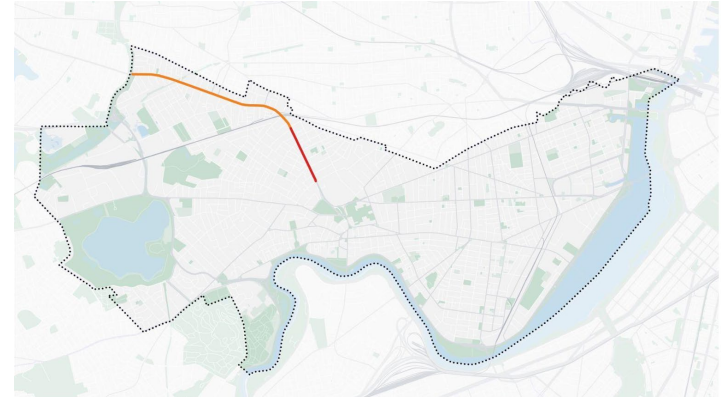
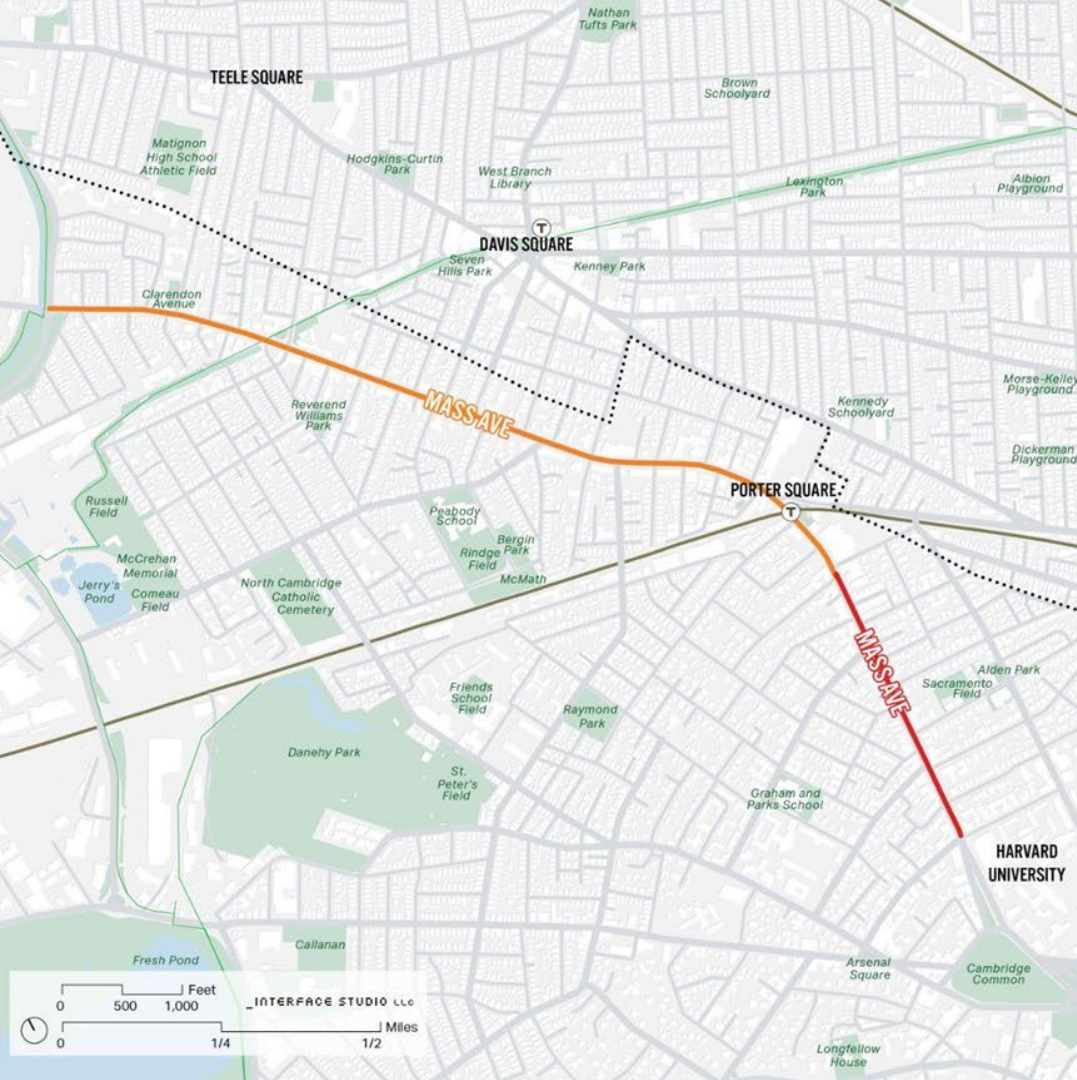


# Existing Conditions

Appendix



## STUDY AREA

Interface Studio, October 2023

- South of Porter Square Study Area
- North Mass Ave + Porter Square Study Area
- Parks/Open Space
- Water
- Commuter Rail
- ... City Boundary

# EVOLUTION OF MASS AVE



Massachusetts Avenue looking north from the Little Common about 1875.

Source: Preliminary Landmark Designation Report: Charles Hicks Saunders House, Charles Sullivan and Sarah Burks, Cambridge Historical Commission. March 24, 2023

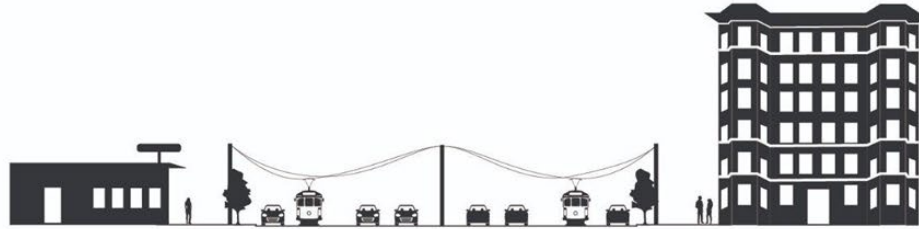
# THE STREET THROUGH THE CENTURIES

---

18<sup>th</sup> Century



19-20<sup>th</sup> Century



Today



FUN FACT: In 1961, you could build up to 60 feet on most of the corridor. Today, it is 45 feet in many places.



# REMNANTS AND RELICS OF HISTORY TODAY



Many buildings still stand, but may have other uses, such as the Henderson Carriage Repository (1892), now used for office and retail.

Source: Henderson Carriage Repository. (2019, March 14). In Wikipedia.  
[https://en.wikipedia.org/wiki/Henderson\\_Carriage\\_Repository](https://en.wikipedia.org/wiki/Henderson_Carriage_Repository)



Efforts have been made to create modern additions and affordable housing while preserving historic homes, such as Frost Terrace (1865, renovated 2021).

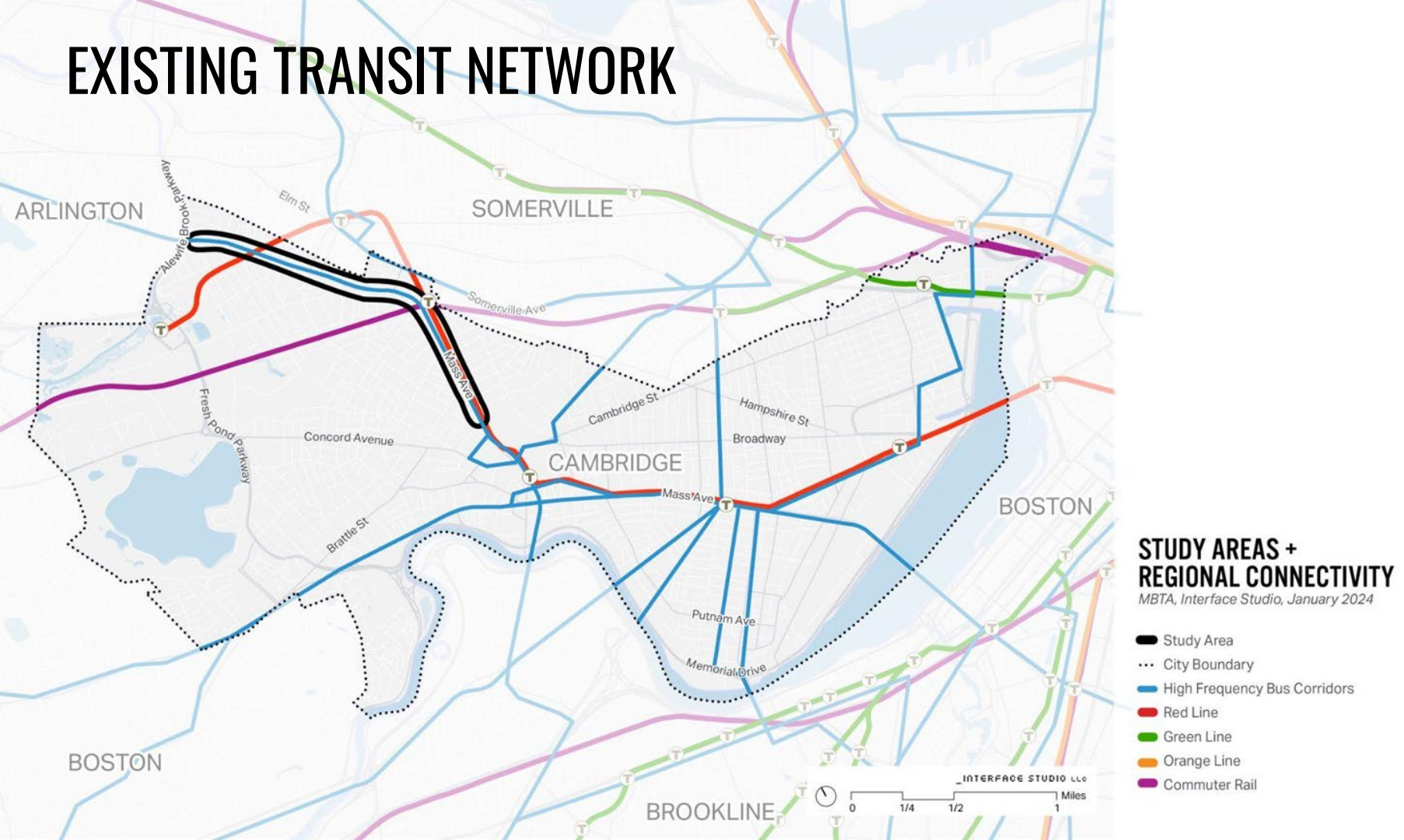
Source: Robert Benson Photography.  
<https://www.architectmagazine.com/project-gallery/frost-terrace-affordable-housing>



Legacy streetcar trolley infrastructure still remains.

