

Swansea *Complete Streets Program*



Complete Streets
Needs Assessment &
Prioritization Plan



August 2021















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Introduction

This Complete Streets Needs Assessment for the town of Swansea was completed using a technical assistance grant from the MassDOT Complete Streets Funding Program. It provided the town with the opportunity to have SRPEDD and Fuss & O'Neill (later referred to as the Project Team) assess their bicycle, pedestrian, and transit facilities and to ultimately help them put together a list of projects that will improve those networks.

What are Complete Streets?

Complete Streets are roadways or streets that safely and comfortably accommodate all users, regardless of age and ability or mode of transportation (see Figure 1). Users include, but are not limited to: motorists, bicyclists, pedestrians, public transportation riders and providers, emergency response vehicles, freight operators, and school buses. The needs of each of these users are unique and the way they use the transportation network is different; therefore, a number of design features need to be considered to accommodate all users. Complete Streets components can include roadway design features such as ADA compliant sidewalks and crossings, curb extensions, bicycle lanes, shared use pavement markings, bus shelters and pull-outs, wayfinding signage, landscaping, street lighting, and many other items. Not all streets need to include every Complete Streets element, rather, each street should contain the appropriate level of "completeness" depending on its context and function.

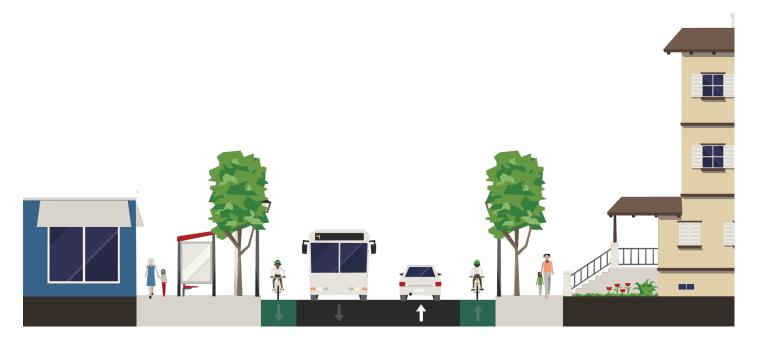


Figure 1: Example of "Complete Streets" elements (Streetmix.net)

MassDOT Complete Streets Funding Program

The MassDOT Complete Streets Funding Program was launched in February 2016 to provide technical assistance and construction funding to communities that demonstrate a commitment to include Complete







Streets in policy and in practice. In short, a community may be eligible for up to \$400,000 in construction funding to implement Complete Streets elements in municipal projects. The optional technical assistance funding component allowed SRPEDD and Fuss & O'Neill to assist Swansea in evaluating the conditions of their bicycle, pedestrian, public transportation network; to identify problem areas; and, to develop a comprehensive improvement plan (a.k.a. "Prioritization Plan"). The MassDOT approved Prioritization Plan allows Swansea to then apply for the \$400,000 in construction funding.

Swansea's Draft Complete Streets Policy

At the time this report was written, the Swansea Complete Streets Policy was still in draft form. The following statements in the draft policy underscore the town's commitment and approach to implementing Complete Streets going forward.

Purpose and Intent

"The purpose of Swansea's Complete Streets Policy is to accommodate all transportation users by creating a network that meets the need of individuals utilizing a variety of transportation modes. The Town of Swansea's intent is to formalize the planning, design, maintenance, and operation of streets to ensure safety for routine users of all ages and abilities. This Policy directs decision makers to consistently plan, design, and construct streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, transit users, motorists, emergency vehicles, and commercial vehicles." - Swansea Draft Complete Streets Policy

Network and Context Sensitivity

"The Town of Swansea recognizes that all projects, whether they consist of new construction, maintenance, or reconstruction, are potential opportunities to apply Complete Streets design principles. The Town will, to the maximum extent practical, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities. This includes the Town's commitment to working with state partners for state-owned Routes 103 and 6. Complete streets design recommendations shall be incorporated into all publicly and privately funded projects, where appropriate. The application of Complete Streets principles will remain context sensitive, and will vary depending upon specific needs of the area being analyzed." - Swansea Draft Complete Streets Policy

The entire Draft Swansea Complete Streets Policy can be found in the Appendix of this report.

Summary of Swansea

The town of Swansea is located in Bristol County and it contains a combination of rural and suburban type residential properties, varying sized commercial and industrial entities generally located along the town's major routes and a charming, typical New England style downtown. It is located approximately 55 miles south of Boston and nearly 15 miles east of Providence, RI. Neighboring towns include Seekonk, Rehoboth, and Dighton to the north, Somerset to the east, and Warren, RI and Barrington, RI to the west. Major roadways in Swansea include Interstate 195, U.S. Route 6, Route 103, Route 118 and Route 136 and the town has two highway interchanges where clusters of commercial activity can be found. The town has a formal bicycle network created by the South Coast Bikeway that travels through town from the Warren, RI town line to the Somerset Town line. Swansea has a regular fixed-route bus service from the Southeastern Regional







Transit Authority (SRTA).

Population

Swansea is a rural-suburban community with a population of 16,567 (American Community Survey 5-Year Estimates [2015-2019]). Between 2015 and 2019, the U. S. Census indicates that Swansea's total population increased by 2.6%, with the largest population growth occurring in the 85-year-old and older age group (50.4%) and the second largest population growth occurring in the 10-14-year-old age group (35.3%).

Land Use

The majority of the town's residential development is low-density single-family homes. The downtown provides a mix of residential and institutional uses - all accessible by the sidewalk network. Generally

speaking, the larger commercial and industrial land uses are found along the major roadway corridor (U.S. Route 6) and near the I-195 interchanges. The majority of Swansea's municipal uses, such as the Town Hall, Fire Department, Library, and Schools are located in the downtown area.

Areas of Activity

"Downtown Area"

This area generally includes roadways within a 1/2 mile from the Town Hall. As previously mentioned, this area includes the majority of the town's institutional uses and a number of residential properties and commercial entities. Trip generators in this area include the Town Hall, Library, Churches, Schools, and Parks. (Figure 2)

"Ocean Grove Neighborhood"

This area generally includes residences south of Wilbur Avenue (Route 103) and west of Gardners Neck Road. It is made up of dense single-family homes on narrow streets. Trip generators in this area include the town beach, boat launch, playgrounds, school, churches, and shops on Wilbur Avenue (restaurants, pharmacy, and gas station). (Figure 3)

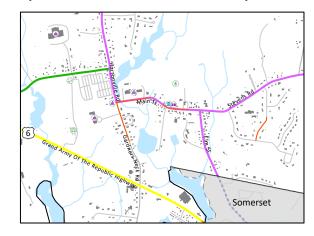


Figure 2: "Downtown Area"



Figure 3: "Ocean Grove Neighborhood"

Goals & Objectives

The goals and objectives of this Complete Streets Needs Assessment directly supported the commitments in the town's Complete Streets Policy.

Overall Goal

The overall goal was to accommodate all road users regardless of age, ability, income level and mode of transportation. To that end, this Need Assessment focused on identifying areas in town that were in need of improvements, determining the type of improvement(s), and to providing a strategy for implementation.







Key Objectives

The key objectives of this Complete Streets Needs Assessment included the following:

1. Improve Safety

Users of the roadway want to feel safe and comfortable when using that facility. That feeling of safety is essential for walkers and bicyclists because of the risk associated with their exposure to traffic. Additionally, riders of public transportation need safe and accessible ways to access the service and secure places to wait for the bus. Therefore, improving safety is a primary objective when developing Complete Streets investments.

2. Provide/Enhance Connectivity

Proper connectivity is essential for a network to operate effectively and efficiently. New England roadways don't always allow for all modes of travel to connect in a safe and comfortable way and therefore create barriers for use. Moreover, these uses/users may change along the network (transition from a bicyclist to a transit rider or from a transit rider to a walker) due to a variety of factors and mitigating these physical or operational challenges is critical for that connectivity.

3. Increase Mobility

Increasing mobility of users, especially those with disabilities or the aging population is a primary objective of Complete Streets. A pedestrian network that doesn't have properly designed curb ramps or a public bus route shelter that doesn't have the proper sized landing area and connection to a nearby limits use. Complete Streets is focused on identifying

sidewalk, limits mobility for many users and therefore and solving these issues. 4. Enhance Livability & Sustainability

Figure 4: Example of Mobility Issue

Many federal, state, and private agencies and

organizations define Livability a bit differently but

all have the same principle in mind. Livability is a comprehensive evaluation of a community's characteristics that describes the values of living in a certain place. In other words, it is a way to describe components such as the variety in housing types, the type and quantity of nearby services, amount and character of recreational opportunities and social interactions, and, transportation options. Communities that have better "Livability" tend to be more "Sustainable", allowing them to adjust to economic fluctuations, housing market declines, etc. Complete Streets plays a major role in this because it allows for multi-modal use - variety is the key ingredient.

5. Employ Context Sensitivity

Context sensitivity is another important component for Complete Streets practitioners in New England. Many of the roadways in this region were built for the automobile and roadside elements such as stone walls, large shade trees, embankments, wetlands, etc. limit future expansion. Additionally, there are many areas in communities that do not warrant full Complete Streets designs that include elements such as sidewalks on both sides of the road with two bike lanes. They simply may not have the demand







found in other areas in a community. Therefore, rather than creating a project that clear cuts a large amount of trees or negatively impacts adjacent wetlands, installs infrastructure that doesn't fit the demand, a designer must focus those Complete Streets elements that fit the context of that particular area.

Focus of Cost Effectiveness

One of the more important factors in Complete Streets is cost effectiveness. Similar to context sensitivity, a designer must focus on factors such as the physical barriers to adding non-motorized accommodations to the roadway, land ownership issues, and the impact to existing public utilities



Figure 5: Example of stone wall on Main Street

(electric lines, water and wastewater lines, gas lines, etc.). These items can exponentially increase project costs and reduce the chances that funding would be able to cover the implementation costs. These objectives helped shape the Complete Streets Evaluation criteria which was used to score each project.

Methodology and Results

Project Process and Phases

SRPEDD and Fuss & O'Neill complete this Complete Streets Needs Assessment in the following four steps:

1. Review of Town Plans/Documents

The first step included a thorough review of the town's municipal documents (e.g. Master Plan Findings and Alternatives Report and South Coast Rail Corridor Plan Five-Year Update of Community Priority Areas Report) to identify areas of focus, to reveal town priorities, and to highlight common goals.

Stakeholder Meeting: Project Summary & Needs Assessment

2. Existing Conditions Evaluation

The second step included an extensive existing conditions evaluation of the pedestrian, bicycle, and transit networks throughout the May/June of 2021. SRPEDD staff collected data about the roadway networks in Swansea that helped identify gaps and needs as well as future project locations and their required components. More information regarding the elements of this survey are provided in the following sections.

Public Meeting #1: Existing Conditions

3. Project Development/Cost Estimation

The third step included a summary of the Existing Conditions Evaluation and the public input, some initial findings, and a draft list of projects. The town reviewed the draft list of projects at a site visit







before they were released for public comment.

- **Stakeholder Site Visit**
- **Public Meeting #2: Draft Prioritization Plan**
- 4. Project Evaluation & Prioritization

The third step included scoring the draft projects using the evaluation criterion (scoring system based on value of improvement), developing cost estimates, ranking the projects in the town's final Prioritization Plan, and finally, producing this Complete Streets Needs Assessment report.

Phase 1: Review of Town Documents/Plans

Swansea Master Plan (2003)

Swansea's Master Plan was developed as a 20-year policy document that would help the town manage growth, preserve its natural resources, maintain the public facilities and services, and connect the town in a meaningful way. Although dated, objectives of the Transportation & Circulation section such as (1) Establish bikeways, greenways, and walkways which link together neighborhoods and open space, (2) Provide continuous, adequate sidewalks along all major arterials and collectors and ensure the safe crossing areas are appropriately highlighted at the major demand locations particularly for the safety of school children, the elderly, and those with disabilities, and (3) Create a safe, visible bicycle network between neighborhoods, schools, parks, community centers, and employment centers; provide adequate storage facilities in key public areas and work locations, provide justification for Complete Streets investments.

South Coast Rail Corridor Plan Five-Year Update of Community Priority Areas Report (2013)

This report presented the result of a community-driven land use planning exercise that updated the 2008 Priority Development Areas (PDAs) and Priority Protection Areas (PPAs) in the town of Swansea. The town identified five (5) Priority Development Areas, eight (8) Priority Protection Areas and one (1) Combined Priority Development & Protection Areas. Complete Streets investments are focused on these areas as a way to bolster economic development and to encourage active and passive recreation.

Stakeholder Meeting: Project Summary & Needs Assessment

On May 14, 2021, SRPEDD and Fuss & O'Neill met with the Swansea Complete Streets Working Group virtually to summarize the project process, note key milestones, solicit input from town officials, and to highlight specific problem areas in town.

The Complete Streets Working Group included:

Mallory Aronstein – Town Administrator

John Hansen Jr. – Town Planner

During the working group meeting the project team took notes and drew on maps that discussed and showed items such as, popular bicycle routes, bicycle and pedestrian connections to Somerset, intersection safety concerns, and sidewalk improvements.

Figure 6 shows the results from the working group session on the next page.







