

4 Affected Environment, Environmental Consequences, and Mitigation

4.7 Community Facilities

4.7.1 Introduction

This section identifies existing community facilities within the Sagamore and Bourne Study Areas and assesses the potential effects of the No Build and Build Alternatives on these facilities. Community facilities are identified as facilities that provide essential services to the public, including places for people to gather and participate in cultural activities. Such facilities include libraries, schools, hospitals, community health centers, fire departments, [post offices](#), police stations, town halls, and places of worship. **Section 4.17, Public Parks, Recreational Facilities, and Open Space**, discusses parklands and recreational facilities.

A project can adversely affect community facilities and services through the following:

- **Physical impacts** – A project physically displaces or alters a community facility.
- **Changes in accessibility** – A project interferes with the ability of people to access the facility, such as restricting pedestrian access, adding street closures, or reducing parking.
- **Changes in population** – A project encourages a growth in population, thereby increasing the number of people served by a facility.

4.7.1.1 Regulatory Context

Guidance for consideration of potential effects on community facilities is derived from the following:

- Federal Highway Administration’s (FHWA) Technical Advisory document T6640.8A¹
- FHWA’s Community Impact Assessment: A Quick Reference for Transportation, 2018 Update (Publication Number: FHWA-HEP-18-055)²
- Town of Bourne’s Local Comprehensive Plan (2019)³
- Cape Cod Commission’s Regional Policy Plan (2019)⁴

¹ Federal Highway Administration. 1987. [Guidance for Preparing and Processing Environmental and Section 4\(f\) Documents](https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx). https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx

² Federal Highway Administration. 2018. [Community Impact Assessment: A Quick Reference for Transportation](https://www.fhwa.dot.gov/livability/cia/quick_reference/index.cfm). https://www.fhwa.dot.gov/livability/cia/quick_reference/index.cfm

³ Cape Cod Commission. [Town of Bourne Local Comprehensive Plan](https://www.capecodcommission.org/our-work/town-of-bourne-local-comprehensive-plan). 2019. <https://www.capecodcommission.org/our-work/town-of-bourne-local-comprehensive-plan>

⁴ Cape Cod Commission. [Regional Policy Plan](https://www.capecodcommission.org/our-work/rpp/). 2019. <https://www.capecodcommission.org/our-work/rpp/>

4.7.1.2 Study Areas and Methodology

The Study Areas for this community facilities assessment encompass 0.5-mile buffers from the construction limits for the Build Alternative at the Sagamore and Bourne Bridges. These 0.5-mile Study Areas were developed to identify community facilities that could be potentially affected by the Build Alternative. [Figure 4.7-1 illustrates the Study Areas and the refined Project Limits.](#)

Community facilities within the Study Areas were identified using the Town of Bourne’s Local Comprehensive Plan, the Cape Cod Commission’s Regional Policy Plan, Massachusetts GIS spatial data layers, and Google Maps. Interviews conducted with local officials during spring-summer 2024 informed this evaluation’s understanding of the current impacts of bridge-related traffic on community facility access and the importance of community facilities on the Upper Cape.⁵

4.7.2 Affected Environment

The Sagamore and Bourne Study Areas include several community facilities ([Table 4.7-1](#)).⁶ The community facilities in the Sagamore and Bourne Study Areas are documented in [Figure 4.7-2](#) and [Figure 4.7-3](#). The map identification numbers listed in [Table 4.7-1](#) correspond to community facility number labels in [Figure 4.7-2](#) and [Figure 4.7-3](#).