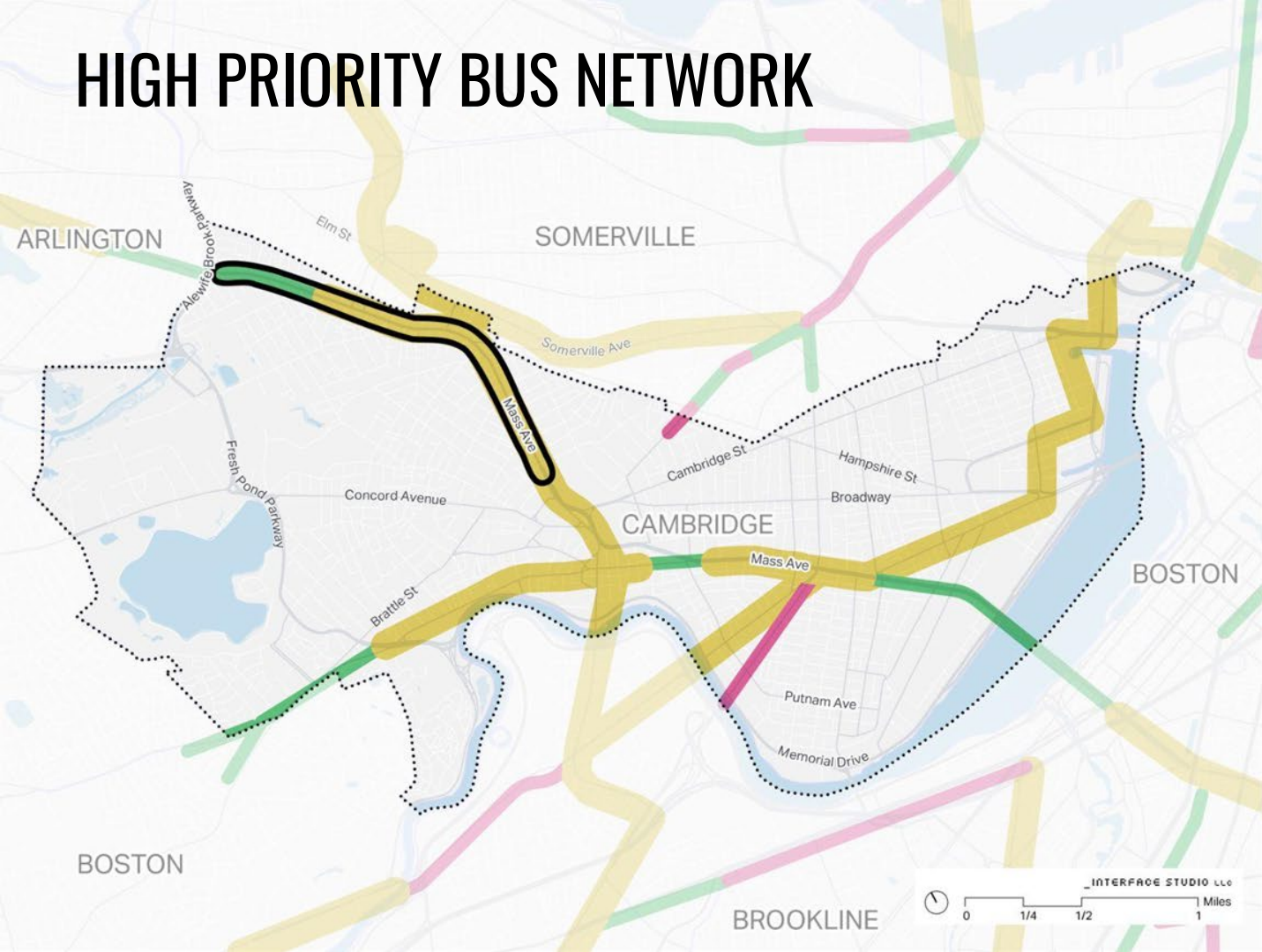
Source: Interface Studio.

# EXISTING TRANSIT NETWORK



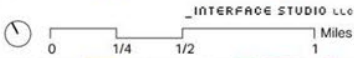


# HIGH PRIORITY BUS NETWORK



**STUDY AREA +  
REGIONAL CONNECTIVITY**  
MBTA, Interface Studio, January 2024

- Study Area
- City Boundary
- Bus Priority - Existing
- Bus Priority - Planned / Underway
- Bus Priority - Needed



# COMMUTERS PER DAY

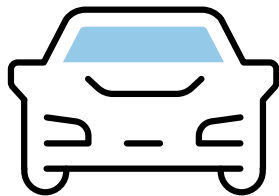
---



**1,900**

**BICYCLISTS**

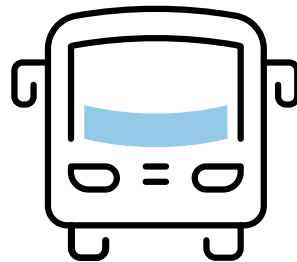
Weekday Bike Count  
2022<sup>1</sup>



**21,000+**

**VEHICLES**

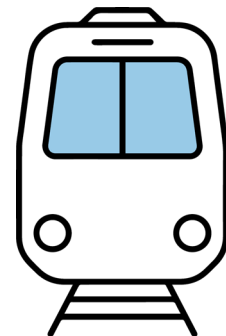
Average Daily Traffic Count  
2020<sup>2</sup>



**12,000+**

**BUS RIDERS**

Average Weekday Boardings  
2022<sup>3</sup>



**~6,900**

**SUBWAY & COMMUTER  
RAIL RIDERS**

Average Weekday Boardings  
2023

Porter Square Red Line and Commuter Rail

<sup>1</sup> [Cambridge Open Data](#) - Average Weekday Citywide Bicycle Counts, 2022; from the Total Bike Count on 9/22/22 at Cedar St & Massachusetts Avenue and Massachusetts Avenue & Somerville Ave Locations.

<sup>2</sup> [Cambridge Open Data](#) - Cambridge updated Bike Lane Comfort dataset. Average of counts from multiple segments along Massachusetts Avenue. 2020.

<sup>3</sup> [Bus Ridership](#): MBTA Bus Ridership by Time Period. 2022. Bus stops at and between Alewife Brook Parkway and Cambridge Commons.

<sup>4</sup> Train Ridership: City of Cambridge.

# DYNAMIC STREET, DIFFERENT QUALITIES



## GENERALIZED LAND USE - EXPERIENCE

Interface Studio, January 2024

- Commercial
- Mixed Use
- Residential
- Institution
- Parks and Open Space
- Transportation



# HOUSING

---

**The market is cooling.** At the same time, the need for more and affordable housing continues to **increase**.

The **Cambridge Affordable Housing Overlay (AHO)** has named corridors like Mass Ave as locations for development. However, land and construction costs, coupled with zoning regulations on height and other limiting factors **create barriers to new construction**.

**Mixed attitudes in the community** about what and where housing can factor into future neighborhood opportunities as well.

# HOUSING STARTS 2013 - 2023

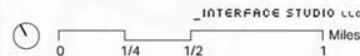
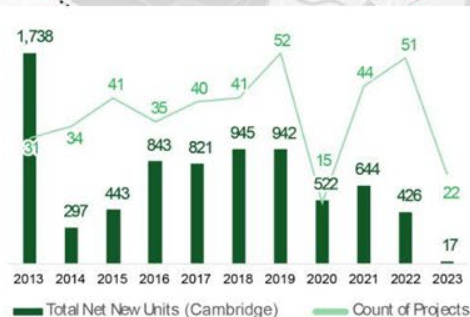
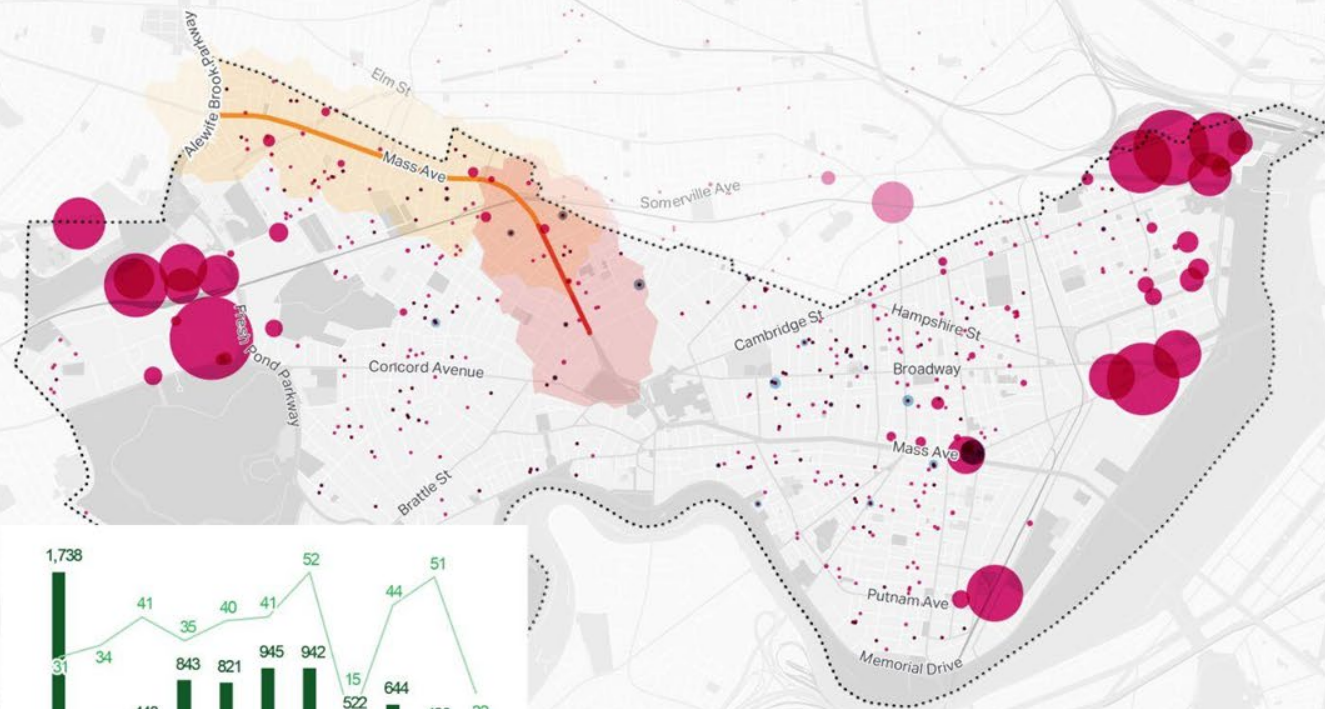
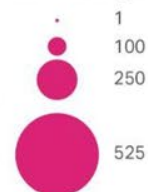
Cambridge Open Data: Housing Starts, Somerville  
Permits, Interface Studio, October 2023

- South of Porter Square Study Area
- North Mass Ave + Porter Square Study Area
- City Boundary

## Net Loss (Housing Units)



## New Housing Starts (Housing Units)



\*Cambridge permits analyzed until June 2023. Somerville permits analyzed 2015-2022; permits from 2022-present are displayed as pipeline

## HOUSING DEVELOPMENT PIPELINE

Cambridge Open Data: Development Log, Affordable Housing Overlay Pipeline, Somerville Permits 2022-Present, Interface Studio, January 2024

- South of Porter Square Study Area
- North Mass Ave + Porter Square Study Area
- ... City Boundary

### Market Rate Development Pipeline

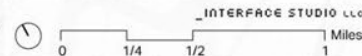
#### Developments in Service Area

- |   |                  |          |
|---|------------------|----------|
| 1 | 1 Cedar St       | 8 Units  |
| 2 | 2400 Mass Ave    | 56 Units |
| 3 | 2161 Mass Ave    | 8 Units  |
| 4 | 3-5 Linnaean St. | 5 Units  |

