or barrier mitigation:

- Weir Street and Bow Street grade crossings: High Street Area, Taunton (Map No. Ta.D; Figure 4.8-8)
- Danforth Street grade crossing (Figure 4.8-8):
  - Massachusetts State Hospitals and State Schools, Taunton (Map No. Ta.R)
  - Taunton State Hospital Historic District, Taunton (Map No. Ta.S)
- Tremont Street grade crossing (Figure 4.8-8):
  - Tremont Street Area, Taunton (Map No. Ta.T)
  - Hodges Avenue Area, Taunton (Map No. Ta.U)
- Winthrop Street and Webster Street grade crossings: Harrison Street Area, Taunton (Map No. Ta.V, Ta.D; Figure 4.8-8)
- Porter Street and Cohannet Street grade crossings (Figure 4.8-8):
  - St. Thomas Episcopal Church, Taunton (Map No. Ta.208, Ta.C)
  - Henry G. Brownell House, Taunton (Elks Lodge No. 150) (Map No. Ta.211, Ta.C)
- Winthrop Street, Porter Street, and Cohannet Street grade crossings (Figure 4.8-8):
  - Lord-Baylies-Bennett House, Taunton (Taunton Masonic Lodge) (Map No. Ta.245, Ta.C)
  - Samuel Washburn House, Taunton (Map No. Ta.246, Ta.C)
- Winthrop Street and Cohannet Street grade crossings: Samuel Colby House, Taunton (Map No. Ta.254, Ta.C; Figure 4.8-8)
- Winthrop Street grade crossings: J.C. Bartlett House, Taunton (Map No. Ta.266, Ta.C; Figure 4.8-8)
- Barnum Street and Weir Street grade crossings: William Lawrence House, Taunton (Map No. Ta.309,Ta.C; Figure 4.8-8)

TP-21, paralleling station (PS-2) in Taunton (Figure 4.8-8) may cause adverse visual effects to four adjacent historic properties through the introduction of modern power structures that alter the historic setting:

- Henry G. Brownell House (Map No. Ta.211)

- McKinstrey House (Map No. Ta.209)
- Rhodes Button Company (Map No. Ta.225); and Thomas Episcopal Church (Map No. Ta.208)

Table 4.8-9 summarizes the adverse effects likely to result from reconstructing the Attleboro Secondary segment of the Whittenton Electric Alternative.

Table 4.8-9 Potential Adverse Effects to Historic Resources, Whittenton Branch and Attleboro Secondary Rail Segments, Whittenton Diesel Alternative

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ta.C	Taunton	Taunton Multiple Resource Area	See Individual properties in Ta.C below	See individual properties in Ta.C below	See individual properties in Ta.C below	See individual properties in Ta.C below
Ta.F	Taunton	Whittenton Mill Area	No	Yes: Moderate to severe train and horn noise (in some locations)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems (in some locations)	Adverse: Noise Visual
Ta.H	Taunton	Reed and Barton Worker Housing	No	Yes: Moderate to severe horn noise (in some locations)	Yes: Moderate, in vicinity of new catenary and grade crossing systems (in some locations)	Adverse: Noise Visual
Ta.D	Taunton	High Street Area	No	Yes: Moderate train noise (at edge of area)	Yes: Moderate, in vicinity of new catenary, grade crossing, and traction power facility	Adverse: Noise Visual
Ta.I	Taunton	Ancient Whittenton Area	No	Yes: Moderate to severe train and horn noise (in some locations)	Yes: Moderate to severe, in vicinity of new catenary and grade crossing systems (in some locations)	Adverse: Noise Visual
Ta.T	Taunton	Tremont St	No	Yes: Moderate train and severe horn noise	No	Adverse: Noise
Ta.208, Ta.C	Taunton	St. Thomas Episcopal Church	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of traction power facility	Adverse: Visual
Ta.209, Ta.C	Taunton	McKinstrey House	No	Yes: Moderate horn noise	Yes: Moderate, in vicinity of traction power facility	Adverse: Visual

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ta.211, Ta.C	Taunton	Henry G. Brownell House (Elk's Lodge No. 150)	No	Yes: Moderate to severe horn noise	Yes: Moderate, in vicinity of traction power facility	Adverse: Noise Visual
Ta.245, Ta.C	Taunton	Lord-Baylies-Bennett House (Taunton Masonic Lodge)	No	Yes: Moderate train and severe horn noise	No	Adverse: Noise
Ta.246, Ta.C	Taunton	Samuel Washburn House	No	Yes: Moderate to severe train and severe horn noise	No	Adverse: Noise
Ta.254, Ta.C	Taunton	Samuel Colby House	No	Yes: Moderate train and severe horn noise	Yes: Moderate, in vicinity of new catenary	Adverse: Noise Visual
Ta.266, Ta. C	Taunton	J.C. Bartlett House	No	Yes: Moderate train and severe horn noise	No	Adverse: Noise

Archaeological Resources

The Attleboro Secondary segment of the APE includes active freight right-of-way from the Attleboro Bypass and Weir Junction in Taunton. There are no recorded archaeological sites or sensitive areas within the previously disturbed Attleboro Secondary railroad right-of-way.

There is the possibility that proposed overhead catenary structure support footings could extend into archaeologically sensitive strata below rail bed disturbance and fill deposits. Specific sensitivity areas would be determined based on a review of soil borings and/or a detailed soil profile of the right-of-way using soil boring logs. An intensive (locational) survey may be needed in sensitive areas where direct physical construction impacts are planned. Project impacts to archaeological resources will be assessed when more detailed design information is available, as described in the draft PA (Appendix 4.8-A)

The archaeological survey has not yet been conducted for track improvements including electrification infrastructure that would involve earthmoving outside of the railroad right-of-way within the APE. Project impacts to archaeological resources in these portions of the Attleboro Secondary Electric APE will be assessed when more design information is available.

4.8.3.4 Whittenton Diesel Alternative

The Whittenton Diesel Alternative is identical to the Whittenton Electric Alternative with the exception of the electrical infrastructure including the overhead catenary system that is not required for the diesel-powered train service.

A historic resources survey was completed for the Whittenton Diesel Alternative and impacts to identified historic resources are presented below. This section discusses first the Whittenton Branch right-of-way segment of the Whittenton Alternative, followed by the Attleboro Secondary right-of-way segment.

Whittenton Branch Right-of-way of the Whittenton Diesel Alternative

Historic Resources

The impacts to historic resources along the Whittenton Branch segment of the Whittenton Diesel Alternative of the project may be permanent or temporary, direct or indirect. A total of 7 historic properties (1 individual and 6 historic districts) located within the Whittenton Branch Line APE may be affected by the alternative's diesel option. Figures 4.8-7 to 4.8-8 show the location of historic resources along the Whittenton Branch. Appendix 4.8-B, presents the potential impacts to historic resources for the Whittenton Diesel Alternative.

The Whittenton Diesel Alternative may affect an additional 21 properties (8 individual properties and 13 historic districts), located on the Stoughton Line north of Raynham Junction. The impacts to these properties are the same as those described in Section 4.8.3.3 above, excluding impacts pertaining to the Taunton Depot, TP-05, Paralleling Station (PS-2), and 7 historic properties located on the Stoughton Line south of Raynham Junction in Raynham and Taunton.

Direct Impacts

Direct impacts for the Whittenton Branch segment of the Whittenton Diesel Alternative are identical to the electric option.

Indirect Impacts

Indirect impacts for the Whittenton Branch segment of the Whittenton Diesel Alternative are similar to the electric option with the exception of any impacts from the electrical power infrastructure. Therefore, the diesel option will result in less visual impact.

Archaeological Resources

See discussion above for the Whittenton Branch right-of-way segment of the Whittenton Electric Alternative.

Attleboro Secondary Right-of-way of the Whittenton Diesel Alternative

Existing freight track would be upgraded and the line would be single track between the Whittenton Junction and Taunton, with the remaining 0.62 mile to Weir Junction being double track.

One new train station would be constructed in Taunton (Dana Street Station). No new layover facilities would be constructed along this alternative segment.

Historic Resources

The impacts to historic resources along the Attleboro Secondary segment of the Whittenton Diesel Alternative may be permanent or temporary, direct or indirect. A total of 28 historic properties (17 individual and 11 historic districts) located within the Attleboro Secondary APE may be affected by the project. Figure 4.8-8 shows the location of historic resources along the Attleboro Secondary. Appendix 4.8-B, presents the potential impacts to historic resources for the Whittenton Diesel Alternative.

Direct Impacts

Direct impacts for the Attleboro Secondary diesel option will be similar to the other project diesel alternatives (discussed above).

The construction of the Attleboro Secondary segment of the Whittenton Diesel Alternative will occur within the right-of-way. Both paralleling stations (listed above) would be constructed within existing right-of-way as well. There are no historic resources located within these construction areas. Therefore, there are no permanent direct impacts of the project on historic resources within the Attleboro Secondary APE.

Indirect Impacts

Indirect impacts for the Attleboro Secondary right-of-way segment of the Whittenton diesel option will be similar to the other project diesel alternatives described above.

The introduction of additional rail service will result in increased noise during operations from train noise and horn blowing at grade crossings. The noise increase will cause moderate to severe, or severe noise at residential, contemplative, and quiet setting historic resources at the following grade crossing locations. These specific areas and resources would likely require sound insulation or barrier mitigation:

- Weir Street and Bow Street grade crossings: High Street Area, Taunton (Map No. Ta.D, Figure 4.8-8)
- Danforth Street grade crossing (Figure 4.8-8):
  - Massachusetts State Hospitals and State Schools, Taunton (Map No. Ta.R)
  - Taunton State Hospital Historic District, Taunton (Map No. Ta.S)
- Tremont Street grade crossing (Figure 4.8-8):
  - Tremont Street Area, Taunton (Map No. Ta.T)
  - Hodges Avenue Area, Taunton (Map No. Ta.U)
- Winthrop Street and Webster Street grade crossings: Harrison Street Area, Taunton (Map No. Ta.V, Ta.D; Figure 4.8-8)
- Porter Street and Cohannet Street grade crossings (Figure 4.8-8):
  - St. Thomas Episcopal Church, Taunton (Map No. Ta.208, Ta.C)

- Henry G. Brownell House, Taunton (Elks Lodge No. 150) (Map No. Ta.211, Ta.C)

- Winthrop Street, Porter Street, and Cohannet Street grade crossings (Figure 4.8-8):
  - Lord-Baylies-Bennett House, Taunton (Taunton Masonic Lodge) (Map No. Ta.245, Ta.C)
  - Samuel Washburn House, Taunton (Map No. Ta.246, Ta.C)

- Winthrop Street and Cohannet Street grade crossings: Samuel Colby House, Taunton (Map No. Ta.254, Ta.C; Figure 4.8-8)

- Winthrop Street grade crossings: J.C. Bartlett House, Taunton (Map No. Ta.266, Ta.C; Figure 4.8-8)

- Barnum Street and Weir Street grade crossings): William Lawrence House, Taunton (Map No. Ta.309, Ta.C; Figure 4.8-8).

