WALK WINTHROP

A Plan for a More Walkable Community

Kerri Culhane | Jordan Fink | Tabitha Kaigle
Conway School of Landscape Design Winter 2010

Walk Winthrop

A PLAN FOR A MORE WALKABLE & BIKEABLE TOWN

PREPARED FOR THE TOWN OF WINTHROP, MASSACHUSETTS

PUBLIC WORKS

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Conway School of Landscape Design | Winter 2010

Acknowledgements

Thanks to the residents of Winthrop who attended the Walk Winthrop meetings and took the survey. Your vision for your community is at the heart of this report.

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Yirrell Beach looking south toward Deer Island.

Executive Summary

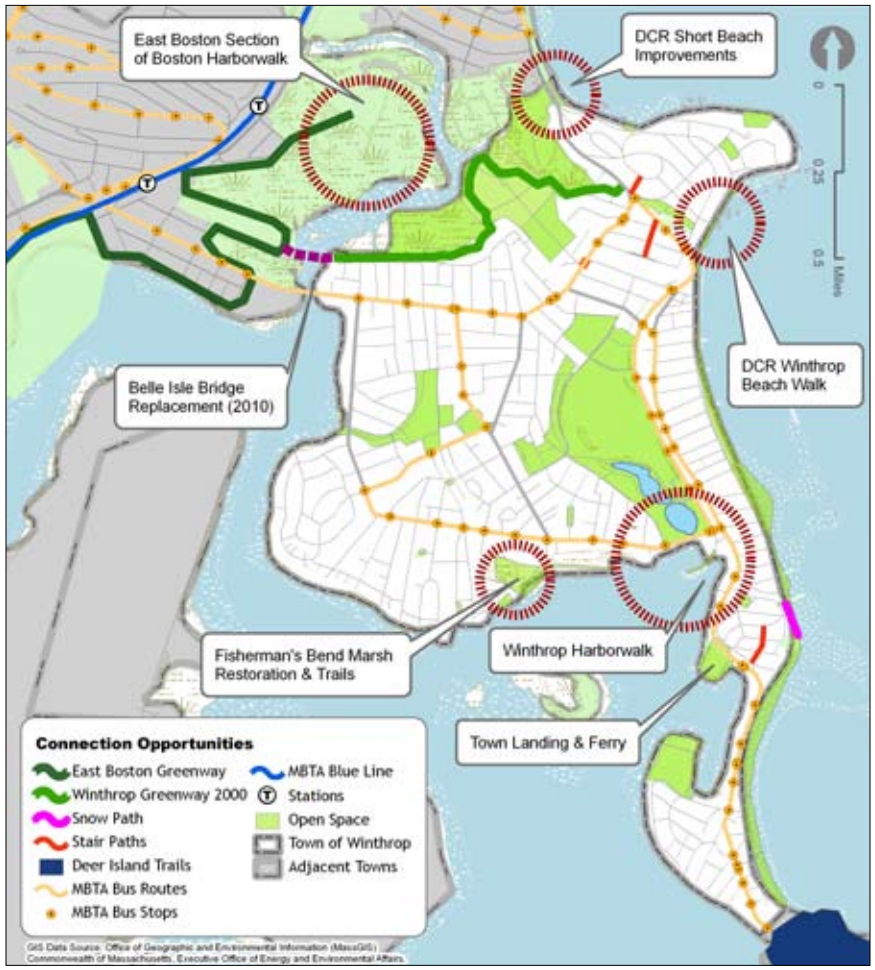
Walk Winthrop is an initiative of the Winthrop, Massachusetts, Department of Public Works to create a walkable and bikeable town for the enjoyment of citizens and visitors to this dynamic 1.64-square-mile peninsula extending out into Boston Harbor.

Downtown Boston is less than a mile from Winthrop, but until the railroad arrived in the mid nineteenth century, getting from Boston to Winthrop overland was a two-day journey. Winthrop is only connected to its northern neighbor, Revere, by a narrow spit of beach and the Belle Isle salt marsh—the marsh was historically Winthrop's only connection and also a barrier to direct access.

Access to and around town is a recurring theme in Winthrop's history. Citizens responding to a town-sponsored survey and attending community meetings associated with the Walk Winthrop initiative reported a strong connection to and appreciation for their natural and cultural resources, along with a desire for safer and better marked access by foot and bicycle. Commuter cyclists reported a demand for better access to the MBTA trains in East Boston and Revere. Recreational walkers and cyclists reported an interest in safer routes to the Deer Island National Park Area trails and to the beaches and parks around town.

A number of public projects are underway around town, or have been recently completed, including the Belle Isle Bridge replacement (2010); DCR Winthrop Parkway/Short Beach Improvements (2010); Winthrop HarborWalk (2007), the Town Landing improvement (2009-2010), plans for future ferry service; the DCR Winthrop Beach Walk, and the Fisherman's Bend marsh restoration. These projects can be linked into a cohesive walking and biking trail system along with Winthrop's historic railroad rights-of-way, public parks, beaches, and public places. This is the inspiration for Walk Winthrop.

The East Boston Greenway and the East Boston section of the Boston Harborwalk, across the Belle Isle inlet from Winthrop, link into a larger matrix of greenways, biking, and walking trails in the Metropolitan Boston region and beyond. A remnant railroad trestle across the Belle Isle Inlet is a reminder and inspiration for the opportunity to reestablish that access.



Aerial photograph of Winthrop, courtesy of James Woodward, 2009.

Introduction

WALK WINTHROP

Winthrop, Massachusetts, has the good fortune to be surrounded by incredible natural beauty—salt marsh, sandy beach, and ocean; and at the same time, it enjoys the close-knit infrastructure of a pre-automobile town: dense settlement, compact size, and sidewalks throughout, along with low-speed roadways. Those are the qualities most commonly ascribed to walkable and bikeable communities. Walk Winthrop is an initiative to enhance walkability and bikeability throughout town for the enjoyment of Winthrop's citizens and visitors.

There are many opportunities in town to link existing open space, schools, and business districts; and to link to nearby walking and biking trail systems, such as the 2.5 miles of pedestrian paths in Deer Island National Park Area, off the southeastern tip of the Winthrop Peninsula; the East Boston segment of the Boston Harbor Walk across the Belle Isle Marsh from Winthrop; and the East Boston Greenway, which links into a larger matrix of greenways, biking and walking trails in the Metropolitan Boston region and beyond.

WHAT ARE WALKABILITY AND BIKEABILITY?

Walkability and bikeability are, at the heart, measures of the connectivity of a place: connections between people and the places they want to go, as well as the extent to which sidewalks and paths in an area connect to each other and to desirable destinations such as businesses, schools, public transportation, recreation areas and parks. It is also a measure of how easily and safely people can access different parts of a town on foot or by bike.

The Conway School of Landscape Design was engaged by David Hickey Jr., PE, director of the Winthrop Department of Public Works, to help design a pedestrian and bicycle network throughout town to connect pedestrians and cyclists—both recreational and transportation users, adults and children—to the places they want to go. Mr. Hickey noticed that several public projects were in the works around town or had been recently completed, and that remnants of railroad rights of way, public parks and beaches might be linked into a cohesive walking and biking trail system.

COMMUNITY GOALS & CRITERIA

The goal of Walk Winthrop is to develop a walking and biking network linking public open space, and civic and commercial resources. Though Winthrop's compactness, development pattern, and many sidewalks make it already very walkable, community members responding to a publicly available survey and attending Walk Winthrop public meetings reported a strong interest in enhancing and improving the walking and biking connections of their town.

Walking is a popular activity in Winthrop, as reported by 300 of the 344 people responding to the online Walk Winthrop survey and those participating in the February 1, 2010, public meeting. Recreational and transportation walkers enjoy access to Winthrop's commercial areas, schools, town offices, parks, beaches, and to Deer Island's pedestrian paths.

Pedestrians expressed interest in walking trails for exercise, better-maintained and wider sidewalks, and increased numbers of street trees to provide shade for people out on the sidewalks. Pedestrians also expressed a strong preference for separation of pedestrians from bicyclists on trails and sidewalks.

Bicyclists represent the largest number of respondents to the Walk Winthrop survey (324 out of 344). Recreational, exercise and commuter/transportation cyclists were represented.

The two desirable destinations most frequently cited by commuter cyclists included the MBTA train stations in Revere (Beachmont) and East Boston (Orient Heights), outside of Winthrop.

For recreational and exercise cyclists, the most frequently-cited destinations were Winthrop and Yirrell Beaches, and Deer Island, located off the southeastern tip of Point Shirley.

All cyclists responding to the survey expressed interest in cycling around town in general, and both commuter and recreational cyclists cited the need for safer facilities for cyclists. Some cyclists attending the public meeting acknowledged that they often rode on sidewalks to avoid what they perceived as the dangers of riding on roadways with vehicular traffic. Pedestrians attending the meeting expressed concerns over bike-pedestrian conflicts on sidewalks and on the pedestrian paths in Deer Island that are frequently used by cyclists.

Bike-only trails, marked on-street bicycle lanes, and separation from auto traffic were concepts proposed by cyclists attending the public meeting on February 1, 2010.

USER NEEDS

Recreation and transportation walkers and cyclists reported different needs and destinations. Different design approaches can address the varying types of needs of both groups, and of people of different ages and abilities in those groups.

Through research and analysis, a set of design goals and criteria were developed for approaches to different parts of the system for different user needs.

DESIGNING A SUSTAINABLE WALKING & CYCLING SYSTEM

Cycling and walking are often touted as sustainable ways to increase both personal and environmental health. Making non-automotive transportation more safe, convenient, easy, and attractive encourages people to leave the car at home, reducing the amount of carbon released into the atmosphere.

A successful system provides the community with access to its natural resources—beaches and marshes—while paths are sited in a way that shows respect for those resources as functioning ecosystems. Where possible, stormwater infiltration planting beds should be constructed along streets to both enhance the aesthetic experience of the walker or cyclist, and to protect the bay that surrounds Winthrop by reducing the amount of runoff that ends up there.

Sustainability doesn't only refer to designing a system using environmentally sound principles. Sustainability means that public investment is targeted to projects that are designed with people in mind, and that those designs are based on the community's vision. Those meaningful investments inspire the community to care about the resource—the biking trail, the pedestrian path, the accessible sidewalks, and the street trees. When a community values a resource, it is protected and maintained—it is sustained through use and commitment.

SAFETY

System safety depends on the design and the responsibility of users. Educating drivers, cyclists and pedestrians about the rules of the road, and guiding everyone with thorough, clear, and visible signs and road markings within a thoughtfully-designed system are all critical components of a safe transportation network.

PUBLIC INPUT

Red, yellow and green dots on the map to the right, represent the desirable destinations cited by participants in the February 1, 2010, Walk Winthrop public meeting.

At that first public meeting, community members were asked to annotate a map of town to show the destinations to which they would most like to have better access. In addition to identifying the places they wanted to reach as shown on the map to the right, the citizens of Winthrop developed a set of criteria to describe the qualities of a desirable walking or biking system.

SAFETY. A trail, especially one that might be off the "beaten path" (such as in the marsh) must be perceived as safe in order for people to use it. This quality of *feeling* safe dovetails into the physical trail design that deals with the logistics of *being* safe.

LEGIBILITY. Providing clarity about where access is allowed, what is public land, and how to get from place to place must be part of the Walk Winthrop design.

ACCESSIBILITY. The system should be easily accessible to users of all types and abilities, with alternative routes around steep or inaccessible areas.

AESTHETICALLY PLEASING. Making the trip as enjoyable as the destination is critical to designing a walking or biking route system that is appreciated and enjoyed.

CONNECTED TO DESIRABLE DESTINATIONS. Getting to the places that people want to go will ensure that a system is relevant and useful.

ECOLOGICALLY SOUND. A walking and biking network can address environmental issues, such as the effects of global climate change, through encouraging reduced automobile use, effectively managing stormwater, and generally improving the cultural and natural environment through ecologically sound design.

Map used at public meeting (see text this page for details).

Bird's-eye view of Winthrop looking northwest, 1894 / courtesy of Library of Congress, Division of Maps.

Context

The Town of Winthrop is located on a 1.64-square-mile peninsula that separates Boston Harbor to the west from Massachusetts Bay to the east. The center of Winthrop is about 4.3 miles or a 15-minute drive from downtown Boston. The runways of Logan Airport, only 1000 feet from Winthrop's southwestern shore, lie between the two. As a peninsula, Winthrop is relatively isolated and the only land links outside of town are via marsh, beach, and causeway to the town of Revere to the north and via the Belle Isle Bridge to East Boston.

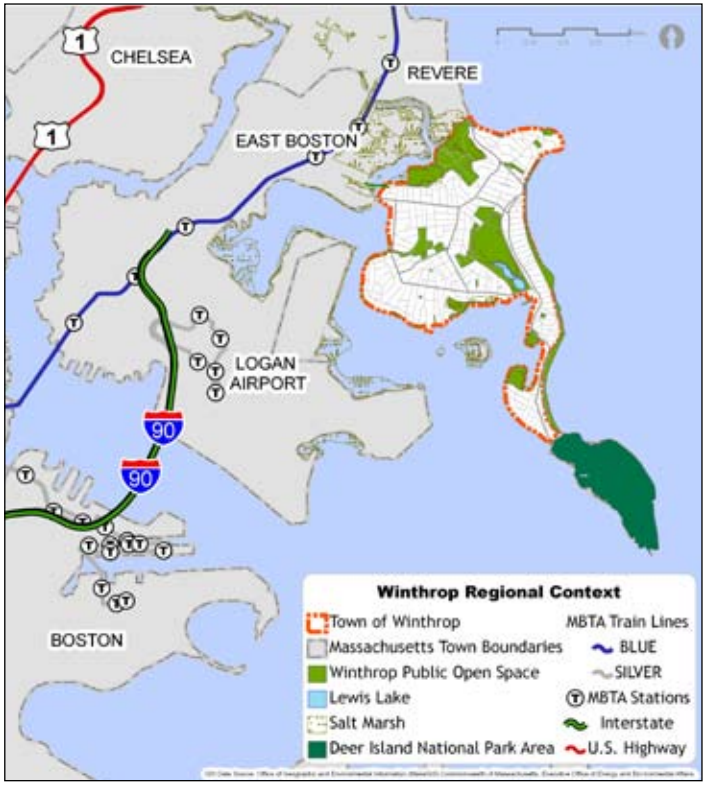
Winthrop is separated from the mainland by the 241-acre Belle Isle Marsh, the largest remaining salt marsh within the Boston metropolitan area. Ninety acres of the marsh lie within Winthrop boundaries. The Belle Isle Marsh is a fragment of the original ecology of Massachusetts Bay and provides habitat and ecological services that cannot be found elsewhere in the Boston area (DCR). Winthrop's marshes are discussed in detail in the Urban Wilds chapter of this report.

Until 1938, Deer Island, located at the southeastern tip of Point Shirley, was separated from Winthrop by the narrow Shirley Gut. Spits of sand and beach eventually coalesced into land, finally filling in the gut during the Hurricane of 1938, and making Deer Island an island in name alone (Nicholas). The 185-acre Deer Island, though only accessible through Winthrop or by boat, is part of the City of Boston. It contains a park with 2.5 miles of pedestrian trails managed as part of the Harbor Islands National Park Area, and a wastewater management facility, owned by the City of Boston, that is credited with cleaning up Boston Harbor. Cyclists and joggers come from around the region to follow the trails, see the views of Boston, and watch the harbor.

Winthrop is anchored into Massachusetts Bay by eight elliptical hills of gravel—drumlins formed 12,000 years ago by the actions of continent-sized glaciers during the last glacial period. Each of the hills is oriented northwest-southeast, following the direction of the movement of the ice sheets. As the glaciers retreated northward, they left a complex landscape of upland and wetlands. Much of Winthrop is flat, so the drumlins bring both challenges and potential vistas to walkers and cyclists.

Throughout the entire Boston Metro area, glacially-deposited gravel from drumlin hills has been used by European settlers and their descendants to fill marshes and rivers, stabilize landscapes, and expand habitable area into Boston Harbor and Massachusetts Bay. Within Winthrop, wetlands were filled to create present-day Ingleside Park and parts of the surrounding neighborhood, and the park and golf course north of Lewis Lake.

Winthrop is ringed with beach, marshland, and tidal flats, which provide opportunities for long walks. It was Winthrop's sandy beaches that induced city dwellers to make Winthrop into a summer resort community during the nineteenth century.



Winthrop's regional context.

Winthrop Beach and Yirrell Beach, which converge below Cottage Hill—are the largest beaches on Winthrop's Atlantic coast. Together, Winthrop and Yirrell Beaches form approximately two miles of Winthrop's long eastern shore.

Winthrop's smaller beaches include Short Beach, along the Winthrop Parkway causeway to Revere; Halford Beach, on Winthrop's northern coast, in sight of Short Beach; Donovan Beach, a narrow stretch of sand retained behind a low, concrete sea wall and the only beach on Winthrop's western shore, fronting onto Boston Harbor; and Pico Beach, on the south shore of Winthrop, just west of Winthrop's largest fragment of marshland outside the Belle Isle Marsh.

Winthrop's geography has made it very attractive to human use for centuries, and established the foundation for the historical and current development patterns of Winthrop.

A BRIEF HISTORY OF WINTHROP

Winthrop had a long and varied history as a Native American encampment; a colonial farming community; an industrial center; a nineteenth-century summer resort; and, in the twentieth-century, a thriving, year-round community (Historical Commission). Throughout its known history, residents and visitors alike have made abundant use of Winthrop's scenic and natural resources.

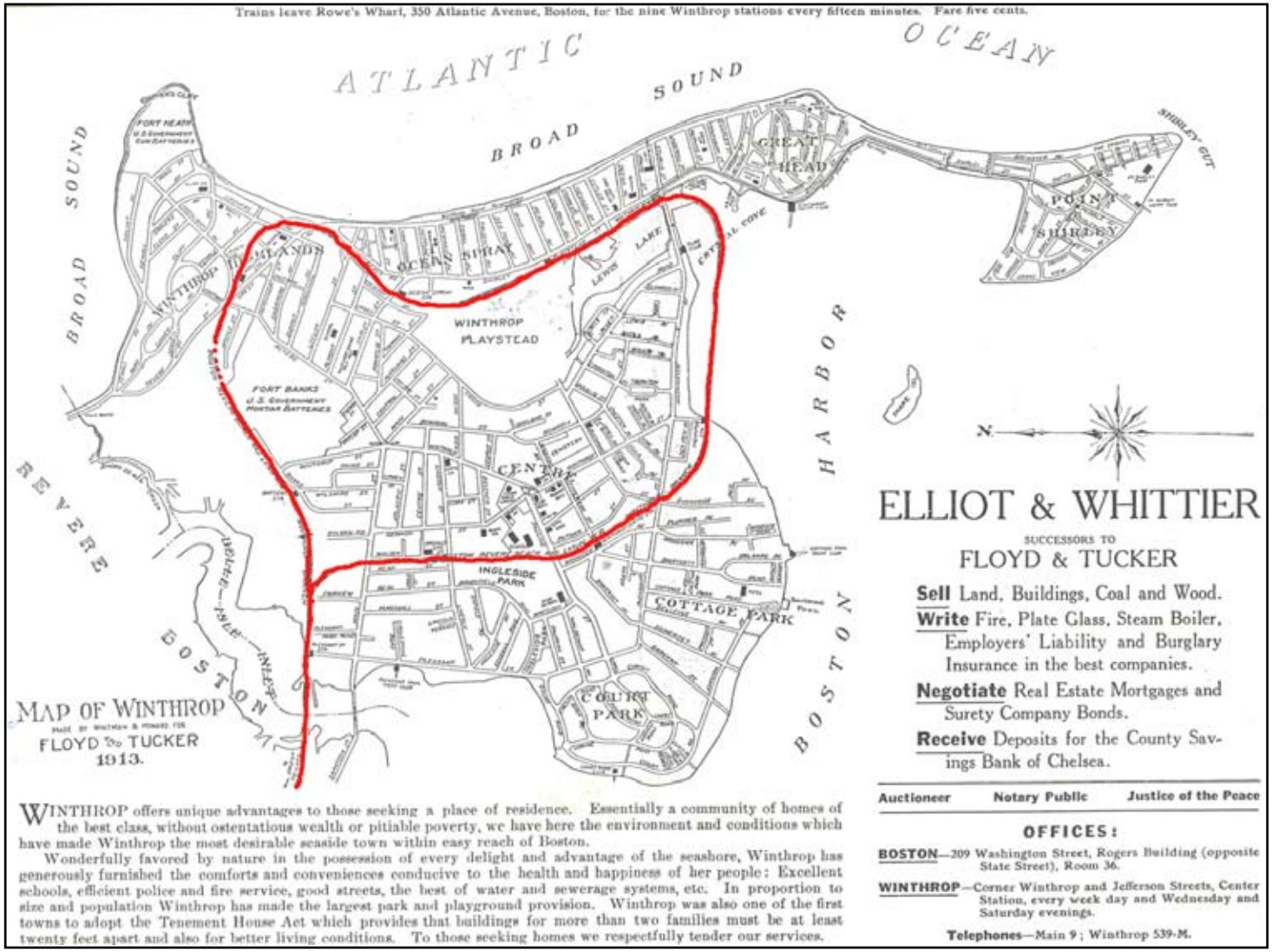
Because of its relative geographic isolation, the logistics of access and transportation to and from the peninsula helped shape Winthrop's development. Starting in the late nineteenth century, a series of railroad lines made Winthrop more accessible to tourists, leading to the development of beach resorts for the well-to-do and working class alike. In 1896, Revere Beach, just north of Winthrop's Short Beach, was established as the first public beach in the country, attracting crowds of visitors to the shore, many of whom arrived by train.

