3
Existing Conditions

Existing Conditions

Introduction

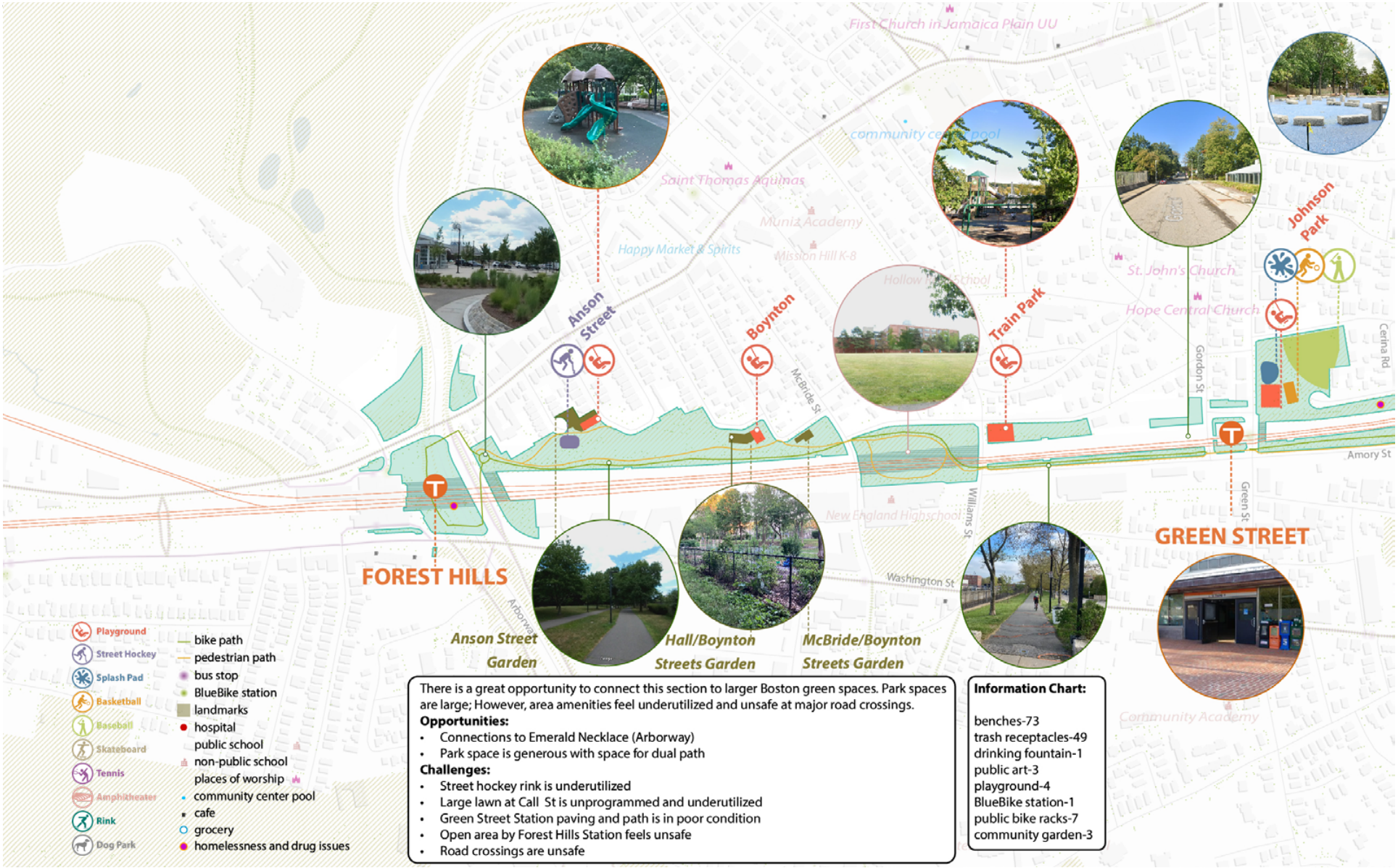
The existing conditions phase of the action plan was both robust and thorough, involving a comprehensive inventory of physical features and extensive data collection on park usage through pedestrian and bike counters, direct observation of park spaces, and the use of big data analysis. This review revealed that the path system is as heavily used as some of the most trafficked paths in the metropolitan Boston area. The existing bike path, currently functioning as a shared-use path, is insufficient for the volume and diversity of users, with its 8 to 10-foot width unable to accommodate the mode split, necessitating a separation of uses. Additionally, the Southwest Corridor Park (SWCP) boasts excellent connectivity to transit, bike lanes, and other greenways but lacks a consistent identity, which could be addressed by implementing a unified signage system.