Table 4.8-9 (above) summarizes the adverse effects likely to result from reconstructing the Attleboro Secondary right-of-way segment of the Whittenton Diesel Alternative.

Archaeological Resources

The Attleboro Secondary right-of-way APE of the Whittenton Diesel Alternative includes active freight right-of-way from the Attleboro Bypass and Weir Junction in Taunton. Appendix 4.8-C presents the assessment of potential impacts to archaeological resources within the Attleboro Secondary portion of the APE.

There are no recorded archaeological sites or sensitive areas within the previously disturbed Attleboro Secondary railroad right-of-way. The archaeological survey has not yet been conducted for track improvements that would involve earthmoving outside of the railroad right-of-way within the APE. Project impacts to archaeological resources in these portions of the Attleboro Secondary APE will be assessed when more design information is available, as described in the draft PA (Appendix 4.8-A).

Direct Impacts

Direct impacts for the Attleboro Secondary segment of the Whittenton Diesel Alternative are identical to the electric option.

Indirect Impacts

Indirect impacts for the Attleboro Secondary segment of the Whittenton Diesel Alternative are similar to the electric option with the exception of any impacts from the electrical power infrastructure. Therefore, the diesel option will result in less visual impact. Table 4.8-9 (above) summarizes the adverse effects likely to result from constructing the Whittenton Diesel Alternative.

Archaeological Resources

The Attleboro Secondary right-of-way segment of the Whittenton Electric Alternative is an active line and has not yet been assessed for archaeological resources. Additional cultural resources studies may be needed for this segment of the Whittenton Alternative.

4.8.3.5 Southern Triangle

The Southern Triangle consists of the active freight rail tracks with existing grade crossings of the Fall River Secondary from Myricks Junction in Berkley to Fall River and the New Bedford Main Line from Weir Junction in Taunton to New Bedford and a portion of the Attleboro Secondary between Myricks Junction and Weir Junction. Both diesel and electrification options are being considered for these rail lines.

The Southern Triangle is common to both the Stoughton and Whittenton Alternatives as are the six stations (Battleship Cove, East Taunton, Fall River Depot, Freetown, King's Highway, and Whale's Tooth). Cultural resources survey was conducted for the Southern Triangle elements, and impacts to identified resources are presented below.

Fall River Secondary

Existing freight track would be upgraded and a short segment of the line would be double track south of Myricks Junction, for a distance of 0.61 mile. The remainder of the line would be single track, with the exception of two small double track sections in Freetown and Fall River, 0.62 and 0.71 mile long, respectively.

New catenary supports, wires, and one new traction power facility (TP-11, Paralleling Station [(PS-05]) at a specified location would be constructed along the length of the line for the electrification option. Two new stations would be constructed in Fall River (Battleship Cove and Fall River Depot) and one new station would be constructed in Freetown (Freetown). One new layover facility would be constructed in Fall River, at the Weaver's Cove East location.

Potential Adverse Effects on Historic Resources along the Fall River Secondary Rail Segment

The impacts of the South Coast Rail project to historic resources along the Fall River Secondary line of the Southern Triangle segment of the project may be permanent or temporary, direct or indirect. For the two options (electric and diesel), there is a combined total of 22 historic properties (Table 4.8-10). The locations of these structures and districts along the Fall River Secondary are shown in Figures 4.8-14 through 4.8-16. Appendix 4.8-B, Tables 1 and 2, present the data on the individual structures and districts.

Work elements and impacts discussed in this section apply to, but are not repeated in, subsequent sections for the different electric and diesel alternatives.

Table 4.8-10 Southern Triangle, Fall River Secondary–Affected Historic Resources

Option	Historic – Individual	Historic Districts	Figure	Appendix
Electric	12	10	Figures 4.8-14 through 4.8-16	Appendix 4.8-B
Diesel	6	6	Figures 4.8-14 through 4.8-16	Appendix 4.8-B

Direct Impacts on Historic Resources along the Fall River Secondary Rail Segment

Project work elements for the Fall River Secondary electric option include railroad upgrade (track, railroad bed, bridges and culverts, fencing in populated areas), at-grade crossing improvements (equipment, signage, traffic control), and electrical infrastructure (catenary and traction power

facilities). Direct permanent impacts from work within the existing right-of-way rail corridor are not likely to affect significant historic resources, with the exception of bridges and grade crossings.

Direct impacts from improvements to existing at-grade crossings within historic districts and immediately adjacent to individual historic resources are expected to be minor, provided that no roadway changes are proposed. No direct impacts are anticipated from the new traction power facility, TP-10, Paralleling Station (PS-04), as there are no historic resources on the site. Station impacts are discussed below in Section 4.8.3.6. If noise mitigation insulating treatments on historic buildings are warranted to address indirect effects, these treatments may include new windows and doors. The replacement of windows and doors will have a direct effect on the subject properties and will require design considerations for compatibility with historic resources.

Project work elements and direct impacts for the Fall River Secondary diesel option are identical to the electric option, with the exception of any impacts from the electrical power infrastructure.

Indirect Impacts on Historic Resources along the Fall River Secondary Rail Segment

Indirect impacts from the Fall River Secondary electric option may include auditory, vibration, visual, or other environmental effects on the setting or other character-defining features of individual historic individual properties and districts. Indirect impacts from the addition of upgraded existing track and existing grade crossing rail infrastructure elements in the active right-of-way are generally anticipated to be low.

The introduction of additional rail service will result in increased noise during operations from train noise and horn blowing at grade crossings. The noise increase will cause moderate to severe or severe noise at residential, contemplative, and quiet setting historic resources at the following grade crossing locations. These specific areas and resources could require sound insulation or barrier mitigation to reduce noise impacts. An elastic mat may be placed under the ballast to absorb or reduce vibration levels before they enter the ground and propagate to nearby receptors, as described in Chapter 4.7, *Vibration.*

- At Myricks Street and Mill Street grade crossings: Myricks Street Area, Berkley (Map No. Be.C, Figure 4.8-14)
- At Adams Lane grade crossing: Peirce and Haskins Cemetery, Lakeville (Map No. La.024; Figure 4.8-14)
- At Elm Street, Forge Road, and Richmond Road grade crossings: Slab Bridge Road Area, Freetown (Map No. Ft.C, Figure 4.8-15)
- At Richmond Road and Beechwood Road grade crossings: Richmond Road/ Maple Tree Crossing Bridge, Freetown (Map No. Ft.009, Figure 4.8-14)

Similarly, moderate to severe noise from operations may be experienced at the following resources or districts. These specific areas and resources also would likely require sound insulation or barrier mitigation:

- Assonet Historic District, Freetown (Map No. Ft.D, Figure 4.8-15)

- North Main Street Area, Fall River (Map No. FR.D, Figure 4.8-16)
- Wellington-Brownell Street Area, Fall River (Map No. FR.I, Figure 4.8-16)
- North Burial Ground, Fall River (Map No. FR.K, FR.C; Figure 4.8-16)
- Pearce-Durfee Street Area, Fall River (Map No. FR.M, Figure 4.8-16)
- St. Michael's Roman Catholic Church, Fall River (Map No. FR.050, Figure 4.8-16)
- Al Mac's Diner, Fall River (Map No. FR.070, FR,M; Figure 4.8-16)
- Residence, 524 Durfee Street, Fall River (Map No. FR.081, Figure 4.8-16)

New construction including stations (see Section 4.8.3.6 below), the new traction power facility, catenary systems, bridge modifications and replacements, right-of-way fencing, and noise mitigation barriers may have indirect visual impacts on adjacent historic architectural resources and their settings. The new catenary system along the right-of-way will have a moderate to severe visual effect on several of the residential, commercial, and landscape (but not on industrial or transportation) historic resources throughout the rail corridor (see list in Appendix 4.8-B). The traction power facility TP-11, Paralleling Station (PS-05) will have a moderate to severe visual effect on the Pearce-Durfee Street Area, Fall River (Map No. FR.L, Figure 4.8-16). Right-of-way fencing and noise mitigation barriers in and adjacent to historic districts and individual properties will have an effect on the setting of those historic resources by introducing new chain link fence and solid walls that alter the historic character of the area.

Indirect impacts for the Fall River Secondary diesel option are similar to the electric option, with the exception of those generated by electrical catenary and traction power infrastructure (see list in Appendix 4.8-B). Therefore, the diesel option will result in less visual impact.

Tables 4.8-11 and 4.8-12, below, summarize the adverse effects likely to result from reconstructing the Fall River Secondary, for the electric and diesel alternatives.