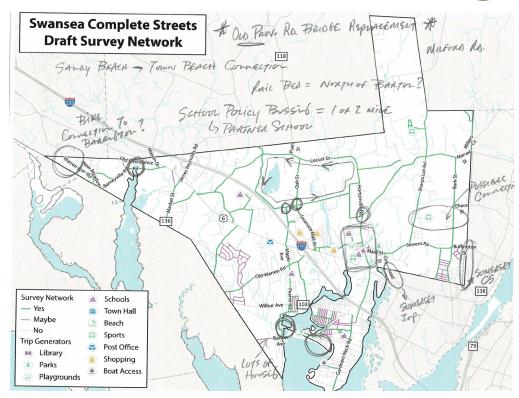


Figure 6: Map from the Complete Streets Working Group Meeting (May 2021)

Phase 2: Existing Conditions Evaluation

A thorough survey of the town's pedestrian, bicycle, and transit network was conducted in the May/June of 2021. It began with a simple "verification" of the existing network presented in the MassDOT Road Inventory File confirming features such as sidewalk widths, material, and conditions; shoulder widths, material and conditions; the presence of street trees and roadside lighting; and crosswalk presence and conditions. The following sections briefly describe the analysis completed as part of the evaluation and following sections highlight the results.

Network Gap Analysis

The Project Team analyzed the most recent and available bicycle, pedestrian, and transit facilities GIS data from the town and other relevant State entities to identify and verify existing gaps in those networks. Once the GIS network was established, staff then performed field surveys to verify the information and edited the file where needed. Lastly, staff documented the gap characteristics (length, general pavement conditions, adjacent land characteristics, and land use) and documented the feasibility of fixing the network issue.

American with Disabilities Act (ADA) Survey

The Project Team performed field surveys of ADA accommodations that included, but were not limited to: measuring existing sidewalk widths, identifying the number of sidewalk obstructions, surveying sidewalk surface conditions, and quantifying and surveying curb ramps (location, size, and physical components).







• Bicycle, Pedestrian, and Transit Infrastructure Evaluation

The Project Team performed a Bicycle, Pedestrian and Transit Infrastructure Evaluation in order to document the conditions of those facilities. Specifically, that evaluation included, but was not limited to: documenting the condition and measuring the widths of roadway shoulders, identifying the presence and type of street lighting, identifying and evaluating the locations and conditions of transit facilities, and documenting signage.

Roadway & Intersection Crash Analysis

The Project Team utilized MassDOT GIS crash data (2018-2020) to identify safety issues along all roadway corridors and at all unsignalized and signalized intersections in Swansea. This information was used to conduct a thorough three-year crash analysis that included a review of any reported bicycle and pedestrian crashes.

Roadway Network

In general, Swansea's roadway network is typical of the rural/ suburban communities in the SRPEDD region. It includes a pavement surface that has either a double or single yellow centerline with no painted edgeline (formal shoulder demarcation) that either meets an asphalt berm or a grassy or vegetated shoulder and does not include a formal drainage system or a sidewalk. Lane widths are generally 10-12 feet wide and the immediate land adjacent to the pavement surface can include large shade trees, dense vegetation, step drop-offs, stone walls, and utility poles.

That said, Swansea has number of roadways within a 1/2 mile of the "Downtown Area" that have sidewalks (the majority on both sides of the road) with asphalt or granite curbing, and some formalized drainage. As described on page 6, this area includes many of the town's institutional uses (town hall, fire department, library, elementary schools, recreation areas, etc.). This area serves as a good "starting point" for Complete Streets investments focused on improving aging infrastructure and expanding the existing sidewalk and bicycle network.

Jurisdiction

According to the 2018 MassDOT Road Inventory File, Swansea has a total 124.02 centerline miles of roadway.



Figure 7: Warren Avenue (looking eastbound)



Figure 8: Main Street (looking westbound)

Approximately 103.12 centerline miles (83%) of the total are roadways under town jurisdiction (making them eligible for the Complete Streets program) while 14.68 miles are under MassDOT jurisdiction (Interstate 195, U.S. Route 6, Route 103, and Route 136 north of U.S. Route 6) and 6.22 miles are unaccepted roadways (see Figure 10 on page 13). Due to the Complete Streets Funding Program eligibility criteria, the Project Team only performed the existing conditions evaluation on roadways under town jurisdiction.







Chapter 90 Funding

Swansea receives approximately \$564,330 (FY 2022) per year in state aid (also known as Chapter 90 funds) to help maintain the locally owned roadways in town. The amount of funding that is received through the program combined with the increasing costs of projects generally provides for a limited number of projects each year. Simply said, there are more needs than there are funds to address them. Figure 9 shows Swansea's allotment of Chapter 90 funds from the past 5 years (FY17 to FY21).

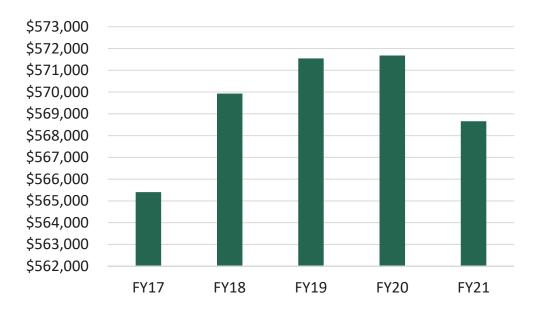


Figure 9: Town of Swansea's Chapter 90 apportionments over the last five fiscal years.

Considering the limited amount of Chapter 90 funds received each year, Swansea is fortunate to be participating in the Complete Streets Funding Program in order to address much needed multi-modal improvement projects.

Posted Speed Limits

In general, recorded speed zones on the surveyed roadways were either 30mph (many of the side roads like Marvel Street, Warren Avenue, and Wood Street) or 35mph (main roads like Hortonville Road, Stevens Road and Old Warren Road). The Manual on Uniform Traffic Control Devices (MUTCD) states that shared lane markings or "sharrows" should not be applied to roadways with posted speed limits over 35mph. This is important in Swansea because many of the town owned roadways that cannot physically accommodate bicycle lanes (due to roadside constraints) are candidates for these shared-use markings. This type of improvement is a helpful way to indicate to motorists to expect bicyclists to be sharing the road and to take care when passing is needed.

Roadway & Intersection Safety

Swansea does not have any town-owned intersections or areas that appeared on MassDOT's Highway Safety Improvement Program (HSIP) Vehicle Crash Clusters 2015-2017 map. However, the town has three intersections that are considered HSIP clusters. Those intersections are Grand Army of the Republic Highway (U.S. Route 6) & Swansea Mall Drive, Grand Army of the Republic Highway







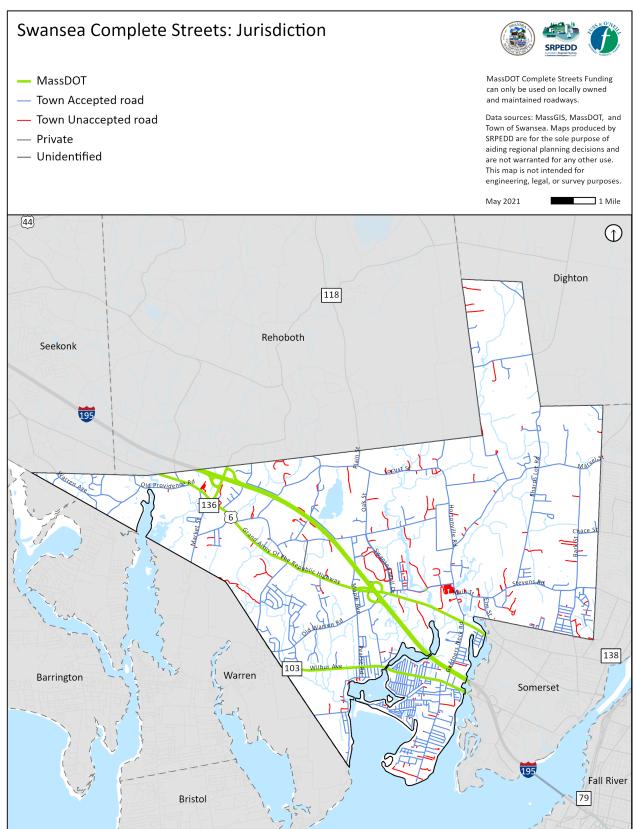


Figure 10: Town of Swansea Roadway Network by Jurisdiction







(U.S. Route 6) & Gardners Neck Road, and Wilbur Avenue (Route 103) & Gardners Neck Road. The intersection at Grand Army of the Republic Highway (U.S. Route 6) & Gardners Neck Road is a TIP project set for 2024 and more information is provided in the recommendations section of this report.

Swansea does not have any town-owned locations on the Bicycle or Pedestrian Crash Cluster 2008-2017 map or on MassDOT's 2016 Top 200 Crash Locations Report but they did have two intersections that did appear on MassDOT's 2016 Top 200 Intersection Cluster; Grand Army of the Republic Highway (U.S. Route 6) & Market Street (Route 136) and Grand Army of the Republic Highway (U.S. Route 6) & Maple Street.

That said, the crash analysis performed by the Project Team as part of this assessment, using the last three years of available crash data (2018-2020) did highlight a few intersections that experienced elevated numbers of crashes (see below); however, the majority of the crashes resulted in property damage only. In the three-year period, there were a total of twenty-one (21) crashes that involved a pedestrian or bicyclist along the roadways throughout the town.

Project Team Crash Analysis – Elevated Crash Locations (2018-2020):

- 1. Grand Army of the Republic Highway (U.S. Route 6) & Market Street/James Reynolds Road (Route 136) (136 crashes)
- 2. Grand Army of the Republic Highway (U.S. Route 6) & Swansea Mall Drive (54 crashes)
- 3. Grand Army of the Republic Highway (U.S. Route 6) & Maple Avenue (32 crashes)
- 4. Wilbur Avenue (Route 103) & Gardners Neck Road (19 crashes)
- 5. Grand Army of the Republic Highway (U.S. Route 6) & Gardners Neck Road (14 crashes)

All crashes that occurred between 2018 and 2020 in Swansea are shown on Figure 11: Crashes Map on Page 15 and the bicycle and pedestrian crashes are shown on Figure 12: Pedestrian, Bicycle, and Transit Networks and Crashes on page 16.

Pedestrian Network

The pedestrian network analysis consisted of verifying the existence of sidewalks, confirming their locations and extents, and analyzing their condition and compliance with the Americans with Disabilities Act (ADA) of 1990 and the Massachusetts Architectural Access Board (MAAB) regulations. The following sections highlight the results of SRPEDD's pedestrian network analysis.

Sidewalks

Swansea's current sidewalk network is generally concentrated in the "Downtown Area" (1/2 mile area around the Town Hall) connecting to the commercial areas along Swansea Mall Drive. The majority of those sidewalks generally have hot mix asphalt walk surfaces with either asphalt or granite curbing or have a grass buffer with no vertical curbing. That said, there are some sidewalks (Swansea Mall Drive, Ocean Grove Avenue) that have concrete walk surfaces with granite curbing. There are only a few sidewalks in town that are located outside of the "Downtown Area"; (1) a 2.42 mile section on Bark Street, (2) a 1,800 foot section on Marvel Street between Bark Street and Somerset Town Line, (3) a 900 foot section on Gardners Neck Road north of Wilbur Avenue (Route 103), (4) a 2,200 foot section on New Gardner Neck Road and Gardners Neck Road just south of Wilbur Avenue (Route 103), and (5)



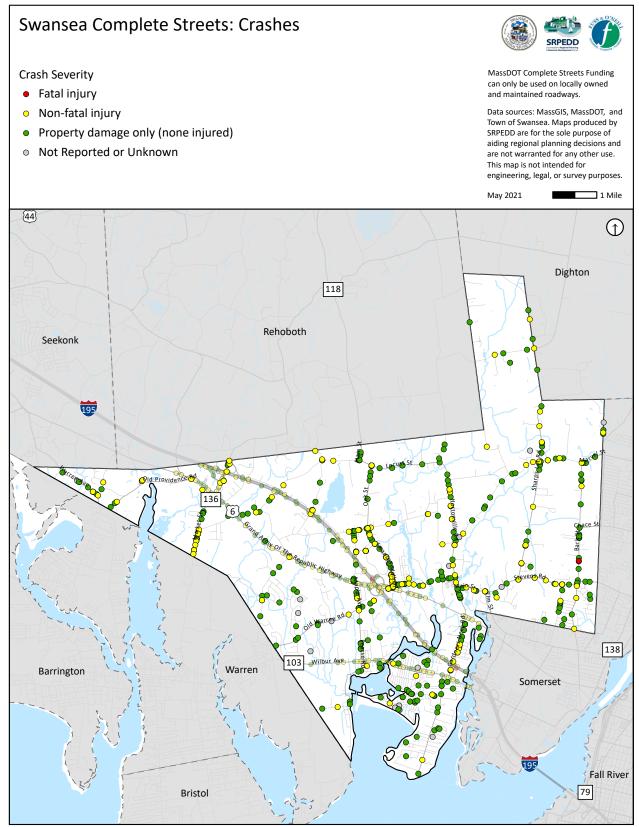


Figure 11: Town of Swansea Crashes by Severity







Swansea Complete Streets: Bicycle and Pedestrian Involved Crashes

- Collision with Pedestrian
- Collision with Bicyclist







MassDOT Complete Streets Funding can only be used on locally owned and maintained roadways.