Deferred maintenance poses a significant challenge throughout the park, with aging infrastructure in need of replacement and renewal. Operations staffing has decreased substantially, forcing the team to prioritize what can be maintained and what must be deferred. Constructed prior to the American with Disabilities Act (ADA), many areas of the park are not compliant with current accessibility standards. Moreover, the demographics and population density of the surrounding communities have changed considerably, necessitating that the park adapt to meet both current and future community needs. A focus on climate resiliency is also crucial, as the park must better respond to increasingly frequent and intense storms while providing much-needed shade and cooling for vulnerable communities.

The findings from this existing conditions phase, coupled with insights from community engagement, have significantly informed the recommendations outlined in this action plan.

Physical Features

Forest Hills to Green Street



There is a great opportunity to connect this section to larger Boston green spaces. Park spaces are large; However, area amenities feel underutilized and unsafe at major road crossings.

Opportunities:

- Connections to Emerald Necklace (Arborway)
- Park space is generous with space for dual path

Challenges:

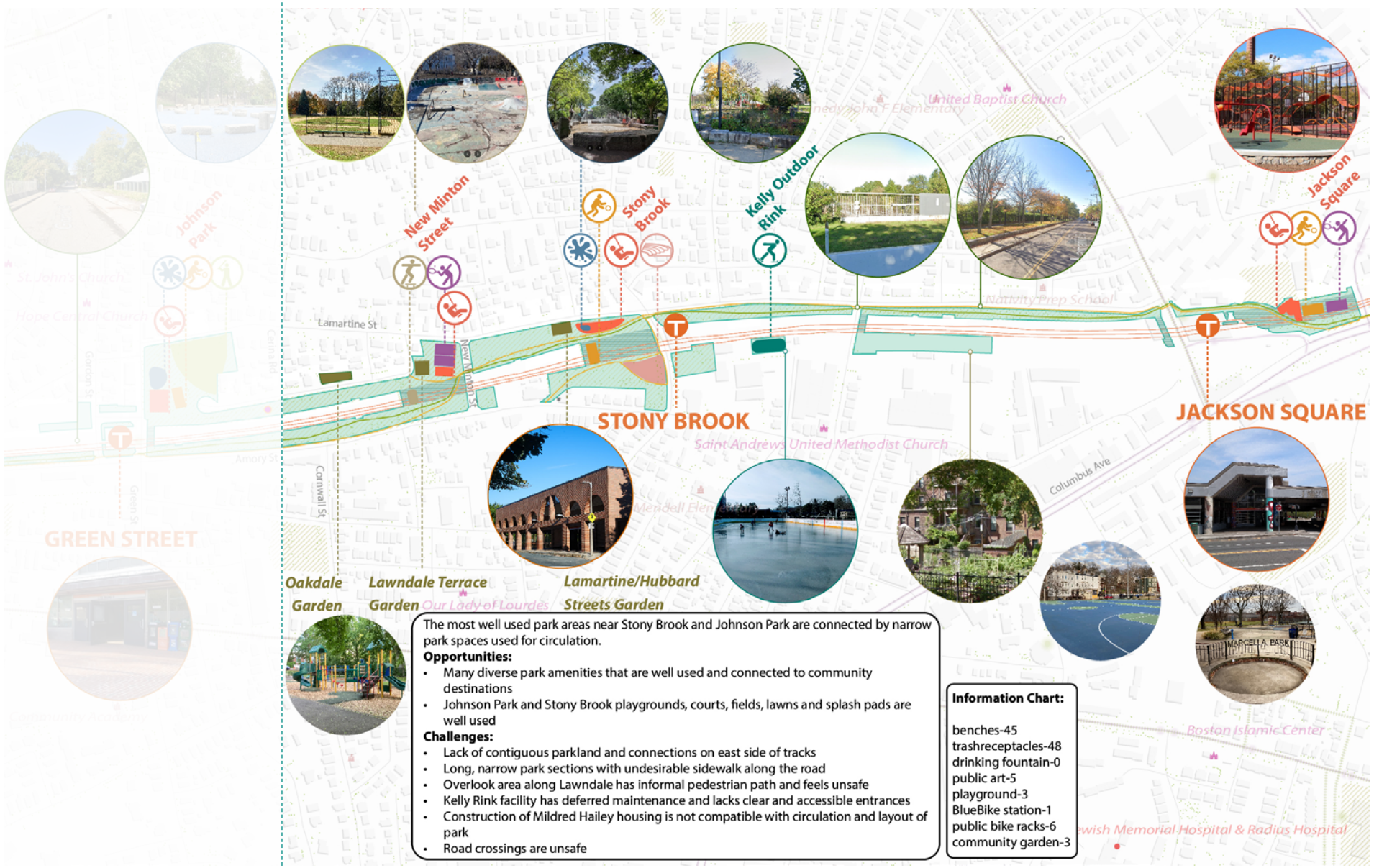
- Street hockey rink is underutilized
- Large lawn at Call St is unprogrammed and underutilized
- Green Street Station paving and path is in poor condition
- Open area by Forest Hills Station feels unsafe
- Road crossings are unsafe

Information Chart:

benches-73
trash receptacles-49
drinking fountain-1
public art-3
playground-4
BlueBike station-1
public bike racks-7
community garden-3

Physical Features

Green Street to Jackson Square



The most well used park areas near Stony Brook and Johnson Park are connected by narrow park spaces used for circulation.