Table 4.8-11 Potential Adverse Effects to Historic Resources, Fall River Secondary (Electric Alternatives)

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
La.024	Lakeville	Peirce and Haskins Cemetery	No	Yes: Severe train and horn noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
Be.C	Berkley	Myricks Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary, and traction power facility	Noise Visual

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Ft.C	Freetown	Slab Bridge Road Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary	Noise Visual
Ft.D	Freetown	Assonet Historic District	No	Yes: Moderate to severe train and horn noise	Yes: Moderate, portion of edge of area is in vicinity of new catenary	Noise Visual
Ft.009	Freetown	Richmond Road / Maple Tree Crossing Bridge	No	n/a	Yes: Moderate, in vicinity of new catenary	Visual
FR.C	Fall River	Fall River Multiple Resource Area	Refer to individual properties in MPS and properties in FR.C below	Refer to individual properties in MPS and properties in FR.C below	Refer to individual properties in MPS and properties in FR.C below	Refer to individual properties in MPS and properties in FR.C below
FR.D	Fall River	North Main Street Area	Yes: Layover construction	Yes: Moderate to severe train noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary and layover	Physical Noise Visual
FR.K, FR.C	Fall River	North Burial Ground	No	Yes: Moderate to severe train noise	Yes: Severe, adjacent to new catenary	Noise Visual
FR.L	Fall River	Durfee Street Area	No	Yes: Moderate to severe train noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary, station, and traction power facility	Noise Visual
FR.M	Fall River	Diners of Massachusetts	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
FR.N, FR.C	Fall River	American Printing Company - Metacomet Mill	No	n/a	Yes: Moderate to severe, portions of area are in vicinity of new catenary and station	Visual
FR.Q	Fall River	St. Michael's Roman Catholic Church Complex	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
FR.003	Fall River	Joel Hathaway House	No	Yes: Moderate train noise	No: RR in deep cut section	No Adverse Effect

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
FR.005, FR.C	Fall River	William Collins House	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
FR.006, FR.C	Fall River	North Christian Congregational Church	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
FR.010, FR.C	Fall River	Borden-Winslow House	No	No	Yes: Moderate, in vicinity of new catenary	Noise Visual
FR.012, FR.C	Fall River	Canedy, Squire William B. House	No	No	Yes: Moderate, in vicinity of new catenary, layover facility	Visual (catenary)
FR.017	Fall River	Residence, 311 Crescent St	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
FR.026, FR.C	Fall River	Brightman, Hathaway House	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
FR.050	Fall River	St. Michael's Roman Catholic Church	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
FR.052	Fall River	St. Matthews Convent	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary	Noise Visual
FR.053	Fall River	St. Matthews School	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary	Noise Visual

Table 4.8-12 Potential Adverse Effects to Historic Resources, Fall River Secondary (Diesel Alternatives)

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
Be.C	Berkley	Myricks Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary, and traction power facility	Noise Visual
La.024	Lakeville	Peirce and Haskins Cemetery	No	Yes: Severe train and horn noise	No	Noise
Ft.C	Freetown	Slab Bridge Road	No	Yes:	No	

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
		Area		Moderate to severe train and horn noise		Noise
Ft.D	Freetown	Assonet Historic District	No	Yes: Moderate to severe train and horn noise	No	Noise
FR.D	Fall River	North Main Street Area	Layover construction	Moderate to severe train noise	Severe, portion of area is within layover site	Physical Noise Visual
FR.010, FR.C	Fall River	Borden-Winslow House	No	No	No	Noise
FR.K, FR.C	Fall River	North Burial Ground	No	Moderate to severe train noise	No	Noise
FR.L	Fall River	Pearce-Durfee Street Area	No	Moderate to severe train noise	Moderate to severe, portion of area is in vicinity of new station	Noise Visual
FR.N, FR.C	Fall River	American Printing Company - Metacomet Mill	No	n/a	Moderate, in vicinity of new station	Visual
FR.050	Fall River	St. Michael's Roman Catholic Church	No	Yes: Moderate to severe train noise	No	Noise
FR.052	Fall River	St. Matthews Convent	No	Yes: Moderate to severe train noise	No	Noise
FR.053	Fall River	St. Matthews School	No	Yes: Moderate to severe train noise	No	Noise

Potential Adverse Effects on Archaeological Resources along the Fall River Secondary Rail Segment

The Fall River Secondary Electric and Diesel APE includes the active freight railroad right-of-way between Myricks Junction in Taunton and Fall River, and any other work areas including electrification infrastructure that would involve earth moving outside of the previously disturbed railroad right-of-way. Appendix 4.8-C presents the assessment of potential impacts to archaeological resources (Table 4.8-13) within the Fall River Secondary portion of the Southern Triangle APE.

Table 4.8-13 Archaeological Sites Identified on the Fall River Secondary Rail Segment

Site Name	Identified Cultural Deposits	Preliminary (Approximate) Site Boundaries	NR eligibility/ recommendation	Project Alternative
Quartz Vein Site	15 chipping debris	Within right-of-way: 23-x-77 m (1771 sq. m)	NR eligible	Stoughton and Whittenton
Circling Hawk Site	46 pre-contact materials: chipping debris, 1 biface, 1 projectile point, fire-cracked rock, calcined bone, shell	Within right-of-way: 25-x-178 m (4450 sq. m)	NR eligible	Stoughton and Whittenton
Cold Toad Site	21 pre-contact materials: chipping debris, 1 biface, fire-cracked rock, hearth or cooking pit feature	Within right-of-way: 10-x-40 m (400 sq m)	NR eligible	Stoughton and Whittenton
Overlook Site North	95 pre-contact materials: chipping debris, aboriginal pottery, cut/butchered mammal bone, oyster shell	Within LOD: 15-x-65 m (975 sq m)	NR eligible	Stoughton and Whittenton
Overlook Site South	74 pre-contact materials: chipping debris, oyster and quahog shell	Within LOD: 15-x-125 m (1875 sq. m)	NR eligible	Stoughton and Whittenton
Landowner's Folly Site	3 chipping debris	Within proposed station footprint: two find spots, each 10-x-10 m (100 sq. m) (total 200 sq. m)	Not NR eligible (disturbed context)	Stoughton and Whittenton
Braley Cemetery (MHC #FRE.823)	Contains over 150 marked burials dating from the early 1800s (pre-railroad) to present-day	Three cemetery lots (two town-owned, one private); each lot measures about 0.5 acre; total 1.49 acres (modern assessor's maps); cemetery frontage right-of-way : 45 m (west); 82 m (east)	Not NR eligible; marked and unmarked burials adjacent to cut railroad embankments	Stoughton and Whittenton

A 1.6-mile-long segment of the Fall River Secondary line lies within the Lower Taunton River Basin Archaeological District in Freetown. This archaeological district contains a number of significant archaeological sites including pre-contact/contact period Native American resources and sensitive lands where undocumented sites may be present. A nineteenth-century mill complex is also adjacent to the rail right-of-way, outside of the archaeological district. The intensive (locational) survey of the Fall River Secondary right-of-way identified five pre-contact archaeological sites, all of which have been determined by the Corps, in consultation with the Massachusetts SHPO and the Aquinnah THPO, to be eligible for the National Register.

For the electric option, there is the possibility that proposed overhead catenary structure support footings could extend into archaeologically sensitive strata below rail bed disturbance and fill deposits. Specific sensitivity areas would be determined based on a review of soil borings and/or a detailed soil profile of the right-of-way using soil boring logs. The location, number and size of soil borings would be determined to minimize impacts to archeological resources as a result of field testing. An intensive (locational) survey may be needed in sensitive areas where direct physical construction impacts are planned. Archaeological surveys for track improvements including electrification infrastructure that would involve earthmoving below or outside of the previously disturbed railroad right-of-way within the APE will be completed as more detailed design information becomes available. Project impacts to archaeological resources in these portions of the Fall River Secondary Electric and Diesel APE will be assessed prior to completion of environmental review and when more detailed design information is available, as described in the draft PA (Appendix 4.8-A).

New Bedford Main Line

Existing freight track would be upgraded and the line would be double track for the entire length between Weir Junction and downtown New Bedford (which includes a portion of the Attleboro Secondary between Weir Junction and Myricks Junction), a distance of 18.51 miles. Passing sidings may also be an option instead of the double track. The section between Weir Junction and Cotley Junction would be a triple track section to allow for freight movement around a proposed station (Taunton Depot).

New catenary supports, wires, and up to three traction power facilities at specified locations would be constructed along the length of the line for the electrification option. The traction power facilities are:

- TP-07, Substation (TPSS-2) as part of the Stoughton and Whittenton Electric Alternative
- TP-09, Paralleling Station (PS-6) as part of Stoughton and Whittenton Electric Alternative

Two new train stations would be constructed in New Bedford (King's Highway and Whale's Tooth) and one new station (Taunton Depot) would be constructed in Taunton. One new layover facility would be constructed in New Bedford, at the Wamsutta location.

Potential Adverse Effects on Historic Resources along the New Bedford Main Line

The impacts of the South Coast Rail project to historic resources along the New Bedford Main Line of the Southern Triangle segment of the project may be permanent or temporary, direct or indirect. For the two options (electric and diesel), there is a combined total of 8 historic properties (Tables 4.8-14 through 4.8-16). The locations of these structures and districts along the Attleboro Secondary and New

Bedford Main Line are shown in Figures 4.8-9 through 4.8-13. Appendix 4.8-B presents the data on the individual structures and districts.

Table 4.8-14 Southern Triangle, New Bedford Main Line Affected Historic Resources

Option	Historic – Individual	Historic Districts	Figure	Appendix
Electric	4	4	Figures 4.8-9 through 4.8-13	Appendix 4.8-B
Diesel	4	4	Figures 4.8-9 through 4.8-13	Appendix 4.8-B

Direct Impacts on Historic Resources along the New Bedford Main Line Rail Segment

Project work elements and direct impacts for the New Bedford Main Line electric option will be similar to the other electric alternatives.

No National Register-listed, or determined eligible historic properties are located in the direct impact APEs for the three traction power sites proposed for the Stoughton Electric Alternative. Therefore, there will be no direct effects to historic properties at these locations.

Project work elements and direct impacts for the New Bedford Main Line diesel option are identical to the electric option, as there are no direct impacts from the electrical power infrastructure.

Indirect Impacts on Historic Resources along the New Bedford Main Line Rail Segment

Indirect impacts from the New Bedford Main Line electric option will be similar to the other electric alternatives.

The introduction of additional rail service will result in increased noise during operations from train noise and horn blowing at grade crossings. The noise increase will cause moderate to severe, or severe noise at residential, contemplative, and quiet setting historic resources at the following grade crossing locations. These specific areas and resources would likely require sound insulation or barrier mitigation:

- Padelford Street grade crossing: 1 Macomber Street, Berkley (Map No. Be.006. Figure 4.8-10)
- Malbone Street grade crossing: Malbone Street, Lakeville (Map No. La.C, Figure 4.8-11)

Similarly, moderate to severe noise from operations may be experienced for historic properties within the Acushnet Heights Historic District, New Bedford (Map No. NB.C, Figure 4.8-13). Sound insulation or barrier mitigation would likely be needed at some of the properties within the district.

New construction including stations (see Section 4.8.3.6 below), traction power facilities, catenary systems, bridge modifications and replacements, right-of-way fencing, and noise mitigation barriers changes may have indirect visual impacts on adjacent historic architectural resources and their settings. The new catenary system along the right-of-way will have a moderate to severe visual effects on all the residential, commercial, and landscape (but not on industrial or transportation) historic resources throughout the rail corridor (see list in Appendix 4.8-B, Table 1).