Data sources: MassGIS, MassDOT, and Town of Swansea. Maps produced by SRPEDD are for the sole purpose of aiding regional planning decisions and are not warranted for any other use. This map is not intended for engineering, legal, or survey purposes.

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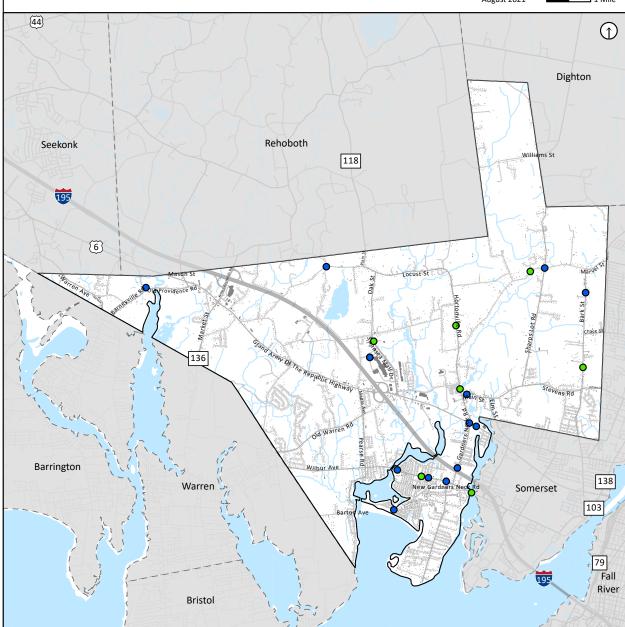


Figure 12: Town of Swansea Bicycle and Pedestrian Involved Crashes











Figure 13: Gardner Neck Road Sidewak (looking northbound)

Figure 14: Ocean Grove Avenue Sidewalk (looking eastbound)

a 2,800 foot section on Ocean Grove Avenue from approximately Riverside Avenue to Gardners Neck Road. Some of the subdivisions have sidewalks however neighborhood streets we not surveyed as part of this assessment. Meanwhile, there are only a handful of gaps in the existing "Downtown Area" sidewalk network - those areas include small sections of Main Street, Stevens Road, Elm Street, and Hortonville Road.

Overall, the condition of the existing sidewalks in Swansea vary (see Figure 17 on Page 18). Some are newer and in good condition with proper ADA accessibility, whereas others are older and in fair to poor condition and do not provide proper ADA accessibility (inadequate clearance width, lack of proper curb ramps, trip hazards, and excessive slopes).

Crossings

During the existing conditions evaluation, SRPEDD noted that the town uses a variety of crosswalk types, including a "standard" crosswalk for the majority of their crossings as well as a couple "ladder" crosswalks on Main Street and Milford Road. Swansea also has two raised crosswalks called speed humps on Main Street. The majority of the existing crossing pavement markings are in good to fair condition. Although the "standard" style is an accepted, safe, and widely used style for crosswalks, the high visibility "continental", "zebra" or "ladder" type (as shown in Figure 16) have been shown to be more effective.



Figure 15: "Standard" style crosswalk on Wood Street

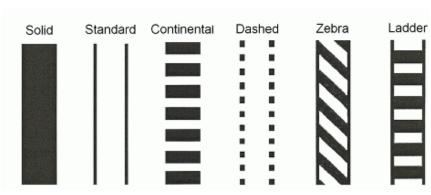


Figure 16: Sidewalk Types







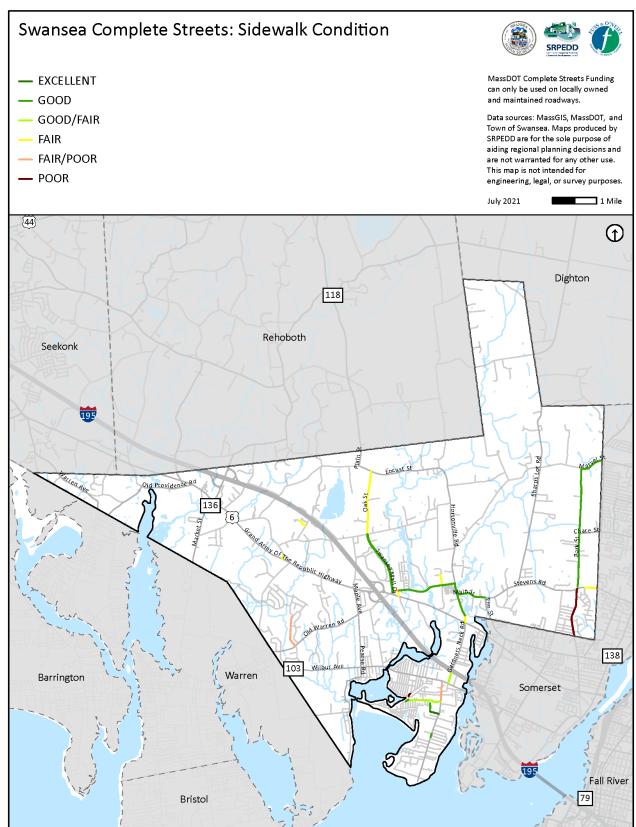


Figure 17: Town of Swansea Sidewalk Condition







Numerous studies been conducted to determine the best type of crossing treatment; however, at this time, the Manual on Uniform Traffic Control Devices (MUTCD) has yet to determine the preferred treatment. Nevertheless, studies have shown that drivers were more likely to see the "continental", "zebra", and "ladder"; therefore, employing one of them for the entire town is highly recommended.

Curb Ramps

As described in the Americans with Disabilities Act (ADA) of 1990 and the Massachusetts Architectural Access Board (MAAB) Regulations (521 CMR 21), curb ramps are required when a pedestrian walkway or route crosses a street. There are many design requirements for curb ramps but most notable are the: (1) location, (2) slope, (3) transitions (level landing, flared sides), and (4) accessible features (tactile warning panel). Many of Swansea's curb ramps comply with the ADA and MAAB requirements; however, there are many that need to be upgraded. The majority of projects included in the Prioritization Plan includes either installing or upgrading curb ramps.

Bicycle Network

A bicycle network is an assemblage of facilities that enhance the safety and comfort of bicyclists. Facilities can generally be separated into three groups: (1) Separate use paths and separated bicycle lanes (off-road facilities), (2) On-road bicycle lanes, (3) Designated/signed routes and shared-use pavement markings or "sharrows". For this assessment SRPEDD identified and analyzed Swansea's bicycle network and summarized them into either the "on-road" or "off-road" type facilities.

On-Road Bicycle Conditions

Swansea has a formal "on-road" bicycle network. In other words, there are marked bike lanes or shared use pavement markings ("sharrows") in town. There are formal bicycle lanes with pavement markings and signs along Swansea Mall Drive. The town also has two other types of on-road bicycle accommodations: (1) wide shoulders with signs for right lane for bicycles only (Bark Street) (Figure 18) and (2) roads with share the road signs (Wood Street) (Figure 19). As Swansea continues to add to their formal bicycle network, U.S. Route 6 and Route 103 will serve as some primary west-east route options; therefore, a partnership with MassDOT will be necessary as they own and maintain that facility.

Off-Road Bicycle Conditions

Swansea has a dedicated off-road multi-use shared use path along Milford Road between Swansea Mall Drive and Michael Avenue on the north side and between Michael Avenue and Hortonville Road on the south side of the road. The shared use path is 8'6" wide split in half by a yellow dashed line. The majority of the path has a 3' grass buffer between the path and the roadway.



Figure 18: Right lane for bicycles only sign



Figure 19: Share the Road sign







Swansea Mall Drive has a shared use path from Milford Road to Swansea Crossing on the east side of the road. This share use path is 13'7" wide separated by a solid yellow line the left is 9' wide and the right is 4'7" wide.

The Village Park on has a number of bicycle trails throughout the 194 protected areas behind the town hall. In the park people can enjoy riding their bicycles for miles and encountering some fun challenges such as riding over bridges, see-saws, and drop-offs.







Figure 19: Milford Road Shared Use Path

Figure 20: Swansea Mall Drive Shared Use Path Figure 21: Village Park Trails

Transit Network

Fixed-Route Bus Service

Swansea has a moderate, yet important transit network via service provided by the Southeastern Regional Transit Authority (SRTA). The town is serviced by one route: Fall River Route 14 Swansea Mall. This route provides service from the Fall River Bus Terminal to the Swansea Mall along Davol Street (Fall River), to Stop & Shop in Somerset, along Reed Street (Somerset), to U.S. Route 6 in Swansea, and ending at the Swansea Mall. The bus has stops at Target (on Route 6), Swansea Crossing (Swansea Mall Drive), and Walmart (Cousineau Drive). There are no stops along Route 6 because it is not safe for pedestrians with the lack of sidewalks and crosswalks.

The entire Bicycle, Pedestrian, and Transit Network in Swansea is shown on Figure 22 on Page 21.

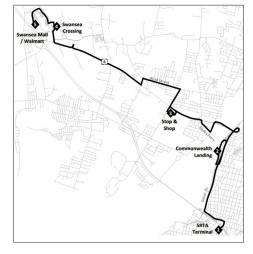


Figure 22: SRTA service in Swansea (source: srtabus.com)

Public Meeting #1: Existing Conditions

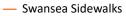
The first public meeting was held on June 29, 2021 virtually at the Board of Selectmen Meeting. The project team presented a general overview on complete streets, how SRPEDD and Fuss & O'Neill are helping Swansea, current status of the project, and next steps. The presentation was being recorded by the towns cable access for later viewings. At the public meeting the project team demonstrated how to participate in the next steps. A copy of the presentation is in Appendix X.







Swansea Complete Streets: Pedestrian, Bicycle, and Transit Networks



↑ Existing Off Road Separate Use Path

SRTA Transit Route

★ Existing On Road Bicycle Lane

Existing On Road Shared Lane MarkingProposed Off Road Separate Use Path

••• Proposed On Road Bicycle Lane

Proposed On Road Shared Lane Marking







MassDOT Complete Streets Funding can only be used on locally owned and maintained roadways.

Data sources: MassGIS, MassDOT, and Town of Swansea. Maps produced by SRPEDD are for the sole purpose of aiding regional planning decisions and are not warranted for any other use. This map is not intended for engineering, legal, or survey purposes.

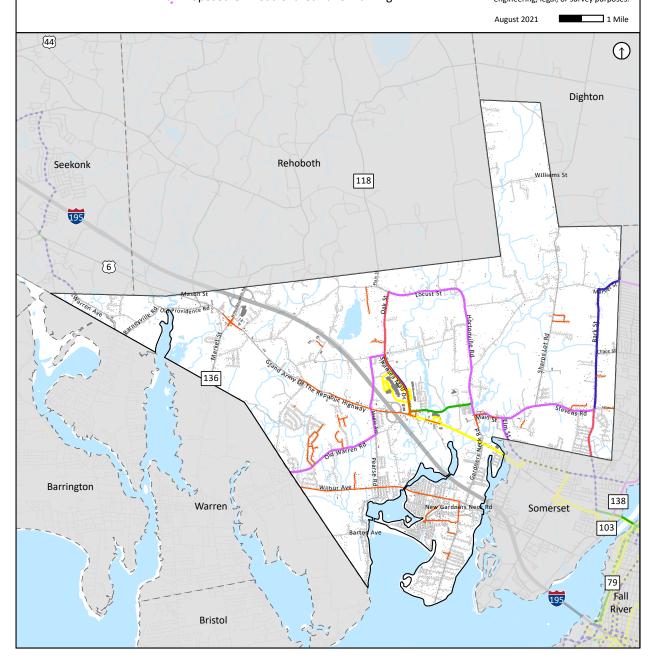


Figure 23: Town of Swansea Bicycle, Sidewalk, and Transit Network







Public Input

The project team used an interactive input map (ESRI Crowdsource Reported) and a traditional online comment card for residents who wanted to give their comments. Over the three-week open comment period, a total of 7 comments were provided on the online interactive map and 8 interactions (see Figure 24), a total of 24 comments were provided on our online comment card, and we received 4 written comment cards via email (Figure 25). Comments included items such as repairing current sidewalks, adding new sidewalks, bicycle connections, and intersection improvements.

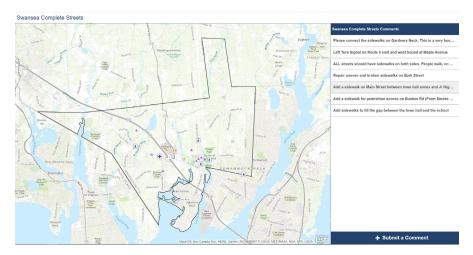
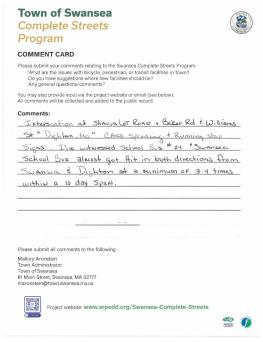


Figure 24: Swansea Crowdsource Reporter Map for Public Comments



Phase 3: Project Development & Draft Prioritization Plan

Based on the results of the town plans and document review and the existing conditions evaluation, the project team developed a draft list of projects that: (1) filled the gaps in the network, (2) improved ADA compliance, (3) addressed aging and/or deteriorated infrastructure, and (4) improved safety.

Stakeholder Site Visit

On July 19, 2021, the project team attended a site visit in town. The site visit included:

Mallory Aronstein – Town Administrator

John Hansen Jr. – Town Planner

William Anderson – Highway Department Director

During the site visit, we marked up maps with the town's priority projects. Figure 26 shows the results from the site visit.