Opportunities:

- Many diverse park amenities that are well used and connected to community destinations
- Johnson Park and Stony Brook playgrounds, courts, fields, lawns and splash pads are well used

Challenges:

- Lack of contiguous parkland and connections on east side of tracks
- Long, narrow park sections with undesirable sidewalk along the road
- Overlook area along Lawndale has informal pedestrian path and feels unsafe
- Kelly Rink facility has deferred maintenance and lacks clear and accessible entrances
- Construction of Mildred Hailey housing is not compatible with circulation and layout of park
- Road crossings are unsafe

Information Chart:

benches-45
trashreceptacles-48
drinking fountain-0
public art-5
playground-3
BlueBike station-1
public bike racks-6
community garden-3

Physical Features

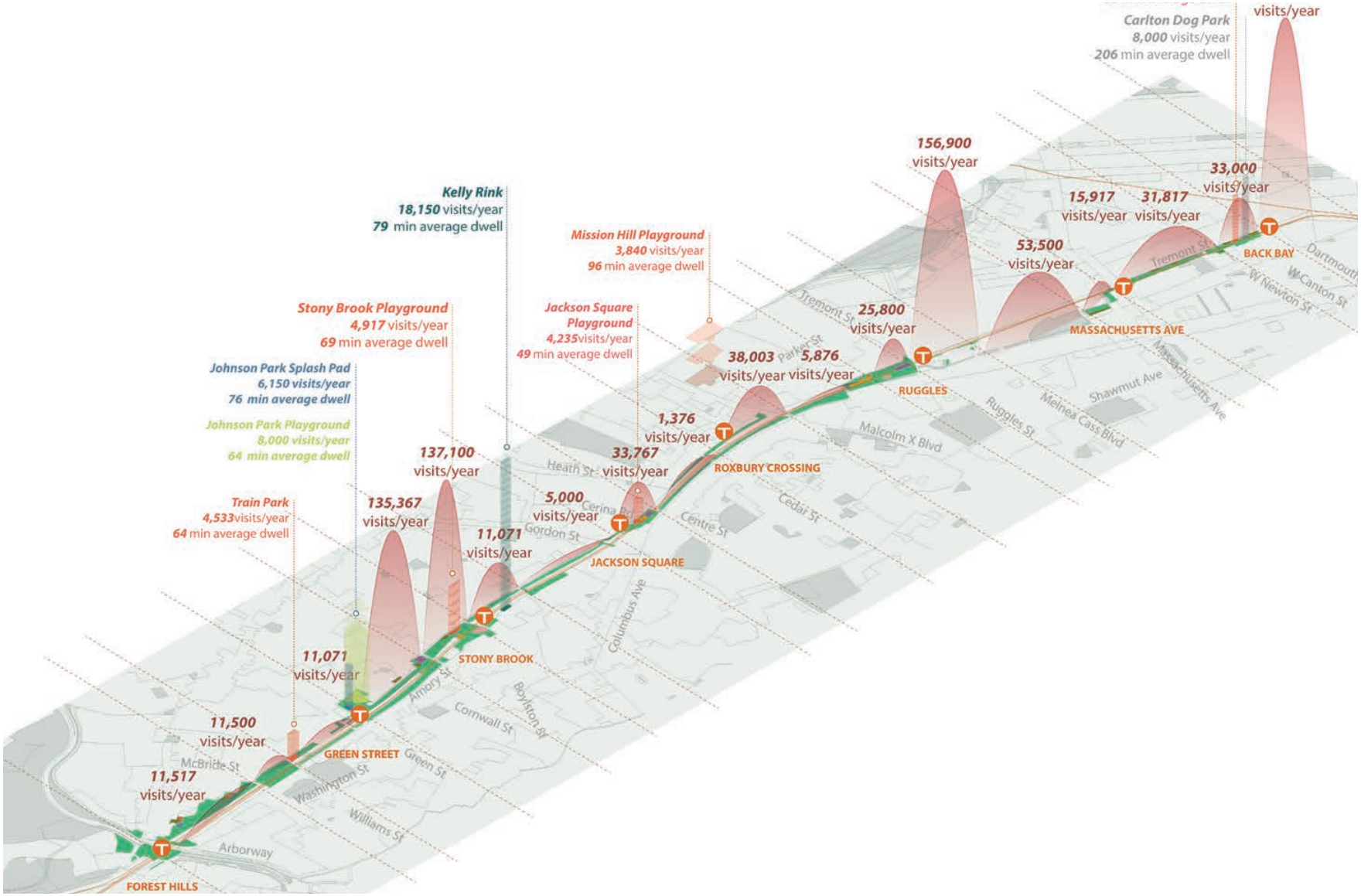
Heath Street to Ruggles

Physical Features

Ruggles to Back Bay

Park Usage

Also utilizing cell phone location data, we can analyze what parts of the park are used more heavily. Use by park segment is noted to the right, summary of usage of park features i.e. playgrounds, courts, etc. is shown on the left. Cell phone location data should be thought of relatively and not in the absolute. Visitation numbers are based on an estimated 10% of cell phones projected to represent 100% of use.