One traction power facility may have a visual effect on historic properties through the introduction of modern power structures that could alter the historic setting:

- TP-09, Paralleling Station (PS-6) as part of Stoughton and Whittenton Electric Alternatives on four historic properties or districts in New Bedford (Figure 4.8-13):
  - Acushnet Heights Historic District (Map No. NB.C)
  - Dawson Building (Map No. NB.065)
  - Wamsutta Mills Historic District (Map No. NB.D)

Indirect impacts for the New Bedford Main Line diesel option are similar to the electric option, with the exception of those generated by electrical catenary and traction power infrastructure (see list in Appendix 4.8-B). Therefore, the diesel option would result in less visual impact.

Table 4.8-15 and Table 4.8-16, below, summarize the adverse effects likely to result from reconstructing the New Bedford Main Line, for the electric and diesel alternatives.

Table 4.8-15 Potential Adverse Effects to Historic Resources, New Bedford Main Line (Electric Alternatives)

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
La.C	Lakeville	Assonet Cedar Swamp Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary	Noise Visual
Be.C	Berkley	Myricks Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of new catenary, and traction power facility	Noise Visual
Be.006	Berkley	Residence, 1 Macomber St	No	Yes: Severe train and horn noise	Yes: Severe, adjacent to new catenary	Noise Visual
NB.C	New Bedford	Acushnet Heights Historic District	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary and layover facility	Noise Visual
NB.D	New Bedford	Wamsutta Mills Historic District	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of new catenary and layover facility	Noise (to residential area) Visual
NB.029	New Bedford	Christ Presbyterian Church	No	No	Yes: Moderate, in vicinity of new catenary	Visual
NB.053	New Bedford	Purchase Street Fire Station	No	Yes: Moderate train noise	Yes: Moderate, in vicinity of new catenary	Visual
NB.065	New Bedford	Dawson Building	No	No	Yes: Moderate, in vicinity of new catenary and traction power facility	Visual

Table 4.8-16 Potential Adverse Effects to Historic Resources, New Bedford Main Line (Diesel Alternatives)

Map ID	Town	Resource	Direct Physical	Indirect Noise	Indirect Visual	Adverse Effects
La.C	Lakeville	Assonet Cedar Swamp Area	No	Yes: Moderate to severe train and horn noise	No	Noise
Be.C	Berkley	Myricks Street Area	No	Yes: Moderate to severe train and horn noise	Yes: Moderate to severe, portions of area are in vicinity of traction power facility	Noise Visual
Be.006	Berkley	Residence, 1 Macomber St	No	Yes: Severe train and horn noise	No	Noise
NB.C	New Bedford	Acushnet Heights Historic District	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of layover facility	Noise Visual
NB.D	New Bedford	Wamsutta Mills Historic District	No	Yes: Moderate to severe train noise	Yes: Moderate, in vicinity of layover facility	Noise (to residential area) Visual
NB.065	New Bedford	Dawson Building	No	No	Yes: Moderate, in vicinity of traction power facility	Visual

Potential Adverse Effects on Archaeological Resources along the New Bedford Main Line

The New Bedford Main Line Electric and Diesel APE includes the active freight railroad right-of-way between Weir Junction in Taunton and New Bedford, and any other work areas including electrification infrastructure that would involve earthmoving outside of the previously disturbed railroad right-of-way. Appendix 4.8-C presents the assessment of potential impacts to archaeological resources within the New Bedford Main Line portion of the Southern Triangle APE.

Two historic cemeteries are located adjacent to the New Bedford Main Line right-of-way. The cemeteries are:

- Howland Cemetery, MHC #LAK.806 in Lakeville
- Braley Cemetery, MHC #FRE.823 in Freetown

Historic research has concluded that graves are unlikely to be located within the right-of-way, but marked and unmarked interments may be immediately adjacent to the right-of-way.

For the electric option, there is the possibility that proposed overhead catenary structure support footings could extend into archaeologically sensitive strata below rail bed disturbance and fill deposits within the New Bedford Main Line right-of-way. Specific sensitivity areas would be determined based on a review of soil borings and/or a detailed soil profile of the right-of-way using soil boring logs. An intensive (locational) survey may be needed in sensitive areas where direct physical construction

impacts are planned. Project impacts to archaeological resources will be assessed prior to completion of environmental review and when more detailed design information is available, as described in the draft PA (Appendix 4.8-A).

The archaeological survey for track improvements including electrification infrastructure that would involve earthmoving below or outside of the previously disturbed railroad right-of-way within the APE will be conducted during subsequent stages of environmental review. Impacts to archaeological resources in these portions of the New Bedford Main Line Electric and Diesel APE will be assessed prior to completion of environmental review and when more detailed design information is available, as described in the draft PA (Appendix 4.8-A).

4.8.3.6 Stations

There are 12 stations proposed for new construction or improvements for the Stoughton and Whittenton Alternatives, including the Southern Triangle (electric and diesel). Station plans are conceptual at this point, consisting of general layouts and footprints within specified larger parcels. Rail stations will typically consist of a raised 800-foot long platform, canopy, parking lot, signage and lighting.

Conceptual plans were used for the data collection and analysis of cultural resources at the proposed stations. The potential impacts to identified cultural resources station concepts are presented below. The discussions below detail the results of investigations to date at the various stations. Appendix 4.8-C, Table 5 presents the assessment of potential impacts to archaeological resources within the Station APEs. Appendix 4.8-C, Table 6 presents the assessment of potential impacts to archaeological resources with the layover facility APEs. The impacts to the historic structures, areas, and districts are summarized on Appendix 4.8-B, Table 11 and discussed in text below.

Battleship Cove

The Battleship Cove Station would be a new station constructed behind the Ponte Delgada monument along Water Street on an approximately 2.2-acre parcel near the southern terminus of the Fall River Secondary. It would serve all of the rail alternatives. The station would be designed to serve walk-in customers and pick up-drop off customers with no parking. The City of Fall River constructed a pickup-drop off loop road for the future commuter rail station as part of the Ponte Delgada monument construction.

Historic Resources

The proposed Battleship Cove Station at the terminus of the Fall River Secondary is adjacent to the American Printing Company–Metacomet Mill (Map Nos. FR.N, FR.C), the American Printing Company Machine Shop (Map No. FR.088), and the Borden and Remington Company (Map No. FR.089) as shown in Figure 4.8-16. There are no historic resources on the site; therefore, there will be no direct impacts to historic resources.

The introduction of a new station may have indirect visual effects on these three historic properties through the introduction of modern station structures that alter the historic setting. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

There are no recorded archaeological sites or identified archaeologically sensitive areas within the 2.2-acre project parcel. No project impacts to archaeological resources are anticipated by the construction of this proposed station for the rail alternatives.

Canton Center

Canton Center Station is an existing station site off of Washington Street that would be modified to accommodate a second track. Two new 800-foot-long low-level platforms with mini-high platforms would be constructed (one adjacent to each track). Modifications to the tracks and platforms would require minor changes to the parking layout in the existing lots near the station, and no adjustments to the amount of existing parking spaces would be expected.

Historic Resources

Canton Center Station is not a historic resource but is adjacent to the Canton Center Area (Map No. Ca.C) as shown in Figure 4.8-2. There are no historic resources on the site; therefore, there will be no direct impacts to historic resources.

Improvements to the existing station may have indirect visual effects on Canton Center Area through the introduction of modern station structures that alter the historic setting. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

No archaeological survey has been conducted; however, the current conceptual plan indicates that the station modification work will be contained within the existing disturbed railroad right-of-way and paved station site. Therefore, no project impacts to archaeological resources are anticipated.

Dana Street Station in Downtown Taunton

The Dana Street Station would be located just south of the Danforth Street grade crossing, within walking distance of downtown Taunton. It would only serve the Whittenton Alternatives.

Historic Resources

The Taunton State Hospital property (Map No. Ta.S), which is listed in the National Register, is located on the opposite side of Dana Street to the east. The new station may have an indirect effect on the historic architectural and setting qualities of the Taunton State Hospital; however, these are not anticipated to be substantially different from existing conditions so the effect would not be adverse. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

The Staples Coal Company (Map No. Ta.160) is located at 28 Dana Street south of the station APE. The introduction of a new station could have indirect visual effects on this historic property through the introduction of modern station structures and parking that alter the historic setting. However, the effect will not be adverse because of the existing dense urban character of the surrounding area and the original industrial/transportation related function of the historic building. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

The proposed Dana Street Station was assigned moderate sensitivity for primarily pre-contact Native American archaeological resources. A review of the 2006 soil test pit data indicates that the fill is shallow in some portions of the proposed station footprint parcel, perhaps as little as 6 inches, but does extend up to 5 feet deep in other portions of the proposed station footprint. Soil borings planned for the proposed station footprint as design advances may provide information that could be used to refine the sensitivity assessment and determine the presence and depth of sensitive strata. Sensitive areas would likely require a combination of hand and machine-assisted subsurface testing as part of an intensive (locational) archaeological survey. The intensive survey is recommended for any sensitive portions of the proposed Dana Street Station footprint that cannot be avoided during project design advances. The survey would be designed to locate any potentially significant archaeological resources that may be impacted by the project.

Easton Village

The Easton Village Station would be a new station consisting of platform, canopy, and drop-off parking lot only constructed on an approximately 1-acre parcel adjacent to Sullivan Avenue in North Easton Village along the Stoughton Line (Figure 4.8-4). It would serve the rail alternatives.

Historic Resources

The proposed Easton Village Station on the Stoughton Line in Easton (Figure 4.8-4) is located immediately adjacent to the Easton Old Colony Railroad Station (Map No. Ea.003), which is part of the H.H. Richardson Historic District NHL (Map No. Ea.D) and is within the National Register listed North Easton Historic District (Map No. Ea.B).

The proposed station site abuts important contributing properties of this district that are associated with the Ames Shovel Works. The introduction of a new station will have a direct effect on the Stoughton Line through construction of new platform and related features on the railroad embankment. The new station will have indirect visual effects on the surrounding National Register and NHL properties through the introduction of modern station structures and parking that alter the historic setting. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

The northern portion of the 1-acre project parcel is assessed as having moderate sensitivity for 1) pre-contact Native American habitation and resource procurement/processing sites; and 2) undocumented eighteenth and nineteenth-century industrial and railroad-related resources beneath the built-up railroad embankment.

An intensive (locational) archaeological survey was conducted and located one post-contact archaeological site. The site is not eligible for the National Register due to poor physical integrity and low research potential.