Public Meeting #2: Draft Prioritization Plan

On August 10, 2021, the project team presented the prioritization plan at the Board of Selectmen's meeting. The presentation included a recap of the existing conditions, basics of a prioritization plan, example projects



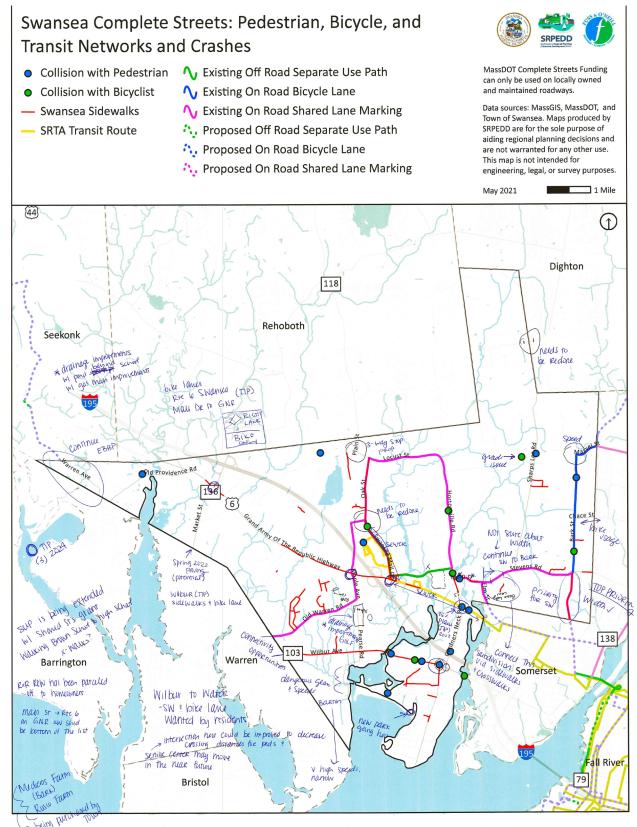


Figure 26: Map showing the comments made from the working group session at the site visit







under intersection improvements, sidewalk improvements, share use path, and crosswalk improvements, and what to expect in the next steps of the project. After the presentation the project team answered questions from the Board of Selectmen and the Town Administrator.

Phase 4: Project Evaluation & Final Prioritization Plan

Project Evaluation

Following the Draft Prioritization Plan meeting, the project team refined the project list and scored each project using an evaluation criteria. The basic themes included: (1) Safety, (2) Modes Served, (3) Network Gap, (4) High Crash Location, (5) Connection to School, (6) Connection to Senior Center, (7) Connectivity to Amenities in Swansea or Neighboring Towns, (8) Aligns with Town Utility or Paving Schedule, (10) Environmental Justice, and (11) Civic Engagement. Each project received a numeric value (either between 0-3 or 0-1) for each theme representing how the improvement addressed each issue. Final project scores and the Evaluation Criteria table are located in the Appendix of this report.

Final Prioritization Plan

Following the project evaluation process, the project team finalized the project cost estimates using the weighted bid prices found in MassDOT's Construction Project Estimator. Additionally, starting dates and an estimated construction schedule was provided for each project. Ultimately, the Final Prioritization Plan was developed considering the results of the evaluation criteria, the objectives of the needs assessment, and recorded public and town support. All project cost estimation worksheets are included in the Appendix of this report.

Recommendations

The following are other recommendations to provide more complete streets elements in the town of Swansea. These are meant to be completed over time and are separate from the MassDOT Complete Streets Funding Program.

Town Projects

The town is currently pursuing Transportation Improvement Program (TIP) funding for the intersection at Grand Army of the Republic Highway (U.S. Route 6) and Gardners Neck Road (Project #608563). That project will include traffic signal upgrades, geometric improvements, improved bicycle and pedestrian accessibility, signs, and pavement markings. This project will provide substantial improvements to the areas south of U.S. Route 6 that will connect to the "Downtown Area".

State Jurisdiction Roadways

The 5.5 mile section of U.S. Route 6, the 2.8 mile section of Route 103, and the 1 mile section of Route 136 that run through town are under MassDOT jurisdiction and, therefore, outside the control of the town. Nevertheless, the town has a vested interest in these roadways and how they contribute to the connectivity of their network. For example, U.S. Route 6 essentially divides the areas to the south from areas to the north due to the type of roadway and the lack of multi-modal facilities. Additionally, Route 103 runs the west to east in the southern part of town from the RI State Line to the Somerset town but has very limited







bicycle facilities. Therefore, it is recommended that Swansea continue to advocate for the multi-modal improvements along both of these roadways and their intersections to ensure safety for all users.

Bicycle Facilities

Swansea should explore every opportunity to install bicycle lanes or wider shoulders where high levels of bicyclists are present. The term "bicycle lane" refers to a portion of a roadway that has been designated for the preferential or exclusive use of bicyclists by striping, signing, and pavement markings. Bike lanes typically range from four feet to six feet in width. In the absence of a formal bike lane, Swansea should make every effort to use shared-use pavement markings or "sharrows" with appropriate signage and to widen shoulders whenever possible. In 2016, SRPEDD completed a Regional Bicycle Plan that identified the existing bicycle infrastructure for its 27-member communities that make up Southeastern Massachusetts, and included a proposed plan for improving and expanding that infrastructure to create a safe, efficient, and connected bicycle network.

Additionally, Figure 23 on Page 22 shows a potential future bicycle network for the town that provides intown circulation and connections to neighboring communities. Swansea should continue to work closely with SRPEDD to identify future opportunities to develop this network and to link in-town routes to the larger regional bicycle network where possible.

Sidewalks

Sidewalk availability, condition, and surface width are important factors of the transportation network in every municipality. Increased opportunities to choose a more active lifestyle have shown to result in improved health, economic viability, neighborhood sustainability, and air quality. Swansea has an extensive sidewalk network in the "Downtown Area" but very limited coverage outside of that area.

Sidewalks should be vertically and horizontally separated from the roadway and should be a minimum of five feet in width. It is preferable to have a minimum two-foot vegetated buffer strip between the curb and the sidewalk to increase distance between vehicles and pedestrians; however, including these elements is a challenge when the municipality does not own the right-of-way. When possible, Swansea should work on creating that added separation in all future construction projects. Lastly, once constructed or replaced, it is very important that sidewalks are regularly inspected, kept clear of debris and vegetation, and maintained to ensure ADA compliance. Swansea is encouraged to the maximum extent feasible under current funding constraints to regularly maintain the existing network to ensure its longevity.

Prioritization Plan & Implementation

The following are the top 15 projects listed in the Prioritization Plan (the entire Prioritization Plan can be found in Appendix A):

Project List

5. Route 118 (Swansea Mall Drive) Corridor Improvements

This project will provide a 12' shared use path along the east side of Swansea Mall Drive. To facilitate access between retail and transit stops on the east and west sides of the road high visibility crosswalks will be







installed with ADA/AAB compliant curb ramps. Additionally, pedestrian refuge islands will be constructed within the existing median, and signal timings will be upgraded to include pedestrian phases at each of the signalized intersections. Bicycle parking, appropriately scaled lighting, MUTCD compliant wayfinding signage, and street trees will also be incorporated along the corridor. Overall, this project will provide multi-modal access to a highly commercial area of town while also providing a vital connection between residences, transit stations, and commercial uses along Swansea Mall Drive and Route 6 as well connect into the existing shared use path on Milford Road.

6. Hortonville Road/Gardners Neck Road at Main Street Intersection Improvements

This project will provide signal improvements to upgrade hardware as well as vehicle and pedestrian timings for the intersection. Additionally, 5' ADA/AAB compliant sidewalks, four ADA/AAB compliant curb ramps, and two high visibility crosswalks will be installed along with bicycle racks at the Lewin Brook Dam Park in the northeast corner of the intersection. These improvements will enhance connectivity to Town Hall and DPW offices, Town Library, Wood School, Junior High School, and Brown School.

7. Ocean Grove Avenue at Pinehurst Avenue/Sunnyslope Avenue Intersection Improvements

This project would provide 5' ADA/AAB compliant sidewalks and four ADA/AAB curb ramps while narrowing lanes/shoulders. These improvements will decrease curb radii and crossing distances while also allowing space to realign the approaches and improve sight distances. High visibility crosswalks, 5' unbuffered bicycle lanes, bicycle parking, MUTCD compliant wayfinding signage, and landscape elements will also be incorporated into the intersection. This project will improve the ability for motorists, pedestrians, and cyclists to safely navigate the intersection. Improvements here will also increase the frontage of businesses, restaurants, and senior center that reside at this intersection, as well as provide a safe route for children in the surrounding neighborhood to access the Elementary School less than a mile east of the intersection.

8. Stevens Road Sidewalk and Bicycle Connections - Phase I

This project will provide a 5' ADA/AAB compliant sidewalk along the north side of Stevens Road along with sharrows and MUTCD sompliant signage between Base Lodge Road and Bark Street. A Rectangular Rapid Flasshing Beacons (RRFB's) with ADA/AAB compliant curb ramps and high visibility crosswalk will be installed at Ridge Lane to connect this neighborhood to the new the sidewalk network. This connection will bridge the network gap between Base Lodge Road and Bark Street that also connect to the neighboring town of Somerset via Buffington Street and Brayton Avenue. Additionally, these improvements will increase access to the downtown area, including Town Hall, Town Library, Wood School, Junior High School, and multiples places of worship.

9. Stevens Road Sidewalk and Bicycle Connections - Phase II

This project will provide a 5' ADA/AAB compliant sidewalk along the east side of Elm Street between Highland Road and Stevens Road. This intersection will provide two ADA/AAB compliant curb ramps and a high visibility crosswalk and the sidewalk will continue along the north side of Stevens Road to Base Lodge Road. A Rectangular Rapid Flashing Beacon (RRFB) with ADA/AAB compliant curb ramps and high visibility crosswalk will be installed at Base Lodge Road to connect the neighborhood to the new sidewalk network. Sharrows and MUTCD compliant signage will be provided along both stretches of roadway.

10. Route 118 (Swansea Mall Drive) at Wood Street Intersection Improvements

This project will implement a road diet at the intesection of Route 118 (Swansea Mall Drive) and Wood Street







to create one travel lane in each direction with a 50' northbound left turn bay. This will allow for a decrease curb radii and crossing distances while improving the intersection sight distances. The space gained in the road diet will be used to add green space to the intersection with benches and shade trees along the Swansea Mall Drive shared use path. Additionally, intersection improvements would include 5' wide ADA compliant sidewalks and eight curb ramps with high visibility crosswalk markings that would connect into the proposed shared use path along Swansea Mall Drive. This project will improve the ability for motorists, transit drivers/riders, pedestrians, and cyclists to safely navigate the intersection.

11. Bark Street Sidewalk and Bicycle Lanes

This project will provide 5' ADA compliant sidewalks and curb ramps along the west side of Bark Street as well as unbuffered on-road bicycle lanes between Stevens Road and the Somerset town line. These improvements will enhance access to the downtown area, including Town Hall, Town Library, Wood School, Junior High School, and multiple places of worship. Sidewalks and bicycle lanes in this location will bridge the network gap between the northern portion of Bark Street and the neighboring town of Somerset.

12. Chace Street Sidewalks and Bicycle Lanes

This project will provide 5' ADA compliant sidewalks along the north side of Chace Street as well as 5' unbuffered bicycle lanes between Bark Street and the Somerset town line. Two ADA compliant curb ramps will also be provided to connect Chace Street into the Bark Street sidewalk and bicycle lane network.

13. Crossing Improvements at Joseph Case High School

This project will provide two raised crosswalks with high visibility pavement markings associated ADA compliant curb ramps to serve Joseph Case High School - one at Milford Road and Cardinal Way, and another at Milford Road at School Street. These raised crosswalks will improve pedestrian and bicycle access to Joseph Case High School on the north side of Milford Road and the althetic fields on the south side of Milford Road. Raised crosswalks will also increase safety by encouraging drivers to decrease vehicle speeds in the vicinity of the high school.

14. Downtown Crosswalk Enhancements

This project will provide high visibility crosswalks and upgrade curb ramps to be ADA compliant along Main Street in the downtown areas. This improvement will enhance the placemaking and a sense of continuity in the downtown area while also increasing pedestrians and cyclists safety with crosswalks that are proven to be more visible to drivers than the continental style that is currently widely used throughout town.

15. Warren Avenue/New Meadow Road Bicycle Connection

This project will provide a 10' shared use path along the south side of Warren Avenue between Barneyville Road and Hollister Road. At the unsignalized intersection of Warren Avenue and Hollister Road, four ADA compliant curb ramps and and two high visibility crosswalks will be installed. The shared use path will continue along the north side of Warren Avenue to the Pinegate Farm at the Seekonk town line. Two ADA compliant ramps and high visibility crosswalks will also be installed at the intersection of Warren Avenue and New Meadow Road where the 10' shared use path will continue along the east side of New Meadow Road. This improvement would provide safe recreation space as well as improve local access to the East Bay Bike Path which connects to New Meadow Road in Barrington.

16. Gardners Neck Road North Sidewalks







This project would provide 5' ADA compliant sidewalks and curb ramps along the west side of Gardners Neck Road between Main Street and Route 6 (Grand Army of the Republic Highway). Sidewalks and curb ramps will enhance access to the downtown area, including Town Hall and DPW offices, Town Library, Wood School, Junior High School, and Brown School. Sidewalks along this half-mile stretch would close a network gap between Route 6 and the downtown area.