In 1886, the Boston, Revere Beach & Lynn Railroad extended a narrow-gauge loop through the peninsula, entering Winthrop from East Boston, and servicing the core of the community (Historical Commission). See map on facing page.

This last line provided Winthrop with faithful service until the hurricane of 1938 damaged many of its tracks beyond repair. The growing popularity of automobiles had for decades resulted in decreased ridership on the trains; the hurricane of 1938 officially brought to a close this chapter in Winthrop's railroad history (Historical Commission).

Winthrop became densely developed through the early twentieth century as the railroads enabled easy access to and from the surrounding towns and Boston. By the mid-twentieth century, when cars became the primary means of private transportation, Winthrop had been transformed from a summer resort into a full-time, year-round residential community. In the 2000 census, Winthrop was home to 18,303 people living within the 1.64-square-mile peninsula, distinguishing Winthrop as the second most densely settled town within the Commonwealth (U.S. Census).

After the demise of the railroads, many railroad rights-of-way (ROW) were paved to accommodate automobiles or sold into private ownership. Other fragments of ROW remain in public parks, such as the Crest Avenue Playground and Ingleside Park, and in other public land in Winthrop, such as the Crystal Cove Jetty. Several fragments of ROW still exist as undeveloped pockets of town-owned land within the densely settled community, such as a strip behind Beach Road and another long stretch on the south shore of Winthrop northeast of Pico Beach and Playground. These fragments of ROW can be utilized as part of a pedestrian and cycling route within the town.



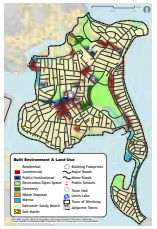
Boston, Revere Beach & Lynn Railroad. The 1886 narrow gauge loop is highlighted by the red line.
Image used with permission of Dave Hubbard and the Winthrop Improvement & Historical Association
(note: north is to the left).

Historic railroad access staircase on Cottage Hill.

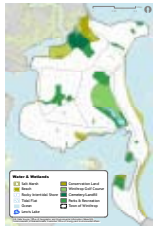
Existing Conditions & Analysis

Winthrop's natural and cultural history influence the design possibilities for a bicycling and walking network around town. The following overview and analysis of the existing conditions relevant to Walk Winthrop provide design direction for the project. A summary of the analyses with design implications appears on page 19.

The following conditions are analyzed here:

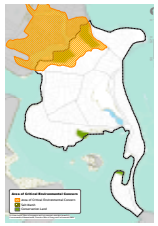


BUILT ENVIRONMENT & LAND USE



WATER & WETLANDS

TRANSPORTATION



AREA OF CRITICAL ENVIRONMENTAL CONCERN

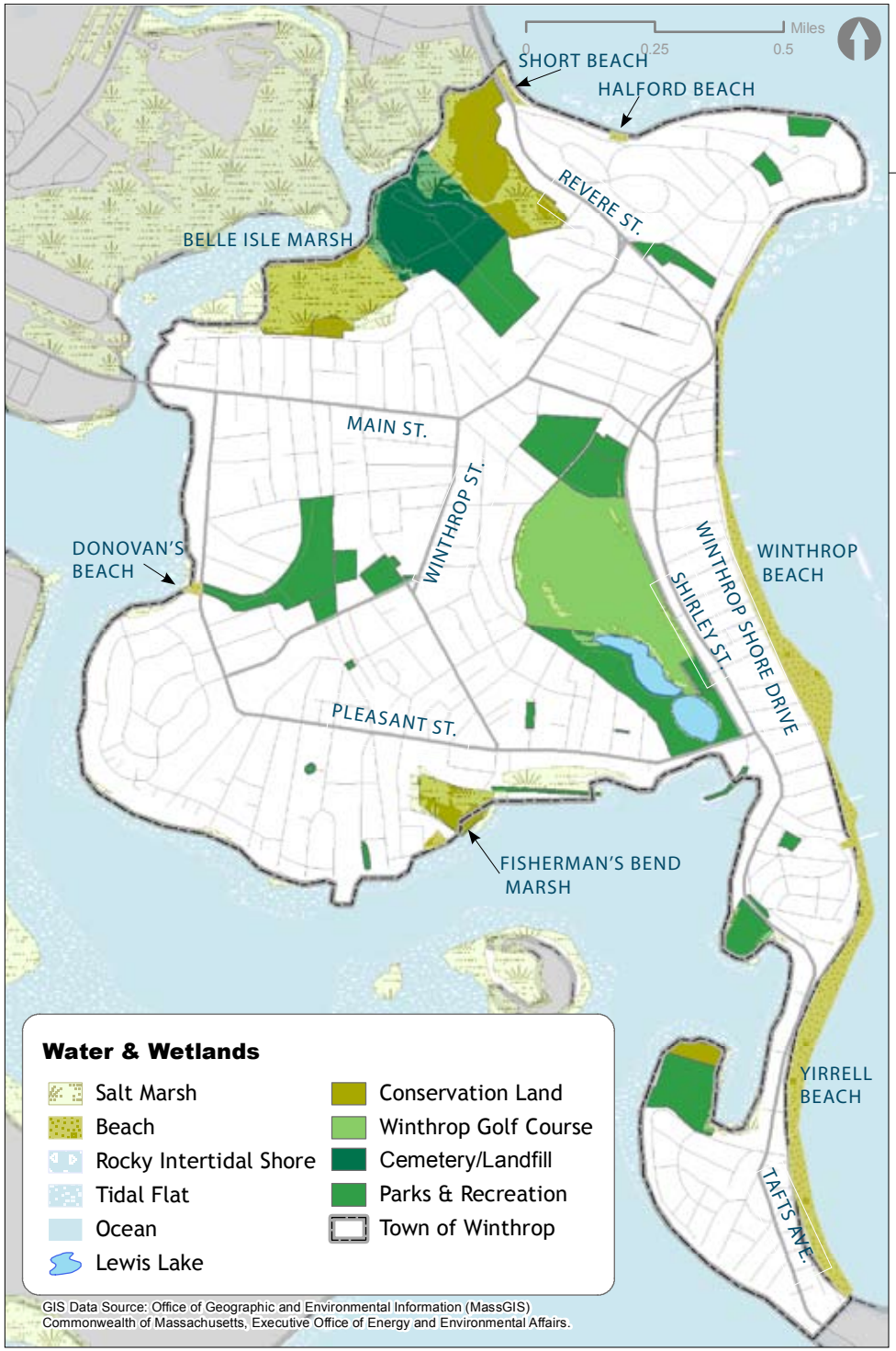
ROADS & BIKEWAY POTENTIAL

SLOPE & ELEVATION

SIDEWALKS & STAIRPATHS

FLOODPLAIN

PUBLIC OPEN SPACE



WATER AND WETLANDS

Water and wetlands define Winthrop's identity as "Winthrop-by-the-Sea." Surrounded by the Broad Sound and Atlantic Ocean on the north and east, Boston Harbor lies to the south and west of town. Winthrop and Yirrell beaches are composed of a mix of sand and rocks. Halford, Short, and Donovan's beaches appear only as tidal flats when the tide is out.

Salt marshes, remnants of a once larger coastal system, are critical to protecting low-lying portions of Winthrop from storm surges and filtering runoff into the surrounding waterways. Salt marsh brackets Winthrop on the north and south, and scattered patches of marsh ring Winthrop's coastline. The 241-acre Belle Isle Marsh, which Winthrop shares with East Boston, is the largest remaining salt marsh in the greater Boston area. The much smaller Fisherman's Bend Marsh, to the south, was recently restored. Both Belle Isle and Fisherman's Bend are publicly accessible by a mix of formal and informal trails.

- Winthrop's marshes and beaches were identified by the community as desirable destinations and already contain some walking trails.
- Access to the marshes, beaches and tidal flats should respect and preserve the existing ecosystem.

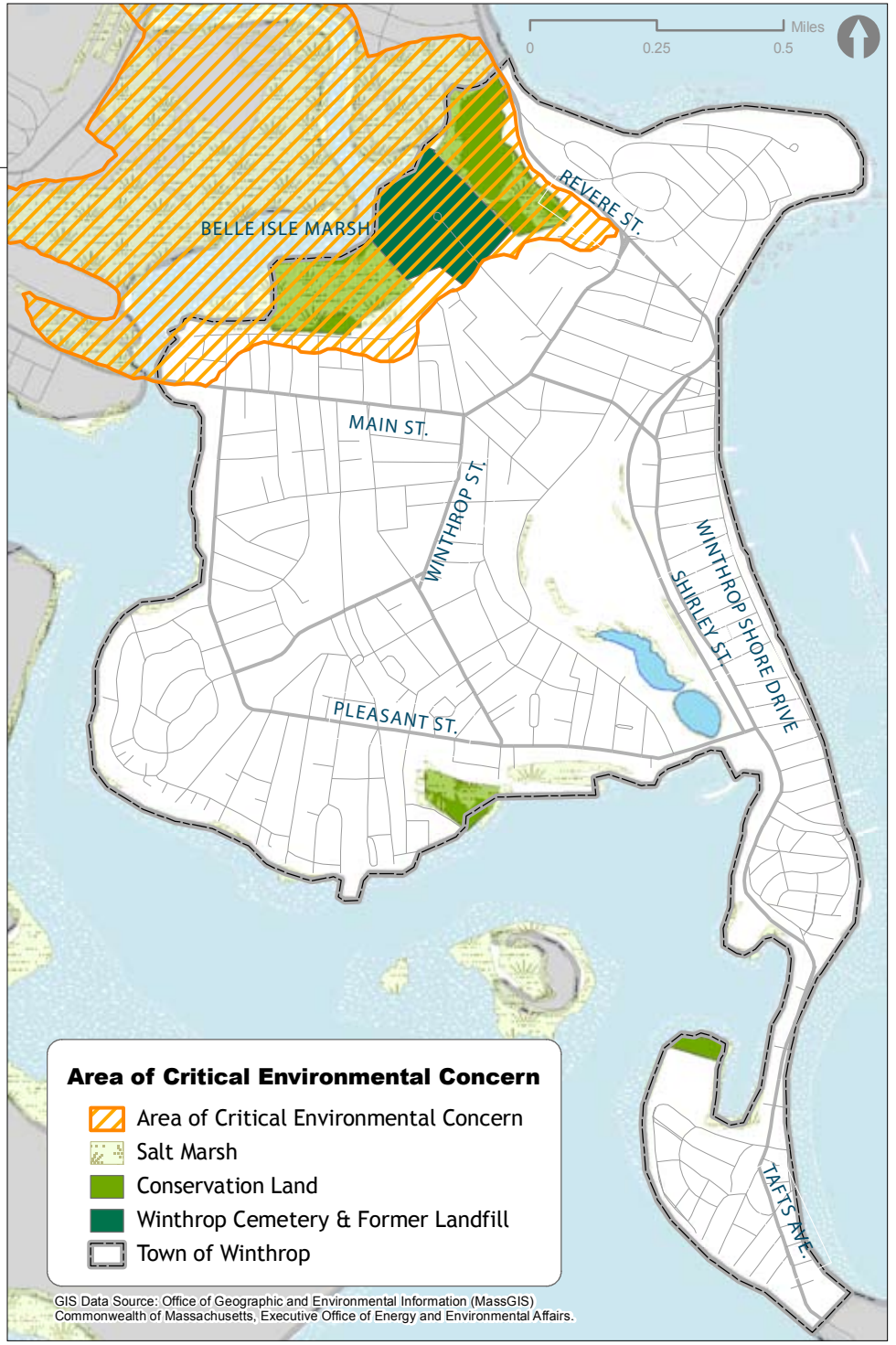
AREA OF CRITICAL ENVIRONMENTAL CONCERN

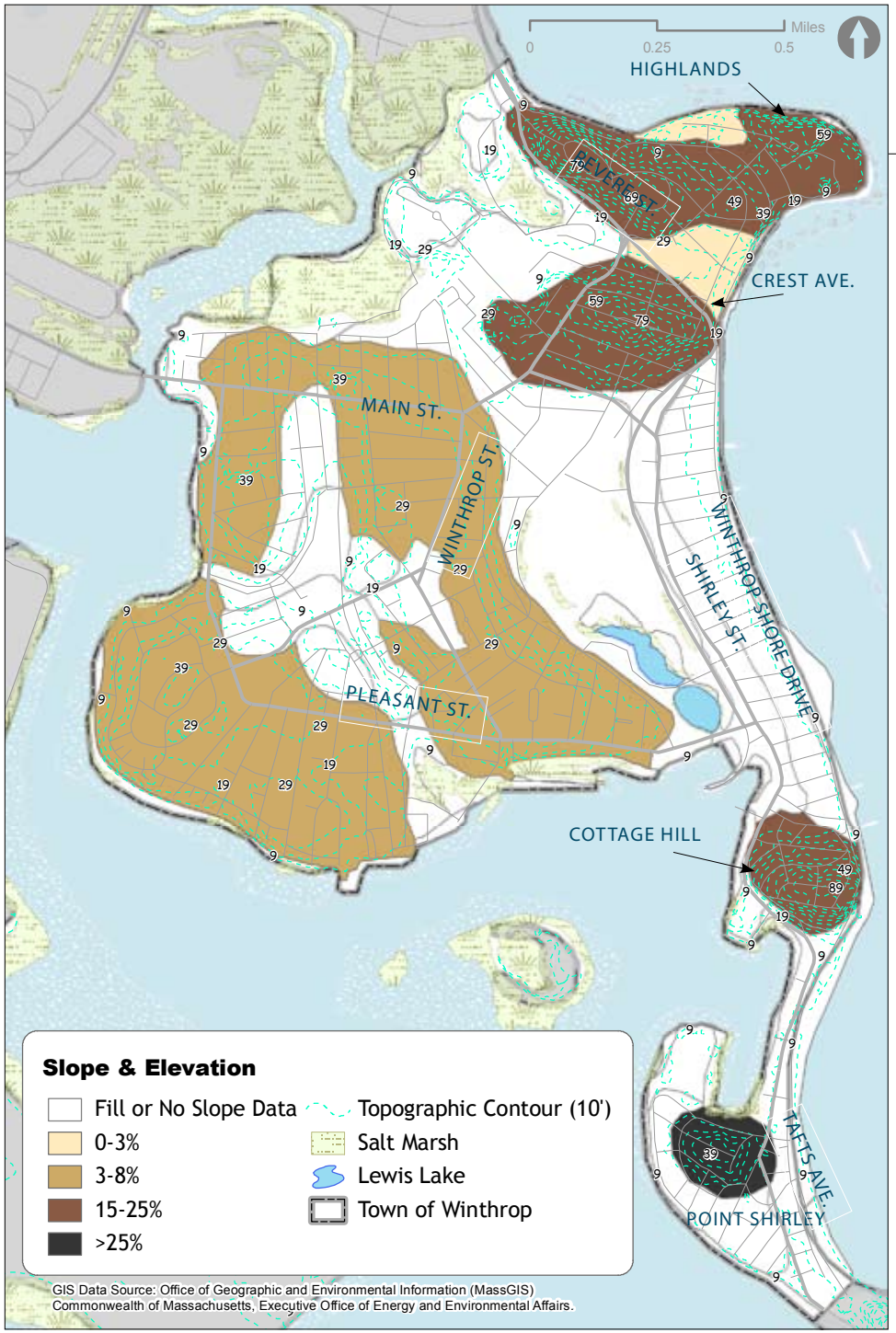
The Belle Isle Marsh, as the largest remaining salt marsh in the Boston area, provides habitat and performs many important ecological functions.

The Massachusetts Department of Conservation & Recreation (DCR) has designated the Belle Isle Marsh as an area of critical environmental concern (ACEC).

ACEC designates areas of critical natural and cultural resources and "creates a framework for local and regional stewardship of critical resources and ecosystems" (Mass.gov).

- ACEC designation covers the Belle Isle Marsh, Winthrop's former landfill and current cemetery, and portions of surrounding streets and neighborhoods
- Education and respectful public access to Winthrop's marshes requires local stewardship in support of DCR's stated ACEC mission.





SLOPE & ELEVATION

Rising out of the Atlantic, most of Winthrop stands only 9 feet above mean sea level (AMSL), however Winthrop's hills along the eastern coast stand 39 feet to 89 feet AMSL. The Highlands neighborhood on the north is formed by two hills, 59 feet and 79 feet AMSL; Crest Avenue lies on another; Cottage Hill to the south is the highest point, at 89 feet, and the location of town water tower; Point Shirley is steepest hill, though only 39 feet AMSL. On the west side of town, the more broadly rolling terrain is mostly 19 feet-29 feet AMSL. Winthrop's high points provide opportunities for vistas to the ocean and the surrounding area, but pose a challenge to universal access.

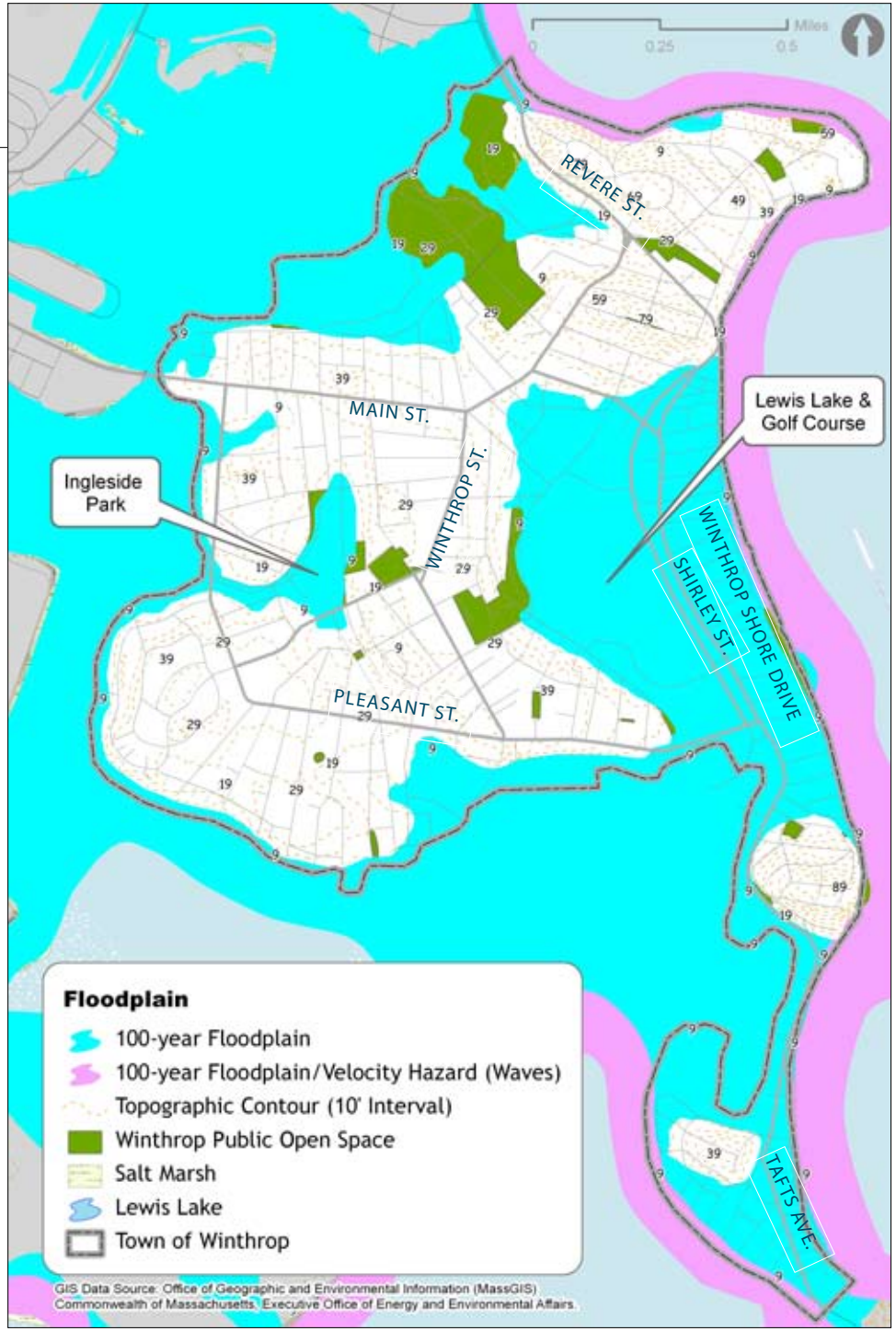
Most of Winthrop lies on level, minimally-sloping terrain of less than 5%. The central portions of Winthrop are characterized by gentle slopes of less than 8% grade. Slopes of 5% or greater create a barrier to universal access for walking, biking, and wheelchair use.