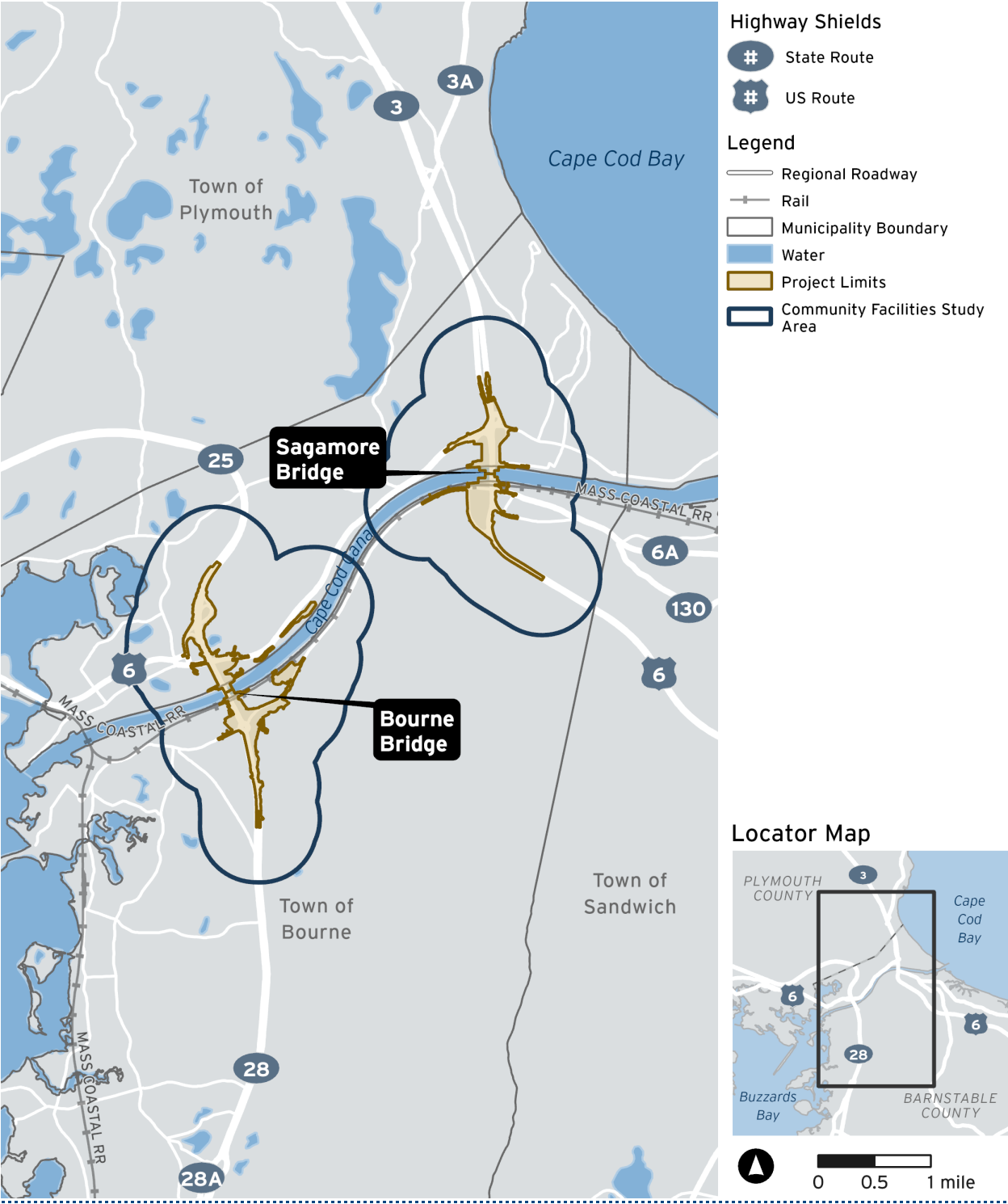
4.7.3 No Build Alternative

The No Build Alternative would not physically displace, alter, or change accessibility to any community facilities within the Study Areas. The No Build Alternative is not expected to significantly change patterns in population, employment, or community facility use. Projected traffic growth within the Study Areas would increase congestion and continue to hamper mobility and accessibility to community facilities and services with the No Build Alternative. Additionally, there would be no improvements to pedestrian and bicycle access to community facilities with the No Build Alternative.

⁵ The Upper Cape includes the municipalities of Bourne, Falmouth, Sandwich, and Mashpee.