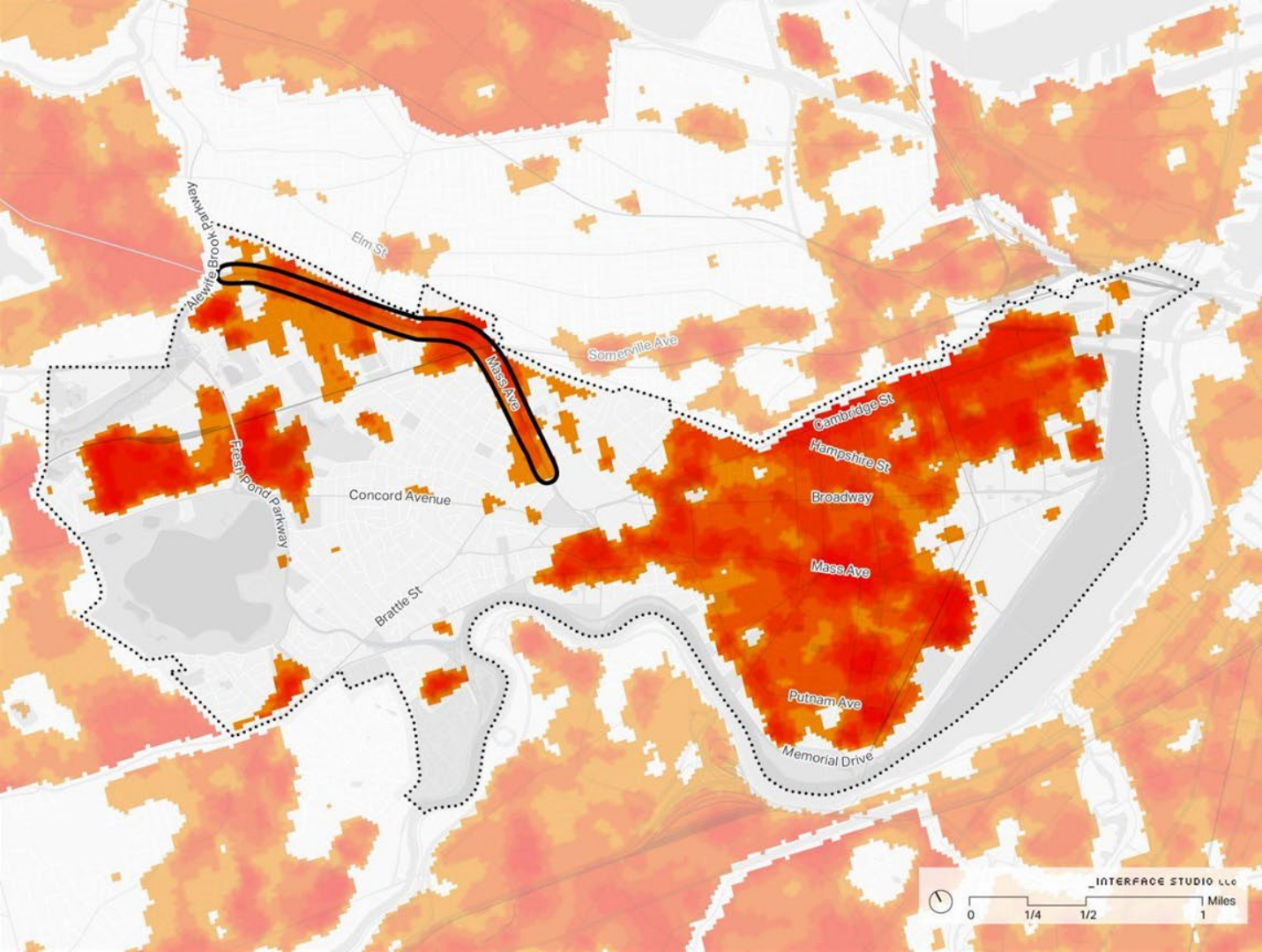
### Affordable Housing Overlay Development Pipeline

#### Developments in Service Area

- |   |                                  |          |
|---|----------------------------------|----------|
| 5 | 2072 Mass Ave                    | 48 Units |
| 6 | 30 Wendell St                    | TBD      |
| 7 | 1627 Mass Ave<br>("4 Mellen St") | 29 Units |



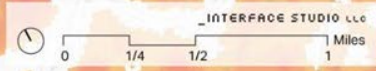




## RELATIVE HEAT SEVERITY

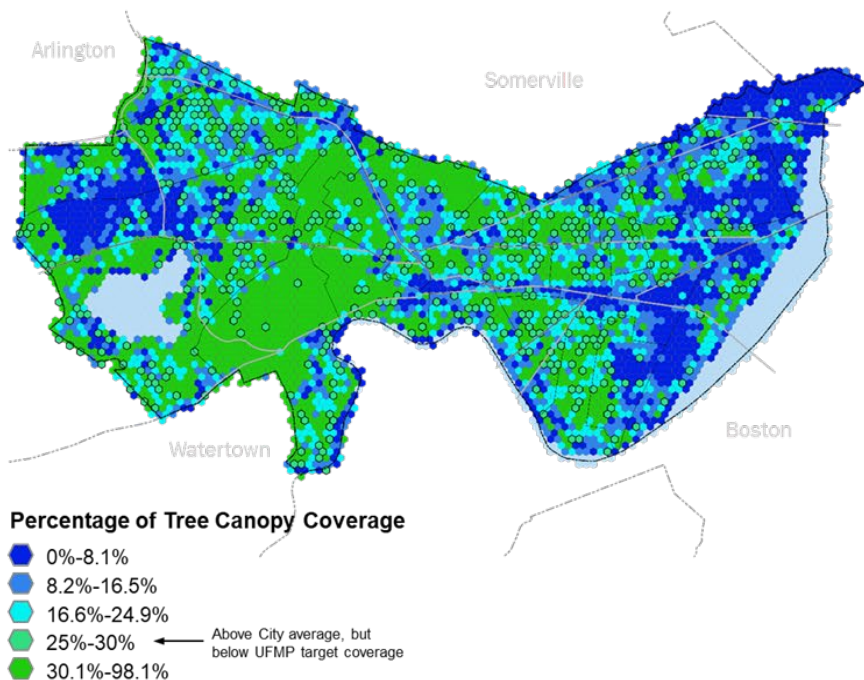
Trust for Public Land Summer 2021 Surface Temperatures; Interface Studio, February 2024

- Study Area
- City Boundary
- Severe Heat Area
- Relatively Mild Heat Area (Above City Average)



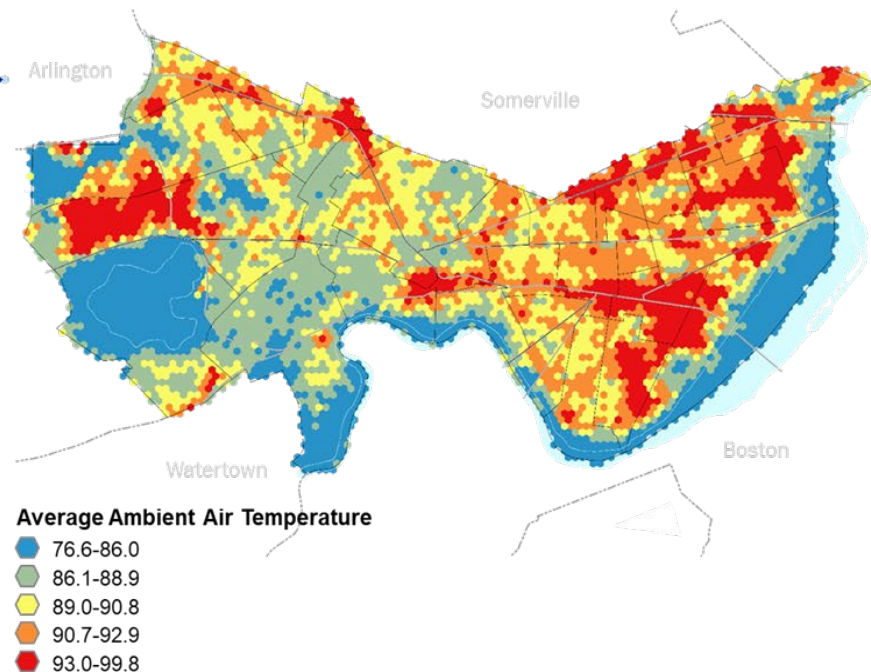
## Tree Canopy Density

When evaluating improvements to parks, or locating new parks, increasing the tree canopy can provide shade and cooling.



## Urban Heat Island

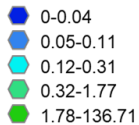
Finding opportunities to reduce heat in open spaces, or building new open spaces, can help to reduce localized temperatures.



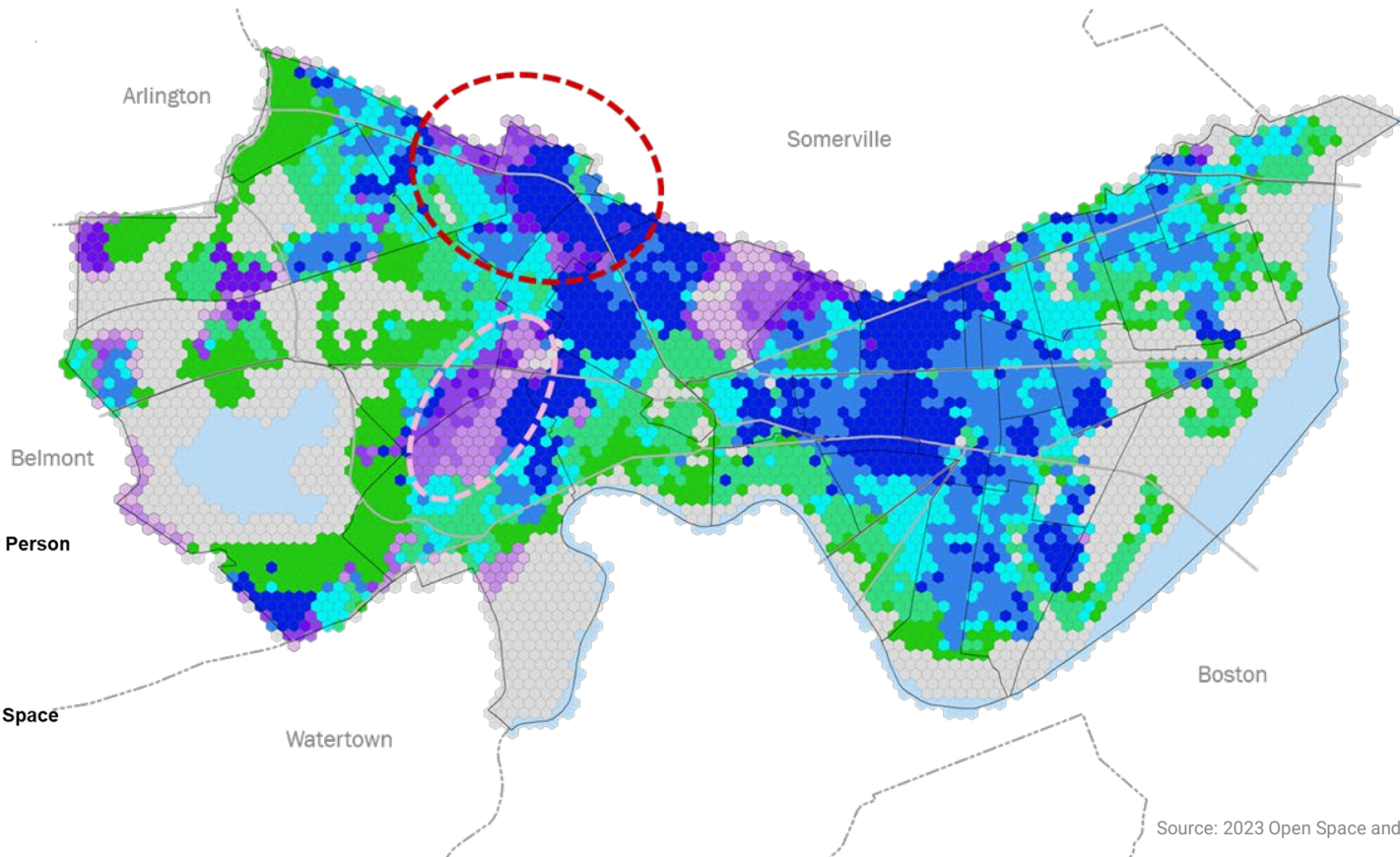
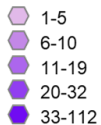