17. Gardners Neck Road South Sidewalks

This project will provide 5' ADA compliant sidewalks and curb ramps along Gardners Neck Road from Route 103 (Wilbur Avenue) to the southern tip of Gardners Neck. Sidewalks will need to change sides of the street due to existing conditions such as grade and utility placement, therefore two Rectangular Rapid Flashing Beacons (RRFB's) will be installed at the appropriate crossing locations. A sidewalk along the southern portion of Gardners Neck Road will fill a network gap while providing a safe route for children to walk to Gardner Elementary School as well as the senior center, places off worship, beaches, the playground, and residential areas that exist along Gardners Neck Road as well as to the west of the roadway.

18. Wood Street to Reed Street Sidewalk Connection - Phase I

This project will provide a 5' wide ADA compliant sidewalk along the north side of Wood Street between Swansea Mall Drive and Reed Street. This sidewalk will provide residents in this area with a connection to the shared use path proposed for Swansea Mall Drive, therefore improving access to retail and transit assets throughout town.

19. Wood Street to Reed Street Sidewalk Connection - Phase II

This project will provide a 5' wide ADA compliant sidewalk along the east side of Reed Street between Wood Street and the Warren Reservoir. This sidewalk will provide residents in this area with a connection to the sidewalks proposed on Wood Street as well as the shared use path proposed for Swansea Mall Drive, therefore improving access to retail and transit assets throughout town.







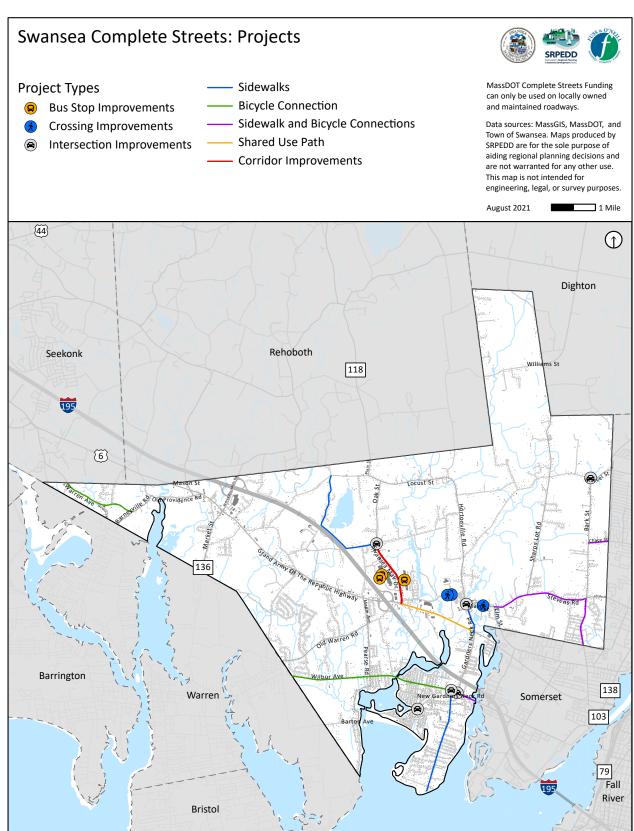


Figure 27: Swansea Complete Streets Projects Map







Appendix A

Swansea Complete Streets Prioritization Plan



Municipality	Swansea
MassDOT District	5
	Mallory Aronstein
Title	Town Administrator
Date	8/31/2021