⁶ [In keeping consistent with the definition of community facilities established in Section 4.17.1, Public Parks, Recreational Facilities, and Open Space, public parks and recreational areas which also serve as community facilities \(e.g., Gallo Ice Arena\), are excluded from this analysis and instead discussed in Section 4.17, Public Parks, Recreational Facilities, and Open Space.](#)

Figure 4.7-1. Community Facilities (0.5-Mile Study Area)



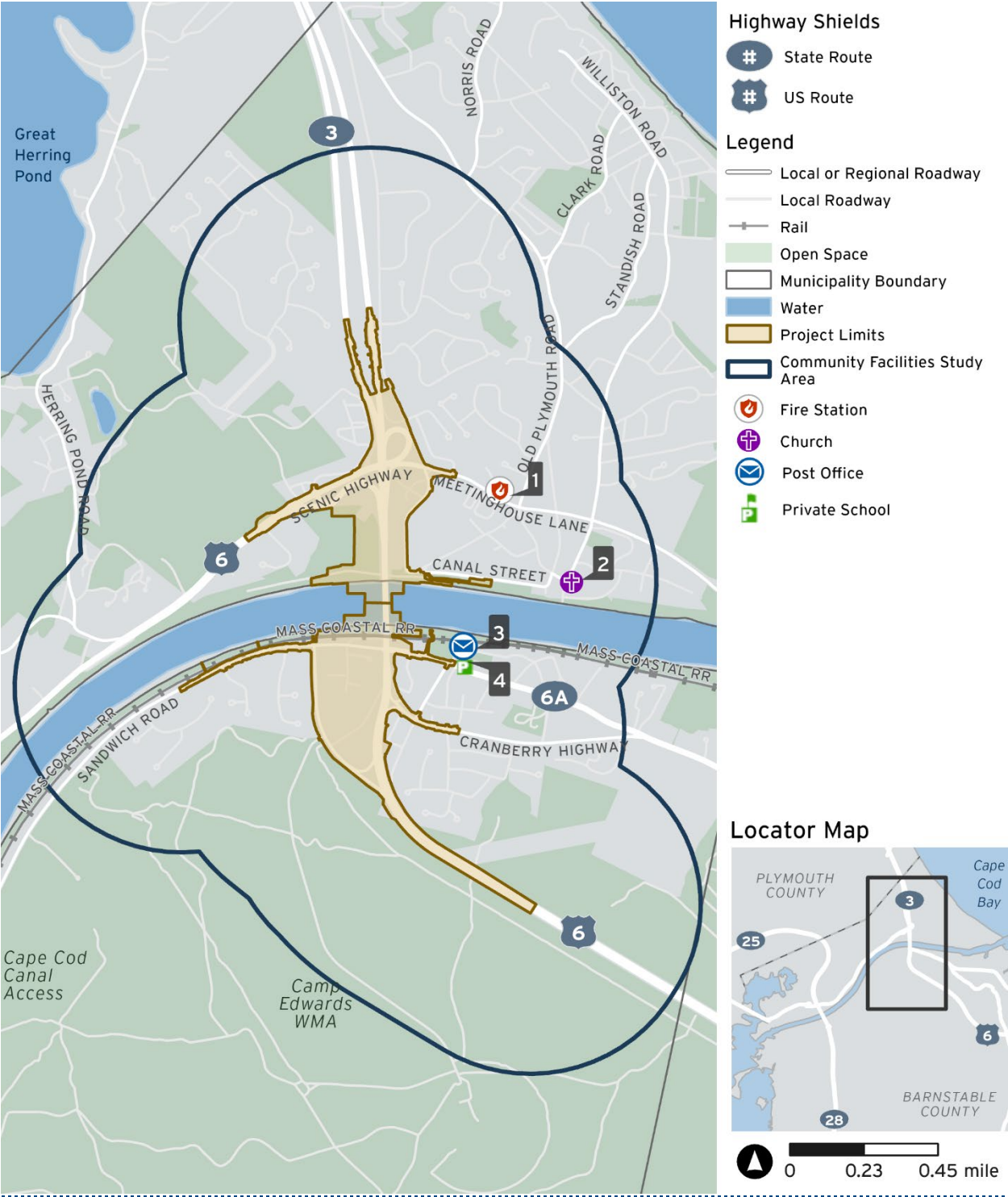
Source: Massachusetts Department of Transportation, [2025](#)