## Accessible Open Space Per Resident

Park Acres Available per Person

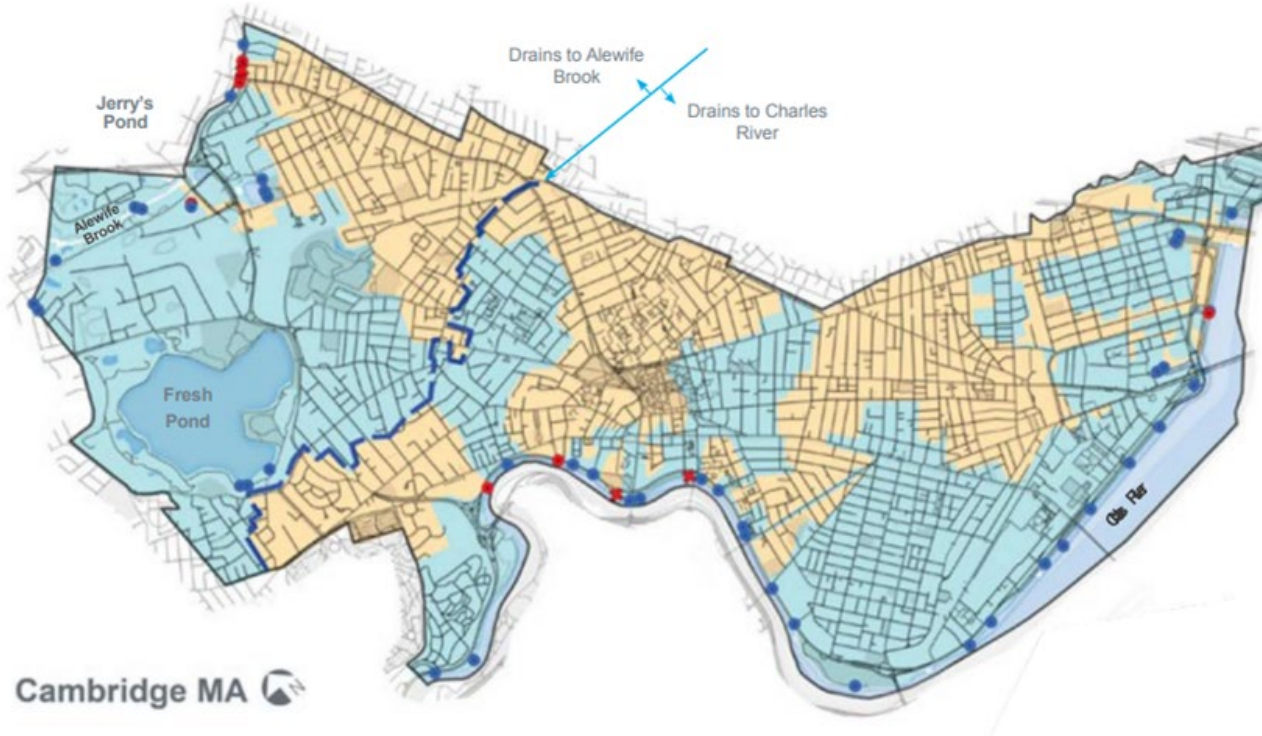


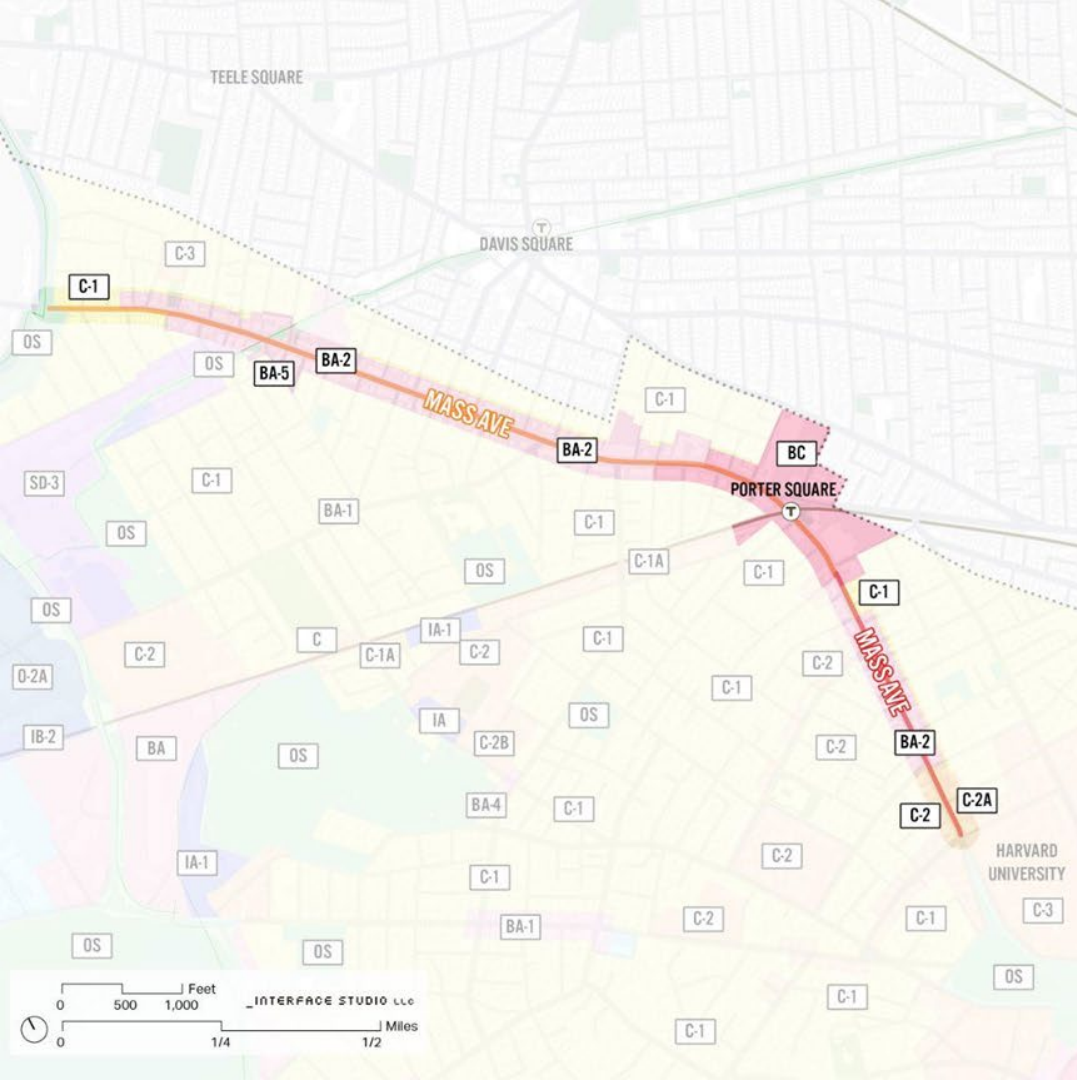
Population with no Park Space within ¼ mile



Source: 2023 Open Space and Recreation plan

# Sewer separation

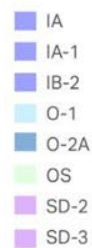
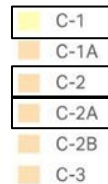




## ZONING DISTRICTS

Interface Studio, April 2025

### Base Zoning



# NORTH MASS AVE AND PORTER SQUARE

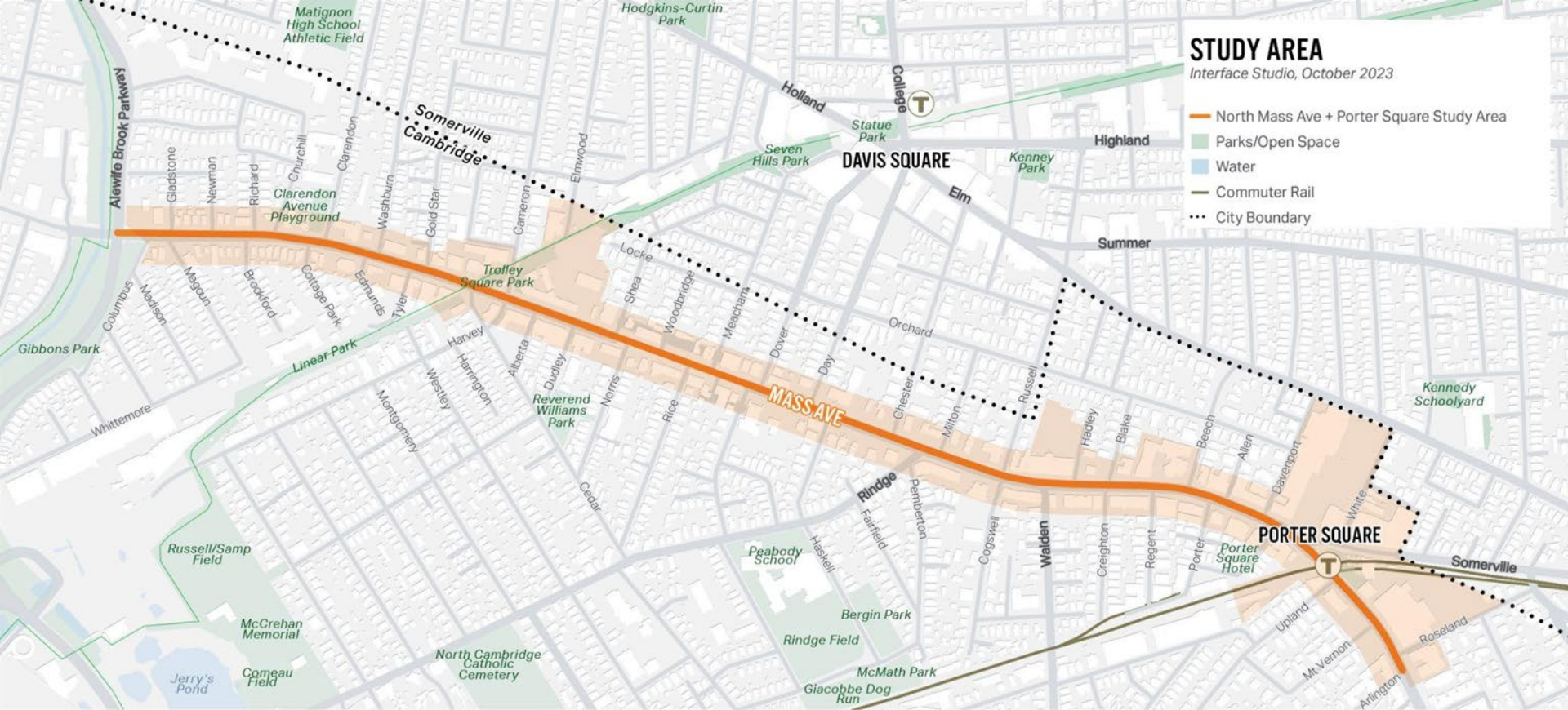
(ARLINGTON TO ALEWIFE BROOK PARKWAY)



## STUDY AREA

Interface Studio, October 2023

- North Mass Ave + Porter Square Study Area
- Parks/Open Space
- Water
- Commuter Rail
- City Boundary



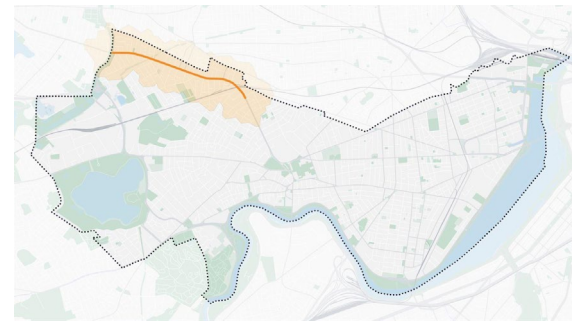
0

1/4

1/2

Miles





**NORTH MASS AVE  
PRIMARY SERVICE AREA**

Interface Studio, October 2023

- South of Porter Square Study Area
- North Mass Ave + Porter Square Study Area
- Parks/Open Space
- Water
- Commuter Rail
- ... City Boundary

# RESIDENTS



12%

YOUTH UNDER 18  
[1,870 residents]



37

MEDIAN AGE  
[29 Citywide]



15%

SENIORS OVER 65  
[2,494 residents]

38%

FAMILY HOUSEHOLDS  
[40% Citywide]