				promote feedback via the website and/or comment cards.																				
		Project Basics		Locati	on	Modes Serve	d			Project Ty	pes						Assessm	ent		ı				
							Intersectio Redesign	Reconfiguratio		sing Modifications	Pedestrian & Bike Network Connection	Transit E	nvironment & tscape Investment	Network Gap	High Crash Location	Environmental Justice	Safe Routes to School	Safe Routes for Seniors	Accessibility	State-owned ROW		Funding Reques	t	Construction Schedule
Project Priorit Ranking	Y Project Name	Project Description	Project Source	Project Location	Google Maps Link	Pede stran Bicycle Transk	Vehicle/Freight Roundabouts/Afmi Traffic Circle Intersection Reconstruction Tighten Curb Radis/Curb Extension	Intersection Signalization Road Diet/Lane Elimination Lane Marrowing	Other Traffic Calming Elements ADA-compliant Curb Ramps Pedestrian Hybrid Be-acon/HAWK Ped-Activated Warning Device/RRFBs Ped-Activated Warning Device/RRFBs	Crossing is lands Raised intersection or Raised Crosswalk Crosswalk improvements	Sidewalk Shared-Use Path/Separated Bike Lane On-road Bike Lane Becycle Boulevards An arcel of Sulf-Proceds	Transi Sation/Stop Access Improvements Transit Service Improvements Street Lighting	reqrinuing fur recessions and service Parking. Beyde Parking. Beyde-Frendly Drain Galtes. Sommwater Management.	Is a Network Gap being filled?	Pedestrian Bicyde Vehicle	is an Environmental Justice Population Served? (See MassGIS Map)	Does this project improve safety or accessibility within on mile of a school?	Does this project improve safety or accessibility within 1/4 mile of a Senior destination?	Does this project improve conditions for people with disabilities?	Does this project include any state- owned right-of-way?	Estimated Project Cost Range	Funding Requeste from MassDOT	Other Funding Source(s) & Amount (if applicable)	Anticipated Construction Duration
		This project will contineu the 12' shared use path along the east side of Swansea Mall Drive from Swansea Crossing to Wood Street. To facilitate access																						
1	Route 118 (Swansea Mall Drive) Corridor Improvements Hortonville Road/Gardners Neck	between retail and transit stops on the east and west sides of the road high visibility crosswalls will be installed with ADA/AAR compliant curb ramps. Additionally, pederatin retige lainable will be constructed within the existing medium, and reginal retinings will be regarded to include pederation phases at each of the signalized interescition. Bispide parline, appropriately sciently digiting, MATCID compliant wayfrading spinge, and street trees will also be a second or support of the production of the signalized interescition. Bispide parline, appropriately sciently digiting, MATCID compliant wayfrading spinge, and street trees will also be a second or support of the production of the signal parline scientific and parline scientific and parline scientific and parline scientific and the signal parline scientific and scientif		Approximately one mile along Swansea Mall Drive between Wood Street and Route 6 (Grand Army of the Republic Highway)	https://goo.gl/maps/M26hdztk GGStk5dy7				lo Yes No No Ye	s Yes No Yes	No Yes No No Ni	Yes No Yes Ye	s Yes No No Y	es Yes	Yes Yes Yes	No	Yes	No	Yes	No	>\$400,000	\$ 400,1	000 TIP	4
2	Road at Main Street Intersection	ADA/AAB compliant cuto'r amps, and three high visibility crosswalks will be installed along with bicycle racks at the Lewin Brook Dam Park in the northeast corner of the intersection. These improvements will enhance connectivity to Town Hall and DPW offices, Town Library, Wood School, Junior High School, and Brown School.	CS Needs Assessment	Hortonville Road/Gardners Neck Road at Main Street	https://goo.gl/maps/zXncaSTRn giZrwLC9	Yes No Yes	s No No No	No No No I	lo Yes No No Ye	s No No Yes	Yes No No No No	No No No No	Yes No No N	o Yes	No No No	No	Yes	Yes	Yes	No	\$250,000 - \$400,000	\$ 400,0	000 None	3
3	Avenue/Sunnyslope Avenue Intersection Improvements	This project would provide 5' ADA/ABC compliant sidewalks and four ADA/ABC curb ramps while narrowing lanes/shoulders. These improvements will decrease curb radi and crossing distances while also allowing space to realign the approaches and improve sight distances. High vibility crosswals, 5' considerable control of the provide and the provide sight of the provide size of the interaction. Improvements here will also increase the control of the provide as a learn of the interaction. This project will improve the allow for motionity, predictarion, and cyticists to safely ravagate the interaction. Improvements here will also increase the engineering of the provide as a learn of the control of the interaction. This project will provide a 5' ADA/ABC compliant sidewals long the north side of Stevens Road along with sharrows and MUTCD compliant signage thereone that college Good and fast. Stever. A Rectangular Road particip Rescord (RER) and ADA/ABC compliant signage with sharrows and steven curb range and they wishing the control of the control of the provide as a few road range and they distribute the steven Road and start. Stever. A Rectangular Road particip Rescord (RER) and ADA/ABC compliant signage with sharrows and steven that may not also the provide as a few road range and they distribly the sidney.	CS Needs Assessment	Intersection northeast of 260 Ocean Grove Avenue	https://goo.gl/maps/9UFUUZgv ryfAFGIIVS	Yes No Yes	s No Yes Yes	No No Yes I	lo Yes No No Ne	o No No Yes	Yes No Yes No Ni	No No No Ye	s Yes No No Y	es No	No No No	Yes	Yes	Yes	Yes	No	>\$400,000	\$ 400,0	000 TBD	5
4	Stevens Road Sidewalk Connection - Phase I	or crasswall will be installed at Ridge Lane to connect this neighborhood to the new the sidewalk network. This connection will bridge the network pap between Base Lodge Road and Bark Street that also connect to the neighboring town of Somenset via Buffington Street and Brayton Avenue. Additionally, the emproyments will increase access to the downtown area, including Town Hall, Town Library, Wood School, Junior High School, and multiples places of worship.	CS Needs Assessment	Approximately one mile along Stevens Road between Base Lodge Road and Bark Street	https://goo.gl/maps/XPde8kh1 RPR1DNHz9	Yes No No	No No No	No No No 1	lo Yes No Yes No	o No No Yes	Yes No No No No	No No No No	o No No No N	o Yes	No No No	No	Yes	No	Yes	No	>\$400,000	\$ 400,0	000 TBD	2
5	Stevens Road Sidewalk Connection - Phase II	This project will provide a S*ADA/AAB compliant sidewalk along the east side of Ein Street between Highland Road and Stevens Road. This interaction will provide two ADA/AAB compliant cush ramps and a high visibility crosswalk and the sidewalk will continue along the north side of Stevens Road to Base Lodge Road A RRSB with ADA/AAB compliant cush ramps and high visibility crosswalk will be installed at Base Lodge Road of some content to englighten does to the new sidewalk network. James on self-MICT compliant surgage will be provided along both settles of roadway.	CS Needs Assessment	Approximately one-half mile along Elm Street between Highland Road and Main Street/Stevens Road, and approximately 750 feet between Main Street/Elm Street and Base Lodge Road	https://goo.gl/maps/535KD6To WmYbVKTh7	Yes No No	No No No	No No No I	lo Yes No Yes No	o No No Yes	Yes No No No No	No No No No	o No No No N	o Yes	No No No	No	Yes	No	Yes	No	\$250,000 - \$400,000	\$ 300,0	000 None	2
6	Route 118 (Swansea Mail Drive) a Wood Street Intersection Improvements	This project will implement a roal diet at the intesection of Route 1.18 (Swannes Mall Drivel) and Wood Street for create one travel lane in each direction with 8-30 orn othors of left time by. The Mall allow for a decrease or that all and crossing distances while improving the intersections ight distances. The ispace garded in the road diet will be used to add green space to the intersection with benches and shade trees along the Swannes Mall Drive shared use which is the state of	CS Needs Assessment		https://goo.gl/maps/fkQAejpva udoY3xm6	: Yes Yes Yes	s No Yes Yes	No Yes Yes	es Yes No No No	o Yes No Yes	Yes No Yes No Ni	Yes No No No	o No No No N	o No	Yes Yes Yes	No	No	No	Yes	No	>\$400,000	\$ 400,0	000 TIP	5
7	Bark Street Sidewalks and Bicycle Lanes	This project will provide Y. A.A.A.A.C compliant side-walks and curb ramps along the west side of Black Steres is well as unfaulfied on most bloyde loses between Steress Roses and and the Somerist room like. These improvements will enhance sectors to the downtown such, andiding Town History, Town Library, Wood School, Junior High School, Junior	CS Needs Assessment	Approximately three quarters of a mile along Bark Street between Stevens Road and Brayton Avenue, Somerset	https://goo.gl/maps/SQbYLSDae Cbhx2Y19	Yes No No	No No No	No No No I	lo Yes No No No	o No No No	Yes No Yes No Ni	No No No No	o No No No N	o Yes	No No No	No	No	No	Yes	No	>\$400,000	\$ 400,0	000 TBD	2
8	Chace Street Sidewalks and Bicycl Lanes	This project will provide \$' ABA/AAB compliant sidewalks along the north side of Chace Street as well as \$' unbuffered bicycle lanes between Bark Street and the Summer Chace Street into the Bark Street sidewalk and bicycle lane network.	CS Needs Assessment	Approximately one-quarter mile along Chace Street between Bark Street and the Somerset town line	https://goo.gl/maps/gRkQcrwF QGkdc2A2Z	Yes No No	No No No	No No No I	lo Yes No No Ne	o No No No	Yes No Yes No Ni	No No No No	o No No No N	o Yes	No No No	No	No	No	Yes	No	\$100,000 - \$250,000	\$ 150,0	000 None	2
9	Crossing Improvements at Joseph Case High School	This project will provide two raised crosswalks with high viability parement matrings a sociated ADA/AB compliant curb ramps to serve loosph Case high School—one and Mildler Robard and Carlotan Way, and morther a Mildler Robard as for Sterr. These raised crosswalks will improve pedestrain and buyde access to Joseph Case High School on the north side of Mildlerd Robard and the abhetic Refeds on the south side of Mildlerd Robard and wall also increase affectively by encouraging divines to discrease refedes regards in the vising in the Regist and wall also increase affectively by encouraging divines to discrease refedes and the register in the vising in the high school.	CS Needs Assessment	Milford Road at School Street and Milford Road at Cardinal Way	https://goo.gl/maps/UNaqV4Dy QiqDhyRZ8	Yes No Yes	s No No No	No No No I	lo Yes No No No	o No Yes No	No No No No No	No No No No	o No No No N	o No	No No No	No	Yes	No	Yes	No	<\$50,000	\$ 12,	000 Nane	1
10	Downtown Crossing Improvements	This project will provide in high visibility crosswalls and upgrade end/or construct new curb ramps to be ADA/AAR compliant along Main Street in he downtown area. Their improvements will be focused around the Acho, fire department and Town offices, filtery and will enhance the placemaking and a sense of continuity in the downtown area while also increasing pedestrians and cyclists safety with crosswalls that are proven to be more visible to drivers than the continuents after the ADA/AAR compliant along Main service of the ADA/AAR compliant alon		Main Street between Hortonville Road/Gardners Neck Road and Elm Street Approimately 3,000 linear feet	https://goo.gl/maps/7GhU8CM SBQcfacnZA	Yes No No	No No No	No No No 1	lo Yes No No No	o No No Yes	No No No No No	No No No No	o No No No N	o No	No No No	No	No	No	Yes	No	<\$50,000	\$ 30,	000 None	1
11		This project will provide a 12' shared use path along the south side of Warren Avenue between Barneyville Road and New Meadow Road. This improvement will provide safe recreation space as well as improve local access to the East Bay Bike Path which connects to New Meadow Road in Barneg	CS Needs Assessment	along Warren Avenue from Barneyville Road to New Meadow Road	https://goo.gl/maps/wd7nWXG 7DpS073ov5	Yes No No	No No No	No No No I	lo No No No No	o No No Yes	No Yes No No No	No No No No	No No No N	o Yes	No No No	No	No	No	Yes	No	>\$400,000	\$ 400,0	DOO TBD	2
12	Warren Avenue/New Meadow Road Bicycle Connection - Phase I	This project will provide three ADA/ABI compliant curb ramps and high visibility crosswalks at the intersection of Warren Avenue and New Meadow Road where the 10" shared one path will continue along the east size of the Meadow Roads to the Barrington Dessin. En: its improvement will provide side recreation speaks are well as improved calculated bases to the Next size which Post which connects to hew Meadow Road in birringion.	CS Needs Assessment	Approximately one quarter mile along New Meadow Road between Warren Avenue and the Barrington town line		Yes No No	No No No	No No No 1	lo Yes No No Ne	o No No Yes	No Yes No No No	No No No No	o No No No N	o Yes	No No No	No	No	No	Yes	No	\$100,000 - \$250,000	\$ 225,0	000 None	2
13	Warren Avenue/New Meadow Road Bicycle Connection - Phase I	This project will provide a 12' sharred use path along the south side of Warren Avenue between New Mesdow Road and Pinegate Farm at the Sestion's town line. This improvement will provide safe recreation space as well as improve boal access to the East Bay Bille Path which connects to New Mesdow (Road in Barrington Long) Plause II.		Approimately three quarters of a mile along Warren Avenue from Barneyville Road to Pinegate Farm (409 Warren Avenue)		Yes No No	No No No	No No No f	lo No No No No	o No No Yes	No Yes No No Ni	No No No No	No No No N	o Yes	No No No	No	No	No	Yes	No	>\$400,000	\$ 400,0	000 TBD	2
14	Gardners Neck Road North Sidewalks	This project would provide 5' ABA/ABA compliant sidewalks and cut for impa shang the west side of Gardners Neck Road between Main Street and Road (Girond Amy of the Republic Highway). We will enhance access will enhance access the devotroom rate, including Youn Hall and Poly offices. Tom Library, Wood School, Junior High School, and Brown School. Schewalks along this half-mile stretch would close a network gap between Roads of the Christonia.	CS Needs Assessment	Approximately one-half mile along Gardener Neck Road between Main Street and Route 6	https://goo.gl/maps/wU9FG1rU ZNNIjusG8	No No No	No No No	No No No I	lo Yes No No No	o No No No	Yes No No No No	No No No No	o No No No N	o Yes	No No No	No	Yes	No	Yes	Yes	\$100,000 - \$250,000	\$ 225,0	000 None	2
15	Gardners Neck Road South Sidewalks - Phase I	This project will provide 5 ADA/AB compliant side-walks and curb ramps along Gardners Neck Road from Route 103 (William Aermuyl to Brenton Road.) Schewalks will need to change sides of the street due to existing conditions such as grade and utility placement, Herefore two Rectangel's Rapid Flashing Beacons (RRFS) will be installed at the appropriate crossing locations. A side-walk along the southern portion of Gardners Neck Road will fill a network gap while providing a safe route for children to walk to Gardner Elementary School as well as the since cornect, places off worship, beaches, the playground, and residential areas that exist along Gardners Neck Road as well as to the west of the roadway.	CS Needs Assessment	Approximately three-quarters of a mile along Gardners Neck Road between Route 103 (Wilbur Avenue) and Brenton Road	https://goo.gl/maps/KmYnZTf2f Ye LJ3u9pl9	No No No	No No No	No No No P	lo Yes No Yes No	o No No Yes	Yes No No No No	No No No No	o No No No N	o Yes	No No No	Yes	Yes	No	Yes	No	>\$400,000	\$ 400,0	000 TBD	3
16	Gardners Neck Road South Sidewalks - Phase II	This project will provide 5 ADA/AB compliant sidewalks and curb ramps along Gardners Neck Road from Bereton Road to the southern to of Gardners Neck. Sidewalks will need to change side on the street due to existing conditions such as goal and utility pictores, therefore to no Recordangar Road Flashing Beacons (RBSFs) will be installed at the appropriate crossing locations. A sidewalk along the southern portion of Gardners Neck Road will fill a network gap and legorologies a self-courber foolithers to walk to Gardner Elementry School as well as the self-courber flowers that exist along Gardners Neck Road will fill a playground, and residential areas that exist along Gardners Neck Road as well as to the west of the roadway.	CS Needs Assessment	mile along Gardners Neck Road between Brenton Road and 1567 Gardners Neck Road, the southern tip of Gardners Neck		No No No	No No No	No No No 1	lo Yes No Yes No	o No No Yes	Yes No No No No	No No No No	o No No No N	o Yes	No No No	Yes	Yes	No	Yes	No	>\$400,000	\$ 400,0	000 TBD	3
17	Wood Street to Reed Street Sidewalk Connection - Phase I	This project will provide a 5' wide ADA/AAB compliant sidewalk along the north side of Wood Street between Swarsea Mall Drive and Reed Street. This sidewalk will provide residents in this area with a connection to the shared use path proposed for Swansea Mall Drive, therefore improving access to retail and transit asset throughout term.		Mall Drive and Reed Street	https://goo.gl/maps/glxmAASip SBEmrhZ6	No Yes No	No No No	No No No I	lo No No No No	No No No	Yes No No No No	Yes No No No	No No No N	o No	No No No	No	No	No	Yes	No	>\$400,000	\$ 40,	000 TBD	2
18	Sidewark Connection - I have it	This project will provide a 5" under ADA/ABA Compiliant indivinable along the easts side of feed Street between Wood Street and the Warren Reservor. This distinuals will provide reductions in this may not provide provide street with some street on the street selections (as proposed nor Wood Street as well as the shared use path proposed for Swames ABAID Drive, therefore improving access to retail and transfe assets throughout town. This project will provide a 5" wide ADA/ABA compiliant selected single the east side of Feed Street between the Warren Reservoir and Count	CS Needs Assessment	Approximately one half-mile along Reed Street between Wood Street and 343 Reed Street Approximately three-quarters of a	https://goo.gl/maps/d6ShKWNs WLLm3phRA	No Yes No	No No No	No No No 1	lo No No No No	No No No	Yes No No No No	Yes No No No	No No No N	o No	No No No	No	No	No	Yes	No	\$250,000 - \$400,000	\$ 275,	000 None	2
19	Wood Street to Reed Street Sidewalk Connection - Phase III	Street/Vinnicum Road. This sidewalk will provide residents in this area with a connection to the sidewalks proposed on Reed Street south of this	CS Needs Assessment	mile along Reed Street between 343 Reed Street and Locust Street/Vinnicum Road	https://goo.gl/maps/iriRupJikeB Fyhn47	No Yes No	No No No	No No No I	lo No No No No	No No No	Yes No No No No	Yes No No No	No No No N	o No	No No No	No	No	No	Yes	No	\$250,000 - \$400,000	\$ 275,0	000 None	2
20		The project will provide bus shelters and biopide racks for the three bus stops along Swanness Mail Drine. Swanness Crossing, Swanness Mail/Walmart, and Walmart. This improvement will provide a shelter with benches and wayfinding for pedestrians and transit riders accessing the SRTA bus route in Swanness.	CC Nanda Assassment	Three bus stops within shopping plazas along Swansea Mall Drive Route 6 (Grand Army of the		Yes Yes No	No No No	No No No I	lo No No No No	o No No No	No No No No No	Yes No No No	Yes No No N	o No	No No No	No	No	No	No	No	\$50,000 - \$100,000	\$ 60,	000 None	1
	Route 6 (Grand Army of the Republic Highway) Shared Use Path	This project will provide a 10' sharred use path along the north side of Route 6 between Route 118 (Swanses Mail Drive) and Cardners Neck Road. This path will provide connectively for multi-model access to the pitchers of commercial uses along Route 6 while also improving access to the transit stations along Swanses Mail Drive.		Route 6 (Grand Army of the Republic Highway) between Route 118 (Swansea Mall Drive) and Gardners Neck Road Appriximately 0.3 miles along		Yes Yes No	No No No	No No No I	lo Yes No No No	o No No Yes	No Yes No No No	No No No No	No No No N	o Yes		No	No	No	Yes	Yes	>\$400,000	\$ 400,0	000 TIP	6
	Route 103 (Wilbur Avenue) Sidewalk Connection	This project will provide 5' ADA/AAB compliant sidewalks and curb ramps along Wilbur Avenue east of Gardners Neck Road to the Somerset, MA town line. Sidewalks along this stretch of Wilbur Avenue would provide the missing connection for pedestrians, linking the entirety of Wilbur Avenue as it transverses Swansea between it's neighborhing towns of Warren, RI and Somerset, MA.		Wilbur Avenue between Gardners Neck Road and the Somerset, MA town line Approximately 3 miles along		No No No	No No No	No No No 1	lo Yes No No No	No No No	Yes No No No No	No No No No	No No No N	o Yes	No No No	No	Yes	No	Yes	Yes				
	,	This project will provide on-read block laters and up to ask storage racks along Wilbor Avenue. This improvement would provide multi-modal connectivity throughout Swannes as well as with the neighboring towers of Somerset, MA and Warren, RI. This connection would provide enhanced access to many businesses, places of workship, and restaurants. Oralinge improvements would also be made along the corridor to include bicycle friendly drain grates.		Wilbur Avenue between the Town line with Somerset in the east to the State line with Rhode Island o the west.	https://goo.gl/maps/bDASYZai3 enklal16	Yes No No	No No No	No No No f	io No No No No	No No No	No No Yes No Ne	No No No No	Yes Yes No N	o No	No No No	No	Yes	No	No	Yes				
	Route 103 at Gardners Neck Road Roundabout	Construct a single lane roundabout at the interaction of Route 103 (Wilbur Avenue) and Gardners Neck Road. This project will improve vehicle flow of an arterial and minor arterial routeway while incorporating AbA compliant side-walks and ramps, as well as on road broyck lanes. This improved traffic pattern would slow hockloals traffic and allow for smaller cut and land therefore shorter crossing distances across the intersection. Stormwater improvements will also be made to incorporate broych friendly drain grates.		Approximately 250 feet north, south, east and west of the intersection of Route 103 and Gardners Neck Road	SQHKY7VS Ye	Yes No Yes	s Yes Yes Yes	No No No 1	lo Yes No No No	No No No	Yes No Yes No No	No No No No	o No Yes No N	o No	No No Yes	No	Yes	No	Yes	Yes				
	Route 103 (Wilbur Avenue) at New Gardners Neck Road Intersection Improvements	Construct a single lane roundabout at the intesection of Route 103 (Wilbur Avenuel) and Gardners Neck Road. This project will improve vehicle flow of an arterial and minor collector roadway while is ecorporating ADA complains disewable and ramps, as well as on-road bocycle lanes. This improved traffic pattern would slow horisolar traffic and allow for smaller cut and fault enterfore shorter crossing distances across the intersection. Stomwater improvements will also be made to incorporate bocycle friendly drain grates.	Other	Approximately 250 feet south, east and west of the intersection of Route 103 and New Gardners Neck Road	https://goo.gl/maps/u9LYPvidD	Yes No Yes	s Yes Yes Yes	No No No f	lo Yes No No No	No No No	Yes No Yes No No	No No No No	o No Yes No N	o No	No No Yes	No	Yes	No	Yes	Yes				