Fall River Depot

The Fall River Depot would be a new train station constructed on an approximately 8-acre parcel, 1 mile north of downtown Fall River at Route 79 and Davol Street along the Fall River Secondary (Figure 4.8-16). It would serve all of the rail alternatives.

Historic Resources

There are no historic resources on the site of the proposed Fall River Depot Station on the Fall River Secondary. Therefore, there will be no direct impacts to historic resources

The proposed Station is located across the rail right-of-way from the Pearce-Durfee Street Area (Map No. FR.L). This historic property has been determined eligible for inclusion in the National Register. The introduction of a new station will have indirect visual effects on this historic property through the introduction of modern station structures and parking that could alter the historic setting. However, the effect would not be adverse due to the industrial character of the adjacent part of the Pearce-Durfee Street Area and the presence of the highway. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

There are no recorded archaeological sites or identified archaeologically sensitive areas within the 8-acre project parcel. No project impacts to archaeological resources are anticipated by the construction of this proposed station.

Freetown

The Freetown Station would be a new train station constructed on an 18-acre parcel situated on South Main Street and west of the Fall River Secondary right-of-way (Figure 4.8-15). The parcel currently contains a self-storage business, and is near the Fall River Executive Park and the proposed Riverfront Park. It would serve all of the rail alternatives.

Historic Resources

The Freetown Station does not have any historic resources on the proposed site or within the APE. Therefore, there would be no impacts to historic resources.

Archaeological Resources

The proposed Freetown Station lies within the Lower Taunton River Basin Archaeological District. The 18-acre project parcel contains areas of moderate and high archaeological sensitivity for pre-contact Native American habitation and resource procurement/processing sites. However, the site has been largely disturbed by land clearing and scraping/stockpiling of soils which compromised its integrity well in advance of this commuter rail proposal.

An intensive (locational) archaeological survey was conducted and located one pre-contact archaeological site, the Landowner's Folly Site. The site is not eligible for the National Register due to poor physical integrity and low research potential.

King's Highway

The King's Highway Station would be a new train station constructed on a 55-acre parcel within a dense commercial strip off of King's Highway in New Bedford east of Route 140 along the New Bedford Main Line (Figure 4.8-13). The new station would occupy part of a site that is an existing shopping plaza. It would serve all of the rail alternatives.

Historic Resources

The King's Highway Station does not have any historic resources on the proposed site or within the APE. There will be no impacts to historic resources.

Archaeological Resources

The 55-acre project parcel contains areas of moderate archaeological sensitivity for pre-contact Native American habitation and resource procurement/processing sites. In addition, buildings are documented as present between 1895 and 1911. Though these buildings have been razed, undocumented archaeological deposits related to this period of site use may be present in the north part of the parcel.

The current conceptual plan indicates that the proposed work will be contained within the existing disturbed railroad right-of-way and paved shopping plaza in areas assigned low archaeological sensitivity. No project impacts to archaeological resources are anticipated in these previously disturbed areas.

North Easton

The North Easton Station (Figure 4.8-3) would be a new train station constructed on an approximately 10-acre parcel. The parcel lies behind an existing retail plaza anchored by Roche Brothers shopping plaza along the Stoughton line. New medical buildings have been recently constructed and two additional buildings are planned. The station would serve the rail alternatives.

Historic Resources

North Easton Station does not have any historic properties on the proposed site or within the APE. There would be no impacts to historic resources.

Archaeological Resources

The 10-acre project parcel contained an area of moderate archaeological sensitivity for pre-contact Native American habitation and resource procurement/processing sites as well as under-documented post-contact EuroAmerican sites.

An intensive (locational) archaeological survey was conducted and located one post-contact sheet refuse deposit. This deposit is not eligible for the National Register due to fair physical integrity and low research potential.

Raynham Park

The Raynham Park Station would be located at the former Raynham-Taunton Greyhound Park off of Route 138 (Figure 4.8-5). The new station would be constructed on a less than 5-acre parcel along the Stoughton line. The station would serve the Stoughton Alternatives including the Whittenton variations.

Historic Resources

No historic properties are located on the Raynham Park Station parcel nor do any exist within the station APE. There will be no impacts to historic resources.

Archaeological Resources

There are no recorded archaeological sites or identified archaeologically sensitive areas within the Raynham Park Station parcel. The station is within the rail APE and has been subjected to prior disturbance. No project impacts to archaeological resources are anticipated by the construction of this proposed station.

Stoughton (Existing Station)

The Stoughton Station is an existing commuter rail station located off of Route 138 near Stoughton Center along the Stoughton line (Figure 4.8-3). The existing Stoughton Station would be relocated to accommodate a second track and the existing station would be decommissioned. Modifications to the station property may need to be made necessary to ensure safety.

Historic Resources

The existing station (Stoughton Station; Map No. St.025) is an individual historic property and is within the Downtown Stoughton Area (Map No. St.B). The Mystic Rubber Company (Map No. St.024) is within the station APE.

The Meade Rubber Company (Map No. St.046) will be demolished under the current plan. Modifications necessary to accommodate a second track and decommissioning of the station may have an indirect effect on the historic architectural qualities of the station, the Area, and the Mystic Rubber Company.

Archaeological Resources

No archaeological survey has been completed at the station. The current conceptual plan indicates that the proposed work will be contained within the existing disturbed railroad right-of-way and paved station site. If the work is confined to existing built elements, no archaeological survey is warranted. No project impacts to archaeological resources are anticipated under the proposed conceptual plan.

Stoughton (New Station)

A new station would be constructed in Stoughton south of the existing station location between Porter and Wyman streets to a new location south of the Wyman Street at-grade crossing. Two new 800-foot long, full-length high-level platforms would be constructed (one adjacent to each track) at the new station site. A pedestrian bridge with stairs and ramps would connect the two platforms. These modifications to the tracks and platforms would require a new parking layout to the west of the platforms. This station would continue to serve walk-in, bike-in and drive-in customers. It would serve all of the rail alternatives.

Historic Resources

The proposed relocated Stoughton Station is not within any National Register Historic District or Area, and is south of the Downtown Stoughton Area (eligible for listing). The site contains one property which is eligible for listing in the National Register: the Meade Rubber Company Building (Map No. St 046) at 25 Brock Street. The Meade Rubber Company Building is eligible for National Register listing for its associations with the locally significant rubber industry as an intact example of an early 20th century industrial loft. The proposed relocated station would require that this building be demolished, resulting in an adverse effect.

Archaeological Resources

The proposed relocated Stoughton Station project area including the realigned tracks was assigned moderate sensitivity for pre-contact Native American and nineteenth-early twentieth century post-contact period archaeological resources. The potential post-contact period archaeological resources are associated in part with the Meade Rubber Company property, eligible for listing in the National Register, and which would be demolished to accommodate the relocated station footprint. Soil borings planned for the proposed station footprint and track realignment as design advances may provide information that could be used to refine the sensitivity assessment and determine the presence and depth of sensitive strata. Sensitive areas would likely require a combination of hand and machine-assisted subsurface testing as part of an intensive (locational) archaeological survey. The intensive survey is recommended for any sensitive portions of the proposed relocated Stoughton Station footprint and realigned tracks that cannot be avoided during project design advances. The survey would be designed to locate any potentially significant pre-contact and post-contact archaeological resources that may be impacted by the project.

Taunton (Dean Street)

The Taunton Station (Dean Street) would be a new train station constructed on an 8-acre parcel. The parcel is located off of Railroad Avenue near the intersection of Route 44 (Dean Street) and Arlington Street in Taunton along the Stoughton line (Figure 4.8-6). The station would only serve the Stoughton Alternatives.

Historic Resources

There are no historic properties on the Taunton Station parcel. Therefore, there will be no direct impacts to historic resources.

The station parcel is adjacent to the Taunton Center Area (Ta.B) and the Old Colony Railroad Station (Map No. Ta.019). Introduction of a new station may have indirect visual effects on these two historic properties through the introduction of modern station structures and parking that alter the historic setting. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

There are no recorded archaeological sites or identified archaeologically sensitive areas within the 8-acre project parcel. No project impacts to archaeological resources are anticipated by the construction of this proposed station.

Taunton Depot

The new Taunton Depot (formerly called East Taunton (North) Station) train station would be constructed on an approximately 14-acre parcel. The parcel is located off of Route 140 at the rear of an existing Target and Home Depot shopping plaza on the New Bedford Main Line (Figure 4.8-9). The station would serve all the rail alternatives.

Historic Resources

No historic properties are located on the proposed site of the Taunton Depot Station. Therefore, there will be no direct effects to historic properties.

The historic Hart Street Area (Map No. Ta.L) is in the station APE as shown in Figure 4.8-8. The introduction of a new station would not affect the visual environment. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

The current conceptual plan indicates that the proposed work will be contained within the existing disturbed (southern) portion of the parcel behind the shopping plaza. This part of the parcel is assigned low archaeological sensitivity. No project impacts to archaeological resources are anticipated.

There is one recorded pre-contact archaeological site (19-BR-592) within the northern part of the 14-acre project parcel. The approximate 5-acre area containing the recorded archaeological site is assessed as having high sensitivity for potentially significant cultural deposits. The current conceptual plan indicates that no work in or use of this part of the parcel is proposed and therefore, no project impacts to archaeological resources would be anticipated.

Whale's Tooth

The Whale's Tooth Station would be a new train station. The station will be constructed on an 8.7-acre parcel off of Acushnet Avenue, east of Route 18 along the New Bedford Main Line (Figure 4.8-13) and service all of the rail alternatives.

The parcel is a paved parking lot constructed by the City of New Bedford in anticipation of the commuter rail project. The parking lot caps a closed superfund site.

Historic Resources

The parcel that will be used for the Whale's Tooth Station does not have any historic properties on it. There will be no direct impacts to historic resources.

The proposed Whale's Tooth Station on the New Bedford Main Line is across John F. Kennedy Highway (Route 18) from the New Bedford Textile School (Map No. NB.069). The introduction of a new station may have indirect visual effects on the New Bedford Textile School; however, due to the intervening highway, the effect will not be adverse. Noise, vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

The entire 8.7-acre project parcel lies within the Acushnet Avenue Waterfront Industrial historic area. This location is assessed as having a high archaeological sensitivity for pre-contact Native American habitation and resource procurement/processing sites, and documented nineteenth-century industrial and commercial sites. The archaeologically sensitive strata, if present, would be located below the raised and capped paved parking lot and the capped Superfund site soils. The current conceptual plan indicates that the proposed work will be contained within the existing disturbed railroad right-of-way and the existing Whale's Tooth paved parking lot. No project impacts to archaeological resources are anticipated.