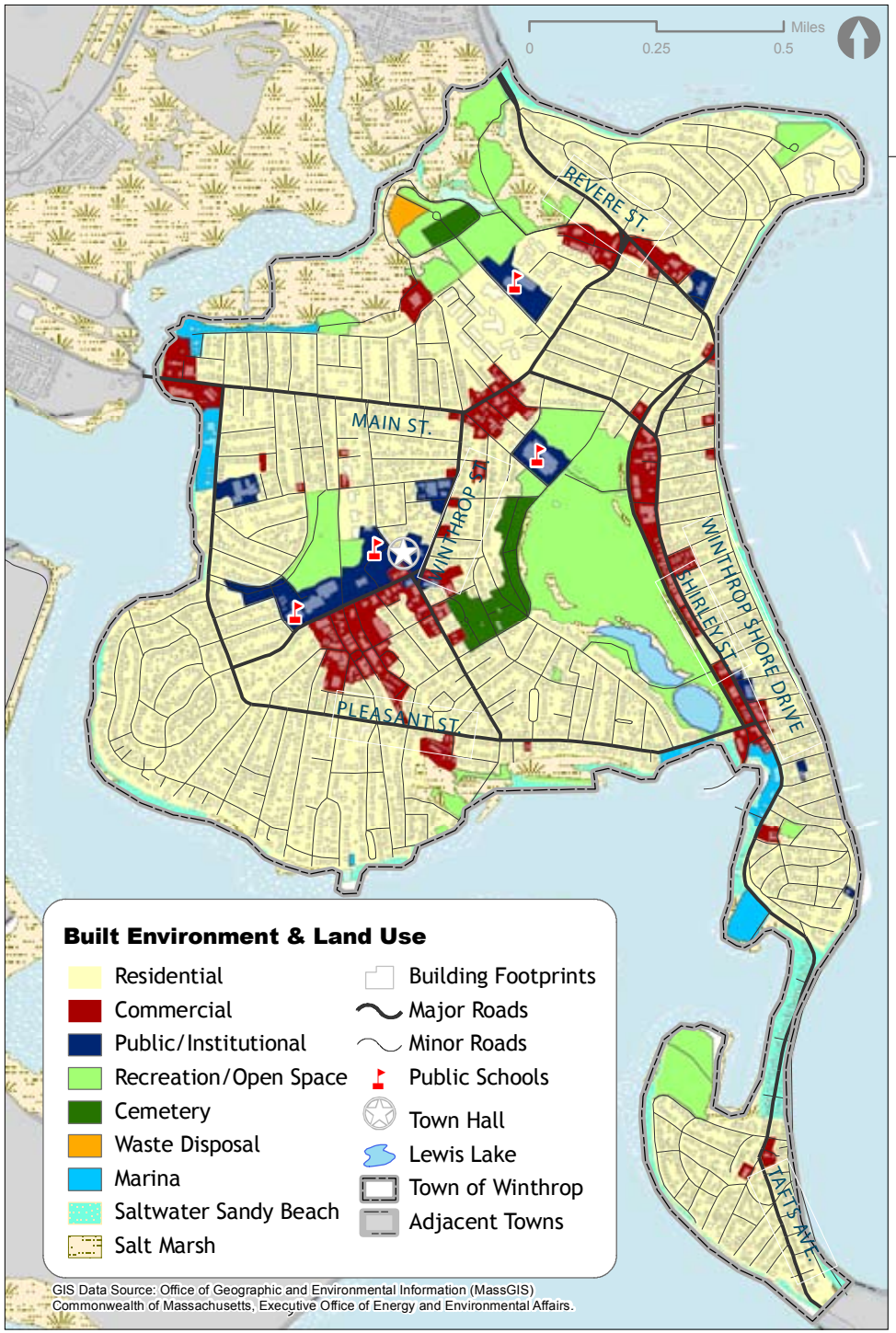
While access to high-points allows for beautiful views, flat terrain exists to accommodate accessible bikeways and walkways

FLOODPLAIN

Low-lying Winthrop, including its beaches and marshes, are subject to inundation during severe storm events and astronomical high tides. Winthrop's two major park areas, Ingleside and the Lewis Lake/golf course area, are filled salt marsh that still flood during high water events.

Pathways in areas of lower elevation must be designed to resist flood damage or to be removable.





BUILT ENVIRONMENT & LAND USE

A large percentage of Winthrop is covered in buildings and roads. The land use map shows mixed-use development and the diffusion of public, commercial, and open space within the compact, residential community, which are defining features of a walkable community.

Impervious surfaces such as roads and streets speed runoff into the waters around Winthrop. When designing on-street routes, consideration for stormwater management, such as infiltration beds and road narrowing to reduce the amount of impervious surface, should be made.

- Open space and commercial nodes are not linked by public land, other than streets
- An entirely off-street public path system is not possible due to existing development
- A walking and biking network design could incorporate vegetation and permeable surfaces to help mitigate stormwater runoff.

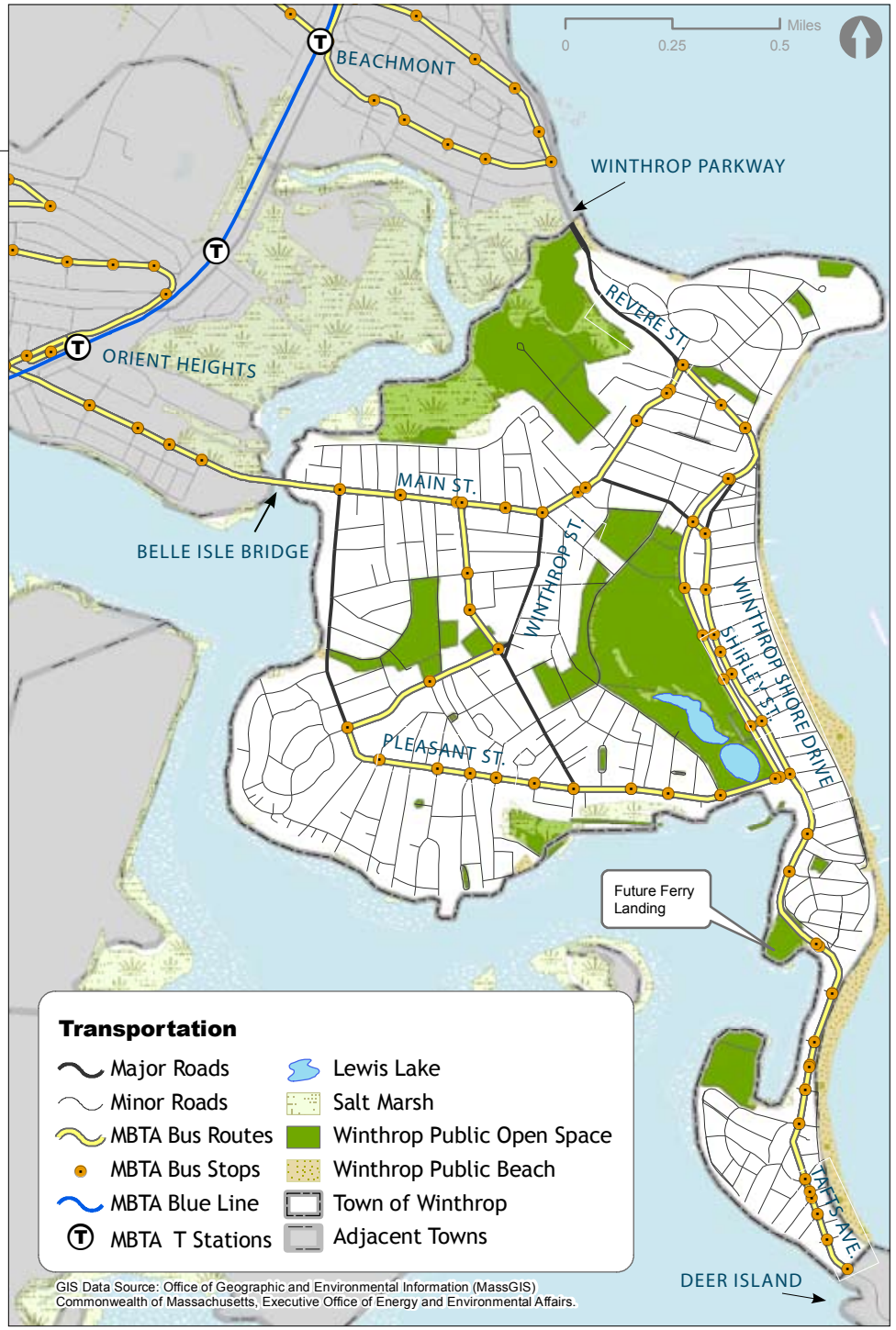
TRANSPORTATION

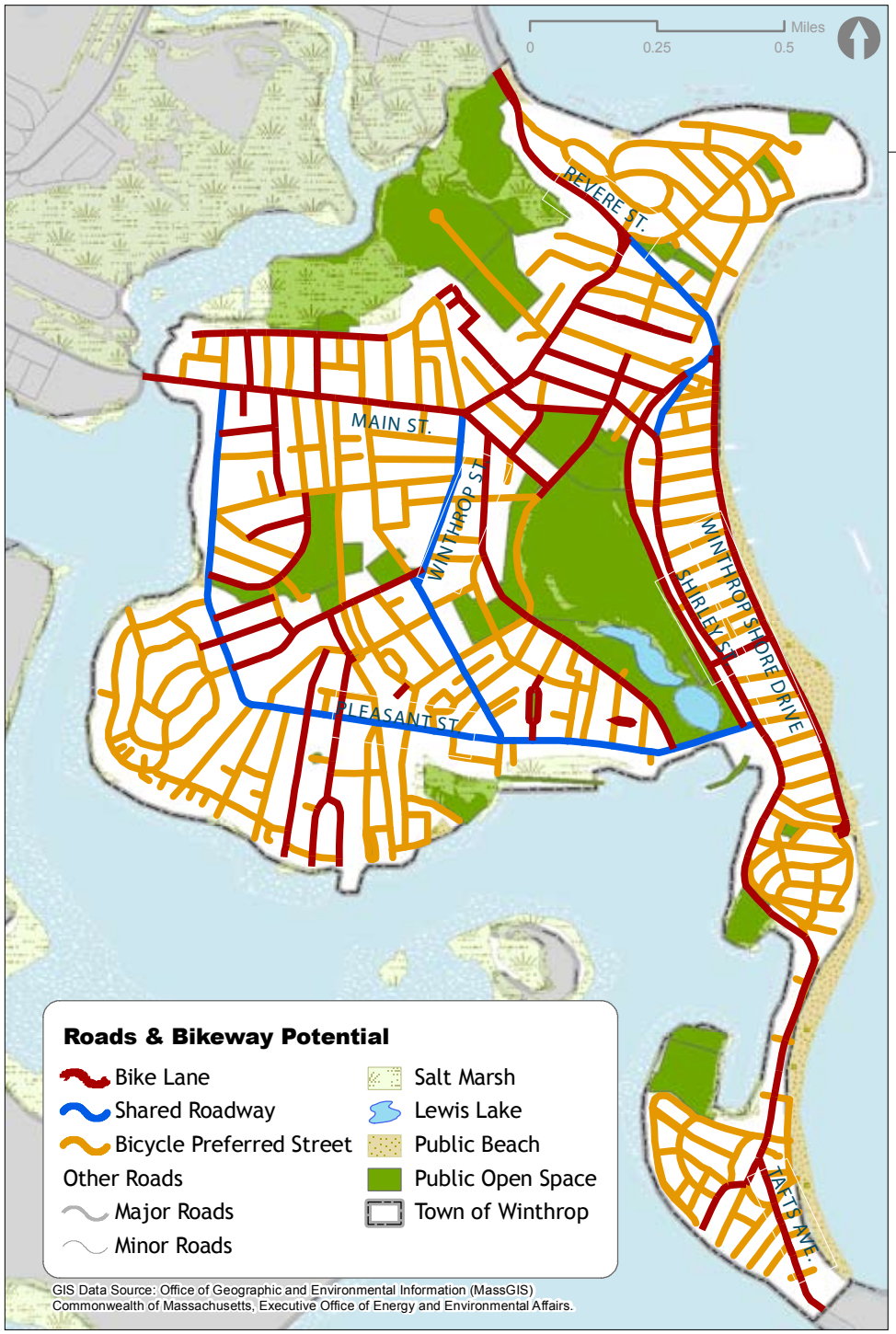
Winthrop is connected to the mainland at two points: the Belle Isle Bridge to East Boston; and the Winthrop Parkway Causeway to Revere. Roads traverse most of Winthrop, with the exception of public open space. Private automobiles are the main form of transportation in Winthrop, and 73% of residents commute by car (U.S. Census 2000). The town is in the process of establishing a ferry service to Boston from the Town Landing.

Two public bus lines serve the town, entering at the Belle Isle Bridge, making a loop of central Winthrop and extending down to Deer Island.

The Beachmont T in Revere and Orient Heights T in East Boston are the MBTA stations closest and most frequently used by Winthrop commuters. Better access to public transportation was frequently cited as desirable in the Walk Winthrop survey.

There are many opportunities for Walk Winthrop to connect to public transportation within and adjacent to Winthrop, to support commuters and other public transportation users, and provide alternatives to private automobiles





ROADS & BIKEWAY POTENTIAL

Winthrop's network of roads includes narrow alleyways, one- and two-way residential streets, wider one- and two-way collector streets, and broad two-lane thoroughfares. Currently in Winthrop, there are no designated bicycle facilities, but the potential exists to incorporate bikeways into many of Winthrop's streets. Bike lanes, shared roadways, and bicycle preferred streets are three common types of bikeways considered best practices in bicycle planning.

Bike lanes require that streets with adequate right-of-way width (over 40 feet) be identified and the existing lane layout reorganized to accommodate bike lanes. This may require narrowing automobile lanes; removing parking spaces; and/or incorporating traffic calming measures to reduce overall vehicle speed.

Shared roadways are appropriate on streets with inadequate ROW for bike lanes (less than 40 feet), but traffic volumes too great (over 3300 vehicles per day) to create Bicycle Preferred Streets

Bicycle preferred streets are appropriate on roads with lower traffic counts and narrow ROW (<3300 vehicles per day and less than 40 feet of ROW)

- Bike Lanes in Winthrop could provide the most direct access to out-of-town public transportation because they could follow the major roads in town
- Shared Roadways can make connections between Bike Lanes and Bicycle Preferred Streets
- Bicycle Preferred Streets are possible in all of Winthrop's neighborhoods

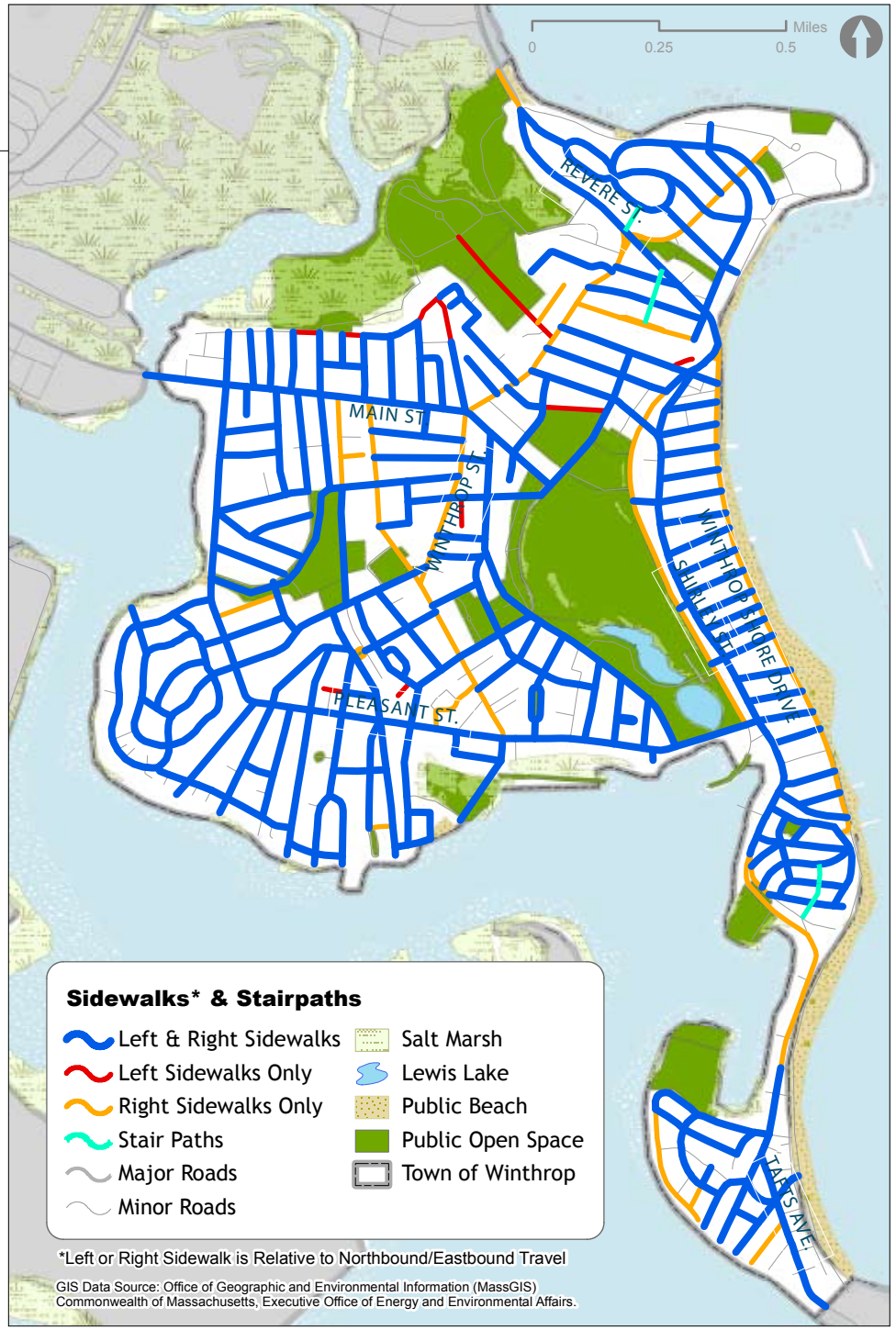
SIDEWALKS & STAIRPATHS

Winthrop's sidewalks border at least one side of every street in town, and most commonly border both sides of the street

The town's remaining stairpaths are vestiges of the town's railroad history: the stairs were built in hilly neighborhoods for pedestrians to access railroad stops. Quincy Path, Summit, Green Hill Path over Cottage Hill, and Point Shirley stairs, among others, are maintained by the Department of Public Works and remain in use. These paths can involve multiple flights of stairs and road crossings, such as on Cottage Hill. These paths are not universally accessible.

Reported and observed deficiencies in the current sidewalk and stairpath system include narrowness, obstructions, lack of ramps for wheelchair or stroller access, lack of street trees, lack of maintenance, and "disappearance"—when a sidewalk ends abruptly mid-block.

- A pedestrian system that depends on sidewalks to make connections will need to address these deficiencies to enhance the overall walkability of town
- Sidewalks should be a minimum of 5-feet wide and include ramps for ADA access
- Alternative routes to stairpaths and areas of excessive slope (greater than 5%) will support universal access



PUBLIC OPEN SPACE

Open space is dispersed throughout town, with major concentrations along the eastern half of Winthrop. Recreation land is the dominant type of public open space, and includes the beaches, parks and playing fields.

A privately-managed golf course leases public land in the center of town, preventing access to the largest, centrally-located parcel of open space.