Table 4.7-1. Community Facilities in the Sagamore and Bourne Study Areas

Map Identification Number	Facility Name	Facility Type	Address	Study Area Quadrant
1	Bourne Fire Department Headquarters (Station 3)	Fire Station	51 Meetinghouse Lane, Sagamore Beach, MA 02562	Sagamore North
2	Swift Memorial United Methodist Church	Place of Worship	10 Williston Road, Sagamore Beach, MA 02562	Sagamore North
3	United States Postal Service	Post Office	883 Sandwich Road, Sagamore, MA 02561	Sagamore South
4	Bridgeview Montessori School	School	885 Sandwich Road, Sagamore, MA 02561	Sagamore South
5	Bourne Police Department	Police Station	175 Main Street, Buzzards Bay, MA 02532	Bourne North
6	Bourne Veterans Memorial Community Center	Community Recreation Center	239 Main Street, Buzzards Bay, MA 02532	Bourne North
7	Bourne Town Hall	Town Hall	24 Perry Avenue, Bourne, MA 02532	Bourne North
8	Bournedale Elementary School	School	41 Ernest Valeri Road, Bourne, MA 02532	Bourne North
9	Jonathan Bourne Public Library	Library	19 Sandwich Road, Bourne, MA 02532	Bourne South
10	Bourne United Methodist Church	Place of Worship	37 Sandwich Road, Bourne, MA 02532	Bourne South
11	United States Postal Service	Post Office	49 Sandwich Road, Bourne, MA 02532	Bourne South
12	State Police Station D7 – Bourne	Police Station	Bourne Rotary South, Bourne, MA 02532	Bourne South
13	Bourne High School	School	75 Waterhouse Road, Bourne, MA 02532	Bourne South
14	Bourne Intermediate School	School	70 Trowbridge Road, Buzzards Bay, MA 02532	Bourne South
15	Bourne Middle School	School	77 Waterhouse Road, Bourne, MA 02532	Bourne South
16	Independence Academy	School	118 Waterhouse Road, Suite B, Bourne, MA 02532	Bourne South