Appendix B

Swansea Complete Streets Evaluation Criteria

Town of Swansea Complete Streets Prioritization Plan - Evaluation Criteria

Criteria	Max points	Criteria Description
	0	Project does not improve safety
Cafata	1	Project improves safety for 1 users
Safety	2	Project improves safety for 2 users
	3	Project improves safety for 3+ users
	0	Serves 0 modes
Mada Carad	1	serves 1 mode
Modes Served	2	serves 2 modes
	3	serves 3+ modes
	0	Improves a network gap for 0 modes
Not ad Co.	1	Improves a network gap for 1 mode
Network Gap	2	Improves a network gap for 2 modes
	3	Improves a network gap for 3+ modes
	0	High crash location for 0 modes
	1	High crash location for 1 mode
High Crash Location	2	High crash location for 2 modes
	3	High crash location for 3 modes
	1	Yes
Connection to School	0	No
	1	Yes
Connection to Senior Center	0	No
Commontivitanto Amenditionin	0	Serves 0 amenities
Connectivity to Amenities in	1	Serves 1 amenity
Swansea or Neighboring	2	Serves 2 amenities
Towns	3	Serves 3+ amenities
	0	Does not align with any existing projecs
Aligns with Town Utility or	1	Aligns with projects in the next 3-5 years
Paving Schedule	2	Aligns with projects in the next 2 years
-	3	Aligns with projects in the next 1 year
	0	Project does not provide connections to environmental justice communities/neighborhoods
	1	Project provides connection to and benefits an environmental justice population
Environmental Justice	2	Project directly benefits an environmental justice population
	3	Project directly benefits more than one environmental justice population
	0	Project received 0 comments from the public
a	1	Project received 1 comment from the public
Civic Engagement	2	Project received 2 comments from the public
	3	Project received 3+ comments from the public







Appendix C

Swansea Complete Streets Project Scoring Results







Appendix D

Swansea Complete Streets Cost Estimates

COMPLETE STREETS FUNDING PROGRAM Exhibit B PRELIMINARY ESTIMATE

City /Town of	Swansea	Date:	1-Oct-21

Project Rank #/Name #7 - Bark Street Sidewalks and Bicycle Lanes

Item #s - Standard MassDOT Item numbers can be found on our Construction Cost Estimator/Weighted Bid Prices. Search Items at https://hwy.massdot.state.ma.us/CPE/ItemSearch.aspx

Do not exceed MassDOT Allowances for Contingency, Construction Eng. Oversight, Mobilitzation, Police. See attached sheet.

ITEM #	QTY.	UNIT	DESCRIPTION OF ELIGIBLE REIMBURSEMENT ITEMS ONLY	UN \$	IIT PRICE	AMOUNT
101	0.20	А	CLEARNING AND GRUBBING	\$	10,000.00	\$ 2,000.00
120	500.00	CY	EARTH EXCAVATION	\$	45.00	\$ 22,500.00
129.2	175.00	CY	OLD PAVEMENT EXCAVATION	\$	30.00	\$ 5,250.00
151	700.00	CY	GRAVEL BORROW	\$	45.00	\$ 31,500.00
430	200.00	SY	CEMENT CONCRETE BASE COURSE	\$	70.00	\$ 14,000.00
451	50.00	TON	HMA FOR PATCHING	\$	235.00	\$ 11,750.00
506	2,450.00	FT	GRANITE CURB TYPE VB - STRAIGHT	\$	40.00	\$ 98,000.00
509	150.00	FT	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT	\$	50.00	\$ 7,500.00
580	1,050.00	FT	CURB REMOVE AND RESET	\$	30.00	\$ 31,500.00
594	2,450.00	FT	CURB REMOVED AND DISCARDED	\$	6.50	\$ 15,925.00
701.2	100.00	SY	CEMENT CONCRETE PEDESTRIAN CURB RAMP	\$	95.00	\$ 9,500.00
702	275.00	TON	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY	\$	235.00	\$ 64,625.00
748	1.00	LS	MOBILIZATION (3%)	\$	10,000.00	\$ 10,000.00
751	60.00	CY	LOAM BORROW	\$	50.00	\$ 3,000.00
765	400.00	SY	SEEDING	\$	2.50	\$ 1,000.00
851.1	40.00	DAY	TRAFFIC CONES FOR TRAFFIC MANAGEMENT	\$	24.00	\$ 960.00
852	75.00	SF	SAFETY SIGNING FOR TRAFFIC MANAGEMENT 6 INCH REFLECTORIZED WHITE LINE	\$	20.00	\$ 1,500.00
866.106	7,000.00	FT	(THERMOPLASTIC)	\$	1.00	\$ 7,000.00
867.106	7,000.00	FT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$	1.00	\$ 7,000.00
874.2	10.00	EA	TRAFFIC SIGN REMOVE AND RESET	\$	100.00	\$ 1,000.00
						\$ <u>-</u>
			CONSTRUCTION CONTINGENCY (10%)			\$ 34,551.00
			POLICE CONTINGENCY (5%)			\$ 19,003.05
OTAL			MassDOT Request not to exceed \$400,00	0.		\$ 399,064.05

HED-614 (R) Supervisor/Foreman Date







Appendix E

Swansea Crash Summary Table (2018-2020)

Town of Swansea Complete Streets Prioritization Plan - Crash Summary Table (2018-2020)

Intersection Number State Road:		2 Yes Old Providence Road &	3 Yes James Reynolds Road &	4 Yes Maple Avenue & Grand	5 Yes Maple Avenue &	6 Yes Pearse Road & 1	7 Yes New Gardner Neck	8 Yes Gardner Neck Road	9 Yes Swansea Mall Drive & Gran	10 No od Swansea				14 Yes Gardner Neck Road & G		o No treet Sharps L		No reet Bark Str	No reet Bark Street
Intersection:	Army of the Republic Highway (Route 6)	Grand Army of the Republic Highway (Route 6)	Grand Army of the Republic Highway (Route 6)	Army of the Republic Highway (Route 6)	(Route 103)		Road & Wilbur venue (Route 103)		Army of the Republic Highway (Route 6)	Wood Stree			Road & Main Street	Army of the Republi Highway (Route 6)		lain Road & eet Stevens R			et Street
Year 2018	4	5	45	13	3	3	1	6	2	20 :	3 2	2 2	1		3	4	1	1	1 1
2019	5	1	52	12	2	5	3	4	2	22 !	5 1	1 5	1		6	2	2	1	1 0
2020 Total	3 12	4 10	37 134	7 32	7	3 11	3 7	9		12 2	2 1	1 7	1 3		5 14	7	4	3	2 3
Average per year	4	3.33	44.67	10.67	2.33	3.67	2.33		18.0										0.67 1.00
Collision Type Angle	6	2	67	20	2	5	2	9		19 !		1 2	1		7	5	1	1	2 (
Head-on	0	0	4	0	0	0	0	0		2 () () (. 0		1	1	0	0	0 1
Rear-end	5	6	37	9	3	5	3	5		22 () 1	1 3	2		5	0	0	2	0 0
Rear-to-Rear	0	0	1	0	0	0	0	0		0 () () (0		0	0	0	0	0 1
Rear to Side Sideswipe, opposite direction	0	0	2	1	0	0	0	2		1 () () 0	. 0		0	1	1	0	0 0
Sideswipe, same direction	1	0	13	0	0	0	0	1		4 () 0) 0	0		0	0	0	0	0 0
Single vehicle crash	0	2	2	2	2	0	2	1		4	1 3	3 0	0		1	0	2	0	0 1
Front to Front Front to Rear	0	0	0	0	0	0	0	0		1 (-		0	0	0	0	0 0
Unknown	0	0	1	0	0	0	0	0		0 () () (. 0		0	0	0	0	0 0
Total	12	10	134	32	7	11	7	19	5	54 10) 4	1 7	3		14	7	4	3	2 3
Crash Severity Fatal injury	0	0	0	1	0	0	0	0		0 (o 0) (0		0	0	0	0	0 -
Non-fatal injury	7	3	33	7	1	4	0	8		7 (8	2	2	0	0 1
Property damage only (none injured)	5	7	99	24	6	7	5	11		17			3		6	5	2	3	2 2
Unknown Not reported	0	0	1	0	0	0	1	0		0 (-		0	0	0	0	0 0
Total	12	10	134	32	7	11	7			64 10					14	7	4	3	2 3
Collision With	12		420		_		_		_	_						_	2	_	
Collision with Motor vehicle in traffic Collision with Parked motor vehicle	0	8	129	30 0	5	10	5	18 0		0 () 1	1 6	3		13 0	0	0	1	0 1
Collision with Pedestrian	0	0	0	0	0	0	1	0		0 (,) 0	. 0		1	0	0	0	0 0
Collision with Animal - deer	0	0	0	0	1	0	0	0		0 () () (-		0	0	0	0	0 0
Collision with Other Movable Object Collision with Curb	0	0	0	2	0	0	0	0		0 () () (. 0		0	0	0	0	0 0
Collision with Tree	0	0	0	0	1	0	0	0		0 (. 0		0	0	0	0	0 0
Collision with Utility pole	0	0	0	0	0	0	0	0		0 () 0	0		0	0	1	0	0 1
Collision with Other light pole or other post/support		0	0	0	0	1	0	1		0 :	1 0) (0		0	0	1	0	0 0
Collision with Guardrall Collision with Median barrier	0	0	0	0	0	0	0	0		1 (, .	2 0			0	0	0	0	0 0
Collision with Unknown fixed object	ō	0	1	0	ō	0	0			1					0	0	0	0	0 0
Collision with Other	0	0	1	0	0	0	0	0		0 () () 1	. 0		0	0	0	0	0 0
Total	12	10	134	32	7	11	7	19	5	54 10	0 4	1 7	3		14	7	4	3	2 3
Time of Day																			
6 AM to 10 AM	1	2	25	5	2	0	3	2		6) 1	. 1		1	1	1	0	0 0
10 AM to 4 PM	6	4 2	65	14 9	1	3	2 2			25					8	2	1	3	2 1
4 PM to 7 PM 7 PM to 12 AM	2	0	28 12	3	1	3	0			16 2					2	3	1	0	0 1
12 AM to 6 AM	0	2	4	1	ō	0	0			3 () 1		0		0	1	0	0	0 1
Total	12	10	134	32	7	11	7	19	5	54 10) 4	1 7	3		14	7	4	3	2 3
Day of Week																			
Sunday	1	1	12	5	1	3	2	1		4		, .			1	1	0	0	0 0
Monday Tuesday	1	1 2	25 20	2	1	1	0	1 4	1	7					1	0	0	1	0 0
Wednesday	4	1	20	4	0	0	1	3		11 :					2	2	1	0	0 0
Thursday	1	1	16	4	1	0	0			3	1 1				2	1	1	0	0 0
Friday Saturday	3 1	0	28 13	5	1	1	0	3		10 : 8 :	1 1	1 1	. 0		1	2	0	1	1 1
Total	12	10	134	32	7	11	7	19		6 :) 4	1 7	-		14	7	4	3	2 3
Month of Year		_																	
January February	1 2	0	11 10	5	0	1	1	2 2		8 :	1 0) (0		2	0	0	0	0 0
March	2	0	9	1	0	3	2			3 () 1	. 1	. 0		1	0	1	0	0 1
April	2	1	13	2	0	1	1	2		3	1 1	1 0	0		2	0	0	0	0 1
May	0	5	12	4	0	0	0	0		2	2 0) (0		2	0	0	0	1 0
June	1	0	19 21	1	1	2	0	1		5 (. (, (. 0		1	0	0	0	0 0
July	-	1	5	4	3	1	1	1		2	1 0) 2	. 1		1	1	0	Ö	0 0
	0	1	,																
July August September	2	1	7	2	0	0	0	1		5 (0		1	1	2	0	0 0
July August September October	0 2 0	1 1	7 5	2 3 3	0	0	0	2		8 (5 0	,	0		1	1	0	1	0 0
July August September	0 2 0 2 0	1 1 1 0	7	2 3 3 2	0 0 1	0 0 0 3	0 0 2 0	_			5 0	,	0		-	-	2 0 0 0	0 1 0 2	

Town of Swansea Complete Streets Prioritization Plan - Crash Summary Table (2018-2020)