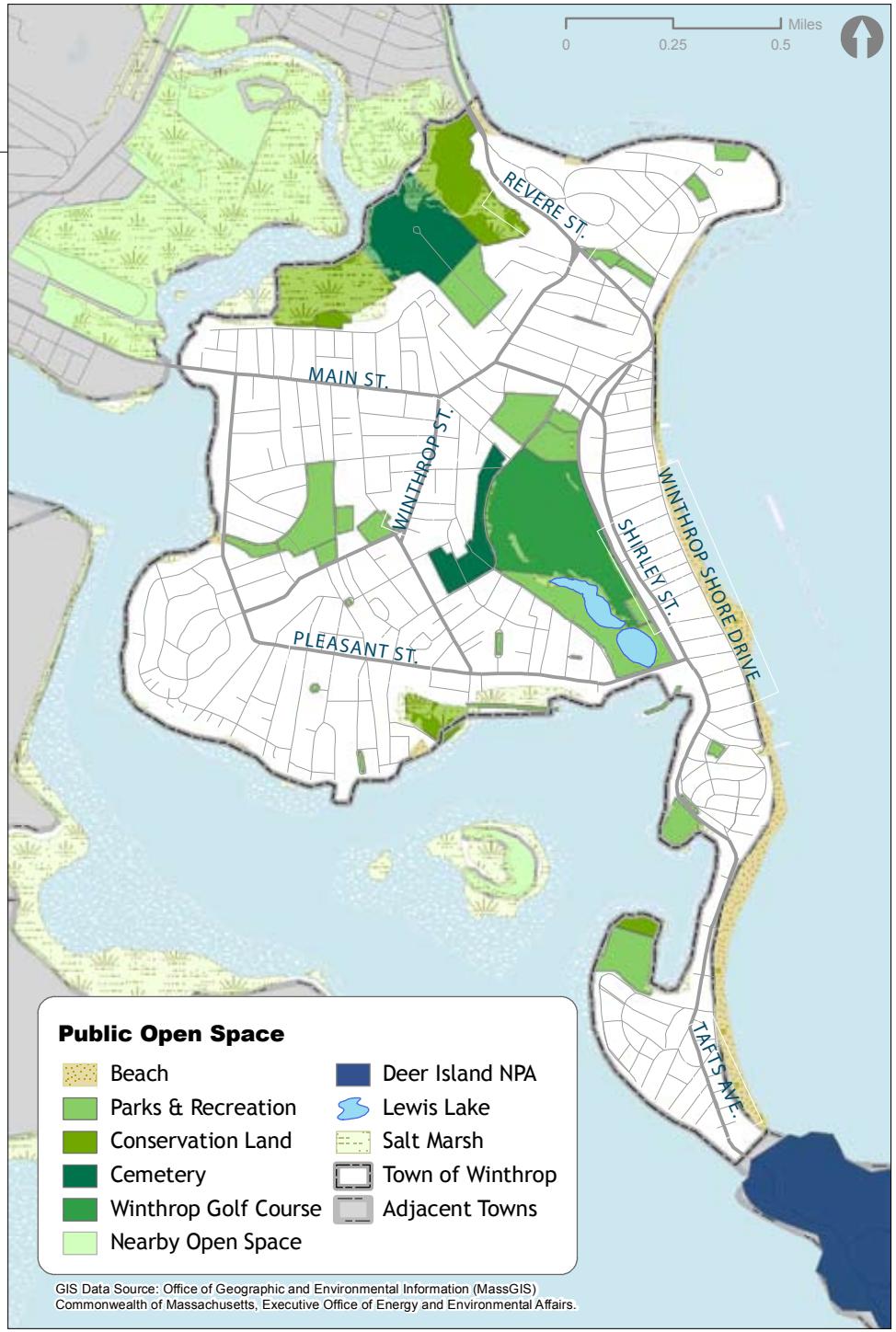
Conservation land, predominantly marsh, is the second largest form of public open space. Conservation land is concentrated in the Belle Isle Reservation on the northwest edge of town, Fisherman's Bend Marsh on the south, and the northern tip of Coughlin Park.

The town's two cemeteries, which contain walking paths, are the third largest form of public open space.

Adjacent open space includes the Deer Island National Recreation Area and the East Boston section of the Belle Isle Marsh.

Recreation and conservation land was cited by community members as the most desirable resources to link in a walking and biking network.

Walk Winthrop should provide access to public recreation land, conservation land and open space in adjacent towns.

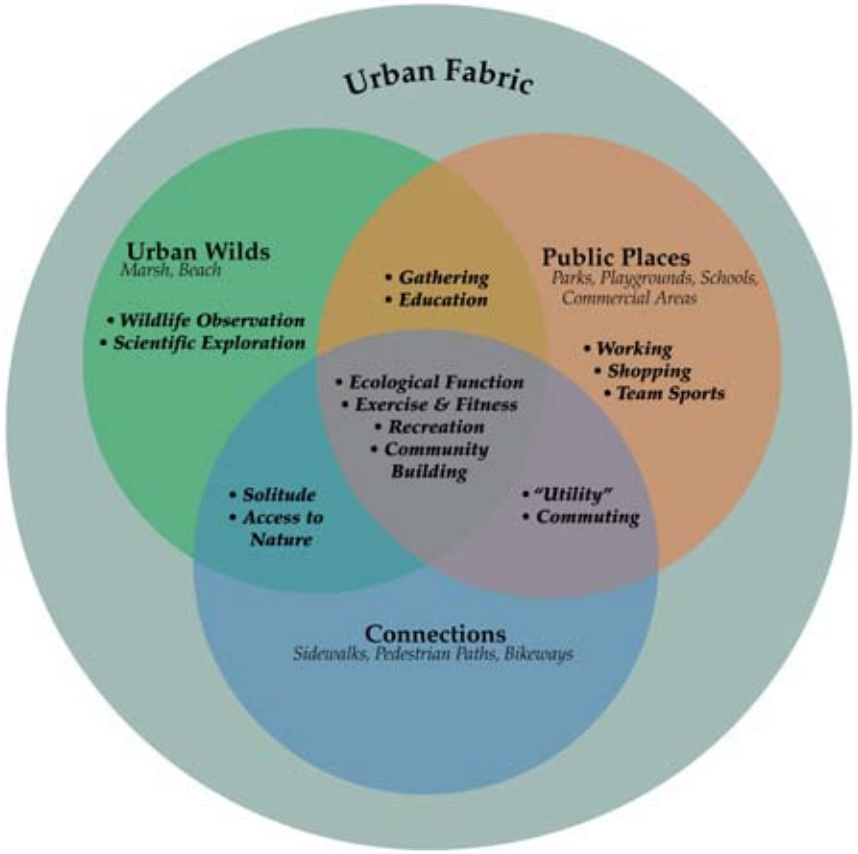


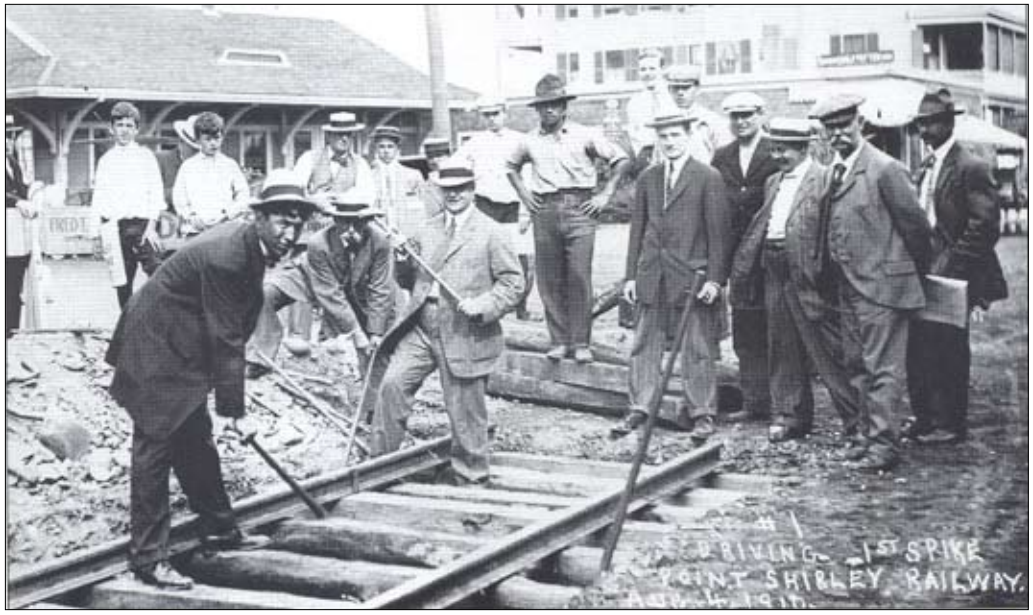
SUMMARY ANALYSIS

Winthrop's urban fabric is composed of three main categories of elements: urban wilds and public places, woven together with linear connections—paths, sidewalks, and street infrastructure. Each of these categories offers specific benefits to the community, and each is a critical component of a walking and biking network, whether as a destination or a means to get there. Additionally, the urban nature of Winthrop dictates that a walkability and bikeability plan considers the existing streets and sidewalks as the foundation of the walking and biking network—the essential connections. In order for Winthrop to achieve the goals of walkability and bikeability, town-wide infrastructure should be designed and optimized to support these goals.

WALK WINTHROP DESIGN IMPLICATIONS:

- Access to the marshes, beaches and tidal flats is desirable, but must respect the environmental function of the ecosystem
- Bikeways and walkways should reach town high-points to allow for vistas, but must include alternatives to steep terrain to ensure universal accessibility
- Pathways in lower elevation areas must be designed to resist flood damage or to be removable
- An entirely off-street public path system is not possible due to existing development
- Walk Winthrop's design should incorporate vegetation and permeable surfaces to help mitigate stormwater runoff
- Connections to public transportation can be made throughout town
- Winthrop's roads can accommodate bikeways, including bike lanes, shared roadways and bicycle preferred streets, which together could reach all of Winthrop's neighborhoods
- Sidewalks should be a minimum of five feet wide and include ramps to ensure universal access
- Access to public places and open space, including recreation land, conservation land, and trails within Winthrop and in adjacent towns, will help fulfill the community's vision for Walk Winthrop





Winthrop's railroad legacy has shaped the Winthrop of today.
Image used with permission of Dave Hubbard and the Winthrop Improvement & Historical Association.

PLAN CONCEPT

WINTHROP'S RAILROAD LEGACY

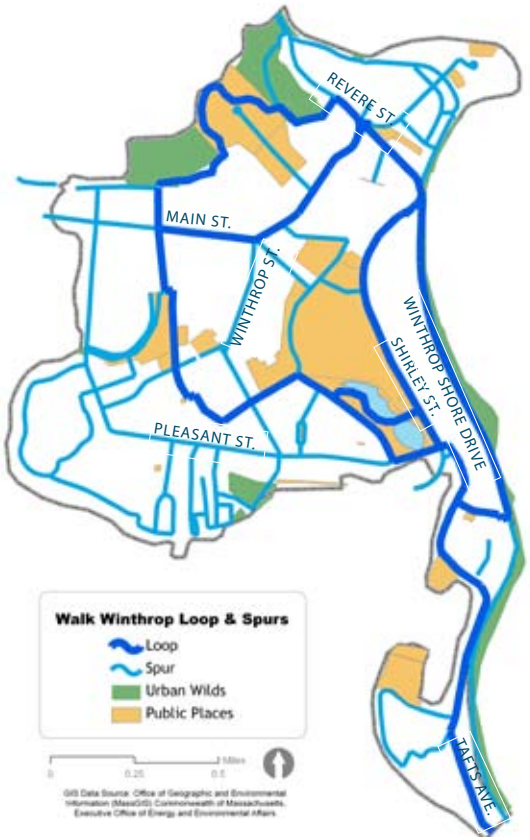
Though the Winthrop of today is accessed primarily by car and public bus connecting to the Metropolitan Boston Transportation System (MBTA), the town's often narrow, winding streets and densely built environment reflect an era when travel was accomplished by rail and foot. Roads are bordered by sidewalks; stairpaths connect neighborhoods to main thoroughfares; public parks and open space are located throughout town, as are schools; compact nodes of commercial development are located in various neighborhoods; and the town is ringed with public beaches that provide opportunities for recreation and water access. The compact town's historical development has resulted in a community well-positioned to take advantage of its scenic and public resources, enhancing access to outdoor activities and community interaction, while reducing reliance on automobiles.

Rail lines were designed to enable the best access to most of Winthrop. This resulted in long, linear, undeveloped sections of town, including parts of right-of-way in the Belle Isle and Fisherman's Bend Marshes, the Lewis Lake Park area and adjacent golf course, Ingleside Park and rights-of-way along the northern and eastern coast. Much of this land remains in public ownership as rights-of-way, open space, and park. Additionally, much of the infrastructure put in place to support the railroad—the fragments of trestle at Fisherman's Bend and Belle Isle Inlet, Crystal Cove jetty, and access stairs and small paths—are still in existence; many have found new roles in public projects and are actively maintained or are scheduled for future development. This legacy of public property in prime locations is an exciting opportunity.

Incorporating the various user needs and goals with the analysis of design options and railroad history led to the plan concept for the Walk Winthrop System: the Winthrop Loop and Winthrop Spurs, embedded within the town's overall urban fabric.

The Walk Winthrop Loop connects as much public open space, urban wilds and other community resources in a continuous loop system, inspired by Winthrop's historic railroads. The route traverses fragments of rights-of-way, along with roads and sidewalks, to connect the large parks and urban wilds into a circular exploration of Winthrop.

Walk Winthrop Spurs connect peripheral destinations of all types not reached by Winthrop Loop, and make connections between destinations off the Walk Winthrop Loop. Some spurs use fragments of rail rights-of-way to make connections.



Together, the Winthrop Loop and Spurs allow Walk Winthrop to meet the goals of a safe, legible, accessible, aesthetically pleasing, and ecologically-sound walking and biking network for different kinds of user needs and destinations.

WALK WINTHROP

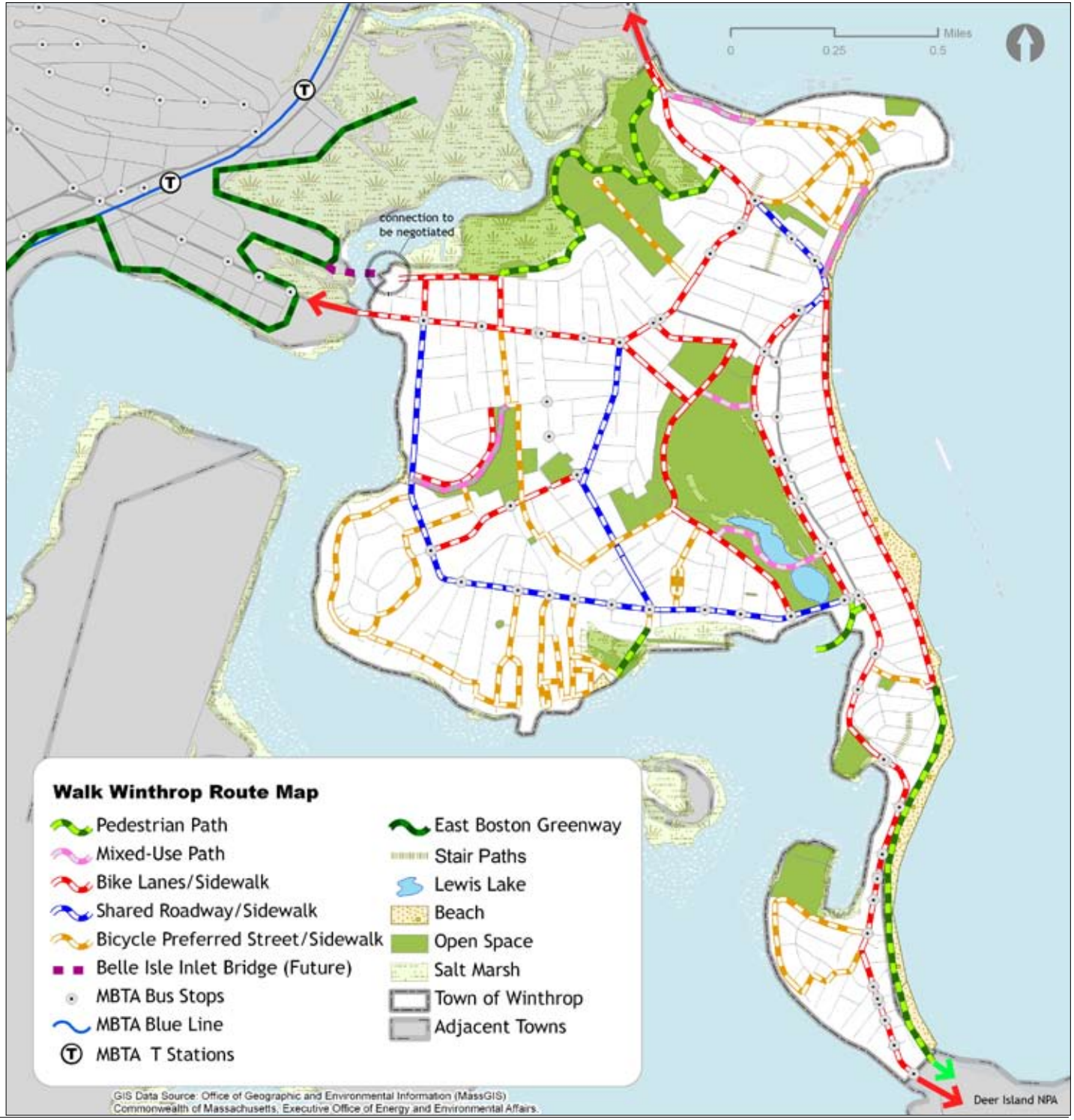
Community goals and criteria, user needs, and the analysis of existing conditions are the basis of the Walk Winthrop plan. Desirable destinations, which were determined during community meetings and via an online survey, were the starting point for developing the plan. Destinations fall into two major categories: urban wilds (marshes and beaches) and public places (business districts, parks, schools, civic centers).

Potential connections between destinations were drawn, mapped, and analyzed using community driven criteria. Further refinement was made using standard dimensional and technical criteria, which was established through research specific to each type of destination or connection, such as park, business area; sidewalk, path, or bikeway. Technical criteria include sidewalk widths, surface permeability, bike lane width, road right-of-way width, and traffic counts.

The design that emerges from the compiled data is a system of interconnected routes that address the many different types of user needs and interests of the community, while acknowledging the railroad history of the town. Winthrop's railroad history provides both inspiration and infrastructure for Walk Winthrop.

HOW WALK WINTHROP WORKS

- Broad, unobstructed sidewalks, lined with street trees where possible, support safe, accessible, and aesthetically pleasing travel through town.
- Raised crosswalks near schools, parks, senior center, and in business districts increase pedestrian visibility and indicate to drivers that pedestrians have the right-of-way.
- Clear signs establish the Walk Winthrop route and offer directions. Roadway markings guide walkers, cyclists, and drivers through the Walk Winthrop network.
- Pedestrian Paths through the Belle Isle Marsh, Fisherman's Bend Marsh, and along Winthrop and Yirrell Beaches bring people into the urban wilds, while respecting the ecological function of those places. The path near the Fort Banks School provides children and educators direct access to nature.
- Mixed-used paths through Lewis Lake Park, Ingleside Park and along the revetment between Halford and Short Beach provide scenic opportunities for connections for different types of trail users, whether people traveling from the Shirley and Crystal Cove Business Districts to Winthrop Center, children walking or biking to school through Ingleside Park, or commuters headed to the Beachmont MBTA station. Bike Lanes on major roads lead to the two access points to Winthrop: the Belle Isle Bridge to East Boston and the Winthrop Parkway to Revere, giving commuter cyclists more direct access to the MBTA rail stations at Orient Heights and Beachmont
- A Bike Lane on Shirley Street leads to Deer Island, so recreational cyclists can access the many walking trails there.
- Shared Roadways follow major routes, such as Pleasant Street, Winthrop Street, and Crest Avenue, giving commuter cyclists alternate routes to connect to Bike Lanes and to get to Winthrop's central business and civic district, Winthrop Center.
- Bicycle Preferred Streets in the Highlands, Cottage Park, and Point Shirley neighborhoods, and in Central Winthrop lead to many public places, parks and urban wilds. They also connect neighborhoods to the Bike Lanes and Shared Roadways, and the main thoroughfares through town.



The route chosen for Walk Winthrop is based on community input about desirable destinations and other route criteria. Access through any private ways included on the route will have to be negotiated between the town and the individuals or associations responsible for maintaining the private way.

DESIGN OPPORTUNITIES: CROSSING THE BELLE ISLE INLET

The town owns the right-of-way to the rail trestle bed and could potentially use this to make a connection via a pedestrian or multi-use bridge across the Belle Isle inlet to the East Boston Greenways trails, the Blue Line, and the entire network of trails in the greater Boston area.

The remains of a railroad trestle at the end of Belle Isle Terrace and Morton Street, which once carried trains from East Boston into Winthrop across the Belle Isle Inlet, currently houses a small privately-owned boat storage facility.

Creating a bridge entry point through this area would require the removal of the boats currently stored here and perhaps the existing building. An agreement between the town and the owner of the facility, as well as the City of Boston, would need to be reached before this opportunity could be explored. A bridge would need to be tall enough to accommodate high tide while leaving enough clearance for kayaks and other small boats, and would need to span approximately 400 feet from shore to shore.

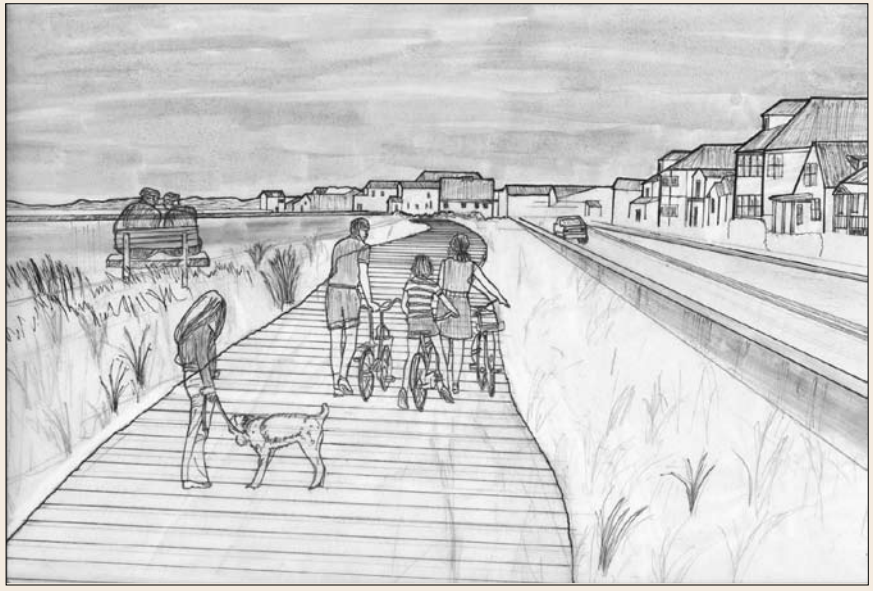
Potential footbridge across the Belle Isle Inlet.