7%

HOUSEHOLDS BELOW POVERTY  
519 households

\$155,000

2023 MEDIAN HOUSEHOLD INCOME

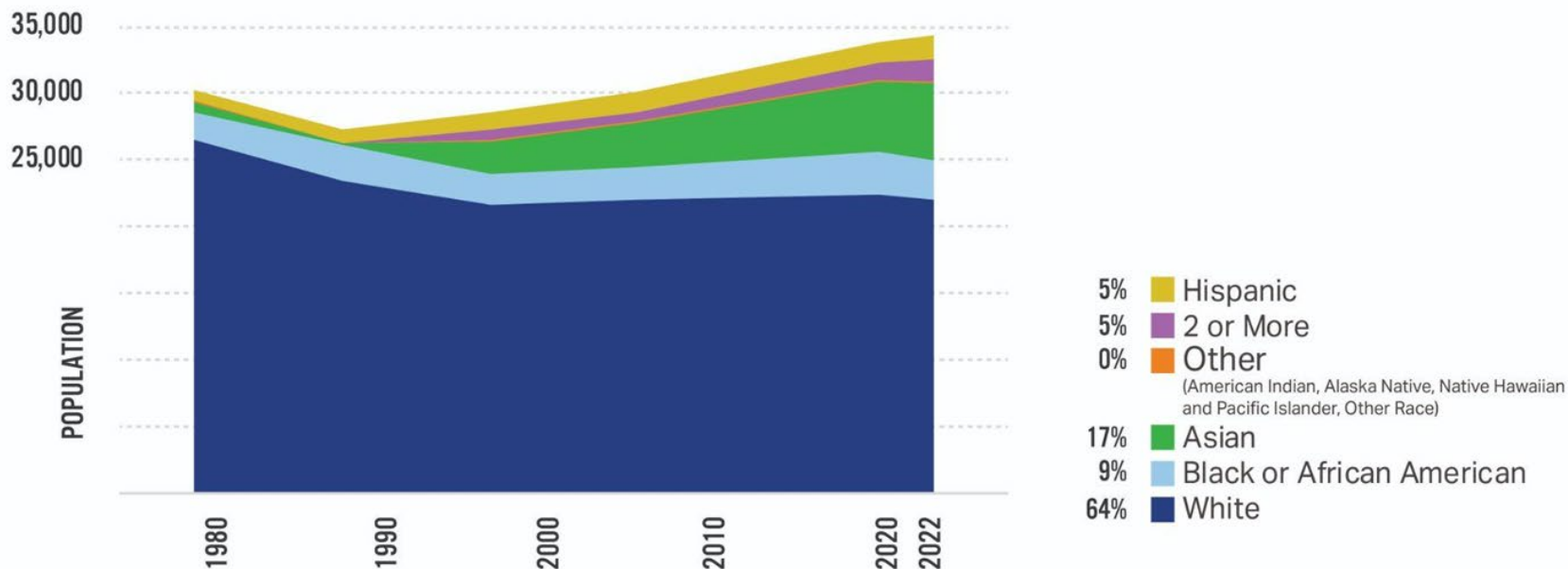


CAMBRIDGE (2022)  
\$121,000

# CHANGE OVER TIME

## RACE + ETHNICITY

Census Tracts within .25 miles of North Mass Ave Study Area,  
December 2023





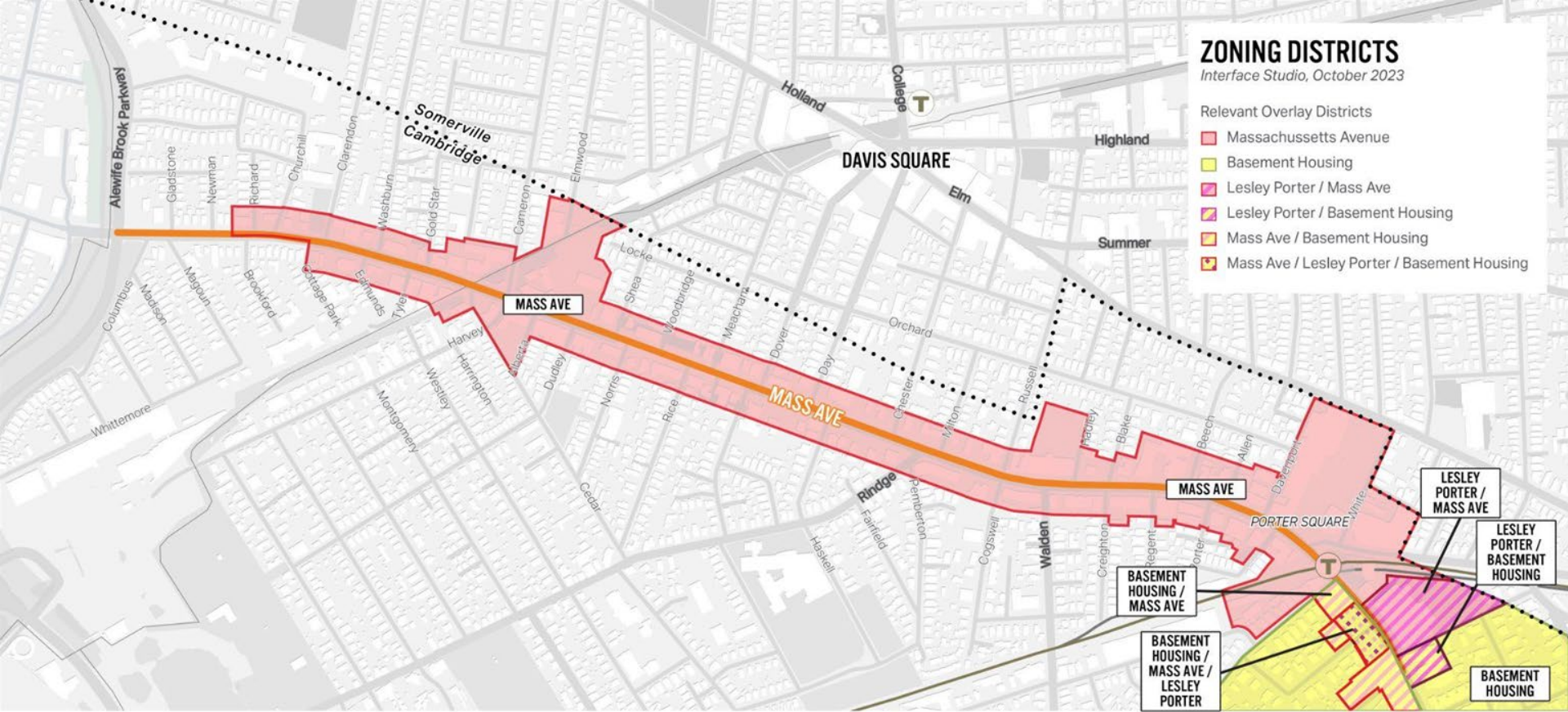


# ZONING OVERLAYS

Much of the corridor is governed by an overlay, or combination of overlays.

	Definitions
<b>Mass Ave</b>	To promote retail, design, and pedestrian amenities. Maximum height 60' or base district maximum, whichever is less; FAR of 1.60 allowed for a lot located in both a Business C and a Residence B Zoning District; Required Ground Floor Non-Residential Uses in BA-2; regulated store size maximums; Parking Exemption for Seasonal Outdoor Seating; setback and use regulations for area between building and street/park dedicated to Green Area; ground floor facing street/park for specific uses.
<b>Basement Housing</b>	The overlay district aims to address the increasing cost of rental housing in Cambridge and the shortage of affordable studio and one-bedroom units. It allows for the creation of such units in the unused basement space of certain existing multifamily residential buildings. Applies to existing structures with at least 30 dwelling units, built before 1930, and requires a SP.
<b>Lesley Porter</b>	Overlay District for Lesley University's Porter Square campus; Business C District base zoning designation; address institutional use issues near Porter Square's MBTA station; promote an emerging art district and access to retail users outside institutional population.
<b>Harvard, Radcliffe, Lesley</b>	In Municode it is just Harvard Square.





# ZONING OVERLAYS

North Mass Ave has several overlapping zoning overlays.

# BUSINESSES

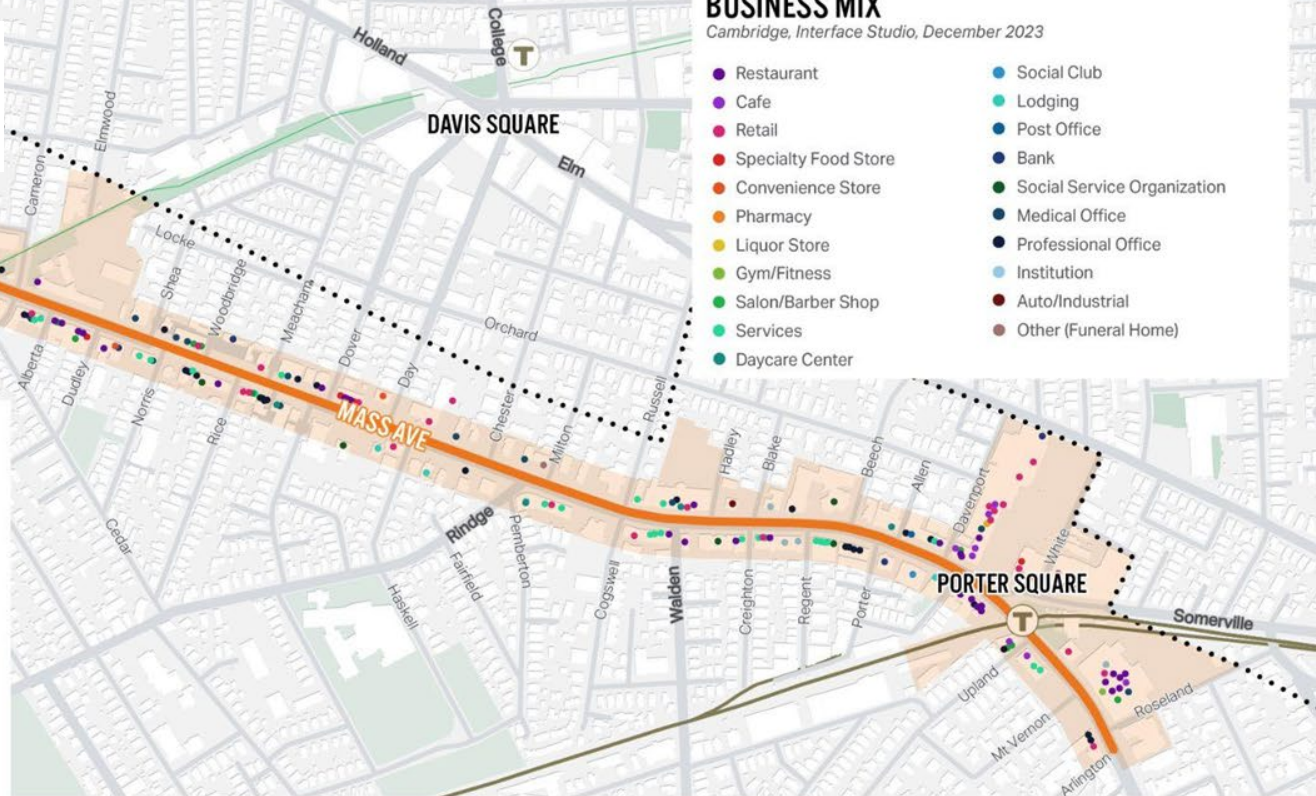
Total number of first floor businesses: **203**