4.8.3.7 Layover Facilities

Two train layover facilities are planned for the Southern Triangle; one each at or near the end of the Fall River Secondary (Weaver's Cove) and the New Bedford Main (Wamsutta East) Lines. Train layover facility plans are conceptual at this point, consisting only of general layouts and footprints within specified larger parcels. Current, refined conceptual plans for these facilities may be slightly different, and were also reviewed for potential impacts to archaeological resources.

Wamsutta

The Wamsutta site overnight layover facility would be constructed on an approximately 8-acre parcel between Route 18 and Herman Melville Boulevard along the New Bedford Main Line (Figure 4.8-13). It is located on the east side of the right-of-way, opposite the proposed Whale's Tooth Station and adjacent to an existing CSX freight yard. The layover facility would serve all of the rail alternatives.

Historic Resources

The Wamsutta Street Layover Facility does not have any historic properties on the proposed site; therefore, there will be no direct impacts to historic resources.

The Wamsutta Layover Facility is located on the east side of the New Bedford Main Line rail between Wamsutta Street and the proposed Whale's Tooth Station. The Wamsutta Mill Historic District (Map No. NB.D) and the Revere Copper Products mill (Map No. NB.080) are both located within the APE as shown in Figure 4.8-13. The introduction of a layover facility could have indirect visual and noise effects on the two nearby historic properties. Because the site is adjacent to the existing freight yard and will constitute an expansion of similar rail use, the visual impacts to the historic setting is likely to not be adverse. There will be no noise impacts to the adjacent historic industrial buildings, which are not a category of noise sensitive receptors under the FTA criteria. Vibration, traffic, atmospheric, and cumulative effects are anticipated to be minimal.

Archaeological Resources

The entire 8-acre project parcel is assessed as having a high archaeological sensitivity for pre-contact Native American habitation, resource procurement/processing sites, and documented post-contact Euro-American domestic, commercial/wharves, and railroad-related structures. This also includes cultural deposits within the Acushnet Avenue Waterfront Industrial historic area. The archaeologically sensitive strata are located below the capped Superfund site soils.

The current conceptual plan indicates that the proposed work will be contained within the existing disturbed railroad right-of-way/rail yard and capped Superfund site soils. Therefore, no project impacts to archaeological resources are anticipated.

Weaver's Cove East

The Weaver's Cove East site layover facility would be constructed on the east side of the railroad right-of-way, opposite the proposed Weaver's Cove LNG Site, approximately 2.5 miles from the southern terminus of the Fall River Secondary (Figure 4.8-16). The layover facility would serve all of the rail alternatives. A parcel on the west side of the railroad right-of-way within the proposed Weaver's Cove LNG Site is also being considered.

Historic Resources

The historic survey completed for the Weaver's Cove layover facility parcel on the west side of the railroad right-of-way encompasses the historic resources in the APE of the current site on the east side of the right-of-way (see Figure 4.8-16). Based on the survey completed for the west site, the Weaver's Cove East site overlaps into a portion of the North Main Street Area (Map No. FR.D) that is eligible for the National Register. This part of the area has no buildings. The construction of the layover facility would be an adverse effect as it would change the visual setting and the character of the area.

Two historic properties are located in the layover facility APE: the National Register-listed Squire William B. Canedy House (Map No. FR.012) and the National Register-eligible William J. Wiley Middle School (Map No. FR.013).

The William B. Canedy House would be separated from the layover facility by a modern building and outbuildings, and then by the tracks. There would be no adverse visual impact because the layover facility would not substantially alter the historic setting of the house, which is already converted to industrial uses (i.e. the tank farm). There would be no noise impacts that would require modifications to the building and no land acquisition from the property.

The William J. Wiley Middle School is located on the opposite (east) side of Main Street from the facility and separated from it by this major roadway and several modern buildings. There would be no property acquisition, no change in the setting of the school, and no noise impacts that would require modifications to the exterior of the building.

There will be no adverse effect to the nearby National Register-listed Squire William B. Canedy House and the National Register-eligible William J. Wiley Middle School.

Archaeological Resources

The project parcel on the west side of the railroad right-of-way within the proposed Weaver's Cove LNG Site was previously subjected to an archaeological reconnaissance survey in 2003. No areas of archaeological sensitivity were identified in the previously disturbed parcel, and no further work was deemed necessary.

The project parcel on the east side of the railroad right-of-way opposite the Weaver's Cove LNG Site has not been subjected to archaeological reconnaissance survey. An archaeological reconnaissance survey is needed to assess the archaeological sensitivity of this parcel. An intensive (locational) survey may be needed to identify archaeological sites in sensitive areas. Project impacts to archaeological resources for the Weaver's Cove East parcel will be assessed when more design information is available, as described in the PA (Appendix 4.8-A).

4.8.4 Summary of Impacts by Alternative

The following summarizes the potential impacts (direct, indirect, permanent, and temporary) to cultural resources resulting from implementing each of the South Coast Rail alternatives.

The individual components of each element are grouped by alternative, and the expected impacts to historic and archaeological resources are summarized based on a quantitative assessment of the impact on cultural resources that would result from the construction of each component.

4.8.4.1 Stoughton Electric Alternative

The Stoughton Electric Alternative would be comprised of the elements listed in Table 4.8-17, which also includes summaries of the identified known/expected resource types and potential impact(s) from implementing this alternative.

The Stoughton Electric Alternative would result in direct impacts (adverse effects) to five historic properties. In addition, this alternative would have indirect effects to an additional 60 properties as a result of changes in setting and/or increased noise that could affect the setting directly or require noise mitigation that could affect the appearance or setting of a building. It could affect ten archaeological sites for reconstruction of the Stoughton Line and Fall River Secondary. These ten archaeological sites are eligible for the National Register.

Table 4.8-17 Stoughton Electric Alternative–Summary of Impacts

		Historic Resources			National Register–Eligible
		Indirect			Archaeological Sites
Element	Direct	Visual	Noise	Noise + Visual	
Railroad Alignments					
Stoughton Line	3	11	0	16	5
Attleboro Secondary	0	1	0	2	0
Fall River Secondary	1	7	0	12	5
New Bedford Main	0	3	0	5	0
Stations					
Canton Center	0	0	0	0	0
Stoughton	1	1	0	0	0
North Easton	0	0	0	0	0
Easton Village	0	1	0	0	0
Raynham Park	0	0	0	0	0
Taunton Depot	0	0	0	0	0
Freetown	0	0	0	0	0
Fall River Depot	0	0	0	0	0
Battleship Cove	0	0	0	0	0
King's Highway	0	0	0	0	0
Whale's Tooth	0	0	0	0	0
Layover Facilities					
Wamsutta	0	0	0	0	0
Weaver's Cove East	0	1	0	0	0
Totals	5	25	0	35	10

4.8.4.2 Stoughton Diesel Alternative

The Stoughton Diesel Alternative would be comprised of the same elements as the Stoughton Electric Alternative as listed above but would not include electrical infrastructure. Specifically, the metal structures and wires associated with the overhead catenary system, and the traction power facilities would not be constructed as part of this alternative (except along the Northeast Corridor, as previously

explained). Table 4.8-18 summarizes the impacts to cultural resources potentially resulting from implementing the Stoughton Diesel Alternative.

The Stoughton Diesel Alternative would result in direct impacts (adverse effects) to six historic properties, primarily historic bridges that would require reconstruction or widening, and potential direct impacts at some existing stations that would need to be reconstructed. In addition, this alternative would have indirect effects to an additional 44 properties as a result of changes in setting and/or increased noise that could affect the setting directly or require noise mitigation that could affect the appearance or setting of a building. It could affect ten archaeological sites for reconstruction of the Stoughton Line and Fall River Secondary. These ten archaeological sites are eligible for the National Register.

Table 4.8-18 Stoughton Diesel Alternative–Summary of Impacts

		Historic Resources			National Register–Eligible
		Indirect			Archaeological Sites
Element	Direct	Visual	Noise	Noise + Visual	
Railroad Alignments					
Stoughton Line	3	5	5	11	5
Attleboro Secondary	0	0	1	2	0
Fall River Secondary	1	1	8	3	5
New Bedford Main	0	1	2	3	0
Stations					
Canton Center	0	0	0	0	0
Stoughton	1	1	0	0	0
North Easton	0	0	0	0	0
Easton Village	0	1	0	0	0
Raynham Park	0	0	0	0	0
Taunton Depot	0	0	0	0	0
Freetown	0	0	0	0	0
Fall River Depot	0	0	0	0	0
Battleship Cove	0	0	0	0	0
King's Highway	0	0	0	0	0
Whale's Tooth	0	0	0	0	0
Layover Facilities					
Wamsutta	0	0	0	0	0
Weaver's Cove East	0	0	0	0	0
Totals	5	9	16	19	10

4.8.4.3 Whittenton Electric Alternative

The Whittenton Electric Alternative, as a variation of the Stoughton Electric Alternative, would be comprised of the elements listed in Table 4.8-19, which also include summaries of the identified known/expected resource types and potential impact(s) from implementing this alternative. The Whittenton Electric Alternative would result in direct impacts (adverse effects) to five historic properties. In addition, this alternative would have indirect effects to an additional 65 properties as a

result of changes in setting and/or increased noise that could affect the setting directly or require noise mitigation that could affect the appearance or setting of a building. It could affect eleven archaeological sites that have been determined eligible for the National Register.