DESIGN OPPORTUNITIES: IMPROVING THE YIRRELL BEACH PATH

The wide, raised pedestrian way over the MWRA sewer lines running parallel to Yirrell beach along Shirley Street would benefit both ecologically and aesthetically from a few key redesigned elements.

There is currently a narrow paved path that runs down the center of the embankment from near the base of Cottage Hill to a beach entry point opposite Petrel Street. A 10-foot wide path would accommodate both pedestrians and bicycles. A wider path would also be wheelchair accessible if ramps were provided at entry points. The path could be resurfaced in a permeable pavement or ground-level boardwalk, which would allow more stormwater to infiltrate the ground in an area where there is a high proportion of impermeable surface. The area surrounding the widened pathway could be planted in native beach grasses for a naturalistic look. Bench seating placed near the seawall, facing the water, would complete the redesign.

Care should be taken to maintain access to the sewer lines below the path by not building over sewer access points.



Yirrell Beach path re-imagined.

Paths in Ingleside Park link two schools, tennis courts, a ball field, Donovon beach, and a playground. The park, a former salt marsh, suffers from frequent flooding which damages paths and vegetation.

Looking to Boston's Emerald Necklace (1878) for a possible solution. In the Back Bay Fens, a plot with formerly degraded wetlands was transformed by Frederick Law Olmsted into a park that functioned as a stormwater management system. Olmsted brought together aesthetics and ecological function into a single design.

In Brook Field, in Ingleside Park, stormwater and floodwater water could be collected in vegetated infiltration beds or a pond could be created in the park. Raised walkways through a landscape of native and ornamental plants provide an important ecological function, frame views and add depth and variation to the walk through the park.

Existing Conditions.

The introduction of vegetation and the creation of a pond adds interest to an area that is prone to flooding.

On thoroughfares like the 48-foot-wide Veterans Way, running uninterrupted along the former railroad right-of-way east of the golf course from Washington Avenue on the south to the stop sign at Shirley Street on the north, citizens report that drivers often speed recklessly, and pedestrians and cyclists are at risk.

Veterans Way is a two-lane road. Parallel parking and a three-to five-foot-wide sidewalk are located along the east side, where a commercial strip lines the road; haphazard parking along the west side interspersed with intermittent sidewalk backs up to the chain link fence around the golf course and the playing fields east of the high school and south of Shirley Street. The golf course, on public land leased to a private club, currently prohibits public access.

Playing fields adjacent to the high school, sit at the north end of the golf course. Lewis Lake, with public walking trails, and the Crystal Cove Commercial district abut the golf course to the south. Creating better pedestrian access along east side of Veterans Way and creating bike lanes would link the public amenities to the north and south, bypassing the obstacle that is the private golf course. If public access is granted through the golf course in the future, Veterans Way can accommodate access points. Cross Road, on the west side of the golf course, is a candidate for similar treatment.

Recommended traffic calming measures include narrowing lanes to 10 feet; installing speed tables in the roadway; installing stop signs for cars (but not bicyclists), and creating neck-downs at pedestrian crosswalks (see Traffic Calming in Toolkit for descriptions and illustrations of these traffic calming devices).
The golf course and Lewis Lake contain fragmentary wetlands and may flood during storm and high tide events. Stormwater management in the form of infiltration beds in the redesigned Veterans Way could reduce surface runoff, buffer wetlands and reduce the load on public sewer infrastructure. Street trees would provide shade for pedestrians.

Veterans Way existing conditions.

Visual simulation showing Veterans Way after traffic calming measures.

French Square, in the heart of Winthrop Center, pictured to the right, is a perfect candidate for making a place for pedestrians and cyclists. French Square has many of the elements of a successful public square: a cluster of popular businesses, widening where streets cross, different kinds of shops and places to sit, at cafes or public benches, clear changes in paving materials to signal that one is now in a different kind of place. A small park in the center is where the annual Winthrop Christmas tree is erected.

While the square is currently open to vehicular traffic, the use of bollards—short metal posts placed closely together—discourage vehicle access in the square and divert traffic to Woodside Avenue and Hagman Road. This could enable greater pedestrian and bicyclist use of the space, while reducing conflicts with cars. Access to the stores would be maintained and would help to generate the civic life that improves business.

French Square existing conditions.

Visual simulation showing French Square as a pedestrian and bicycle thoroughfare.

Wilds Provide Access to Nature in Urban Areas.
Photograph courtesy of George Cumming /www.georgemacumming.com.

Plan Details

INTRODUCTION

Walk Winthrop links the desirable destinations reported by Winthrop's citizens, including the many urban wilds and public places. Walk Winthrop reaches these destinations by a variety of on- and off-street connections, particular to the nature of the route and the places to be connected. The different character and needs of each type of destination dictate different design approaches for different situations.

The two main categories of desirable destinations, the urban wilds and public places, are explored in greater detail in this chapter, along with the proposed connections to and design recommendations for each.

The Toolkit that follows (page 43) these plan details provides illustrations and specific descriptions of design approaches recommended for Walk Winthrop, including the purpose, appropriate application, advantages, disadvantages, and design and maintenance considerations.

URBAN WILDS

The marshes and beaches that line the perimeter of Winthrop are urban wilds, fragments of natural ecosystems that exist within an urban boundary. Unlike parks they are not designed by people but rather shaped by nature (Boston Natural Areas Network). Urban wilds are important natural resources for humans and other species. Wilds add to the network of green space within an urban area and provide forage and shelter for animals, birds and insects in places where it may be scarce. Wilds can provide vital ecological services like stormwater filtration, vegetative sound buffering and air filtration, and floodwater detainment.

Wilds add to the overall quality of urban life by offering people refuge from the built environment and a chance to experience nature on a local level. With the increasing homogeneity of urban spaces, urban wilds are an expression of the unique regional character of a place (Boston Natural Areas Network).

THE CASE FOR CAREFUL PUBLIC ACCESS

Access to urban wilds can provide a community with many educational and recreational opportunities including, wildlife observation and study, exercise, and an overall enhanced appreciation of the natural world.

Because of their proximity to dense human settlement, urban wilds are fragile and vulnerable to further fragmentation. They require ongoing maintenance and protection. Urban wilds that are not maintained are at risk from invasive plant and animal species, assumed ownership of nearby abutters, littering, dumping, and other inappropriate activities. Increased human presence in or near urban wilds can actually discourage inappropriate use. In order to attract users whose emotional attachment and stewardship actually serve to protect urban wilds, accessibility must be given priority while balancing ecological integrity. Well maintained paths, good signs and close proximity to public walking trails and public transit help to encourage appropriate use (Boston Natural Areas Network).

THE SALT MARSHES OF WINTHROP

Coastal New England was once lined with significantly more salt marsh than it is today. Hundreds of years of human activity, like natural resource extraction and filling marshes, has greatly reduced their acreage and left the remaining marshland fragmented. It is estimated that 81% of the salt marsh in the Boston area has been lost since European settlement began (Bromberg & Bertness).

A salt marsh acts as a transition zone between land and water, and performs many important ecological functions, including flood control and providing nursery areas for fish and shellfish. From the perspective of human settlement, the loss of salt marsh has left much of the coastline wide open to the ravages of storms and coastal flooding.

The town of Winthrop is fortunate to have two significant salt marshes, which hold great potential for both passive recreation and educational opportunities.

The 241-acre Belle Isle Marsh, which is divided between East Boston and Winthrop, is the largest remaining fragment of salt marsh in the metropolitan Boston area and a popular destination for birdwatchers. Located along the Atlantic flyway the marshes are attractive to migratory

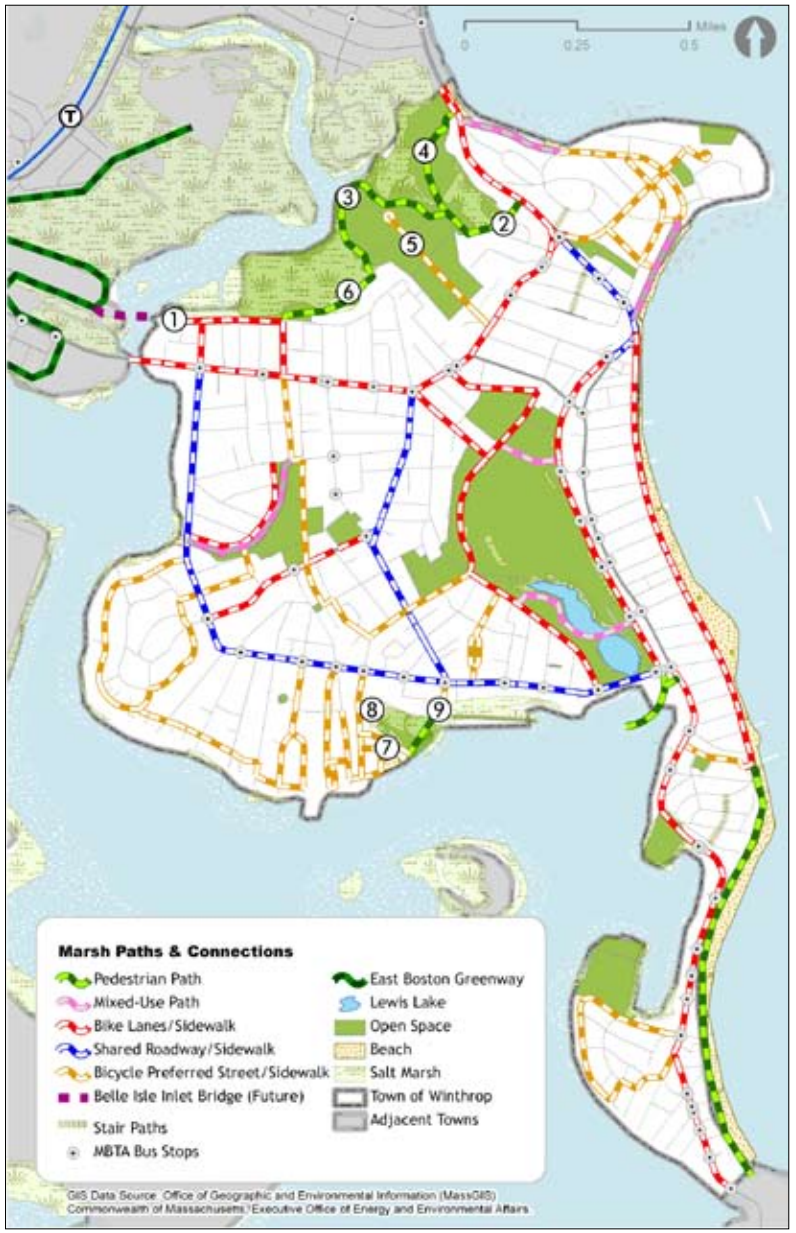
and native birds, such as snowy egrets, great blue heron, sandpipers, and plovers (Mass.gov). The Belle Isle Marsh is part of the larger Rumney Marshes system, which encompasses over 2800 acres of coastal wetland in Boston, Lynn, Revere, Saugus, and Winthrop. The Rumney Marshes have been designated as an Area of Critical Environmental Concern (ACEC) by the M.A. Office of Environmental Affairs. The U.S. Department of Fish and Wildlife characterizes the Rumney Marshes as "one of the most biologically significant estuaries in Massachusetts north of Boston." (Mass.gov).

The Massachusetts Department of Conservation and Recreation (DCR) is responsible for maintaining the 178 acres of conserved land within the marsh as the Belle Isle Marsh Reservation. The DCR manages 28 acres of the reservation in nearby East Boston as a system of publicly accessible paths and boardwalks.

The Fisherman's Bend Marsh encompasses eight acres on the southern edge of the Cottage Park neighborhood. A marsh restoration project was undertaken in 2001 by the Wetlands Restoration Program of the Massachusetts Executive Office of Environmental Affairs and citizens of Winthrop who removed illegally dumped trash and construction debris, and unblocked two restricted tidal channels. A small wooden footbridge across a tidal channel and a number of walking paths and benches within the marsh were installed as part of the restoration (Mass. Executive Office of Environmental Affairs). Spectacular views towards Cottage Hill and the Boston skyline can be seen from the marsh.

The Map and table (right) outline the locations, current access points, and potential Walk Winthrop access points, to the town marshes.

Numbers on the map reference the numbered table on the facing page.



MARSH PATHS & CONNECTIONS				
PATH /STREET	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① BELLE ISLE/ MORTON STREET	paved road disused sidewalk	none	Belle Isle footbridge via sidewalk & bicycle preferred street (Proposed) Winthrop Greenway via boardwalk	• bicycle preferred street • sidewalks • wayfinding signs
② BELLE ISLE/ BAYOU STREET	paved road	Winthrop Greenway via paved road	Winthrop Greenway via sidewalk & bicycle preferred street	• bicycle preferred street • sidewalks • wayfinding signs
③ BELLE ISLE/ BELLE ISLE CEMETERY LOOP	gravel footpath unpaved access road	Kennedy Dr. via paved and dirt access road	Winthrop Greenway via gravel footpath to east & boardwalk to Morton Street Kennedy Dr. via bicycle preferred street	• bicycle preferred street • boardwalk • crushed rock path • rolling grade dips • wayfinding signs
④ BELLE ISLE/ DCR SHORT BEACH PATH (PROPOSED)	unpaved access road	none	Winthrop Greenway via paved path & boardwalk	• wayfinding signs
⑤ BELLE ISLE/ KENNEDY DRIVE	paved road	Belle Isle cemetery	Belle Isle cemetery loop via bicycle preferred street	• bicycle preferred street • signs
⑥ BELLE ISLE/ WINTHROP GREENWAY	disused paved road informal path	Bayou St. via paved road	DCR Short Beach via paved path footbridge at Belle Isle Terrace via sidewalk & bike lane Bayou St. via gravel footpath Morton St. via boardwalk	• bike lane • boardwalk • permeable paving • rolling grade dips • sidewalks • wayfinding signs
⑦ FISHERMAN'S BEND/ CORINHA BEACH ROAD	paved road	Fisherman's Bend via paved road	Fisherman's Bend via bicycle preferred street or shared roadway & sidewalk	• bicycle preferred street or shared roadway • bike rack • sidewalks wayfinding signs
⑧ FISHERMAN'S BEND/ SUNNYSIDE AVENUE	paved road sidewalk	Fisherman's Bend via paved road	Fisherman's Bend via sidewalk & bicycle preferred street or shared roadway	• bicycle preferred street or shared roadway • bike rack • sidewalks • wayfinding signs

THE BEACHES OF WINTHROP

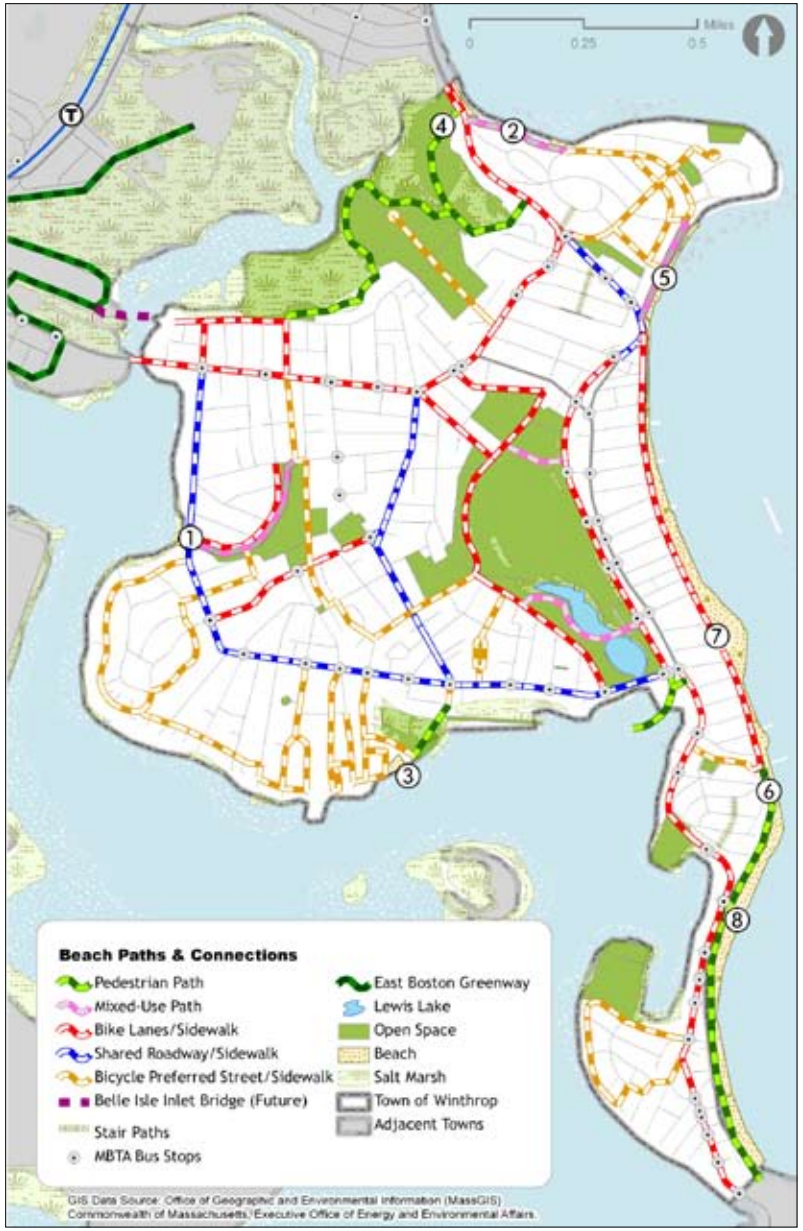
Winthrop's beaches, which define the outer perimeter of the peninsula, are in a constant state of flux in response to the forces of nature. Within the past century, all of Winthrop's beaches have been either fitted with sea walls to hold back water from extreme storm events or stabilized with revetments. Sea walls along beaches have altered the natural patterns of sand deposition and erosion, and in some cases create a barrier to universal beach access.

Short Beach and Halford Beach, on the north shore of Winthrop, are accessible only at low tide from Winthrop Parkway and Nahant Avenue. Donovan Beach, off of Pleasant Street, is a narrow stretch of sand retained behind a low, concrete sea wall and is the only public beach on Winthrop's western shore. Pico Beach lies on the south shore of Winthrop, off of Frances Street and Pico Avenue, near Fisherman's Bend marsh.

The largest and most exposed continuous stretch of publicly accessible shoreline runs along the eastern side of Winthrop from the northern most point of Winthrop Shore Beach near Cliff Avenue, to the southern most tip of Yirrell Beach at Point Shirley. Winthrop Shore Beach and Yirrell Beach are linked to the railroad history of Winthrop via their use as railroad corridors for the trains that carried many summer visitors to Winthrop during the nineteenth century. Despite changes brought on by seawall construction, breakwaters, building, and rail tracks, the eastern shore of the Winthrop coastline still maintains its wild character.

The map and table to the right, outline the locations, current access points, and potential Walk Winthrop access points, to the town beaches.

Numbers on the map reference the numbered table on the facing page.



BEACH PATHS & CONNECTIONS				
PATH /STREET	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① DONOVAN BEACH	access ramp	Ingleside Park via paved path, road & sidewalk	Donovan Beach via mixed-use path , sidewalk & bike lane	• bike lane • bike rack • mixed-use path • permeable paving • raised crosswalk • wayfinding signs
② HALFORD BEACH/ REVETMENT ALONG RR RIGHT OF WAY	informal path	Short Beach via informal path Seawall Avenue via stone staircase	Short Beach via mixed-use gravel path & bike path Seawall Avenue via stone staircase	• bike path • bike rack • crushed rock path • wayfinding signs
③ PICO BEACH	paved road sidewalk	Sunnyside Avenue via paved road & sidewalk	Sunnyside Avenue via sidewalk & bicycle preferred street or shared roadway	• bicycle preferred street or shared roadway • bike rack • sidewalks wayfinding signs
④ SHORT BEACH/ DCR SHORT BEACH PATH (PROPOSED)	unpaved access road	none	Winthrop Greenway via paved footpath	• bike rack • permeable paving • raised crosswalk • wayfinding signs
⑤ WINTHROP BEACH/ DCR BEACH PROMENADE	paved path promenade	Cliff Avenue via wooden staircase Grover's Avenue via Temple Street Winthrop Shore Drive via paved ramp and staircase	Cliff Avenue via wooden staircase & bike stair rail Grover's Avenue via paved ROW Winthrop Shore Drive via paved ramp and staircase and mixed-use path	• bike stair rail • mixed-use path • permeable paving • sidewalks • wayfinding signs
⑥ WINTHROP BEACH / EDWARD R. SNOW PATH	paved path	Winthrop Shore Drive via paved path Faun Bar Avenue via sidewalk	Winthrop Shore Drive via sidewalk path & bike lane Yirrell Beach via extended, paved path and staircase over seawall Faun Bar Avenue via sidewalk & bicycle preferred street or shared roadway	• bicycle preferred street or shared roadway • bike lane • bike rack • permeable paving • wayfinding signs
⑦ WINTHROP BEACH / WINTHROP SHORE DRIVE	sidewalk	DCR Beach Promenade via paved ramp & staircase Edward R. Snow path via sidewalk	DCR Beach Promenade via paved ramp, staircase & mixed-use path Edward R. Snow Path via mixed-use path	• bike lane • bike rack • mixed-use path • wayfinding signs
⑧ YIRRELL BEACH/YIRRELL BEACH PATH	paved path	Yirrell Beach via paved path Shirley Street via paved path	Yirrell Beach via boardwalk /mixed-use path Shirley Street via bike lane Winthrop Beach via beach	• boardwalk • mixed-use path • wayfinding signs

PUBLIC PLACES

The parks, playgrounds, commercial areas, civic centers, and schools of Winthrop are all identified by the community as priority destinations in the Walk Winthrop system. These can be understood as public places. Public places are a constant presence in the daily life of residents. While people enter the urban wilds to experience nature and wildlife, the Public Places are primarily for people and create the civic and public identity of the town.