## STOREFRONTS



## BUSINESS MIX

Cambridge, Interface Studio, December 2023



0

1/4

1/2

Miles

INTERFACE STUDIO LLC



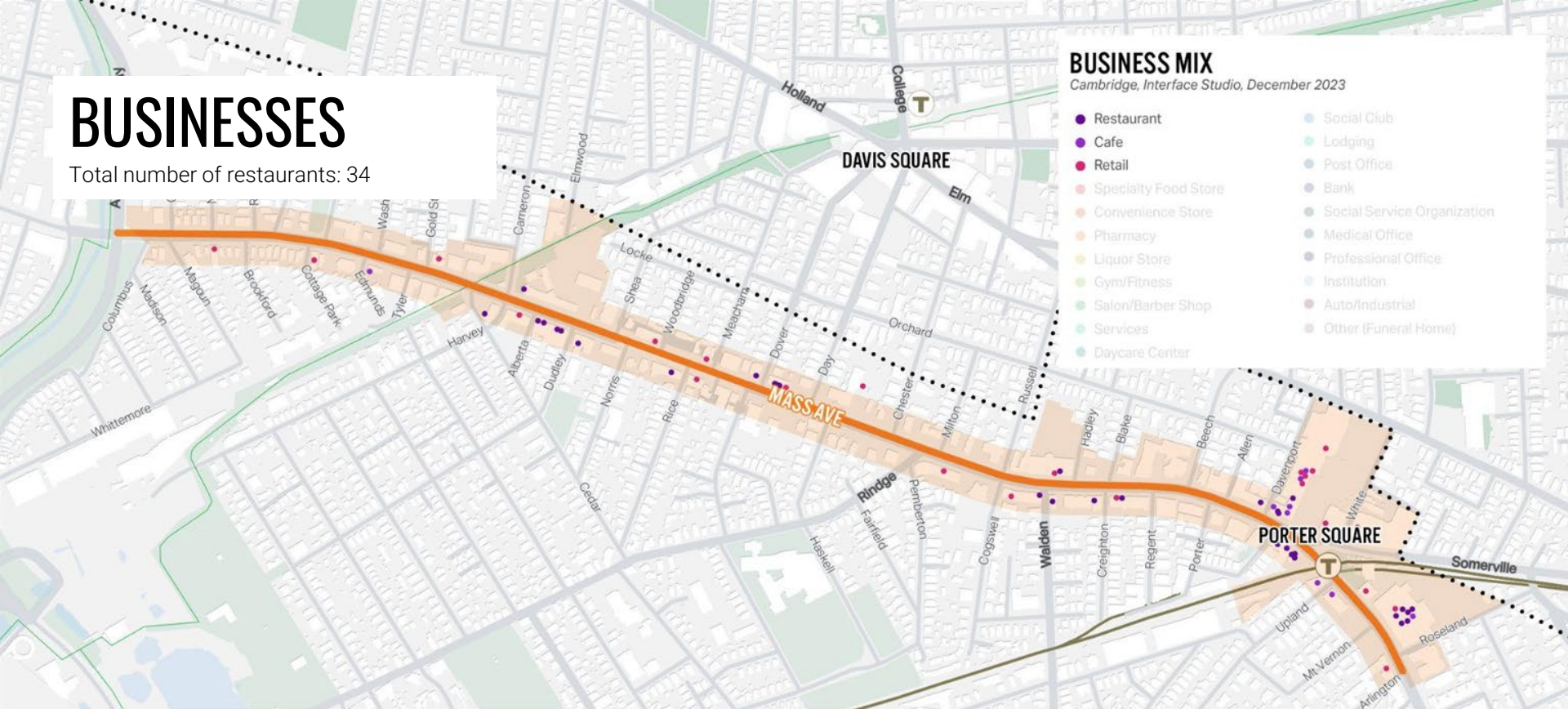
# BUSINESSES

Total number of restaurants: 34

## BUSINESS MIX

Cambridge, Interface Studio, December 2023

- Restaurant
- Cafe
- Retail
- Specialty Food Store
- Convenience Store
- Pharmacy
- Liquor Store
- Gym/Fitness
- Salon/Barber Shop
- Services
- Daycare Center
- Social Club
- Lodging
- Post Office
- Bank
- Social Service Organization
- Medical Office
- Professional Office
- Institution
- Auto/Industrial
- Other (Funeral Home)



0

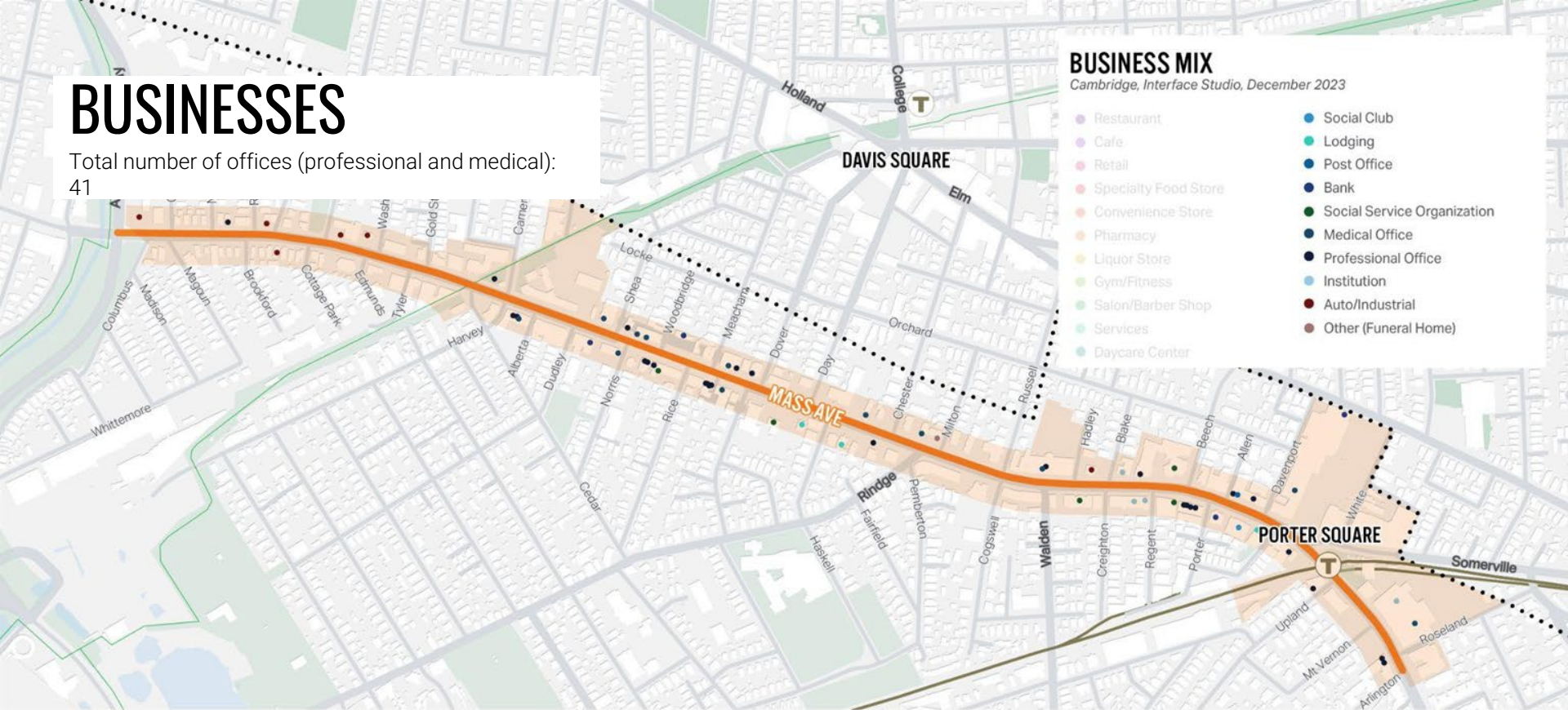
1/4

1/2 Miles

27

# BUSINESSES

Total number of offices (professional and medical):  
41



0

1/4

1/2

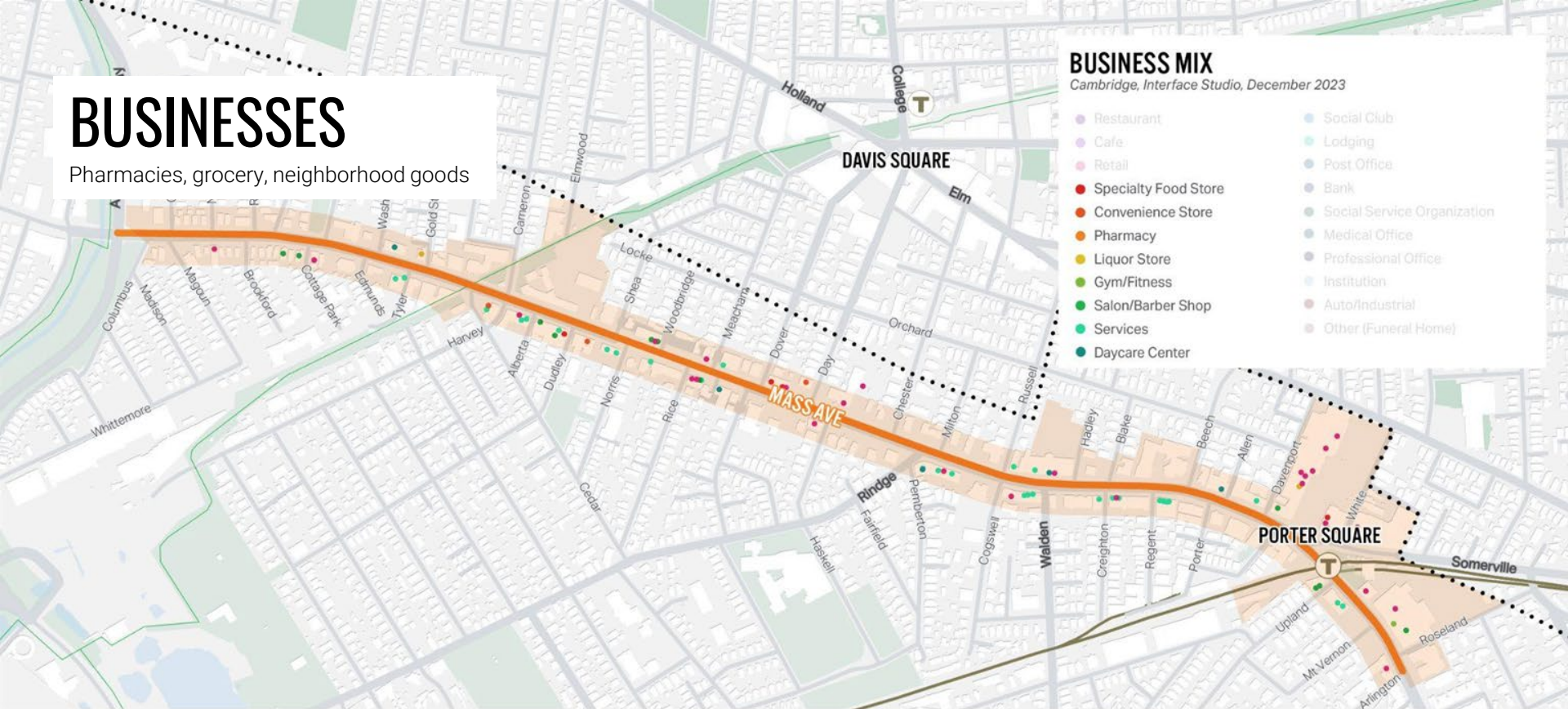
Miles

INTERFACE STUDIO LLC



# BUSINESSES

Pharmacies, grocery, neighborhood goods



0

1/4

Miles  
1/2

29

# BUSINESSES

---

Mass Ave is home to many legacy businesses that have served diverse communities in Cambridge. It is fairly mixed in terms of what types of businesses are there, which can draw foot traffic, although most is neighborhood serving, rather than destination retail.

- Maximum space sizes regulate floorplans and tenants.
- Rapidly changing retail consumer patterns (ie. online shopping, food delivery) put added pressure on retailers.
- Do we know how rents have changed over time?

# EXPERIENCE

Interface Studio conducted an assessment of experiential qualities to better understand where there are opportunities to help activate the street.