Table 4.8-19 Whittenton Electric Alternative–Summary of Impacts

	Historic Resources				National-Register Eligible Archaeological Sites
		Indirect			
Element	Direct	Visual	Noise	Noise + Visual	
Railroad Alignments					
Stoughton Line	3	10	0	4	2
Whittenton Branch	0	0	0	4	4
Attleboro Secondary	0	8	0	8	0
Fall River Secondary	1	7	0	12	5
New Bedford Main	0	3	0	5	0
Stations					
Canton Center	0	0	0	0	0
Stoughton	1	1	0	0	0
North Easton	0	0	0	0	0
Easton Village	0	1	0	0	0
Raynham Park	0	0	0	0	0
Dana Street	0	2	0	0	0
Taunton Depot	0	0	0	0	0
Freetown	0	0	0	0	0
Fall River Depot	0	0	0	0	0
Battleship Cove	0	0	0	0	0
King's Highway	0	0	0	0	0
Whale's Tooth	0	0	0	0	0
Layover Facilities					
Wamsutta	0	0	0	0	0
Weaver's Cove East	0	0	0	0	0
Totals	5	32	0	33	11

4.8.4.4 Whittenton Diesel Alternative

The Whittenton Diesel Alternative would be comprised of the same elements as the Whittenton Electric Alternative as listed above but would not include electrical infrastructure. Specifically, the metal structures and wires associated with the overhead catenary system, and the traction power facilities would not be constructed as part of this alternative (except along the Northeast Corridor, as previously explained). Table 4.8-20 summarizes the impacts to cultural resources potentially resulting from implementing the Whittenton Diesel Alternative.

The Whittenton Diesel Alternative would result in direct impacts (adverse effects) to five historic properties. In addition, this alternative would have indirect effects to an additional 44 properties as a result of changes in setting and/or increased noise that could affect the setting directly or require noise

mitigation that could affect the appearance or setting of a building. It could affect two known archaeological sites for reconstruction of the Fall River Secondary. It could affect eleven archaeological sites that have been determined eligible for the National Register.

Table 4.8-20 Whittenton Diesel Alternative–Summary of Impacts

	Historic Resources				
		Indirect			National – Register Eligible
Element	Direct	Visual (only)	Noise (only)	Noise + Visual	Archaeological Sites
Railroad Alignments					
Stoughton Line	3	3	1	7	2
Whittenton Branch	0	0	0	2	4
Attleboro Secondary	0	2	3	4	0
Fall River Secondary	1	1	8	3	5
New Bedford Main	0	1	2	3	0
Stations					
Canton Center	0	0	0	0	0
Stoughton	1	1	0	0	0
North Easton	0	0	0	0	0
Easton Village	0	1	0	0	0
Raynham Park	0	0	0	0	0
Dana Street	0	2	0	0	0
Taunton Depot	0	0	0	0	0
Freetown	0	0	0	0	0
Fall River Depot	0	0	0	0	0
Battleship Cove	0	0	0	0	0
King's Highway	0	0	0	0	0
Whale's Tooth	0	0	0	0	0
Layover Facilities					
Wamsutta	0	0	0	0	0
Weaver's Cove East	0	0	0	0	0
Totals	5	11	14	19	11

4.8.4.5 Summary of Impacts

The overall impacts to historic and archaeological resources resulting from improving or constructing the rail alternatives vary considerably between the alternative alignments (Table 4.8-21). Each of the alternatives would be similar in their adverse effects to historic structures. The majority of these direct effects, for all alternatives, would result from reconstructing historic bridges to accommodate an additional track, or to meet Federal Railroad Administration loading standards for commuter rail trains. Each of the alternatives would also result in indirect impacts to historic properties as a result in the change in setting (visual impacts) or increased noise (which could affect quiet setting or could result in noise mitigation that would alter the appearance or setting of a structure). These indirect effects (only visual, only noise, or a combination of the two) would impact the largest number of properties (72) for the Whittenton Electric Alternative.

Each of the alternatives would also have the potential to affect as yet to be determined archaeological resources and areas of archaeological sensitivity (which would require further investigation to determine if archaeological resources were present). There may also be the potential that traditional cultural properties may be affected. Should such potential exist, this would be resolved through dialogue with the federally-recognized Indian Tribes known to have an interest in impacts to traditional cultural properties located within upon their historical aboriginal lands.

Table 4.8-21 Summary of Potential Impacts to Historic and Archaeological Resources

	Historic Resources				National Register-Eligible Archaeological Sites
		Indirect			
Alternative	Direct	Visual	Noise	Noise + Visual	
Stoughton Electric	5	25	0	27	10*
Stoughton Diesel	5	9	19	19	10
Whittenton Electric	5	32	0	33	11*
Whittenton Diesel	5	11	14	19	11

*Impacts are contingent upon the results of additional cultural resource investigations that may be necessary for electrification infrastructure.

4.8.5 Mitigation

This section summarizes the mitigation measures that may be considered to avoid, minimize, or mitigate the potential impacts on historic and archaeological resources resulting from the implementation of the South Coast Rail project alternatives. The specific mitigation will be informed by additional design detail.

Cultural resources are defined as archaeological sites; historic buildings, structures, objects, and districts; and traditional cultural properties including both individual sites and landscapes. Consultation has been initiated with federally recognized Indian Tribes; however, no written information has been received to date and traditional cultural properties are not considered in the discussions below. The discussion below considers the regulatory requirements of the National Environmental Policy Act (NEPA), §106 of the National Historic Preservation Act (NHPA), and regulatory guidance detailed in National Register Bulletin 45, *Guidelines for Evaluating and Registering Archaeological Properties* (Little et al. 2000).

Assessment of impact to cultural resources was based on the Corps' methodology as described in Appendix C - Procedures for the Protection of Historic Properties[4] of 33 CFR Part 325 - Processing of Department of the Army Permits (Appendix C). Appendix C identifies the procedures to be followed by the Corps to fulfill the requirements set forth in the National Historic Preservation Act (NHPA), other applicable historic preservation laws, and Presidential directives as they relate to the regulatory program of the Corps of Engineers (33 CFR Parts 320-334).

The central concept in the Corps methodology is the "Permit Area," as defined in Appendix C. The term "permit area" as used in Appendix C means those areas comprising the waters of the United States that will be directly affected by the proposed work or structures and uplands directly affected as a result of

[4] AUTHORITY: 33 U.S.C. 401 et seq., 33 U.S.C. 1344, 33 U.S.C. 1413.

authorizing the work or structures. The following three tests must all be satisfied for an activity undertaken outside the waters of the United States to be included within the "permit area":

- Such activity would not occur but for the authorization of the work or structures within the waters of the United States;
- Such activity must be integrally related to the work or structures to be authorized within waters of the United States. Or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program; and,
- Such activity must be directly associated (first order impact) with the work or structures to be authorized.

The District Engineer takes into account the effects, if any, of proposed undertakings on historic properties both within and beyond the waters of the U.S. pursuant to Section 110(f) of the NHPA. The District Engineer, where the undertaking that is the subject of a permit action may directly and adversely affect any National Historic Landmark, conditions (to the maximum extent possible) any issued permit as may be necessary to minimize harm to such landmark.

In addition to Appendix C, impacts were also evaluated in accordance with the Advisory Council on Historic Preservation's regulations implementing §106 of the National Historic Preservation Act (36 CFR Part 800, *Protection of Historic Properties*), which are used by the Corps and Cooperating Agencies (FTA, FRA, FHWA and EPA). Accordingly, impacts to cultural resources are identified and evaluated by (1) determining the APE; (2) identifying cultural resources present in the APE that are either listed in or eligible to be listed in the National Register; (3) applying the criteria of adverse effect to affected eligible cultural resources; and (4) identifying ways to avoid, minimize or mitigate adverse effects as outlined in 36 CFR 800.6 (Resolution of Adverse Effects).

In addition to the requirements of the NHPA, all historic properties are subject to consideration under the National Environmental Policy Act (33 CFR Part 325, Appendix B), and the Corps' public interest review requirements contained in 33 CFR 320.4.

Mitigation measures include avoidance, minimization, data recovery, photographic recordation and treatment plans and these measures are discussed below. The documentation for any of these mitigation measures must provide evidence that consultation has been completed with the SHPO, concerned Indian Tribes and individuals with knowledge of affected resources. Further, mitigation measures must consider the comments of these persons on the measure(s) under consideration. Actions that the parties agree upon to resolve adverse effects will then be detailed in a Memorandum of Agreement (MOA) or PA, which is a legally binding agreement among the federal agency, the SHPO and/or Tribal Historic Preservation Officer(s), and the Advisory Council on Historic Preservation. The other consulting parties may also be invited to sign the document. Once the agreement is signed by all appropriate parties and the agreement is filed with the Advisory Council on Historic Preservation, the Section 106 process is completed. The agency's Section 106 responsibilities are fulfilled when the agreement's stipulations are implemented.

4.8.5.1 Avoidance

Avoidance is the preferred response when adverse effect is determined. Adverse effects can only be avoided for the No-Build Alternative, which does not meet the project purpose. Neither of the Build

Alternatives can avoid direct impacts to archaeological and above-ground resources. Impact to archaeological sites can be avoided through burial of the resource although this option has limited applicability. Avoiding indirect impacts resulting from noise and visual intrusions may be addressed for historic resources through design modification in some locations.

4.8.5.2 Minimization

Minimization of impact to historic properties or archaeological resources would be focused on reducing the extent of ground disturbance, establishing vegetated buffers, and designing noise barriers and sound insulation to be compatible with the historic setting.

The Adverse Effects documentation for an individual archaeological site, historic property, or district has to describe the option(s) selected to minimize impact. The Adverse Effect document also has to contain a discussion about the direct/indirect effects of the option on other archaeological sites, districts, and/or historic properties in the option's APE. In all cases, the archaeologists and historians will have to clearly document the horizontal and vertical boundaries of the archaeological site, historic property, or district in question as part of the Adverse Effects documentation.

4.8.5.3 Mitigation

The proposed project likely would result in unavoidable impacts to significant cultural resources that cannot be addressed through avoidance or minimization. Mitigation through data recovery and other approaches discussed below may include more than one action. The Adverse Effects documents prepared in support of the PA will outline the mitigation approaches that will be taken for each historic property. The Adverse Effects documents are commonly referred to as Data Recovery Plans (DRP) for archaeology and Treatment Plans for above-ground historic properties. The plans would be developed after the LEDPA is determined and all stages of intensive (locational) survey and, as needed, evaluative testing are completed and the results of the investigations evaluated by the applicable review agencies.

Specific mitigation commitments for cultural resources will be informed by additional, more detailed archeological and historic survey fieldwork and additional design detail for the preferred alternative and consultation with the tribes in the case of traditional cultural properties. In general, the types of mitigation measures that will be considered for above-ground historic resources include engineering methods that reduce noise generation or vibration, and visual barriers that help to minimize aesthetic impacts. For unavoidable adverse impacts, mitigation through data recovery, treatment plans, archival photographic documentation, architectural and barrier sound insulation or other approaches will be considered.