Intersection Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
State Road:	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	No	No	No	No	
	Mason Street & Grand	d Old Providence Road &	James Reynolds Road &	Maple Avenue & Grand	Maple Avenue 8	& Pearse Road &	New Gardner Neck	Gardner Neck Road	Swansea Mall Drive & Grand	l Swansea	Plain Street	Oak Stree	t Hortonville	Gardner Neck Road & Gra	nd Elm Stree	t Sharps Lot	Bark Stre	et Bark Stree	et Bark Street	
Intersection:	Army of the Republic	Grand Army of the Republic	Grand Army of the Republic	Army of the Republic	Wilbur Avenue	Wilbur Avenue	Road & Wilbur	& Wilbur Avenue	Army of the Republic	Mall Drive &	& Locust	& Locust	Road &	Army of the Republic	& Main	Road &	& Stever			
	Highway (Route 6)	Highway (Route 6)	Highway (Route 6)	Highway (Route 6)	(Route 103)		Avenue (Route 103)	(Route 103)	Highway (Route 6)	Wood Street	Street	Street	Main Street	Highway (Route 6)	Street	Stevens Road	Road	Street	Street	
Weather																				
Clear	6	8	102	23	4	8	4	13	43	. 8	3		3 3		11	5 3	3	1	1 7	i
Clear/Cloudy	0	0	1	0	0	0	0	0	() () (0		0) ()	0	0 (j
Clear/Other	1	0	7	1	0	0	0	0		2 1) (0		1) ()	0	o r	j
Clear/Unknown	0	0	2	1	0	0	o o	0		2 0) (0		0)	0	0 (j
Cloudy	0	1	11	4	1	0	2	. 0		2 1) :	. 0		0)	1	0 (j
Cloudy/Rain	0	0	2	0	0	0	0	1	2	2 0) (0		0)	1	0 (j
Cloudy/Severe crosswinds	0	0	0	1	0	0	0	0	() () (0		0) ()	0	0 (j
Cloudy/Other	1	0	1	0	0	0	0	0	2	2 0) :	1 0		0) ()	0	0 (j
Rain	1	1	5	1	1	1	1	4	() (1		1 0		1	2 ()	0	0 (j
Rain/Cloudy	2	0	0	0	1	0	C	0	() (0) (0 0		0) ()	0	1 (į
Rain/Severe Crosswinds	0	0	1	0	0	0	C	0	() (0) (0 0		0) ()	0	0 (į
Snow	0	0	1	1	0	0	Ö	0	7	2 0	0) (0 0		1) 1		0	0 (1
Snow/Cloudy	1	0	0	0	0	0	Ö	0	() (0) :	1 0		0) ()	0	0 (1
Sleet, hail (freezing rain or drizzle)	0	0	0	0	0	2	Ö	0	() (0) (0 0		0) ()	0	0 (1
Fog, Smog, Smoke/Rain	0	0	0	0	0	0	Ö	1	() (0) (0 0		0) ()	0	0 (1
Rain/Fog, smog, smoke	0	0	1	0	0	0	0	0	() () (0		0) ()	0	0 (j
Cloudy/Fog, smog, smoke	0	0	0	0	0	0	0	0	1) (0		0) ()	0	0 (j
Total	12	10	134	32	7	11	7	19	54	1 10	. 4		7 3		14	7 4	ı	3	2 ?	i
Light Conditions																				
Daylight	10	8	111	26	5	5	6	12	42	2 6	1		5 2		11 .	4 3	3	3	2 1	
Dawn	0	0	2	0	0	0	Ö	0	() 2) (0 0		0) ()	0	0 (1
Dusk	0	0	1	0	0	0	Ö) 2	() (0) (0 0		0	1 ()	0	0 (1
Dark - lighted roadway	2	0	18	6	2	6	1	. 5	12	2 2	. 1		1 1		3	2 1		0	0 2	
Dark - roadway not lighted	0	2	2	0	0	0	0	0	() (1		0 0		0) ()	0	0 2	
Dark - unknown roadway lighting	0	0	0	0	0	0	0	0	() (1		0 0		0) ()	0	0 (j
Total	12	10	134	32	7	11	7	19	54	1 10	. 4		7 3		14	7 4	ı	3	2 ?	i







Appendix F

Swansea Draft Complete Streets Policy

CHRISTOPHER R. CARREIRO, *Chairman* DEREK W. HEIM, *Vice Chairman* STEVEN H. KITCHIN, *Clerk*

MALLORY E. ARONSTEIN Town Administrator

Town of Swansea Complete Streets Policy Adopted:

Vision and Purpose:

Complete Streets are designed and operated to provide for safe, reliable mobility for all the users of our roadways, walkways, trails and transit systems, including but not limited to pedestrians, bicyclists, transit users, motorists, commercial vehicles, emergency vehicles, and any other forms of transportation, and for people of all ages and abilities both along the roadways and crossing the corridors. Furthermore, Complete Streets principles and initiatives contribute towards the general health, safety, economy, and overall quality of life within a community by improving pedestrian and vehicular connectivity as well as accessibility for users of all ages and abilities.

Therefore, the purpose of Swansea's Complete Streets Policy is to accommodate all transportation users by creating a network that meets the need of individuals utilizing a variety of transportation modes. The Town of Swansea's intent is to formalize the planning, design, maintenance, and operation of streets to ensure safety for routine users of all ages and abilities. This Policy directs decision makers to consistently plan, design, and construct streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, transit users, motorists, emergency vehicles, and commercial vehicles.

Core Commitment:

The Town of Swansea is committed to designing, constructing, maintaining, and operating our streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities with a commitment to Complete Streets principles.

The Town of Swansea recognizes that all projects, whether they consist of new construction, maintenance, or reconstruction, are potential opportunities to apply Complete Streets design principles. The Town will, to the maximum extent practical, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities. This includes the Town's commitment to working with state partners for state-owned Routes 103 and 6.

Complete streets design recommendations shall be incorporated into all publicly and privately funded projects, where appropriate. The application of Complete Streets principles will remain context sensitive, and will vary depending upon specific needs of the area being analyzed. All transportation infrastructure and street design projects requiring funding or approval by the Town of Swansea, as well as projects funded by the State and Federal government, such as Chapter 90 Funds, Town improvement grants, Transportation Improvement Program (TIP), the MassWorks Infrastructure Program, Community Development Block Grants (CDGB) Capital Funding, and other state and federal funds for street and infrastructure design shall comply with the Town of

Swansea Complete Streets Policy. Private developments and related street design components or corresponding street-related components, including new subdivisions, shall comply with Complete Streets principles. In addition, to the extent practical, state-owned roadways will comply with the Complete Streets resolution and maintenance of such roadways within Town boundaries.

Exemptions:

Exceptions to the Complete Streets policy and exclusion of transportation infrastructure projects may be granted by the appropriate authority, in consultation with the Town Engineer, Police Chief, Fire Chief, and Town Planner, with input from the Complete Streets Committee, where documentation and data indicate that:

- 1. Specific users are prohibited by law from the facilities, such as interstate highways or pedestrian malls. Alternative accommodations will be identified.
- 2. Where cost or impacts of accommodation are excessively disproportionate to the need or probable use or probable future use.
- 3. The constraints of the roadway including limited right of way, buildings, etc., preclude a design that can safely accommodate all users in a cost-effective manner. An effort will be made in these cases to identify alternative accommodations.
- 4. Where such facilities would potentially constitute a serious threat to public safety.
- 5. Where activity involved is emergency repairs or ordinary maintenance activities related to roadways to maintain safe passage, public infrastructure and utilities and takes place within the public street right-of-way.

Repair and maintenance projects as defined by Massachusetts Department of Transportation Engineering Directive E-14-006 "Design Criteria for MassDOT Highway Division Projects" may be used by the Town to determine those to be exempt from this policy. (BILL??)

Best Practices:

The Town of Swansea's Complete Streets Program will focus on developing a connected, integrated, and comprehensive transportation network that serves all users. Complete Streets policy and design will be incorporated into all types of public and private projects, including new construction, reconstruction, rehabilitation, repair, and maintenance of transportation facilities and redevelopment projects.

Implementation of the Town of Swansea's Complete Streets Policy will be carried out cooperatively within and between all departments in the Town, and, to the greatest extent possible, with multi-jurisdictional cooperation among any other parties, including, but not limited to, private developers, and state, regional, and federal agencies. The Town will do this by establishing a Complete Streets Committee to be comprised of the following membership:

Town Administrator Highway Superintendent/Town Engineer

Police Chief Fire Chief

Town Planner Conservation Agent
Parks Commission member School Superintendent

Elder Services Director

The Committee will contribute comprehensive and diverse viewpoints of the needs of all users, assist in the development and implementation of the Complete Streets Prioritization Plan, become familiar with best Practices and regularly monitor the effectiveness of the Complete Streets Policy and Prioritization Plan.

Finally, the Town understands the importance of collaboration with neighboring communities to ensure efficient transportation networks for all users, and aims to work collaboratively across community borders to ensure efficient transportation networks on a regional basis, especially cycling trails.

Complete Streets principles include the development and implementation of projects in a context sensitive manner that considers the community's physical, economic, and social setting. The context sensitive approach to process and design includes a range of goals by considering community and stakeholder values on a level plane with the project need. The general goal of this approach is to preserve and enhance scenic, aesthetic, historical, and environmental resources while also improving or maintaining safety, mobility, and infrastructure.

The Town of Swansea recognizes that Complete Streets principles may be achieved through single elements incorporated into a specific project or incrementally through smaller improvement and maintenance activities over time. In all cases, street design shall be context-sensitive and shall be based on the thoughtful application of current engineering, architecture, and municipal design principles, standards and guidelines. The priority shall be on the safety, needs and comfort of all users, while at the same time considering issues such as street and sidewalk design and width, desired operating speed, mode balance, parking strategies for all modes, landscape design, street lighting, and connectivity. The Town shall promote livability and the integration of low-impact development stormwater management facilities.

In fulfillment of the goals of this Complete Streets policy, the Town will follow the latest design manuals, standards and guidelines including but not limited to those listed below. When good engineering judgment allows, the Town shall not be precluded from considering innovating and non-traditional design options where a comparable level of safety for all users is provided.

Examples of such manuals and design options include:

- The Massachusetts Department of Transportation Project Design and Development Guidebook
- Massachusetts Department of Transportation Engineering Directives
- The American Association of State Highway Transportation Officials (AASHTO) A
 Policy on Geometric Design of Highway and Streets as well as the AASHTO Guide
 for the Development of Bicycle Facilities
- Federal Highway Administration Separated bike Lane Planning and Design Guide

- United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Design Controls
- The Architectural Access Board (AAB) Rules and Regulations
- Documents and plans created for the Town of Swansea, such as bicycle and pedestrian network plans

Performance Measures and Project Selection Criteria:

The Town of Swansea will regularly evaluate Complete Streets implementation and effectiveness for success and opportunities for improvements, specifically focusing on public safety, accessibility and enhanced mobility for all users. The Complete Streets Committee will create performance measures to gauge implementation and effectiveness of Complete Streets policies using appropriate measures of effectiveness along the lines of commonly-agreed upon Complete Streets principles. The Committee will rely on recommendations from the Town Planner, Highway Superintendent, and traffic data as compiled by the Police Department to create such performance measures which may include some of the following:

- Linear feet of new or rehabilitated sidewalks, including improved ADA accessibility
- Number of gaps in sidewalk network
- Number of protected pedestrian crossings
- Public participation in bicycle, pedestrian and transit systems
- Removal of impediments in Transportation infrastructure
- Number of ADA compliant ramps installed or built
- Number of public complaints or compliments received
- Number of pedestrian/bicycle related crashes
- Miles of bike lanes and trails built or marked
- Number of the traffic calming projects approved and implemented

As new projects are proposed, the Complete Streets Committee will discuss potential inclusion into the Complete Streets Prioritization Plan and priorities of projects. The key factors in setting priorities include, but are not limited to:

- Ownership (state versus locally owned)
- Location (near schools, recreation areas, or points of interest)
- Project readiness (engineering, permits, easements)
- Potential high pedestrian and bicycle demand areas
- Impacts and complexity of action
- Costs
- Consistency with local plans
- Livability
- Safety and Security (Reduction of number of crashes involving cyclists or pedestrians)
- Improved ADA accessibility
- Mobility

Implementation:

The Town of Swansea shall make Complete Streets policy and practices a routine part of everyday operations. Every transportation project and program will be treated as an opportunity to improve streets and the transportation network for all users. The implementation of Complete Streets Policy will be the responsibility of all town departments. The Town of Swansea shall work in coordination with all other agencies and jurisdictions to achieve the goals of Complete Streets policy. The Town will maintain coordination with outside agencies including but not limited to the Metropolitan Area Planning Council (MAPC), Massachusetts Department of Transportation (MassDOT), and Department of Conservation and Recreation (DCR) in relation to encouraging and evaluating the implementation of this policy and Complete Streets actions.

The Town of Swansea will utilize inter-department coordination to promote the most responsible and efficient use of resources for activities within the public way. Furthermore, the Town will make all efforts to coordinate with adjacent municipalities to ensure a regional approach to an interconnected transportation network for all users.

The Town of Swansea will encourage training of pertinent town staff and decision makers on the content and purpose of Complete Streets principles and best practices for implementation through staff meetings, trainings offered by the State and Southeastern Regional Planning & Economic Development District, and other appropriate means and shall allow flexibility for staff to be innovative.

The Town of Swansea shall review and revise all appropriate planning documents, such as master plans, open space and recreation plans, livability plans, zoning and subdivision rules and regulations, laws, procedures, rules, regulations, guidelines, programs, and templates to include Complete Streets principles in all street projects, so as to be consistent with the Town of Swansea's Complete Streets Policy.

The Town of Swansea, through its Planning Department, shall maintain a comprehensive inventory of pedestrian and bicycle facility infrastructure that will prioritize projects to eliminate gaps in sidewalk, bikeway, and handicap accessibility.

Annually, the Complete Streets Committee will prepare an annual progress report and shall maintain and update the Complete Streets Prioritization Plan as determined appropriate as part of the annual progress report.

Residents and businesses will be updated on Complete Streets projects through a combination of Complete Streets work sessions, communication and public outreach, and updates to the Town's website.

Th	e Town of Swansea v	vill actively s	seek out appr	opriate	sources o	f funding	and	grants	for
im	olementation of Com	plete Streets	policies and	princip	oles.				

Adopted this	day of	2021

Board of Selectmen	