**Public Realm Opportunities**

Blank Walls



**Open Space Activation Opportunities**

Unprogrammed Plaza



**Potential Redevelopment Opportunities**

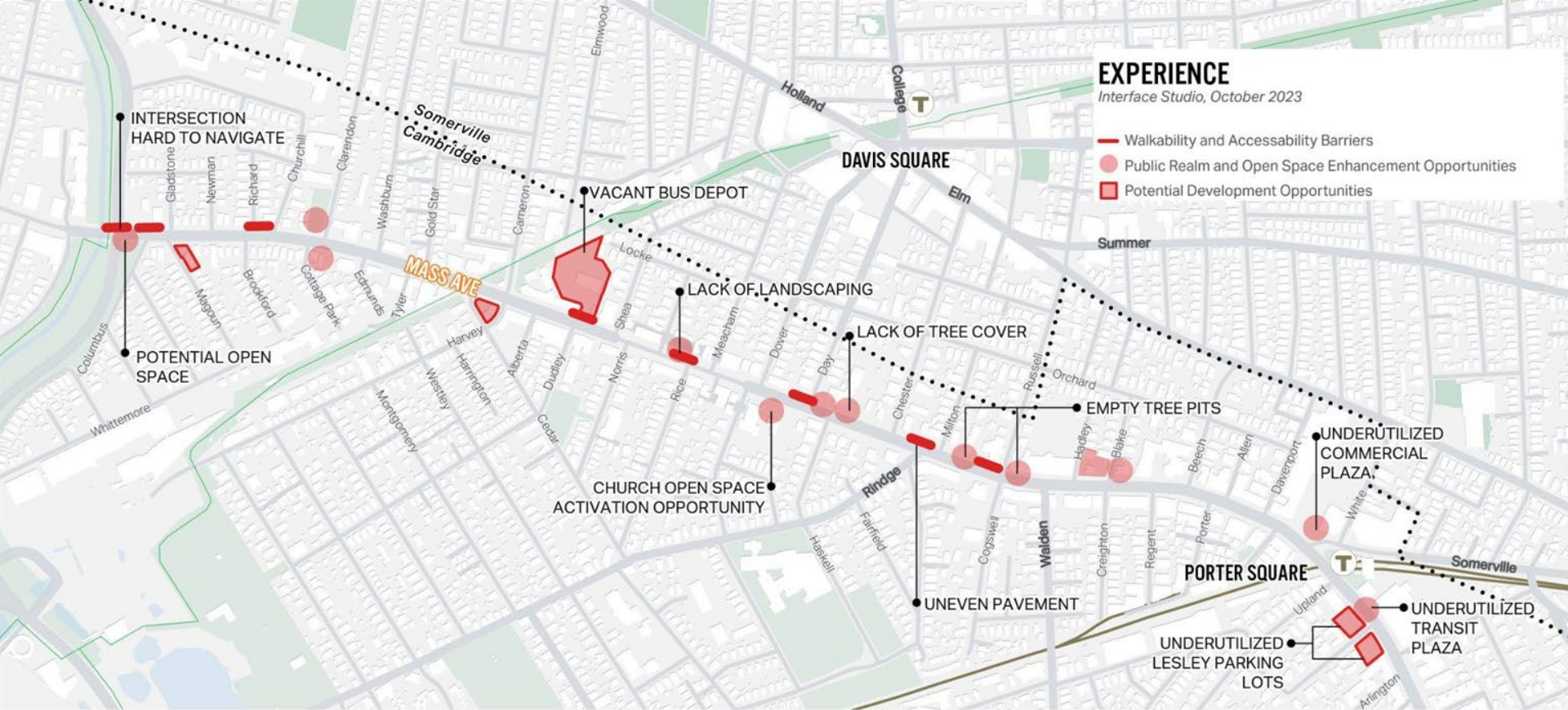
Vacant Bus Depot



**Pedestrian Mobility and Comfort**

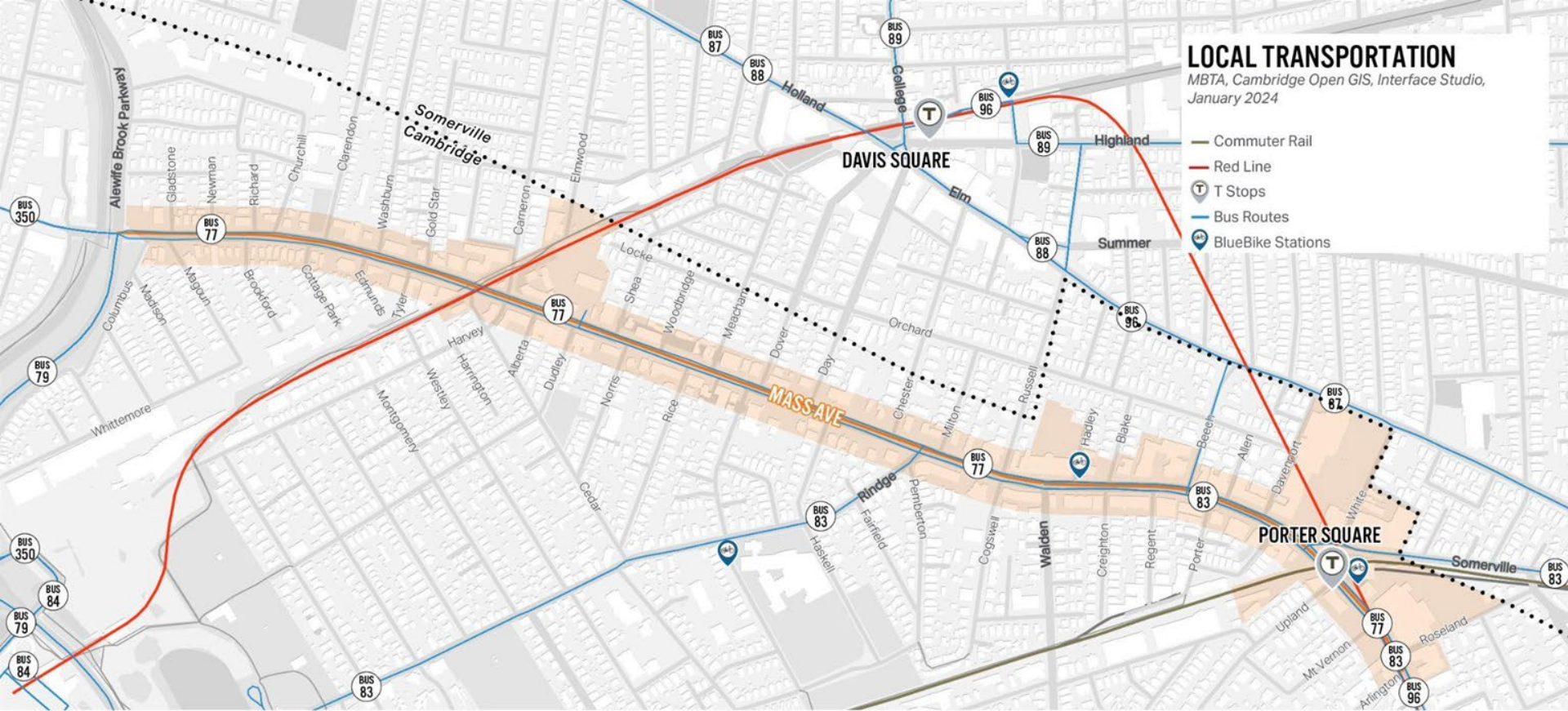
Lack of Tree Cover











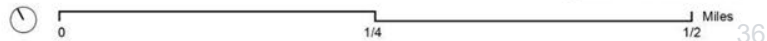
TRANSIT





9

## Study Area crashes with pedestrians involved, 40% on Mass Ave



Cambridge Open Data Portal, Interface Studio  
January 2024

High Number of Accidents  
Low Number of Accidents



Interface Studio, January 2023

 National Register of Historic Places

Mass Ave Overlay District Historic Properties



- 1 St. John's Roman Catholic Church
- 2 Residential Homes
- 3 Henderson Carriage Repository

- 4 St. James Episcopal Church
- 5 Masonic Temple
- 6 North Avenue Congregational Church