This section is a catalog of the places identified in the public process that were incorporated into the Walk Winthrop design. Every suggestion was considered and, where possible, incorporated into either the loop or spurs in a way that would support the most types of users—both recreational and commuter.

Walking kids to school or a playground, visiting the Winthrop Tree in French Square, sitting alone or with a friend in Hannaford Park, or walking out to Lewis Lake on a sunny day are all experiences that shape the people of Winthrop's identity. Because these are the places that make Winthrop unique, a system that helps people access them on foot or bike opens up a direct way to get involved in the life of the town.

Numbers on the map reference the numbered table on the facing page.

PUBLIC PLACES - SMALL PARKS				
NAME	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① CRYSTAL COVE JETTY	gravel-surfaced jetty	linked by Winthrop HarborWalk project access via parking lots from Shirley St. & Veterans Way	connect to Winthrop HarborWalk shared roadway on Washington Ave. bike lanes on Veterans Way & Shirley St. mixed-use path from Washington to end of jetty	• bike lane • bike racks • mixed-use path • shared roadway • wayfinding signs
② TOWN LANDING & FERRY	paved paths lights parking sidewalks	Winthrop HarborWalk project sidewalks on Shirley St.	connect to Winthrop HarborWalk bike lane on Shirley St.	• bike lane • bike racks • sidewalks
③ HANNAFORD PARK	parking paved paths stairs	end of Nahant Ave.	bicycle preferred street & sidewalk on Highland Ave.	• bicycle preferred street • sidewalk • wayfinding signs
④ THORNTON PARK	paved path benches	in middle of Thornton Park Rd. paved path exits park into road	shared roadway on Thornton Park Rd. sidewalk on Thornton Park Rd.	• raised crosswalk • shared roadway • sidewalk
⑤ WOODSIDE PARK	NA	in middle of Woodside Ave.	bike lanes on Woodside Ave. sidewalk on Woodside Ave. mixed-use path in park	• bike lanes • green street • mixed-use path • sidewalk

PARKS & PLAYGROUNDS

Winthrop has a wide assortment of parks and playgrounds, both large and small. Parks and playgrounds can be both end destinations, as well as part of the route to other places.

Small parks (see previous page) have either no trails or short trails in Winthrop include Woodside Park, Bicentennial Park, Thornton Park, Summit Avenue Park, and Hannaford Park. While they lack the long paths of larger parks, these parks are essential to the urban fabric. They are landmarks and orienting points for people navigating the town, with places to stop and sit, walk the dog, and places to gather.

Large parks (see table on opposite page) offer opportunities for exercise and varied experiences, and often include playgrounds, playing fields or courts, and walking paths. Two of Winthrop's three large parks, Ingleside and Lewis Lake, have the potential for additional or improved internal walking and cycling paths. They are especially important to the design of a trail system through Winthrop because they provide opportunities for making connections between park paths and the large pattern of connections on the streets of the town.

The nine-acre Coughlin Park on Bay View Avenue includes playing fields, benches, picnic tables, parking, and a playground. Because it is located on its own small peninsula, it has the most potential as a destination rather than a link between points of interest.

Linking parks within the Walk Winthrop network will improve access and enhance their benefits to the community. Like the urban wilds, people come to parks to experience a break from the urban environment. As public spaces open for a variety of uses, parks are essential to civic life.

Users of all abilities should be able to access the experiences and services of the park. These parameters mean that the entire system of paths connecting to and running within a park, pedestrian or mixed use, should be designed with accessibility in mind. The toolkit section explores the different types of infrastructure appropriate in parks.
Numbers on the map reference the numbered table on the facing page.

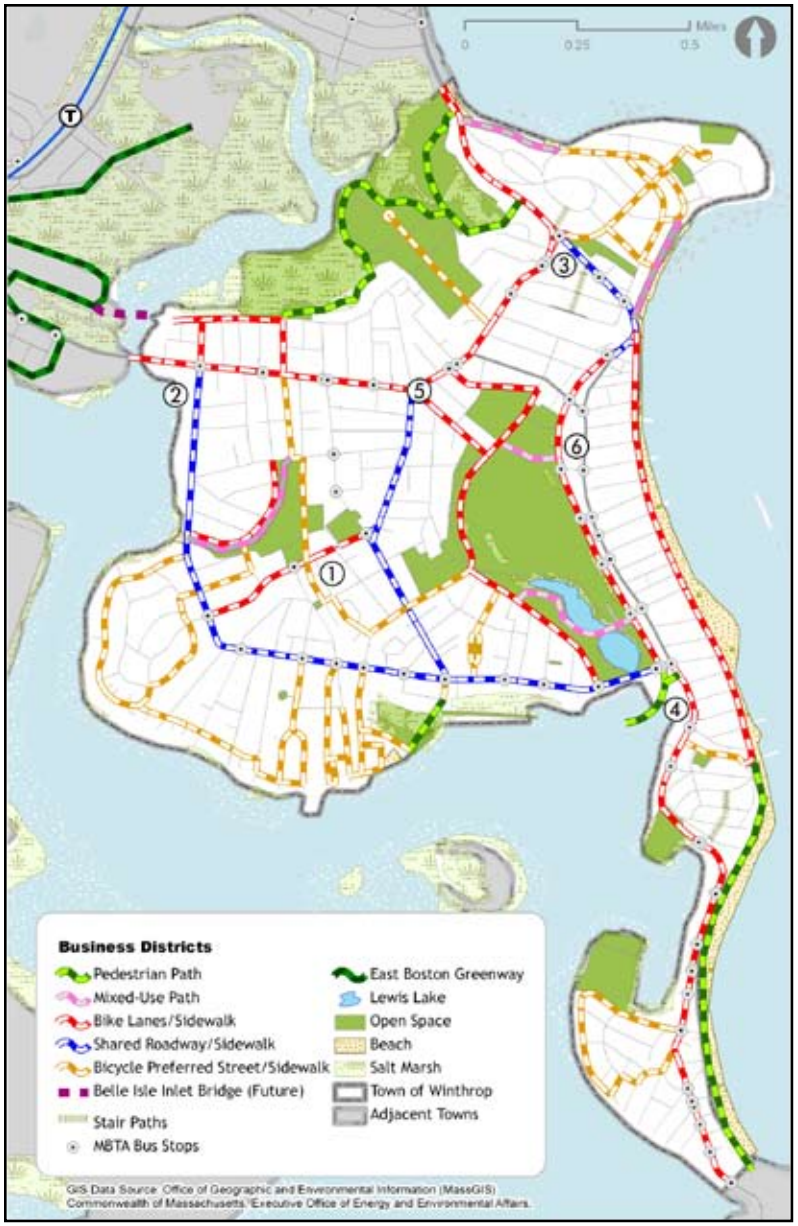
PUBLIC PLACES - PARKS & PLAYGROUNDS				
NAME	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① COUGHLIN PARK	Coughlin Playground sports courts benches picnic tables paved paths	access from parking lot on Bay View Ave. crosswalk across Bay View Ave.	bicycle preferred street on Bay View Ave. sidewalk on Bay View Ave. mixed-use path in park	• bicycle preferred street • green street • mixed-use path • sidewalk • traffic calming
② INGLESIDE PARK/BROOK FIELD	narrow, paved paths divided by Wheelock St. playground tennis courts playing field	sidewalks on Walden St. paths enter from Walden St., Lincoln St., Brookfield Rd., Wheelock St., Palmyra St., & Pleasant St. connection to Donovan Beach across Pleasant St.	bike lane on Brookfield Rd. Bicycle preferred streets or shared roadways on pleasant St., Wheelock St., Walden St. & Lincoln St. sidewalk on Walden St. mixed-use path through park	• bicycle preferred streets • bike path lane • green street • mixed-use path • raised crosswalk • shared roadway • sidewalk • traffic calming • stormwater park
③ LEWIS LAKE	Norman F. Daw playground Little League, Miller & Veterans Field unpaved paths lake access	path from River Rd. path from Veterans Way	sidewalk along Veterans Way River Rd. & from Thornton St. & Buchanan St. mixed-use paths within park bike lanes along Veterans Way, River Rd., & Cross St. bicycle preferred streets or on Thorton St., & Washington Ave.	• bicycle preferred streets • bike lanes • green streets • mixed-use path • shared roadways • signs • traffic calming • wayfinding signs
④ WORLD WAR II VETERAN'S PARK & CREST AVE. PLAYGROUND	paved paths Crest Ave Playground benches "Winthrop" sign	paved paths connect with Highland Ave & Crest Ave. with parking lot off of Crest Ave. Summit Ave. stairpath	sidewalk on Highland Ave. bike lanes or shared roadways on Highland Ave., Revere St. & Crest Ave. walking path from Summit Ave.	• bike lane • green street • shared roadways • sidewalk • traffic calming • wayfinding signs
⑤ MASSA PLAYGROUND	crosswalks playground equipment benches signs lights	openings to sidewalk on Hillside Ave., Beacon St., & Park Ave.	sidewalk & shared roadway on Beacon st.	Raised crosswalks sidewalk shared roadway traffic calming shared roadways sidewalk

BUSINESS DISTRICTS

Business districts in Winthrop contain restaurants, retail stores, offices, and other services. They are destinations where people can meet many of their shopping and social needs at once. Each of these districts is an important destination for Walk Winthrop, to link people to the public life of the community. Winthrop's primary, zoned business district is Winthrop Center, which includes Metcalf and French Squares. The Center contains commercial buildings, grocery stores, restaurants, cafes, the post office, banks, places to sit outside, and other uses important to residents. Within this district sits Metcalf Square which contains the library, town offices, a church, the elementary school, and a green with historical memorials. To the south is French Square, a small park surrounded by roads and ringed by cafés, benches, and small shops.

While Winthrop Center is the main business district, there are five other business districts throughout town. Crest Business District, in the northeast part of town, centers on the intersection of Revere Street and Crest Avenue and extends along Argyle Street. Shirley Street Business District runs east of the Golf Club and Lewis Lake between Shirley Street and Veterans Way. McGee's Corner is at Revere Street, Main Street and Winthrop Street, near Winthrop High School. Belle Isle Business District, near the Belle Isle Bridge, includes shops, services and a marina. The Crystal Cove Business District, with restaurants, marinas, and an inn, is located along Shirley Street near Washington Avenue.

Numbers on the map reference the numbered table on the facing page.



BUSINESS DISTRICTS				
NAME	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① WINTHROP CENTER BUSINESS DISTRICT	sidewalks some crosswalks	bus stop at Revere St. & Crest Ave. extends around Argyle St., Highland Ave., Crest Ave., & Revere St. Summit Ave. stairpath	bike lane on Revere St. bus stop shared roadway on Crest Ave. & Highland Ave. sidewalk on Revere St. & Highland Ave. Summit Ave. stairpath	• bike lane • gateways & edges • green street • identifiable neighborhoods • promenade • raised crosswalks • shared roadway • sidewalk • transportation interchange
② BELLE ISLE BUSINESS DISTRICT	sidewalks crosswalks signs	bus stops located along Shirley St. and Washington Ave.	Crystal Cove Jetty bike lane on Shirley St. shared roadway on Washington Ave.	• bike lane • gateways & edges • green street • identifiable neighborhoods • promenade • raised crosswalks • shared roadway • sidewalk • transportation interchange
③ CREST AVE. BUSINESS DISTRICT	sidewalks (blocked by utility poles) crosswalks	bus stops on both streets side streets connect to beaches Veterans Way connects to Golf Club & Lewis Lake	bike lane & sidewalks Veterans Way mixed-use paths in Lewis Lake park	• bike lane • gateways & edges • green street • identifiable neighborhoods • promenade • raised crosswalks • sidewalk • transportation interchange
④ CRYSTAL COVE BUSINESS DISTRICT	sidewalks crosswalks crossing lights	bus stops on Revere St.& Main St.	bike lane on Revere St. & Main St. shared roadway on Harvard St.	• bike lane • gateways & edges • green street • identifiable neighborhoods • promenade • raised crosswalks • sidewalk • transportation interchange
⑤ MCGEE'S BUSINESS DISTRICT	sidewalks crosswalks crossing lights	bus stop on Main St. walking distance to T stop	bike lane on Main St.	• bike lane • gateways & edges • green street • identifiable neighborhoods • promenade • raised crosswalks • sidewalk • transportation interchange
⑥ SHIRLEY ST. BUSINESS DISTRICT	contains French Sq. & Metcalf Sq. sidewalks public space crosswalks crossing lights	bus stop at Metcalf Square & on Pauline St.	shared roadway on Hagman Ave, Barlett Rd., & Woodside Ave. sidewalk on Putnam St., Barlett Rd., & Woodside Ave.	• neighborhoods • promenade • raised crosswalks • shared roadway • sidewalk • transportation interchange

SCHOOLS, SENIOR CENTER & CIVIC CENTERS

In addition to the outdoor destinations within Winthrop, residents also indicated that schools, civic centers, and the senior center are important destinations for Walk Winthrop because they serve essential functions in the community.

There are four public schools in Winthrop. William P. Gorman/Fort Banks Elementary School is in the northern part of Winthrop, near the cemetery and Belle Isle Marsh. Winthrop Senior High School sits two blocks east of Veteran's Field at the north end of the Winthrop Golf Club. Toward the western part of Winthrop is Arthur T. Cummings Elementary School, between Metcalf Square and Ingleside Park. Also near Ingleside Park but several blocks to the west is Winthrop Middle School. Because of the unique needs of children and their central importance to a community, schools are a top priority for safe and accessible trails. At schools, bicycle parking, access to bus stops, and connections to natural areas are important. With this kind of system in place, young people can more easily get to and from school on their own, as well as to parks and other community centers.

Town Hall is in Metcalf Square, adjacent to the Winthrop Center Business District. Other town buildings are located elsewhere, such as the DPW on Kennedy Drive. Winthrop Public Library is next to the Town Hall. Both of these spaces are used by the community for events, public meetings, and civic activities. Their location at Metcalf Square in Winthrop Center allows for convenient access to buses and all the amenities of the town's center.

The Winthrop Senior Center is located on Harvard Street near McGee's Corner and the Senior High School. Access for users of the Senior Center is already available from bus stops on Revere Street. The addition of improved sidewalks, crosswalks, and bike lanes on Revere Street and Harvard Street will improve accessibility to this center. The walking and bike routes will connect the Senior center with the urban wilds, the parks and the larger community as well as the other centers—schools, public meetings, and the library.
Numbers on the map reference the numbered table on the facing page.

SCHOOLS, SENIOR & CIVIC CENTERS				
NAME	Existing Infrastructure	Current Access	Walk Winthrop Access	Recommendations (See Toolkit in Section 6)
① ARTHUR T. CUMMINGS ELEMENTARY SCHOOL	sidewalks on Hermon St. parking lot off of Pauline St.	sidewalks on Hermon St. Hermon St. bus stop parking lot off of Pauline St.	bicycle preferred street or shared roadway sidewalks pedestrian paths	• bicycle preferred street or shared roadway • mixed-use paths • sidewalks • transportation interchange
② WILLIAM P. GORMAN/FORT BANKS ELEMENTARY SCHOOL	one main entrance on Kennedy Rd. parking lot Fort Banks playground	sidewalk Kennedy Rd	bicycle preferred street on Kennedy Rd. Belle Isle/Winthrop Greenway path links to Kennedy Rd.	• bicycle preferred street • raised crosswalks • sidewalks
③ WINTHROP MIDDLE SCHOOL	sidewalks driveway parking lots	connected to Ingleside Park paths via Edgefield Rd. sidewalk on Pauline St., Wheelock St. & Waldemar Ave. (all have crosswalks) Pauline St. bus stop	shared roadway on Wheelock St.	• raised crosswalks • shared roadway • traffic calming • transportation interchange
④ WINTHROP SENIOR HIGH SCHOOL	sidewalk parking lot	sidewalk on Main St., Cross St. & Payson St. crosswalk on Payson St. parking lots on Cross St. & Payson St. grass & parking lot access to veterans field	bike lane on Cross St. mixed-use path from Veterans Way bicycle preferred street or shared roadway on Harvard St.	• bicycle preferred street • mixed-use path • raised crosswalk • shared roadway • transportation interchange
⑤ WINTHROP PUBLIC LIBRARY & TOWN OFFICES	sidewalk parking lot stairs wheelchair ramp	next to Metcalf Square adjacent to Winthrop Center Commercial District bus stop at Metcalf Square access off Winthrop St.	sidewalks & bike lane or shared roadway along Pauline St.	• bike lane • raised crosswalk • shared roadway • sidewalk • traffic calming
⑥ WINTHROP SENIOR CENTER	sidewalk	sidewalks on Harvard St. bus stop on Revere St. south of the Main St. commercial district	bike lane on Revere St. bicycle preferred street or shared roadway on Harvard St.	• bike lane • bicycle preferred street • raised crosswalk • shared roadway • sidewalk • traffic calming • transportation interchange


HIGHLANDS
BELLE ISLE
EAST BOSTON

Toolkit

The toolkit contains details of the specific design recommendations made in the Design Details chapter. The tools are organized alphabetically within the following categories:

BICYCLE FACILITIES

- bicycle preferred streets
- bike lanes
- bike lanes, buffered
- Bike racks
- bike stair rails
- shared roadways

PEDESTRIAN FACILITIES

- boardwalk with helical pile footings
- crushed rock path
- mixed-use path
- permeable paving
- raised crosswalk
- rolling grade dip
- side walks

SIGNS AND ROADWAY MARKING

- shared roadway markings
- wayfinding signs
- colored bike lanes

STORMWATER MANAGEMENT

- green streets
- stormwater park

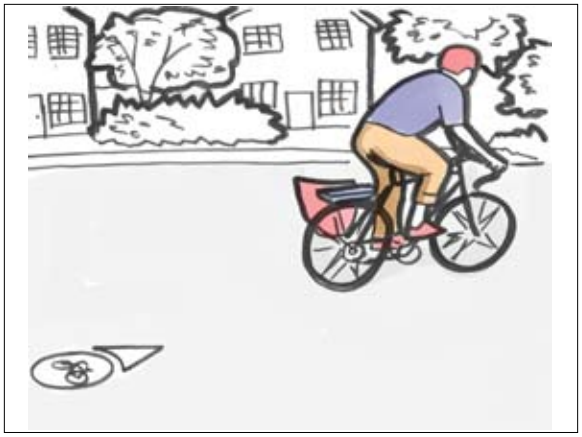
TRAFFIC CALMING MEASURES

- lane narrowing
- neck down/bulb-out
- raised crosswalk

This section of a prototypical street features some of the recommendations in the toolkit. Sidewalks are wide enough to be safe and accessible, street trees buffer pedestrian s from the road, and bike lanes are clearly marked for safe cycling.

URBAN FABRIC

- promenade
- street trees
- transportation interchange
- gateways & edges
- identifiable neighborhoods



BICYCLE PREFERRED STREETS

Bicycle Boulevards, Bike/Walk Streets, Livable Streets

DESCRIPTION/PURPOSE:
Bicyclists are routed onto low volume, narrow, residential streets that are designed to prioritize cycling and pedestrian use through traffic calming, signs, and street markings.

APPLICATION: Narrow streets (under 39 ft. ROW) with low traffic volumes (under 3300 cars per day) that connect to desirable destinations.

ADVANTAGES:
- Prioritizes non-automotive transportation.
- Potentially a more scenic/leisurely route than bike lanes.
- Provides traffic calming benefits to neighborhoods in which they are routed, benefitting pedestrians and residents.
- May enhance property values in neighborhoods with access to Bicycle Preferred Streets.

DISADVANTAGES:
- Resistance to changing existing traffic patterns.
- May create perception of inequity for neighborhoods not served by Bicycle Preferred Streets.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Maintain markings and signs to ensure visibility.
- Put markings in highly visible locations.

BIKE LANES

DESCRIPTION/PURPOSE: A designated, marked, and signed travel lane along a roadway for the exclusive use of cyclists. Bike lanes separate cyclists from automobiles.

APPLICATION: Bike lanes are appropriate on roads with adequate right-of-way width to accommodate them while providing at least 10' travel lanes for automobiles on roads with design speeds of 30 mph or less, Winthrop's maximum posted speed limit. Due to their location on larger thoroughfares, bike lanes are popular with bicycle commuters looking for fast, direct routes, and should be designed to connect to public transportation, and public places.