Corridor-wide Topics

Many aspects of the project span the entire corridor effecting all adjacent neighborhoods and park users.

DRAINAGE

The drainage system is effective at conveying stormwater leaving few puddles, but could be improved by infiltrating more stormwater to reduce downstream flooding.

Poor drainage on park pathway.

DEFERRED MAINTENANCE

Operations staff has decreased significantly since the park opening, asking staff to do more with less. Mowing, leaf collection, snow removal and supplementary trash collection are prioritized.

Basketball court in poor condition.

TREE CANOPY

Over 2000 trees line the corridor provided much needed shade. Tree condition is a concern to sustain a canopy long term.

Tree canopy near Stony Brook MBTA.

CLIMATE

Mitigating heat is a primary goal for combating climate change along the corridor and for adjacent neighborhoods. Emphasis should be placed on stewarding the existing tree canopy and adding new trees. Provide splash pads and other cooling features is important.

Extreme heat in Rocbury in the summer of 2022.

LIGHTING

The corridor pathway system has very good and consistent lighting. The public sidewalks and road crossings are less consistent.

Lighting condition near Jackson Sq.

OWNERSHIP

The MBTA owns the park land and DCR has care and custody of the land. The City of Boston owns many of the roads that are crossed. Non-profit friends groups and institutions help maintain the park.

Roxbury Crossing MBTA.

SIGNAGE

Signage it out of date and unclear. No interpretive information on the history of the corridor is provided.

Current signage of Southwest Corridor Park.

ACCESSIBILITY

Given the park was designed before the American's with Disabilities Act was enacted, there are many areas of the park that are not compliant with current regulations.

Path near Mass Ave MBTA.

Mobility and Access

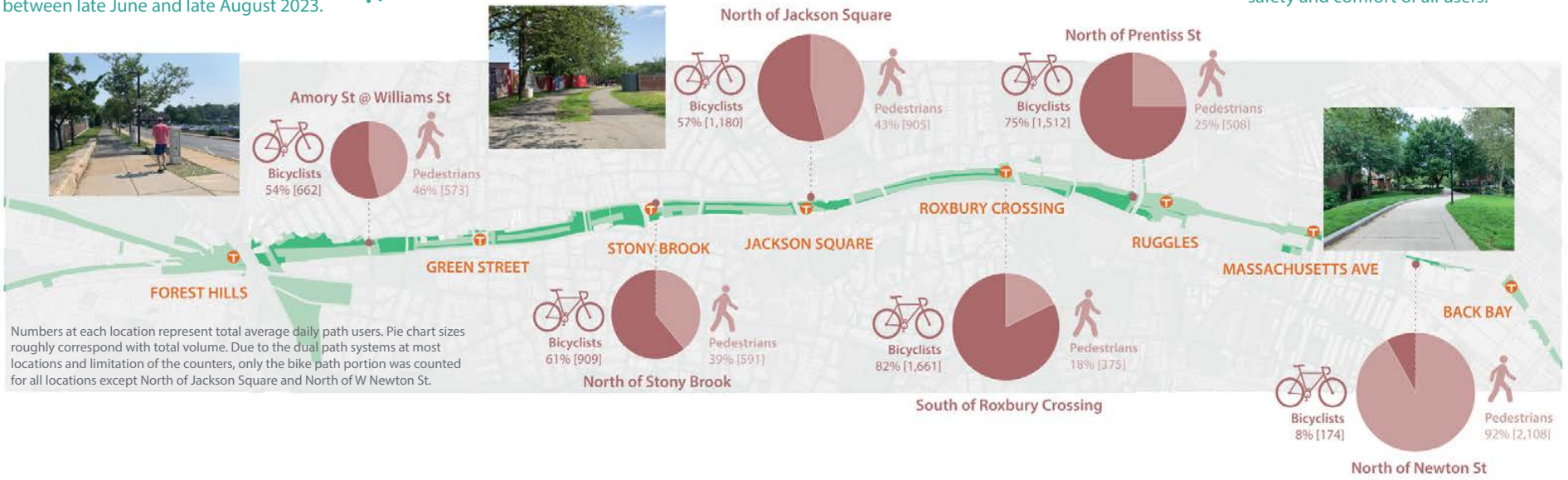
Path Use

The number of path users affects how wide a path should be for comfort and safety. To count path users on the Southwest Corridor, three trail counters were installed across six different locations between late June and late August 2023.