Historic Resources

Mitigation responses for historic resources are often impact specific. Table 4.8-22 lists the mitigation approaches that might be used to mitigate adverse effects resulting from specific project actions. As will be noted, these various mitigation options are directed to maintaining the historic character of both buildings and settings and maintaining the integrity of existing buildings.

Impacts to above-ground resources may be successfully reduced or eliminated by incorporating specific engineering methods that reduce noise generation or vibration, and through use of visual barriers that help to minimize aesthetic impacts. The following sections describe mitigation measures designed to avoid impacts to above-ground resources.

Table 4.8-22 Historic Properties Mitigation Approaches

Project Action	Mitigation Response
General (applicable to multiple actions)	Historic archival documentation
	Interpretive signs
Construction	Preconstruction inspection of building foundations and construction monitoring of building foundations
	Site specific design to be compatible with historic character in and adjacent to historic properties including districts and NHLs
Noise (including Vibration)	Preconstruction noise monitoring and early construction monitoring for impacts to specific resources with natural quiet as an element of setting
	Insulation
	Noise walls
	During construction, rubber ballast mats (or equivalent) or moveable point frog turnouts (or equivalent)
Traffic/Access	Sensitive design of access changes and turnarounds
	Traffic calming (particular to Easton)
Visual	Vegetation: minimize clearing within or adjacent to historic properties; use screen planting and landscaping to lessen visual impacts
	Lighting: within and adjacent to historic properties, minimize number of poles, paint poles non-contrast colors, use directed lights
	Built elements: use non-contrast paints on fence, roadway equipment, signal bungalows; locate signs and fixtures in a sensitive manner within and adjacent to historic properties
	Granite curbing: match roadway and sidewalk curbing to existing, granite curbing

Vibration Dampening

Vibration dampening can be an effective means or reducing or eliminating potential impacts to structures adjacent to active rail lines. Vibration dampening may be achieved by use of subgrade and ballast materials selected for reduced transmissions of vibration. Existing rail beds will be replaced with materials meeting the MBTA's standards for vibration transmission. If additional ballast treatment is necessary to avoid adverse impacts, ballast mats may be used. Ballast mats are a layer of rubber placed between the track and ballast to further reduce vibration. All bridges along the rail corridor will be reconstructed to include the use of ballasted decks containing a layer of crushed stone to absorb vibration and reduce noise generation. Specific mitigation measures used along the project corridor will be selected based on final design and the results of the historic properties impact assessment, as described in the PA (Appendix 4.8-A).

Noise Barriers

Noise barriers are an effective means of reducing the potential impacts created by new and expanded transportation corridors. In cases where trains may be passing close to historic structures or districts, this engineering solution may provide a means to reduce potential impacts from increased noise.

Visual Screening

The project has the potential to alter the settings of certain historic resources and historic districts where new stations, parking or at-grade crossings are proposed. While the original construction of the

Old Colony Railroad in the 1840s may have "fit in" with the aesthetic nature of the communities, the reactivation of the rail line using modern materials and safety standards and faster engines and larger passenger cars may result in undesirable changes in the visual environment. Screening certain structures and safety and signal equipment may mitigate these impacts. Potential screening techniques include the combination of wooden and opaque fencing with landscape plantings.

Unnecessary clear-cutting of trees and vegetation along the railroad right-of-way that could have an adverse visual impact on historic resources will be avoided and existing trees and vegetative screening will be retained to buffer visually historic properties from the rail line to the extent feasible and with due regard for public safety, operational requirements, cost, and maintenance considerations.

Project plans will include internal landscaped areas at station parking lots which are located within or which are visible from historic resources. In an adjacent to historic districts or individual resources, equipment including traffic signals and controller cabinets, street lights, street furniture, and railroad signal equipment housings will be dark colored to reduce the visual impact of this equipment. Traffic signals and street lights will be ornamental type in accordance with the towns' preferences to the extent reasonably possible.

These methods, when used in combination with other mitigation measures such as noise barriers, may successfully reduce and mitigate some potential visual impacts to historic properties associated with the South Coast Rail project.

Use of Compatible Materials within Historic Districts

To the extent practicable, the project will use materials compatible in color, texture and form to minimize adverse visual impacts to historic structures and districts.

A review of current conditions and materials will be undertaken prior to completion of environmental review and when more design information is available in order to ensure the use of compatible materials in the vicinity of historic properties. All repair, rehabilitation, or modification of historic properties, including sound insulation treatments for mitigation of noise impacts, will be performed in accordance with the U.S. Secretary of the Interior's "Standards for the Treatment of Historic Properties, including Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings."

Construction Staging and Methods

Construction staging and storage areas shall be located in protected areas outside historic districts and resources wherever possible, and in as unobtrusive a location as possible within historic districts or resources if alternative locations are infeasible. Where historic resources used as residences are within 50 feet of a staging area, a temporary solid wood fence, 6 feet high, will be used a visual screen between the residence(s) and the staging area.

Archaeological Resources

Impacts to archaeological resources will occur when archaeological sites are disturbed during construction. The South Coast Rail alternatives have been designed to minimize potential impacts to below-ground resources by maximizing reuse of the existing rail bed and right-of-way.

Unavoidable impacts to archaeological resources will be identified by further analysis of specific construction sites and appropriate, avoidance, minimization or mitigation selected during the Section

106 consultation process. Where impacts to archaeological resources are unavoidable, MassDOT will proceed with subsequent detailed site investigations and/or data recovery as may be stipulated in the PA developed for this project.

The mitigation approaches for archaeological sites tend to focus on data recovery: the acquisition of additional site-specific data usually consisting of more feature information and/or artifacts. There are other alternatives, referred to as Creative or Alternative Mitigation Strategies that can be explored once the impacts to archaeological sites are known. Such creative approaches may include oral histories (for historical archaeological sites), whole site excavation, laboratory work to the exclusion of additional excavation, and non-traditional reporting. Data recovery and these other options are briefly explored below.

Data recovery usually involves block excavations or the complete excavation of specific features such as privies or wells. These excavations are designed to augment and expand upon prior work to reach a cumulative percentage of site area ranging from five to ten percent. Except in certain instances, the only area of the site that will be subjected to data recovery excavation is that within the direct impact area.

The other alternatives that will be considered are non-excavation strategies and some of these may actually be used in tandem with excavation. For historical archaeological sites, the acquisition of information about site function through oral histories is particularly effective for sites that may represent particular industrial or commercial enterprises, or that represent the homes of persons from particular religious or cultural backgrounds. Laboratory analyses of particular artifact types or artifact collections have also been used as an alternative mitigation measure to additional excavation. This has been particularly effective when large collections of artifacts acquired by avocational archaeologists are available for analysis by professionals. Finally, the use of non-traditional reporting is proving to be exceptionally welcome by the public and a critical deliverable in all data recovery efforts. Non-traditional reporting includes, for example, educational web sites; the creation of teaching plans and supporting materials; video/DVD production showing the range and types of cultural resources in areas or other appropriate stories; and the production of popular books, pamphlets, or brochures for use in public outreach.

4.8.6 Regulatory Compliance

This section outlines the regulatory compliance requirements for cultural resources. These resources are regulated at the federal and state levels, and are always considered in NEPA and MEPA analyses. At the federal level, Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800) provides the regulatory framework for the compliance guidelines for the identification and evaluation of cultural resources. At the state level, Massachusetts General Laws Chapter 9, Chapter 254, Sections 26-27C, as amended; and 950 CMR 71.00, 950 CMR 70.00 provides the regulatory framework for the state compliance guidelines, under the jurisdiction of the SHPO. Other relevant legislation and regulations include the National Environmental Policy Act of 1969, as amended;[5] Executive Order 11593, "Protection and Enhancement of Cultural Environment;"[6] Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended,[7] implementing regulation 36 CFR 800, as revised January 2001;

[5] National Environmental Policy Act of 1969, as amended (42 U.S.C. $$ 4321-4347).

[6] Executive Order No. 11593. "Protection and Enhancement of the Cultural Environment," CFR 154 (1971) reprinted in 16 U.S.C.$470 note.

[7] Advisory Council on Historic Preservation. Sections 106 and 110 of the National Historic Preservation Act of 1966 (January 2001) 36 CFR 800.

and, the Procedures for the Protection of Historic Properties (Appendix C) at 33 CFR Part 325 - Processing of Department of the Army Permits.

The historic and archaeological resources intensive surveys for the South Coast Rail project were undertaken in accordance with the Secretary of the Interior's *Standards and Guidelines for Identification* (48 FR 44720-23), the Massachusetts Historical Commission (MHC) standards and guidelines set forth in *Public Planning and Environmental Review: Archaeology and Historic Preservation* (MHC 1985), and the MHC historic resources survey standards. The survey complies with the standards of the MHC, state archaeologist's permit regulations (950 CMR 70), the Secretary of the Interior's *Standards and Guidelines for Identification* (48 FR 44720-23), The Standards of the Massachusetts State Register of Historic Places (State Register), and the National Park Service (NPS) guidelines for assessing eligibility for listing in the National Register, specifically *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. While the surveys conducted to date have informed the impact analysis, additional surveys would be conducted as necessary when more design information is available to further and more specifically assess potential impacts to cultural resources.

4.8.6.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act of 1966, as amended,[8] seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among agency officials and other parties with an interest in the effects of the undertaking on historic properties. The goal of the consultation is to identify historic properties that might be potentially impacted by the undertaking, assess its effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.[9]

The Army Corps, as the lead federal agency for the South Coast Rail project, has compliance responsibilities regarding cultural resources under the Procedures for the Protection of Historic Properties (Appendix C) at 33 CFR Part 325 - Processing of Department of the Army Permits, Section 106 of the National Historic Preservation Act (NHPA) as amended, the regulations of the Advisory Council on Historic Preservation (Council) at 36 CFR 800, and the National Environmental Policy Act (NEPA).

4.8.6.2 Massachusetts General Laws, Chapter 9

MassDOT serves as the lead state agency and is responsible for identifying and evaluating properties through archaeological and historic architectural surveys in accordance with MGL Ch. 9 Sections 26-27C, as amended; 950 CMR 71.00, 950 CMR 70.00 and the Massachusetts Environmental Policy Act (MEPA). MGL Chapter 9 Section 26-27C stipulates that any project that requires funding, licenses or permits from any state agency must be reviewed by the SHPO.

[8] Advisory Council on Historic Preservation. Section 106 of the National Historic Preservation Act of 1966 (June 17, 1999) 36 CFR 800.1(a).

[9] Ibid.