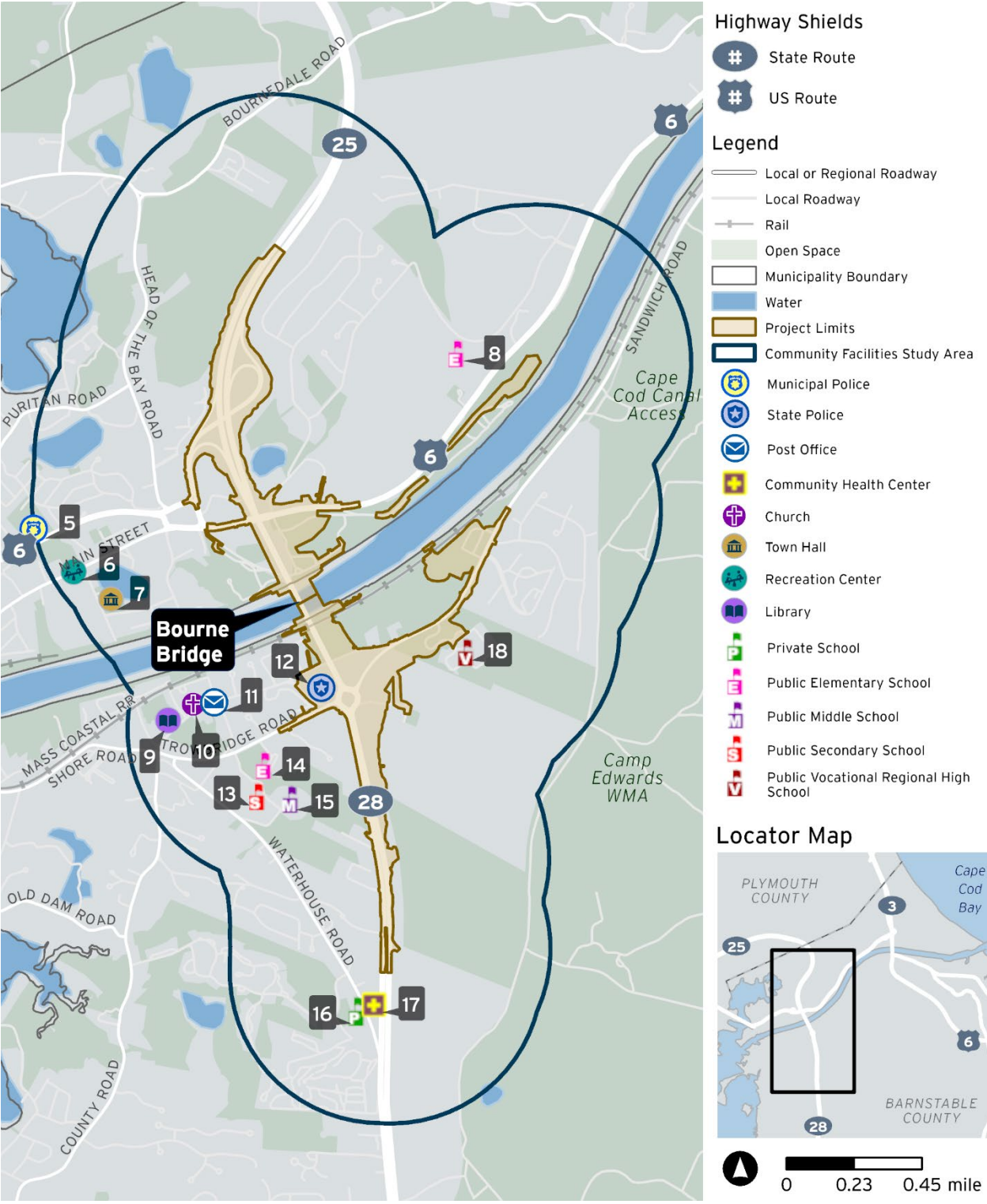
Map Identification Number	Facility Name	Facility Type	Address	Study Area Quadrant
17	Community Health Center of Cape Cod Bourne	Community Health Center	123 Waterhouse Road, Bourne, MA 02532	Bourne South
18	The Upper Cape Cod Regional Technical High School	School	220 Sandwich Road, Bourne, MA 02532	Bourne South

Figure 4.7-2. Community Facilities In Sagamore Study Area



Source: Massachusetts Department of Transportation, 2025

Figure 4.7-3. Community Facilities In Bourne Study Area



Source: Massachusetts Department of Transportation, 2025

4.7.4 Build Alternative

4.7.4.1 Operational Effects

The Build Alternative would not physically displace any community facilities within the Study Areas. As the Build Alternative would maintain the existing number of through-traffic lanes, it would not provide new transportation access to undeveloped areas, nor result in changes in population that would increase demand for existing community services.

The Build Alternative would require four temporary easements, two permanent easements, and two partial, permanent acquisitions from properties containing community facilities. The proposed acquisition of property rights and easements from community facilities would not result in displacement, alterations in accessibility, or hinder the ongoing activities or functions of the affected properties. Table 4.7-2 outlines the required easements and acquisitions to community facility properties. Refer to Section 4.8, Property Acquisition, Displacement, and Relocation for more information regarding easements and acquisitions.