Given the number of pedestrians using the bike path in lieu of the sidewalk, the **existing bike path operates as a shared use path.**

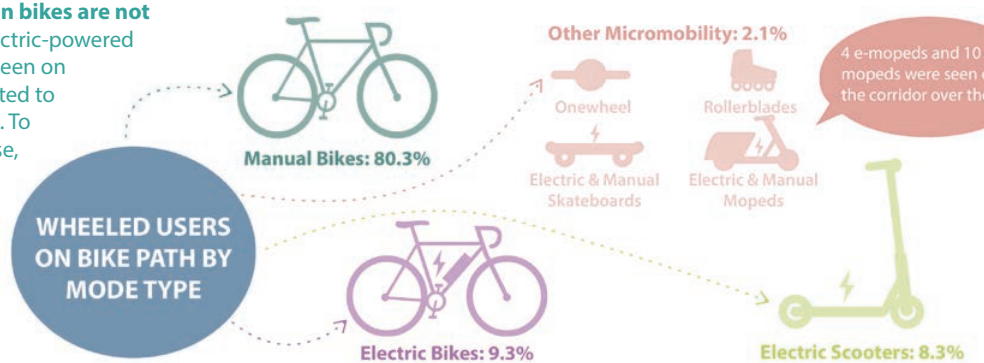
The path ranges from **8 to 10 feet wide, which is insufficient** for a shared use path with the volume and mode split of users counted.

In most locations, the volume of people walking and biking also calls for the **separation of modes on parallel paths** for the safety and comfort of all users.



Numbers at each location represent total average daily path users. Pie chart sizes roughly correspond with total volume. Due to the dual path systems at most locations and limitation of the counters, only the bike path portion was counted for all locations except North of Jackson Square and North of W Newton St.

Pedestrians & people on bikes are not the only path users. Electric-powered modes are increasingly seen on the SWCP and are expected to drive growth in path use. To gain a fuller picture of use, a manual 12-hour count of all wheeled users on the bike path was conducted in fall 2023.

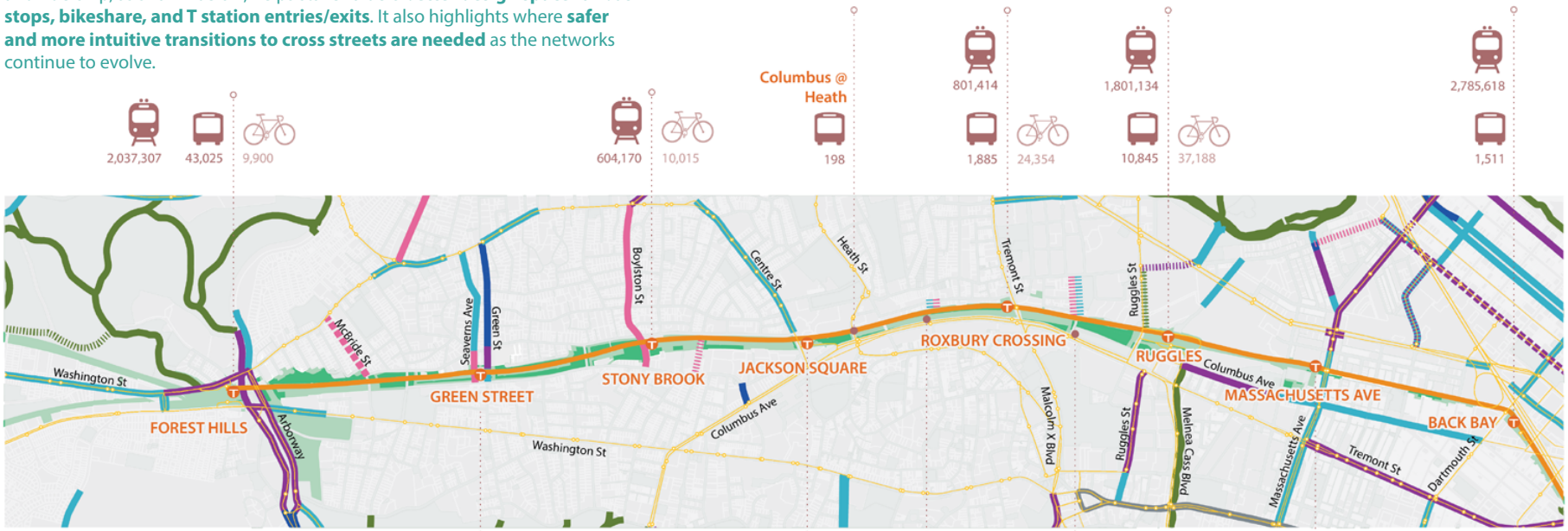


After manual bikes, people on e-bikes and e-scooters made up most path users. Some mopeds were also observed, which are prohibited on the corridor.

Knowing the range of use allows us to design a better path and parking for different modes, plus determine how best to manage the trail.