ADVANTAGES:
- Provides direct routes for cyclists on major streets.
- Clarifies lane use and road rights for cars and bikes and is safer.

DISADVANTAGES:
- Not always attractive recreational riders.
- Routes cyclists on to busy streets.
- Lanes close to the "door zone" along parallel parking may result in conflicts

.

DESIGN & MAINTENANCE CONSIDERATIONS:
- Minimum bike lane width should be 4 ft.; Minimum of 5 ft. when located along parallel parking.
- Optimal recommended width is 6.5 ft.-8.2 ft. for two riders riding abreast.
- Bike lanes can be located between the curb and parallel parking to buffer cyclists from moving traffic.
- Bike lanes should be located to ensure maximum connectivity in a system, and direct routes for commuters.
- Painted road markings and street signs must be maintained to ensure clarity.

BIKE LANES, BUFFERED

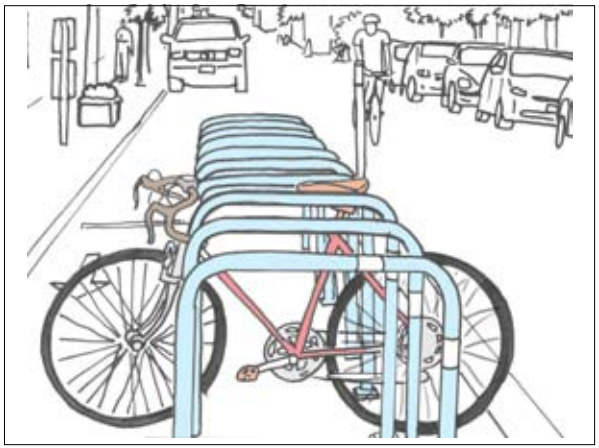
DESCRIPTION/PURPOSE: Bike lane with a physical buffer or a painted buffer strip of a minimum of two to three feet, to further separate cyclists from travel lanes or parallel parking.

APPLICATION: Provides added separation of lanes on high volume and/or high-speed streets, and streets with frequent truck or oversize traffic.

ADVANTAGES:
- Keeps cyclists farther from traffic.
- Provides passing space for cyclists.

DISADVANTAGES:
- Additional ROW requirements.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Recommended minimum buffer width is 2 ft to 3 ft.
- Painted road markings must be maintained to ensure clarity.



BIKE RACKS

DESCRIPTION/PURPOSE: Bike Racks located at all public destinations, especially public transportation nodes, encourage people to cycle more because they know they can safely park their bicycles when they reach their destination.

APPLICATION: Schools, civic and commercial areas, parks, beaches, and pedestrian trailheads.

ADVANTAGES:
- Encourages and supports bicycle use.
- Raises awareness of bicycling.

DISADVANTAGES:
- May be susceptible to vandalism.

DESIGN/MAINTENANCE CONSIDERATIONS:
- In areas where sidewalks are narrow, racks may be located in a parallel parking spot on the street and separated from cars by bollards or fencing.
- Racks should be located in high-visibility areas to promote rack use by cyclists and deter bicycle theft.

BIKE STAIR RAILS

DESCRIPTION/PURPOSE: Half-pipe along a flight of stairs to allow cyclists to walk their bikes up or down stairs by putting the bicycle wheels into the trough.

APPLICATION: Along stairpaths.

ADVANTAGES:
- Helps cyclists make connections up and over stairpaths.

DISADVANTAGES:
- Installation cost.
- May be attractive to skateboarders.

SHARED ROADWAYS

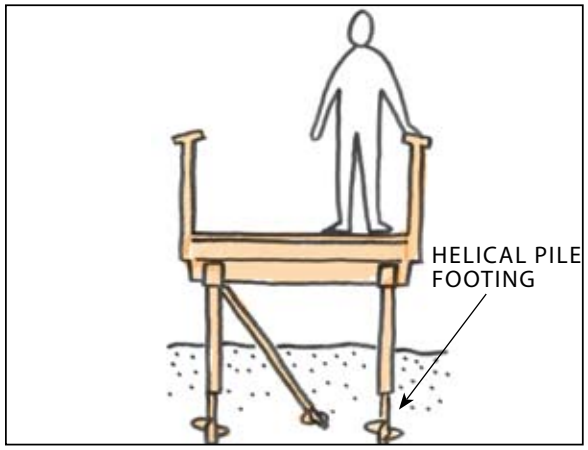
DESCRIPTION/PURPOSE: Bicyclists ride alongside traffic on the street, as is currently mandated by Massachusetts law, however clear, on-street road marking indicate what space is allocated to cyclists. Shared Roadway markings can be seen in East Boston, on Bennington Street (Rt.145).

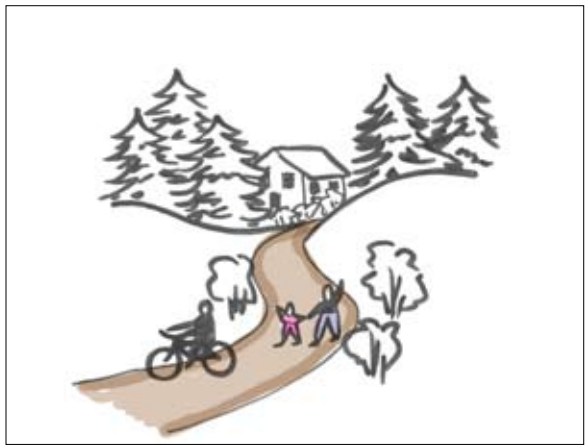
APPLICATION: Streets with inadequate ROW to create dedicated bike lanes and volume too great to become Bicycle Preferred Streets. Washington Street in Crystal Cove Commercial district is a candidate for this treatment, in order to guide cyclists from possible bike lanes on Veterans Way or River Street to bike lanes farther south on Shirley Street.

ADVANTAGES:
- Alerts motorists to possible bicyclist presence on street.
- Provides a place for cyclists on busy streets too narrow to accommodate a bike lane.

DISADVANTAGES:
- Less safe than separate bike lane.
- Maintenance.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Maintain markings and signs to ensure visibility.
- Put markings in highly visible locations.





BOARDWALK WITH HELICAL PILE FOOTINGS

DESCRIPTION/PURPOSE: Boardwalks enable access to wet areas or wetlands while limiting ground disturbance in ecologically sensitive areas. Helical piles are a modified type of screw anchor that can be used to support posts for boardwalks in deep organic soils. They weigh less than friction piles, are easier to install with portable equipment, and cause less ground disturbance.

APPLICATION: Sensitive wetland areas where public access is desirable and deep water crossings.

ADVANTAGES:
- Wetlands are protected from trampling due to foot traffic.
- Provide safe access across deep water.
- Can accommodate wheelchair access.
- Allow for wildlife viewing and educational opportunities that might otherwise be inaccessible.

DISADVANTAGES:
- Construction of boardwalks will still cause some disturbance to ecologically sensitive areas.
- Can be expensive to build.
- Will require periodic maintenance.

DESIGN & MAINTENANCE CONSIDERATIONS:
- Construction should be of weather resistant materials Boardwalk widths should be 48 in. wide minimum.
- Boardwalk footing should be constructed in such a way as to create the least disruption within the marsh No more than a 3/4 in. space between decking if boardwalk is to be handicap accessible.
- Railings should be available if boardwalk is 2' or higher or crosses deep water.
- 4 X 8 long span should be able to support 2,000 pounds.

CRUSHED ROCK PATH

DESCRIPTION/PURPOSE: Crushed rock is a permeable surface material option for off-street pathways.

APPLICATION: Crushed rock is an appropriate surface treatment for off-street paths that lie outside of a flood zone and are not located in environmentally sensitive areas which cannot tolerate direct foot traffic. Crushed rock surfaces can accommodate multiple uses like pedestrians, bikes and wheelchairs depending on aggregate diameter, depth and compaction (Hopper).

ADVANTAGES:
- Inexpensive.
- Easy to maintain.
- Permeable.
- Can meet ADA specifications.
-

DISADVANTAGES:
- May require frequent replenishment.
- Snow removal may be difficult.
- Erosion control measures may be necessary especially on slopes.

DESIGN & MAINTENANCE CONSIDERATIONS: Crushed rock is generally not advisable on paths which will be heavily utilized by bicycles.

MIXED-USE PATH

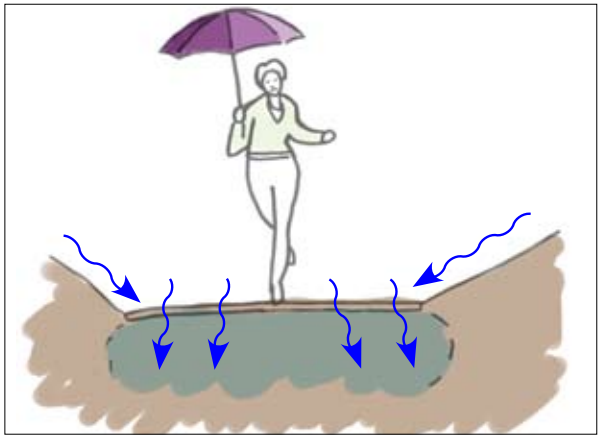
DESCRIPTION/PURPOSE: Mixed-use paths accommodate different kinds of activities including walking, jogging, cycling, and skating. They should be wide enough for different modes of transportation to share the space and move safely through the park.

APPLICATION: Mixed-use paths are most appropriate in large parks where bike and pedestrian infrastructure passes through from one side to another.

ADVANTAGES:
- Allows a single pathway to serve multiple needs.
- If well designed with good signs and clear markings, can be safely shared by different users.
- Paved surfaces are generally durable and last for long periods of time.

DISADVANTAGES:
- Potential for pedestrian/cyclist conflict.
- Maintenance.
- Snow removal needed for year-round use.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Optimally 12'-wide or wider for mixed-use (Hopper).
- Painted center line to create lanes.
- Signs clarifying that cyclists yield to pedestrians and passing etiquette.



PERMEABLE PAVING

DESCRIPTION/PURPOSE: Permeable paving materials allow stormwater to percolate through to the ground below while providing a solid, easy-to-maintain surface. Porous asphalt is identical to traditional asphalt but has a lower weight bearing capacity that is best suited to pedestrian-only applications or low-volume parking areas. Porous concrete has similar bearing capacities to porous asphalt, but can be used where reduced solar heat gain is preferable. Additionally, pavers placed on a bed of gravel and filled with sand allow for more design variation and can be easily replaced (Tool Base Services 2001).

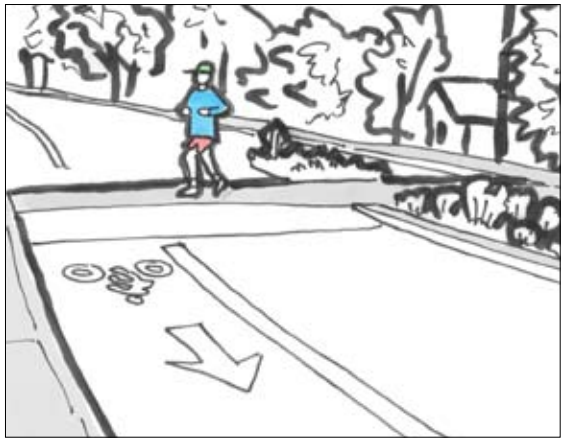
APPLICATION: Any path, especially those that get heavy use, and require a hard surface material to accommodate pedestrians, bikes or wheelchairs. New or existing off-street, mixed use, or pedestrian paths, like the Edward Snow path or the Yirrell Beach path, would be a candidate for this type of surface treatment.

ADVANTAGES:

- Reduces non-point source pollution in nearby water bodies by allowing stormwater to infiltrate into the ground rather than flow into storm drains.
- Reduces loads on water treatment facilities during storm events.
- Less susceptible to frost heaving than traditional paving materials.

DISADVANTAGES:

- Permeable paving generally has a lower load bearing capacity than traditional paving and is best suited to pedestrian, bicycle, or low volume parking uses.



RAISED CROSSWALK

DESCRIPTION/PURPOSE: Crosswalk elevated to the height of the surrounding sidewalk to increase pedestrian visibility, physically slow traffic, and increase universal accessibility.

APPLICATION: Raised crosswalks can be used in combination with neckdowns/bulb-outs to create a narrower, more visible and safer crosswalk for pedestrians. Raised crosswalks can enhance safe street crossings near schools, parks, civic, and commercial areas.

ADVANTAGES:

- Slows traffic.
- Increases pedestrian visibility.
- Slower traffic is safer for walkers and cyclists.

DISADVANTAGES:

- Motorists may complain about being slowed.
- May pose challenge to plow.

DESIGN/MAINTENANCE CONSIDERATIONS:

- Too many raised crosswalks on a busy thoroughfare may induce motorists to take shortcuts through other neighborhoods without such treatment.
- Making ramp transition from roadway to crosswalk effective but also comfortable for drivers.

ROLLING GRADE DIP

DESCRIPTION/PURPOSE: Rolling grade dips prevent trail washouts by draining water off of a trail by slightly lowering and then reversing the trail grade over a run of 10' to 15'. Water cannot flow over the reversed grade and is funneled off the trail at the "dip" (Virginia Department of Forestry).

APPLICATION: Rolling grade dips are commonly used on existing soil paths or trails where runoff has caused the face of the trail to erode.

ADVANTAGES:

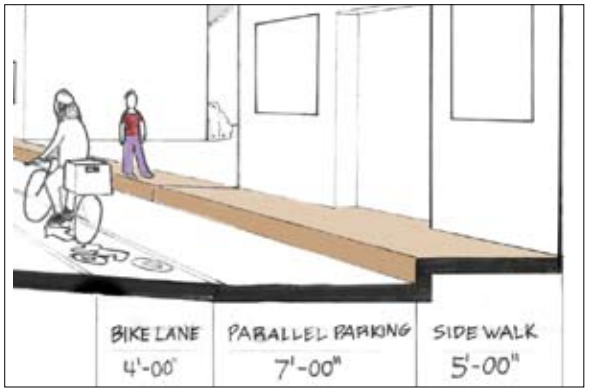
- Low maintenance.
- Low impact.
- Low cost.
- Long lasting.

DISADVANTAGES:

- May require periodic regrading.
- Should only be used where a path is relatively straight.

DESIGN & MAINTENANCE:

- Rolling grade dips should be built in places where they can take advantage of natural grade changes.
- Should not be used on switchbacks or steep curves (Klein).



SIDEWALKS

DESCRIPTION/PURPOSE: Sidewalks are an important and near universal link between neighborhoods, public places and open space. Existing sidewalk infrastructure includes the many miles of sidewalks around town and stairpaths up and over the steeper hills.

APPLICATION: Due to Winthrop's densely-developed urban character, sidewalks are essential to completing the connections of a Walk Winthrop network.

ADVANTAGES:
- Provides near universal connections throughout town.

DISADVANTAGES:
- Currently not all compliant with ADA.
- Maintenance.

DESIGN & MAINTENANCE CONSIDERATIONS:
- Minimum 5' wide for universal access.
- Sidewalks of 6'-8' or greater more easily accommodate the social use of the sidewalk, by allowing multiple users to travel together at once.
- Snow clearance in winter is essential to keeping sidewalks accessible.
- Provide ramps at all junctions with roads and other potential obstacles.
- Maintain and keep unobstructed ramps to sidewalks

COLORED BIKE LANES

DESCRIPTION/PURPOSE: Surface of the bicycle lane is painted to increase its visibility in high traffic and high conflict zones, such as intersections. Motorists should yield to cyclists in these zones.

APPLICATION: High traffic and/or conflict areas, or transition areas between bike lanes and shared roadway situations (bikes on the street with no bike lane).

ADVANTAGES:
- Increases visibility of bike lanes.
- Provides clarity about location of transition zones.

DISADVANTAGES:
- Maintenance.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Bright green paint or thermoplastic is the color standard.
- Continuity of application throughout the conflict zones in the bikeways system is required for this technique to be effective.
- Include signs indicating that motorists yield to cyclists.
- Painted road markings and street signs must be maintained to ensure clarity.

SHARED ROADWAY MARKINGS

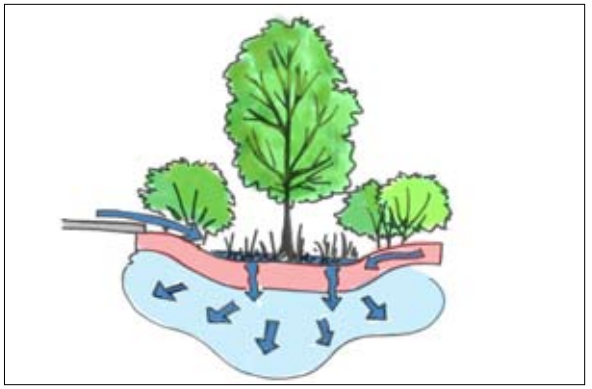
DESCRIPTION/PURPOSE: Signs marking the Walk Winthrop and Winthrop Bikeway routes, indicating distance and direction to destinations in the system.

APPLICATION: Distance and direction signs on the Walk Winthrop and Winthrop Bikeway loops and spurs will help users navigate to and through the optimized walking and cycling routes.

ADVANTAGES:
- Guides pedestrians and cyclists through the network.

DISADVANTAGES:
- Possible vandalism.
- Maintenance.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Maintain signs to ensure usefulness and visibility.
- Put signs in highly visible locations, within the sightline of bicyclists and pedestrians.
- Sponsorship by local businesses/districts could help pay for signs.



WAYFINDING SIGNS

DESCRIPTION/PURPOSE: Signs marking the Walk Winthrop and Winthrop Bikeway routes, indicating distance and direction to destinations within the system.

APPLICATION: Distance and direction signs on the Walk Winthrop and Winthrop Bikeway loops and spurs will help users navigate to and through the optimized walking and cycling routes.

ADVANTAGES:
- Guides pedestrians and cyclists through the network.

DISADVANTAGES:
- Cost of designing and field-checking sign accuracy.
- Possible vandalism.
- Maintenance.

DESIGN & MAINTENANCE:
- Maintain signs to ensure usefulness and visibility.
- Put signs in highly visible locations, within the sightline of bicyclists and pedestrians.
- Sponsorship by local businesses/districts could help pay for signs.

GREEN STREETS

DESCRIPTION/PURPOSE: The Boston area receives an average of 43 inches of rain per year. With the great amount of impervious surface in Winthrop, any improvement to roadways should find ways to treat and infiltrate stormwater. Curb extensions, street planters, and rain gardens all can help hold and clean stormwater without overwhelming municipal sewers or bringing pollutants to the harbor.

APPLICATION:
- Neck-downs and curb extensions calm traffic, shorten pedestrian crossings, and provide areas for catch basins and plantings (see Traffic Calming/Neck-Downs).
- Street planters use curb cuts to direct water from the gutter into a planted swale within the 7' parking strip.
- Rain gardens collect rainwater and direct it into planted basin. They can be placed next to homes, businesses, and civic buildings to utilize planted vegetation for the infiltration of stormwater.

ADVANTAGES:
- Helps improve infiltration of rainwater.
- Adds color and vegetation to urban environment.
- Mitigates impervious surfaces and roadways.
- Creates a visual barrier between sidewalk and road.
- In Winthrop, mimics natural function and adds to existing town themes of wetlands and the water processing on Deer Island.

DISADVANTAGES:
- Can be difficult for environments with heavy snow and snowplows
- Requires maintenance

DESIGN & MAINTENANCE:
- Vegetation must be selected for both wet and dry times of year.
- Design should include cold and salt tolerant plants.

STORMWATER PARK

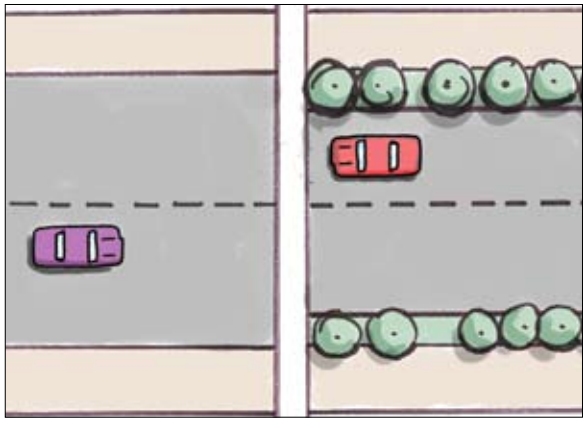
DESCRIPTION/PURPOSE: Like Olmsted's "Emerald Necklace" in Boston, parks can be designed for infiltrating stormwater into planted basins and artificial wetlands.

APPLICATION: In both large and small parks install catch basins planted with native vegetation which can grow in wet soils but which are snow and drought tolerant. Would be especially appropriate in Ingleside Park.

ADVANTAGES:
- Plants in parks are multifunctional; both aesthetic and serving an ecological function.
- Installations are educational, bring interest to projects, and represent a civic commitment to the environment.

DISADVANTAGES:
- Require maintenance and plant care.

DESIGN & MAINTENANCE:
- Design landscape so water is quickly infiltrated.
- Plants require monitoring and care.
- Infiltration beds must be appropriately sized for the amount of water they are intended to manage.



LANE NARROWING

DESCRIPTION/PURPOSE: Reducing automobile lane widths to the minimum width for specified design speeds. Narrowing lanes can slow drivers by forcing them to be more careful and alert.