Table 4.7-2. Community Facility Property Impacts

Map Identification Number(s)	Facility Name(s)	Study Area Quadrant	Property Impacts	Description of Property Impacts
3	United States Postal Service	Sagamore South	Permanent Easement	Construction of shared-use path (SUP) along Sandwich Road
3	United States Postal Service	Sagamore South	Temporary Easement	Construction of SUP along Sandwich Road
12	State Police Station D7 – Bourne	Bourne South	Partial and Permanent Acquisition	Construction of SUP connecting Bourne Bridge to Trowbridge Road and Sandwich Road
12	State Police Station D7 – Bourne	Bourne South	Temporary Easement	Reconstruction of driveway access
13, 14, 15	Bourne High School, Bourne Intermediate School, Bourne Middle School	Bourne South	Permanent Easement	Construction of underground piping for drainage
13, 14, 15	Bourne High School, Bourne Intermediate School, Bourne Middle School	Bourne South	Temporary Easement	Grading of the mainline roadway of MacArthur Boulevard
18	The Upper Cape Cod Regional Technical High School	Bourne South	Partial and Permanent Acquisition	Construction of new Sandwich Road alignment, including rotary and SUPs. Reconstruction of driveway access

Map Identification Number(s)	Facility Name(s)	Study Area Quadrant	Property Impacts	Description of Property Impacts
18	The Upper Cape Cod Regional Technical High School	Bourne South	Temporary Easement	Removal of existing driveway.

According to the [findings of the traffic noise analysis in Section 4.14, Noise and Vibration](#), the [2050 Build Alternative](#) would not result in an exceedance of FHWA [Activity C and D](#) Noise Abatement Criteria within the common noise environment locations tested, [which applies to exterior areas of schools, parks, medical facilities, and other community facilities](#). As a result, it is anticipated that the Build Alternative would not result in adverse operational noise impacts to community facilities.

The Build Alternative would reduce congestion and improve traffic operations for access to community facilities within the Study Areas. Additionally, the construction of shared-use paths across the replacement bridges with connections to local roadways and the Cape Cod Canal service roads for the Build Alternative would improve multimodal access to community facilities between the mainland and Cape Cod.

4.7.4.2 Construction Effects

[Based on the construction noise analysis presented in Section 4.14, Noise and Vibration](#), some community facilities located within the Study Areas, such as schools, recreation areas, and places of worship, are expected to experience temporary increases in construction noise, including periods where noise levels may exceed MassDOT's allowable limits during major activities such as demolition, pile driving, drilling, and heavy-equipment operation. These effects are most likely during evening and nighttime hours, when allowable limits are lowest, though MassDOT's specifications generally restrict the noisiest activities to daytime periods. Community facilities near vibration-intensive activities may also experience temporary ground vibration, which could cause short-term annoyance but is not expected to result in structural damage. Access to all community facilities will be maintained throughout construction, and noise and vibration control measures, as described in [Section 4.14, Noise and Vibration](#), will be implemented to minimize disruption.

[Traffic delays may occur near community facilities during construction as a result of temporary lane reductions, construction vehicle activity and congestion. However, access to all facilities would be maintained throughout the construction period.](#)

4.7.5 Mitigation

[MassDOT will provide continuous access to community facilities during the construction period. MassDOT has coordinated with representatives from Bourne Public Schools, Bourne Police, The Upper Cape Cod Regional Technical High School, and the Massachusetts State Police as part of the Program's Advisory Group to obtain valuable perspectives on access, operations, and impacts to community facilities throughout Program development.](#)

As discussed in **Section 4.2, Transportation, Traffic, and Safety**, MassDOT and the Design-Builder will be responsible for developing and implementing a comprehensive Transportation Management Plan to manage traffic operations and maintain access to community facilities, residences, and businesses during construction. MassDOT and the Design-Builder will implement a coordinated public engagement approach during final design and construction to keep residents and local organizations informed of upcoming work, traffic changes, and access modifications. The goal is to provide timely, clear communication so the public can plan accordingly and remain informed throughout the construction period.

MassDOT will comply with all applicable federal and state regulations for all required easements and property acquisitions from community facilities. Additional information regarding property acquisition is provided in **Section 4.8, Property Acquisition, Displacement, and Relocation**.

Noise and vibration control measures will be implemented to minimize construction-related disturbances to nearby properties and community facilities, as discussed in **Section 4.14, Noise and Vibration**.