Network Connections & Ridership

The SWCP is a primary commuting and recreational corridor. Understanding use and ridership, as shown below, helps stakeholders **better design space for bus stops, bikeshare, and T station entries/exits**. It also highlights where **safer and more intuitive transitions to cross streets are needed** as the networks continue to evolve.



LEGEND

Bike Facility Type
- Separated Bike Lane
- Buffered Bike Lane
- Contra-flow Bike Lane
- Bike Lane
- Shared-use Path

Bike Facility Status
- Existing
- In Progress
- Planned

Transit
- ORANGE
- SILVER
- Bus Route
- MBTA Station
- Bus Stop
- 2019 Fall Seasonal Subway Ons & Offs
- 2022 Fall Seasonal Bus Ons & Offs
- Bluebikes Avg Annual Trips (2018 - 2022)

Transit data originates from the MBTA Open Data Portal. Bus ridership includes total ons and offs as recorded in Fall 2022. Subway ridership includes total ons and offs as recorded in Fall 2019. Bluebikes data represents average annual trips from 2018 to 2022, including any time a bike was rented and/or returned to one of the corridor stations. Data originated from Bluebikes and was averaged by Toole Design.

By the Numbers:
- 8 Orange Line subway stations are located along the SWCP
- 38 bus routes intersect the SWCP, with stops at subway stations and 3 other locations on the corridor
- 8 Bluebikes stations are co-located with subway stations

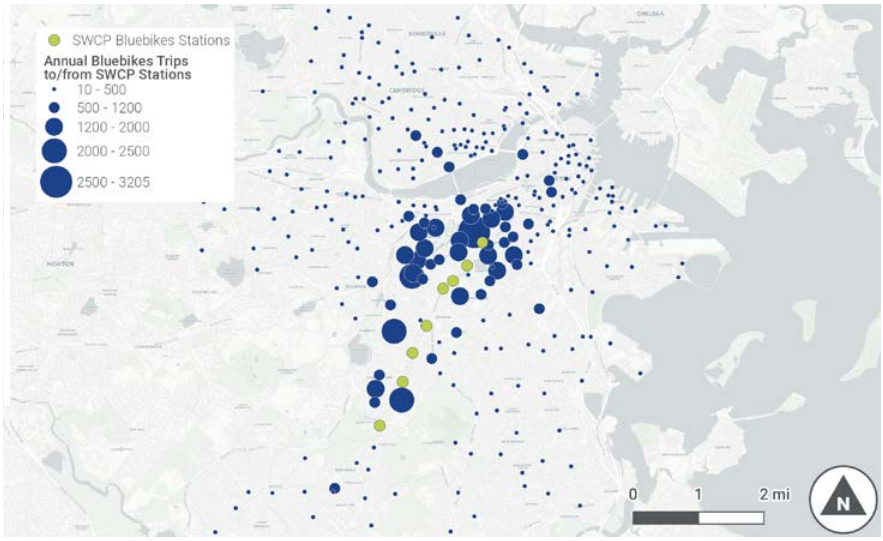
Destinations

The **Southwest Corridor Park connects people walking, riding bikes, and taking micromobility to many destinations,** including housing, healthcare, groceries, shops, libraries, schools, and more. The map below shows land use and destinations within approximately a quarter mile - about a 5 minute walk - from the corridor. The large open spaces of the Emerald Necklace are also major destinations located near the Southwest Corridor.

LEGEND

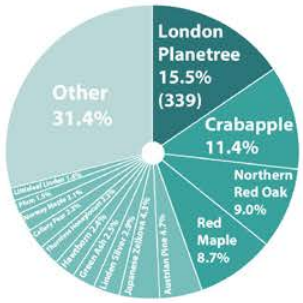
- Commercial
- Mixed-Use
- Boston Housing Authority
- Long-Term Care Facility
- Small-Scale Retail
- Health Care
- Library
- Supermarket
- Schools
- Community Health Center

People use Bluebikes stations on the SWCP to access Greater Boston. The map at right shows the relative number of Bluebikes trips starting from and/or ending at Bluebikes stations along the Southwest Corridor Park. Station pairs close to the park are the most popular, but other well-traveled origins and/or destinations can be seen in Mattapan, Hyde Park, Oak Square, Brookline, Cambridge, and Somerville.