APPLICATION: Along any road within town that is wider than the minimum for its design speed. Maximum posted speed limit in Winthrop is 30 mph. Minimum width for 30 mph road is 10'.

ADVANTAGES:
- Slows traffic.
- Less pavement for pedestrians to cross.
- May reduce overall impervious surfaces.
- Reduces automobile dominance.
- Slower traffic is safer for walkers and cyclists.

DISADVANTAGES:
- Drivers may still speed.
- Resistance from emergency responders, oversized vehicle drivers, town plow and public busses.

- Design/Maintenance Considerations:
- Allowing enough room for the turning radius of emergency vehicles, large trucks, and busses.

NECK DOWN/BULB-OUT

DESCRIPTION/PURPOSE: Curb extensions, usually near intersections or at crosswalks, to calm traffic in residential neighborhoods. Neckdowns reduce vehicular traffic speeds by visibly and physically narrowing the road (Ewing 1999: 51).

APPLICATION: Neckdowns can be used at crosswalks on streets with parallel parking or wide rights-of-way with travel lanes in excess of 10'. The neck down has the dual advantage of providing more visible and narrower crossing points for pedestrians and slower, safer bicycle preferred streets for cyclists.

ADVANTAGES:
- Slows traffic.
- Visibly enhances community when designed to include vegetation.
- Slower traffic is safer for walkers and cyclists.

DISADVANTAGES:
- Reduces amount of on street parking.
- May pose challenge for thorough snow removal.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Planting curb extensions are an opportunity to include stormwater infiltration beds.
- Use plants that do not impair visibility of pedestrians at crosswalks.

RAISED CROSSWALK:

SEE PEDESTRIAN & CYCLING FACILITIES

TRAFFIC CIRCLE

DESCRIPTION/PURPOSE: Planted or otherwise landscaped circle in the center of residential intersections to slow vehicular speed of thru-traffic.

APPLICATION: Along designated bicycle preferred streets, traffic circles can reduce overall vehicle speeds. In overly large residential intersections, traffic circles provide clarity, reduce potential vehicular conflicts and can provide visual enhancement of the neighborhood if attractively landscaped and maintained.

ADVANTAGES:
- Slows traffic.
- Visibly enhances community when designed to include vegetation.
- Reduces vehicular conflicts.
- Slower traffic is safer for walkers and cyclists.

DISADVANTAGES:
- Drivers may "swing wide" into crosswalks.
- May pose challenge for thorough snow removal.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Allowing enough room for the turning radius of emergency vehicles.
- Clear directional signs.
- Share the Road, Bicycle Preferred Street and/or Bikeway signs and road markings to remind motorists they are on a bicycle-preferred street.

GATEWAYS & EDGES

DESCRIPTION/PURPOSE: Gateway structures mark the entrance way from one part of town to the next.

APPLICATION: In unique parts of town — commercial areas, clusters of civic buildings, and historic neighborhood. Erect entrance transitions at neighborhood edges such as towers, benches, lights, fountains, and banners, that provide a gateway through which cars, bikes, and pedestrians pass.

ADVANTAGES
- Gateways bring legibility to the urban fabric through clear marking and assist in helping people navigate by providing landmarks.

DISADVANTAGES:
- Expense.
- Improperly placed gateways may create boundaries where none exist.

DESIGN/MAINTENANCE CONSIDERATIONS:
- Requires protection from vandalism and wear and tear.
- May require lighting at nighttime.

IDENTIFIABLE NEIGHBORHOODS

DESCRIPTION/PURPOSE: Allow each neighborhood, district, or precinct to express its unique character through public art, labeled signage, and aesthetic choices.

APPLICATION: Engage neighbors and business owners in a design process for establishing a local aesthetic. Asking the question of what makes that part of town unique opens a dialog around what kinds of street-treatments, artwork, or signage help identify when one is in a neighborhood like the Highlands or around French Square

ADVANTAGES:
- Neighbors get involved in the local community.
- Areas of town develop a unique sense of place.
- It is easy to find ones way around a community where the neighborhoods are obvious and clear.

DISADVANTAGES:
- Disagreements around aesthetics can arise, although these differences can help communities have the conversation needed to improve involvement in place.
- Unclear neighborhoods are hard to delineate.

DESIGN & MAINTENANCE:
- Any design and material choices must be designed, maintained, and kept clear of vandalism through a partnership between neighbors and the Town of Winthrop.

RESOURCES
- Project for Public Spaces www.pps.org.
- The City Repair Project www.cityrepair.org.
-

PROMENADE

DESCRIPTION/PURPOSE: Promenades are linear walks linking neighborhoods and commercial districts.

APPLICATION: Link commercial, civic areas, or parks with a walk from one to the next. In Winthrop, a prime candidate for a Promenade is between French Square and Metcalf Square.

ADVANTAGES:
- Encourages community activities.
- Provides places for parades, street fairs, and community events.

DISADVANTAGES:
- Adds focus to certain areas – may effect traffic flow during large events.
- Moves foot traffic along a specified route.

DESIGN & MAINTENANCE:
- Adequate lighting.
- Wheelchair ramps.
- Garbage cans and other infrastructure for busy pedestrian areas.

STREET TREES

DESCRIPTION/PURPOSE: Trees planted along the sidewalk shade pedestrians, provide a barrier between streets and sidewalks, and can slow drivers by visually narrowing the roadway.

APPLICATION: Sidewalks must be wide enough to accommodate minimum 5' walk-way and an additional 5' for street trees.

ADVANTAGES:
- Aesthetic enhancement.
- Environmental benefits.
- Shady streets are more pleasant for walking.

DISADVANTAGES:
- Expense.
- Maintenance.
- Can't be planted under utility lines.
- Not feasible on all streets.

DESIGN AND MAINTENANCE:
- Choose tree varieties appropriate to the street, including the size, canopy shape, and root requirements of various trees. http://www.urbantree.org/list_trees.asp?t=street.

TRANSPORTATION INTERCHANGE

DESCRIPTION/PURPOSE: For getting people around town, view bus stops as interchanges between pedestrian routes, bicycle paths, public transportation, and driving.

APPLICATION: Public bus stops.

ADVANTAGES:
- Allows for a smooth transition from one kind of transportation to another.

DISADVANTAGES:
- Expense.
- Maintenance.

DESIGN & MAINTENANCE:
- Covered bus stops protect users from rain and snow.
- As much as possible, connect walking paths and bikeways with public transportation.
- Provide as much bike parking as possible.

Looking Forward

Imagine a town where children can safely walk or bike to school, adults can enjoy a car-free commute, walkers and cyclists can choose from a variety of types of routes for exercise and recreation. Walk Winthrop is a plan to provide Winthrop's citizens and visitors with those opportunities—and to connect people with the place.

By supporting walking and cycling as priority modes of transportation and recreation throughout Winthrop, the Town of Winthrop makes a commitment to help the community meet the goals defined in the Walk Winthrop public meetings and survey—to create a safe, accessible, beautiful, clear, and ecologically sound walking and cycling network connected to Winthrop's many public places and natural areas.

Walk Winthrop's Loop and Spurs network is designed in a way that allows for phased implementation. Different elements, such as traffic calming, sidewalk improvement or stormwater infiltration, can be developed and implemented as funding and public works projects allow (see Appendix C for potential funding sources).

Over time, as Walk Winthrop is implemented, the community will see its goals for a safe, accessible, beautiful, clear, and ecologically sound system met, not only in a walking and cycling network, but throughout the town as a whole.

SUMMARY RECOMMENDATIONS

PRIORITIZE *walking & cycling.*

Everywhere in the town's fabric should support walking and cycling as the preferred form of transportation.

DESIGN *for the site.*

Site-specific design requires different approaches to different landscapes.

PROVIDE *alternatives.*

Ensure universal accessibility by providing alternatives to inaccessible areas.

MAINTAIN *and repair.*

Keep all components of the system in good repair for safety and accessibility.

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APPENDIX A. PUBLIC PROCESS

COMMUNITY MEETINGS

Two public meetings where held in Winthrop to solicit community input for Walk Winthrop. Announcements for both meetings were posted in the paper, on the city website, and on an e-mail list for interested citizens.

The first meeting was held on February 1, 2010, in the Joe Harvey Hearing Room in the basement of Town Hall. The announcement for the meeting described Walk Winthrop as "a proposal to develop a linked pedestrian and/or bicycle trail system within town for citizens to easily and safely access our town businesses, schools, parks, beaches, and public transportation." The announcement asked "for input from the community to discuss the possibilities including routes and access points, for such a trail system."

The meeting was well-attended with around 25 participants. It began with a short presentation by students from the Conway School of Landscape Design on examples of trail systems in other communities, the railroad history of Winthrop, and a discussion of the opportunities already present in the town.

Appendices

Participants were asked to take small road-maps of Winthrop and draw the places they like and want to go and the impediments to getting to those places. They shared the maps in small groups and then reported back to the room about the ideas and locations they came up with. This led to a large discussion about the merits of various locations and strategies for developing a trail system. The ideas, locations, and concerns were all written on large pieces of paper. The information gathered at the first public meeting was used to develop project criteria, goals, and to build the foundation for design work.

The second public meeting was held on Monday, March 1, 2010, at 7:00 pm in the Hazlett Room of the Winthrop Library. Members of the Town

Council, Town Manager James McKenna, and a representative of Rep. Ed Markey (D-Malden) were all in attendance as well as about 25 local walkers, cyclists, and other interested citizens. The purpose of this meeting was for the Conway students to present their design schematics and then hear if the idea was appropriate for the needs of Winthrop. Three aspects of the project were presented: the Loops, Spurs, and Urban Fabric. Each concept was described and shown in images and maps.

The design schematics were well-received. The main concerns were funding, phasing, and safety. To a great extent, the participants felt the design was a good fit for the community and provided a vision of what master planning could offer Winthrop. The feedback from that meeting was used to guide the final design and the Walk Winthrop document.

Links to an online survey were posted on the town website. The survey was designed to get a general sense of local interest and the kinds of places that people want to go in Winthrop (see survey questions on next page).

WALK WINTHROP ONLINE SURVEY QUESTIONS & RESPONSES

1. Do you plan to attend this meeting on February 1, 2010?

	Response Percent	Response Count
Yes	13.8%	44
No	**47.6%**	**152**
Maybe	38.6%	123
answered question		**319**
skipped question		**37**

2. Do you have an interest in a walking or bicycling trail network in our Town? (Choose one)

	Response Percent	Response Count
Yes	**89.4%**	**295**
No	10.6%	35
answered question		**330**
skipped question		**26**

3. How often do you walk within Winthrop? (Choose one category that best fits)

	Response Percent	Response Count
Never	3.8%	11
Often	20.1%	58
Once a Week	13.2%	38
2 to 5 Times per Week	**36.5%**	**105**
Daily	19.8%	57
Once a Month	6.6%	19
answered question		**288**
skipped question		**68**

4. How far do you typically walk? (Choose one)

	Response Percent	Response Count
1 to 2 Blocks	5.8%	19
2 to 5 Blocks	15.2%	50
1/2 Mile to a Mile	35.8%	118
More than a Mile	**43.3%**	**143**
answered question		**330**
skipped question		**26**

5. If you bicycle in Winthrop, what kind of cyclist are you? (Choose one)

	Response Percent	Response Count
Commuter	7.3%	24
Recreational	**64.5%**	**213**
Exercise	28.2%	93
answered question		330
skipped question		26

6. What destinations do you typically walk or bike to/from? (Choose at least one and all that apply)

	Response Percent	Response Count
School	7.4%	23
Work	10.6%	33
Business	32.3%	100
Beach	**79.0%**	**245**
Parks	60.3%	187
Other (please specify)		62
answered question		310
skipped question		46

7. What destinations would you like to be able to reach? (Choose at least one and all that apply)

	Response Percent	Response Count
School (within Winthrop)	18.4%	57
School (outside of Winthrop)	2.6%	8
Work (within Winthrop)	8.4%	26
Work (outside of Winthrop)	10.3%	32
Business (within Winthrop)	38.4%	119
Business (oustide of Winthrop)	11.6%	36
Beach (within Winthrop)	67.1%	208
Beach (outside of Winthrop)i.e. Revere	43.2%	134

7. Continued

Parks (within Winthrop)	59.7%	185
Parks (outside of Winthrop)	22.6%	70
MBTA - Blue Line (Orient Heights)	49.0%	152
Deer Island Walkway	**77.4%**	**240**
Town Pier & Public Landing	62.9%	195
Other (please specify)		22
answered question		310
skipped question		46

8. If a path network existed, how important would it be to be connected to surrounding communities(i.e. Revere, East Boston)? (Choose one)

	Response Percent	Response Count
Very Important	18.1%	56
Important	**42.1%**	**130**
Not Very Important	39.8%	123
answered question		309
skipped question		47

9. Would pathways, linking public parks, neighborhoods, businesses, and / or schools make it more attracitve for you to walk or bike instead of driving? (Choose one)

	Response Percent	Response Count
Yes	**88.3%**	**273**
No	11.7%	36
answered question		309
skipped question		47

10. What place or places make Winthrop special to you? (Choose all that apply) NOTE: Clarification – The titled choice named Seal Harbor Park is labeled incorrectly; it is Hannaford Park (Public); Seal Harbor Condo complex has their own park and that is private property. So if you wish to check off Hannaford Park, please check the Seal Harbor Park choice and it will be calculated (count) for Hannaford Park. We apologize for any confusion this may have caused. – Town of Winthrop

	Response Percent	Response Count
The Community as a whole	62.7%	188
My Home	72.3%	217
My Relative's Home	17.7%	53
My Business	4.0%	12
Winthrop Business Center Area	38.0%	114
Restaurants	49.3%	148
Lewis Lake & Playground	24.0%	72
Pico Park	15.0%	45
Fort Heath Park	18.3%	55
Ingleside Park	41.0%	123
Coughlin Playground	24.7%	74
Seal Harbor Park	19.3%	58
Marsh Reserve	30.7%	92
Footbridge to Belle Isle	28.3%	85
Yirrell Beach	52.0%	156
Winthrop Beach	70.7%	212
Deer Island Walkway	**74.7%**	**224**
Deane Winthrop House	16.3%	49
Winthrop Golf Course	10.0%	30
Town Pier & Public Landing	52.0%	156
Other (please specify)		23
answered question		300

11. Do you currently rent or own property in Winthrop or another community? (Choose one)

	Response Percent	Response Count
Rent in Winthrop	22.1%	64
Own in Winthrop	**75.5%**	**219**
Rent Outside of Winthrop	1.0%	3
Own Outside of Winthrop	1.4%	4
answered question		290
skipped question		66

13. How many years have you lived in Winthrop? (Choose one category that best fits)

	Response Percent	Response Count
0-2	11.7%	34
3-5	12.1%	35
6-10	11.0%	32
11-20	15.9%	46
Over 20	**49.3%**	**143**
answered question		290
skipped question		66

14. In which age bracket do you fall in? (Choose one)

	Response Percent	Response Count
Under 20	0.0%	0
21-30	9.3%	27
31-40	21.4%	62
41-50	22.1%	64
51-60	**26.9%**	**78**
61-70	16.2%	47
71-75	2.4%	7
Over 75	1.7%	5
answered question		290
skipped question		66

Appendices

APPENDIX B. INSPIRATION FROM ANOTHER COMMUNITY

PLANNING FOR BICYCLES

Portland, Oregon, is on the forefront of integrating bicycling infrastructure into the urban fabric. An over 600-mile-long network of bikeways, including bicycle lanes, shared roadways, bicycle boulevards (bicycle preferred streets) and paths, serves cyclists throughout the 145-square-mile city of half-a-million people. Though physically almost 100 times larger than Winthrop, Portland's development pattern of detached, single-family houses interspersed with commercial districts and neighborhood schools is comparable, as are the needs of cyclists for safe, attractive, clear and direct routes through the city.

By providing different types of bicycle facilities, including ample parking, Portland plans for the needs of all types of users, from transportation cyclists and enthusiastic recreational cyclists to children biking to school.

Bicycle lanes follow major arterials and provide the most direct routes for cyclists, often on the busiest roads. Buffering bike lanes from automobile traffic, bike lights, colored or clearly marked bicycle lanes and clear location and directional signs guide cyclists through the system. such as roundabouts at intersections and neckdowns at pedestrian crossings, along with street markings and signs clearly define the boulevard as a bicycle (and pedestrian) friendly street. Connecting bike lanes and bike boulevards results in a broad network that covers most of metropolitan Portland.

Recent research on Portland residents' perceptions of bicycle boulevards in their neighborhood found that the majority of those responding to the survey felt that bike boulevards enhanced their quality of life and sense of community by calming and in some cases reducing automobile traffic. Forty-two percent of respondents felt that living on a bicycle boulevard would make them more likely to bike (Van Zerr). Bike boulevards are also credited with enhancing property values. Fewer accidents in general are reported lower speed, lower volume streets. The greatest conflict is reported when traffic patterns are changed to accommodate bicycle boulevards.

www.pedbikeimages.org /Carl Sundstrom 2008

Bicycle boulevards are routed along smaller, low traffic volume, streets, but are still designed to reach desired destinations as directly as possible. Cyclists are allowed to use the entire lane width. Traffic calming,

EDUCATION & STEWARDSHIP

With Walk Winthrop, the town has an opportunity to use an enhanced trail system in the Belle Isle Marsh to provide educational access and stewardship opportunities for kids in the local schools. The Fort Banks Elementary School in particular, is in close proximity to the Winthrop Greenway and other nearby Belle Isle Marsh trails.

The parks and recreation department of Portland, Oregon has successfully partnered with several local schools to restore and enhance the Oaks Bottom Wildlife Refuge in the city.

The Oaks Bottom Wildlife Refuge was designated Portland, Oregon's, first urban wildlife refuge in 1988. Oaks Bottom encompasses 170 acres of woods, wetland, meadow and a 3.6-mile hiking trail in the lower Willamette River flood plain. The refuge contains important habitat for numerous species of fish, birds, mammals, and plants (Portland Bureau of Environmental Services).

Previously, Oaks Bottom had been used as a landfill. There were also numerous proposals to build structures on the site, and many parts of the wetland were dredged and filled. In the 1960s, a coalition of concerned citizens, fed-up with smoke from burning garbage and the degradation of the wetlands, advocated for the City of Portland to create a wildlife refuge on the site. After a feasibility study and a bid to lease the property to Audubon, the city finally created a comprehensive eco-system management plan for the refuge (Houck).

Over the years, the city has embarked on many successful volunteer-based restoration projects within Oaks Bottom. The Portland Parks and Recreation department also provides educational and stewardship programs within the refuge (Portland Parks & Recreation), and maintains an affiliation with several school-based groups who are afforded the unique opportunity to integrate learning and stewardship through interaction with Oaks Bottom.

Portland's Winterhaven Middle School Stewardship program involves "integrating science curriculum benchmarks with ongoing environmental research and stewardship activities. With help from Parks staff, students plan, design and implement numerous restoration projects within their three-acre plot near the junction of the Bluff Trail and the Oaks Bottom Access Trail" (Portland Parks and Recreation).

Students from Llewellyn Grade School, Winterhaven Middle School and Reed College took part in an "amphibian habitat enhancement program", by planting trees and native vegetation in a newly constructed wetland area that was created to enhance amphibian habitat in Oaks Bottom.

"Students and staff from Portland State University and Reed College are surveying and monitoring amphibian presence and activities" (Portland Parks and Recreation) in the enhanced wetlands.

Children and urban wilds, a natural partnership.
Photo courtesy of Jamie Scott.

Appendices

APPENDIX C. POTENTIAL GRANT SOURCES

Bikes Belong
http://www.bikesbelong.org/

Metropolitan Area Planning Council
http://www.mapc.org/smart-growth/transportation/funding-programs

U.S. Department of Housing and Urban Development:
http://portal.hud.gov/portal/page/portal/HUD/program_offices/sustainable_housing_communities/grant_program

U.S. Environmental Protection Agency Smart Growth Grant Opportunities:
http://www.epa.gov/dced/state_funding.htm#ma

Imagine a town where children can safely walk or bike to school, adults can enjoy a car-free commute, walkers and cyclists can choose from a variety of types of routes for exercise and recreation. Walk Winthrop is a plan to provide Winthrop's citizens and visitors with those opportunities—and to connect people with the place.

By supporting walking and cycling as priority modes of transportation and recreation throughout Winthrop, the Town of Winthrop makes a commitment to help the community meet the goals defined in the Walk Winthrop public meetings and survey—to create a safe, accessible, beautiful, clear, and ecologically sound walking and cycling network connected to Winthrop's many public places and natural areas.

Over time, as Walk Winthrop is implemented, the community will see its goals for a safe, accessible, beautiful, clear, and ecologically sound system met, not only in a walking and cycling network, but throughout the town as a whole.

WALK WINTHROP

The Conway School of Landscape Design is the only institution of its kind in North America. Its focus is sustainable landscape planning and design. Each year, through its accredited, ten-month graduate program just eighteen to nineteen students from diverse backgrounds are immersed in a range of applied landscape studies, ranging in scale from residences to regions. Graduates go on to play significant professional roles in various aspects of landscape planning and design. www.csld.edu

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332 South Deerfield Road Conway, MA 01341

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