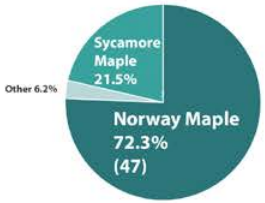


Natural Resources-
Trees

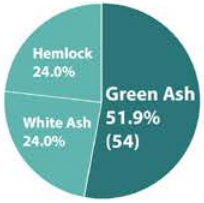
SPECIES COMPOSITION OF 2098 TREES



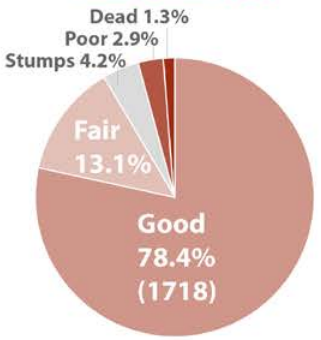
INVASIVE SPECIES 2.8% (65) OF THE TOTAL



SPECIES WITH PEST AND DISEASE CONCERN 4.7% (104) OF THE TOTAL



TREE CONDITION

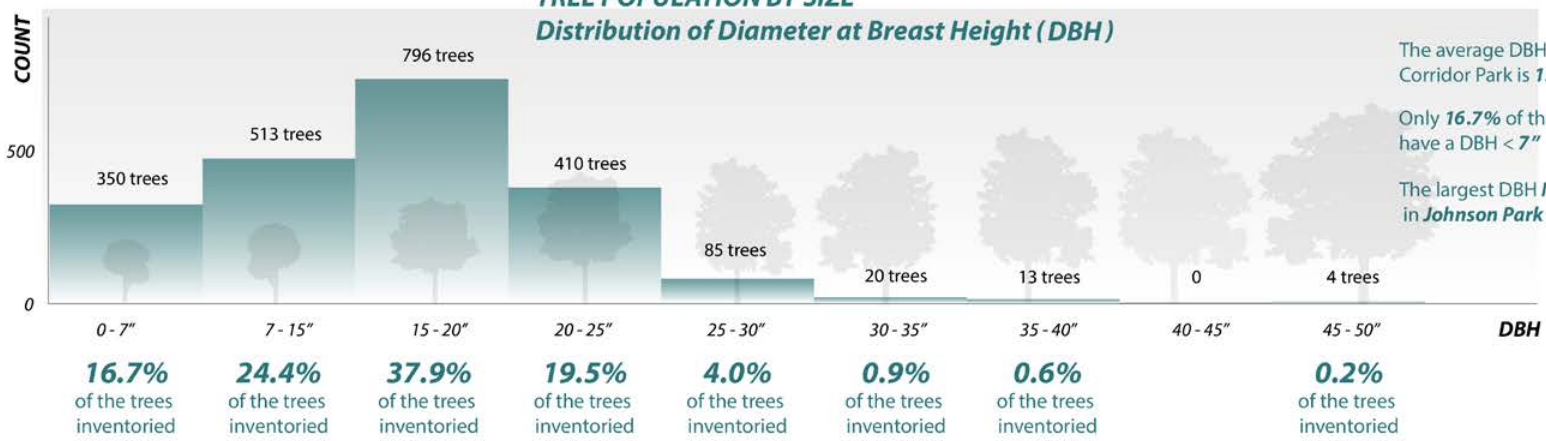


99 TREE SPECIES

Planetree, London 15.5% (339)	Linden, Silver 2.9% (64)	Redcedar, Eastern 0.7% (16)	Hornbeam, Japanese 0.4% (9)	Pine, Japanese White 0.1% (3)	Cherry, Black 0.1% (2)	Magnolia, Star 0.0% (1)
Crabapple 11.4% (249)	Ash, Green 2.5% (54)	Spruce, Blue 0.7% (16)	False Cypress, Sawara 0.4% (8)	Serviceberry, Eastern 0.1% (3)	Cottonwood, Eastern 0.1% (2)	Maple, Hedge 0.0% (1)
Oak, Northern Red 9.0% (197)	Hawthorn 2.4% (53)	Maple, Sycamore 0.6% (14)	Mulberry, White 0.4% (8)	Sumac, Skunkbush 0.1% (3)	False Cypress, Hinoki 0.1% (2)	Mulberry, Paper 0.0% (1)
Maple, Red 8.7% (190)	Honeylocust, Thornless 2.3% (50)	Dogwood, Kousa 0.5% (12)	Oak, Black 0.4% (8)	Sweetbay 0.1% (3)	Goldenrain Tree 0.1% (2)	Pawpaw 0.0% (1)
Pine, Austrian 4.7% (104)	Pear, Callery 2.2% (49)	Katsura Tree 0.5% (11)	Peach 0.3% (7)	Yew 0.1% (3)	Larch, European 0.1% (2)	Pear 0.0% (1)
Zelkova, Japanese 4.3% (93)	Maple, Norway 2.1% (47)	Spruce, White 0.5% (11)	Cedar, Northern White 0.3% (6)	Buckeye, Red 0.1% (2)	Mulberry, Red 0.1% (2)	Pine, Japanese Umbrella 0.0% (1)
	Plum 1.5% (32)	Dogwood, Flowering 0.4% (9)	Cherry, Japanese Flowering 0.3% (6)	Cedar, Atlas 0.1% (2)	Olive, Autumn 0.1% (2)	Pine, Red 0.0% (1)
Linden, Littleleaf 1.4% (30)	Spruce, Serbian 1.0% (23)	Elm, American 0.3% (6)	Maple, Freeman 0.2% (4)	Willow, White 0.1% (2)	Elm, Hybrid 0.0% (1)	Pine, Sweet Mountain 0.0% (1)
Ginkgo 1.3% (28)	Pine, Eastern White 1.0% (22)	Lilac, Japanese Tree 0.3% (6)	Maple, Japanese 0.2% (4)	Birch, European White 0.0% (1)	Fir, Blue Chinese 0.0% (1)	Pine, Swiss stone 0.0% (1)
Ash, White 1.1% (25)	Magnolia, Chinese; Saucer 1.0% (21)	Maple, Silver 0.3% (6)	Beech, European 0.1% (3)	Birch, River 0.0% (1)	Golden Chain/Rain Tree Hybrid 0.0% (1)	Smoketree 0.0% (1)
Hemlock, Eastern 1.1% (25)	Locust, Black 0.9% (19)	Horsechestnut 0.2% (5)	Crabapple, Japanese Flowering 0.1% (3)	Boxelder 0.0% (1)	Hackberry, Northern 0.0% (1)	Tree of Heaven 0.0% (1)
Redwood, Dawn 1.1% (24)	Oak, Pin 0.8% (17)	Redbud, Eastern 0.2% (5)	Oak, Sawtooth 0.1% (3)	Buckthorn, Glossy 0.0% (1)	Holly, American 0.0% (1)	Tulip Tree 0.0% (1)
Fir, White 1.0% (23)	Cedar, Western Red 0.7% (16)	Fir, Douglas 0.2% (4)	Oak, White 0.1% (3)	Cedar 0.0% (1)	Magnolia 0.0% (1)	Tupelo, Black 0.0% (1)
Pagodatree, Japanese 1.0% (23)	Maple, Sugar 0.7% (16)	Linden,Littleleaf 'Greenspire' 0.2% (4)	Oak, Swamp White 0.1% (3)	Chestnut, American 0.0% (1)	Magnolia, Southern 0.0% (1)	Walnut, Black 0.0% (1)
						Yellowwood 0.0% (1)

Distribution of DBH of Poor Condition Trees

TREE POPULATION BY SIZE
Distribution of Diameter at Breast Height (DBH)



The average DBH in Southwest Corridor Park is ***13.4"***

Only ***16.7%*** of the trees have a DBH < ***7"***

The largest DBH ***Northern Red Oak*** in ***Johnson Park*** measures ***47.9"***

Cultural Resources-
Historical Timeline

3,000-400 BP
Woodland Period
Agriculture and pottery begin in this period which, in turn, allows a less nomadic culture

9,000-3,000 BP
Archaic Period
First known inhabitation of *Charles River watershed*

12,000-10,000 BP
PaleoIndian Period
Significant sites found in *Saugus* and *Canton* but not in *Boston*

1658
Fulling mill in Roxbury

1631
Weir established on *Stony Brook*
1632
Roxbury meetinghouse constructed

1620
the *Mayflower* arrives, stating the first northern English settlement in the 'New World'

1524
Giovanni Verrazzano sails north along today's New England coastline

1880-1885
Stony Brook culverted

1835
Boston & Providence RR established along Stony Brook from *Back Bay* to *Forest Hills*

1819
Railroad tracks laid out across cove

1793
First stagecoach between *Boston and Cambridge*

1956
The Federal Highway Act is established under which the *Southwest Expressway* ballooned to include a five-story interchange in the *South End*

Rapid transit elevated line fosters expansion of neighborhoods along *Washington Street* from *Dudley* to *Forest Hills*

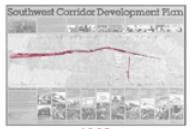
1948
The master highway plan for the Boston metropolitan area which proposes *Southwest Expressway*

1972
Governor Sargent cancels Southwest Expressway project

Early 1970
Representative Michael Dukakis submitted a bill for moratorium on highways
80% of the land required for the *Southwest Expressway*, has been acquired by the City

1969
"People Before highways Day" at State House
Mayor White calls for moratorium

1966
The clearing of homes and businesses begins along the highway corridor
"Stop the Southwest Expressway" protest



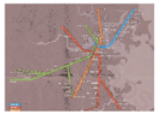
1962
Plans for the Southwest Expressway 2,100 families & 200 business had to be relocated, 823 homes removed

2003
MDC and MA DEM merge to form *Department of Conservation and Recreation*

1990
Southwest Corridor Park opens
Metropolitan District Commission (MDC) manages park

1987
new *Orange Line* opens

1983
South End Landmark District includes the Southwest Corridor a Protection Area
1978
South Cove Tunnel of Southwest Corridor Rapid Transit under Mass Turnpike



1974
Expressway fund were reallocated to public transit: Relocation of Orange Line; Relocation and extension of Red Line

Native People history (Pre-European) (10,000 BP-1500)

Contact period & European settlement (1500-1750)

Industrial history (1750-1914)

Neighborhood development (1915-1960)

Highway proposal and protests (1960-1972)

Design and development of Southwest Corridor (1973-2003)