1

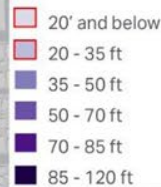
1/4

 $\frac{1}{2}$ 

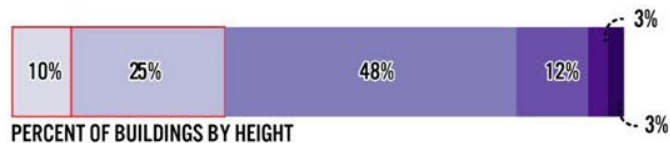
37

## BUILDING HEIGHTS

City of Cambridge, Interface Studio, January 2024



## EXISTING HEIGHTS



0

1/4

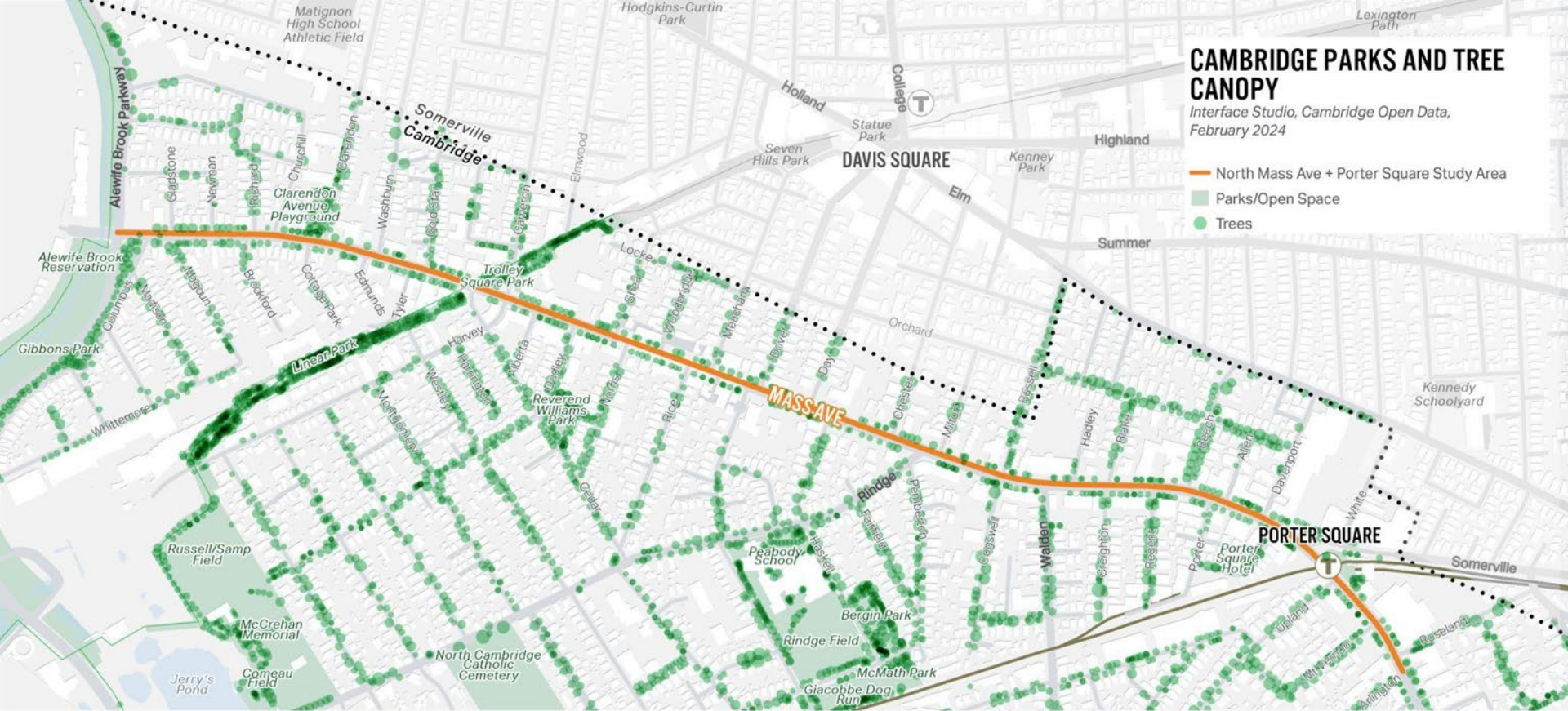
1/2

Miles

38

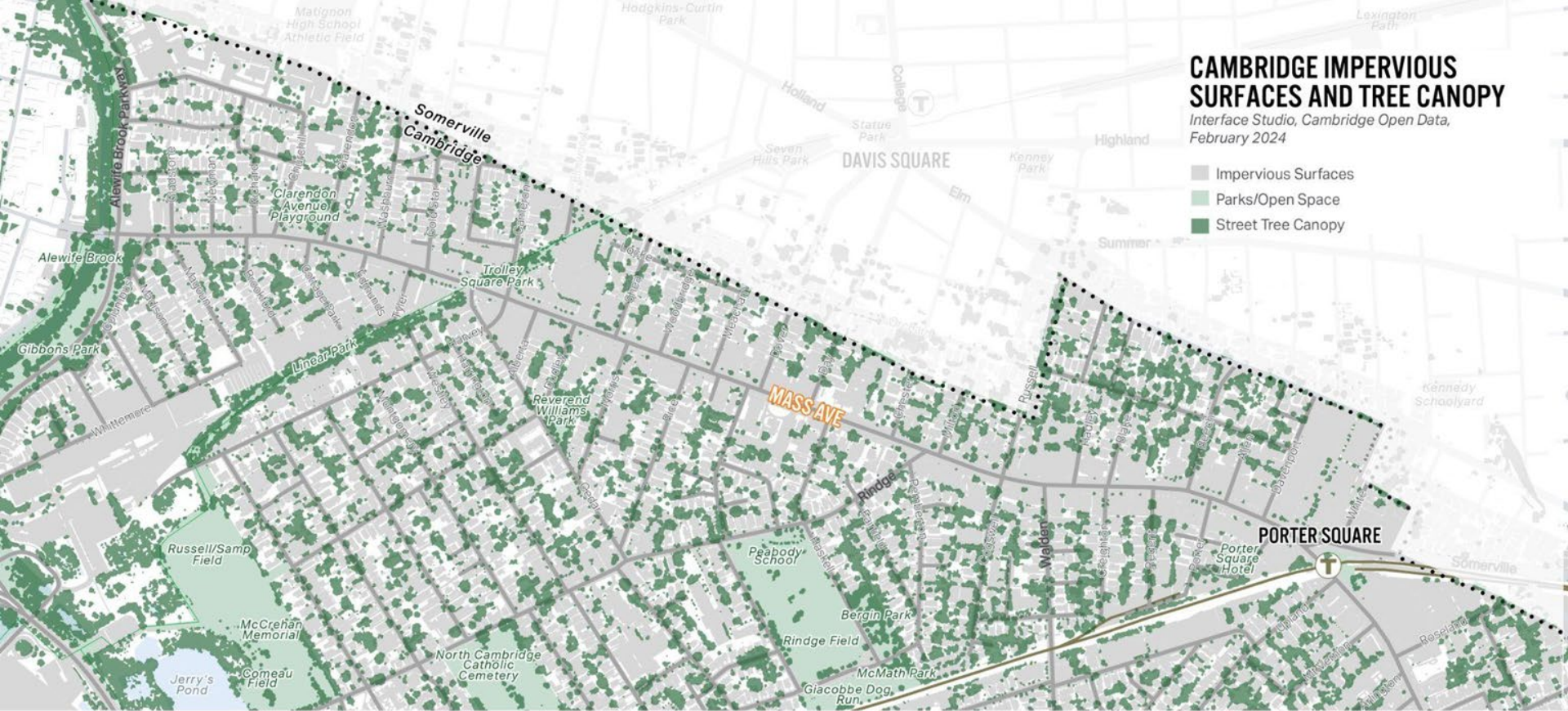
INTERFACE STUDIO LLC





North Mass Ave is a priority area for Primary Cooling Corridors, according to Resilient Cambridge.





North Mass Ave is a priority area for Primary Cooling Corridors, according to Resilient Cambridge.

# PUBLIC SPACE

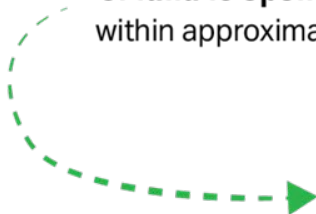
---

2.3

**Acres per 1,000 Residents**  
within approximately .25 miles

7%

**of land is open space**  
within approximately .25 miles



7%

**of Cambridge is parks and recreation**

15%

**national median of city land  
dedicated to parks and recreation**

# SOUTH OF PORTER SQUARE

(ARLINGTON TO CHAUNCY)





## STUDY AREA

Interface Studio, October 2023

- South of Porter Square Study Area
- Parks/Open Space
- Commuter Rail
- ... City Boundary

INTERFACE STUDIO LLC



0

1/4

Miles  
1/2

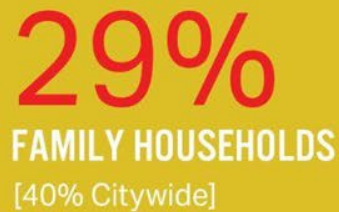


## SOUTH OF PORTER SQUARE PRIMARY SERVICE AREA

Interface Studio, October 2023



# RESIDENTS

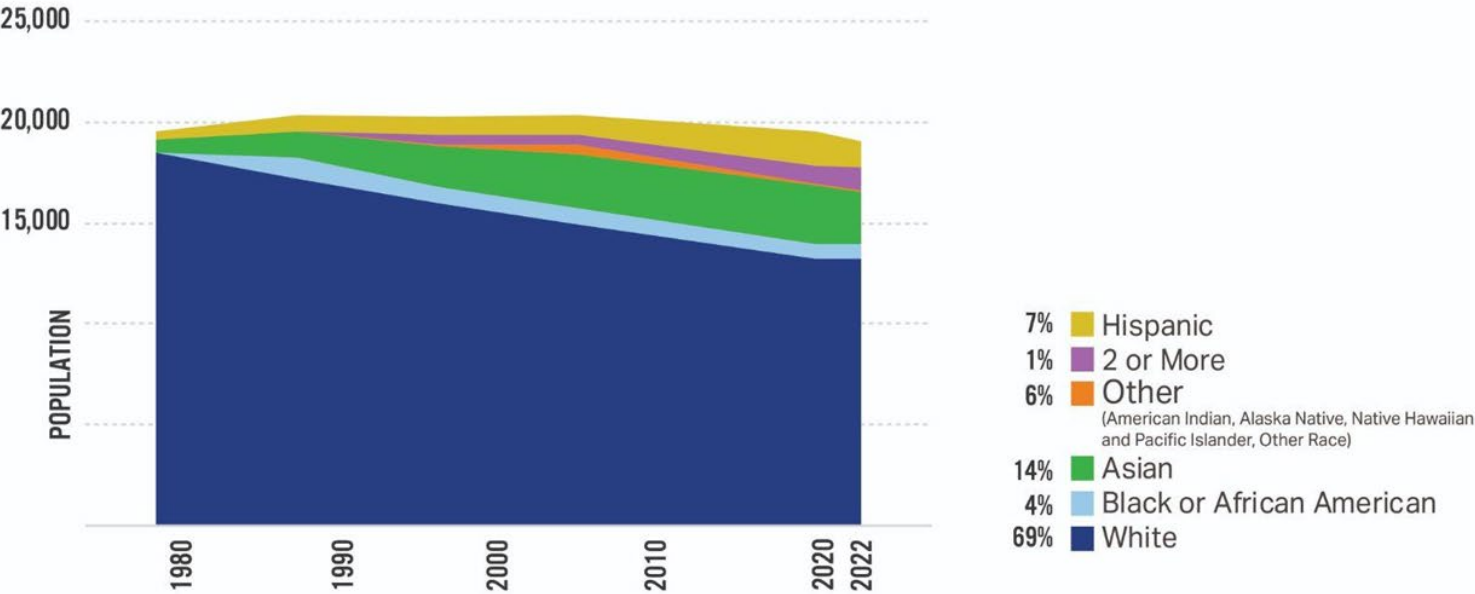


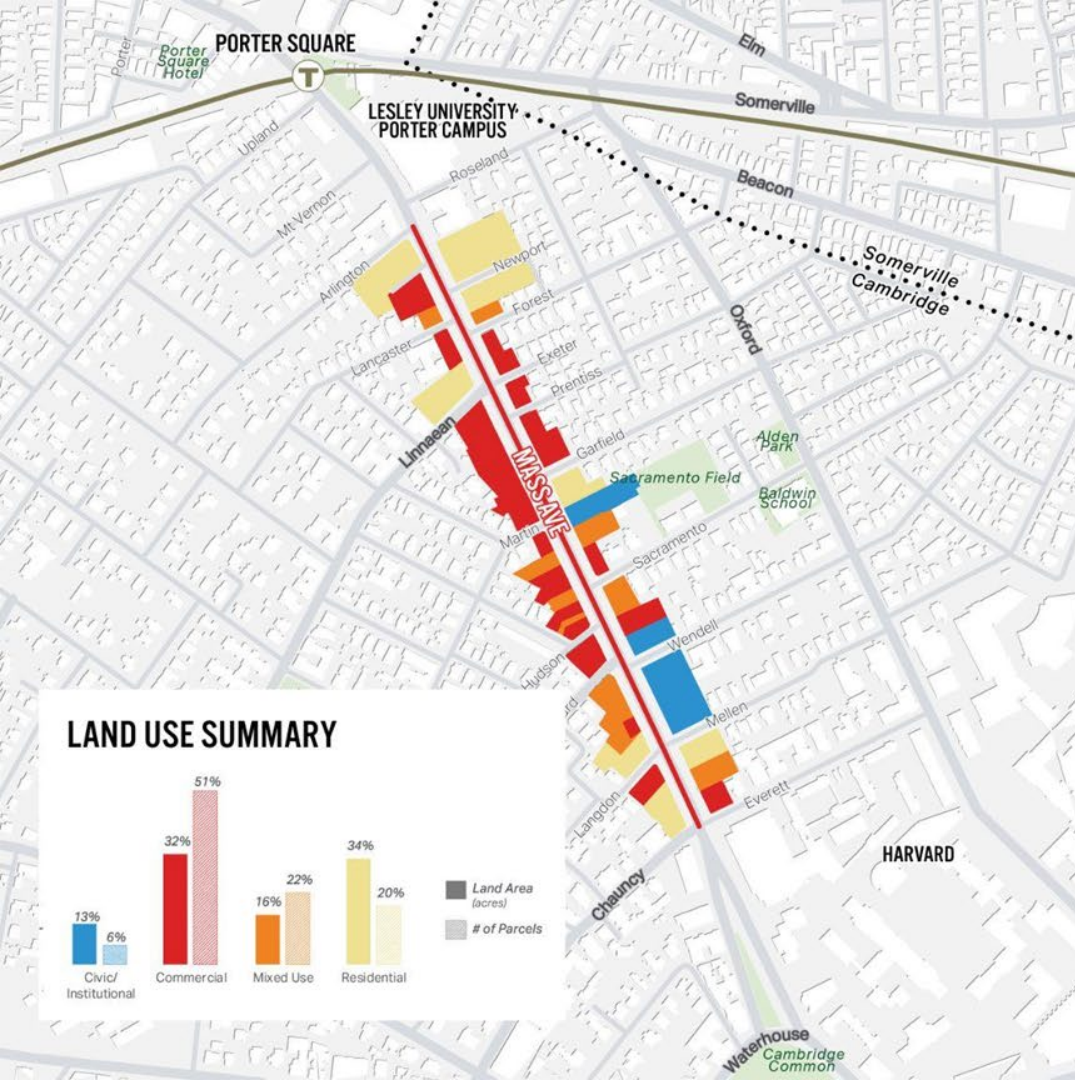


# CHANGE OVER TIME

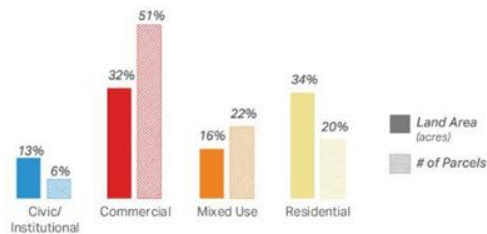
## RACE + ETHNICITY

Census Tracts within .25 miles of South of Porter Square Study Area,  
December 2023





## LAND USE SUMMARY



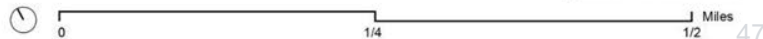
# LAND USE PATTERNS

Most of the area South of Porter Square is commercial.

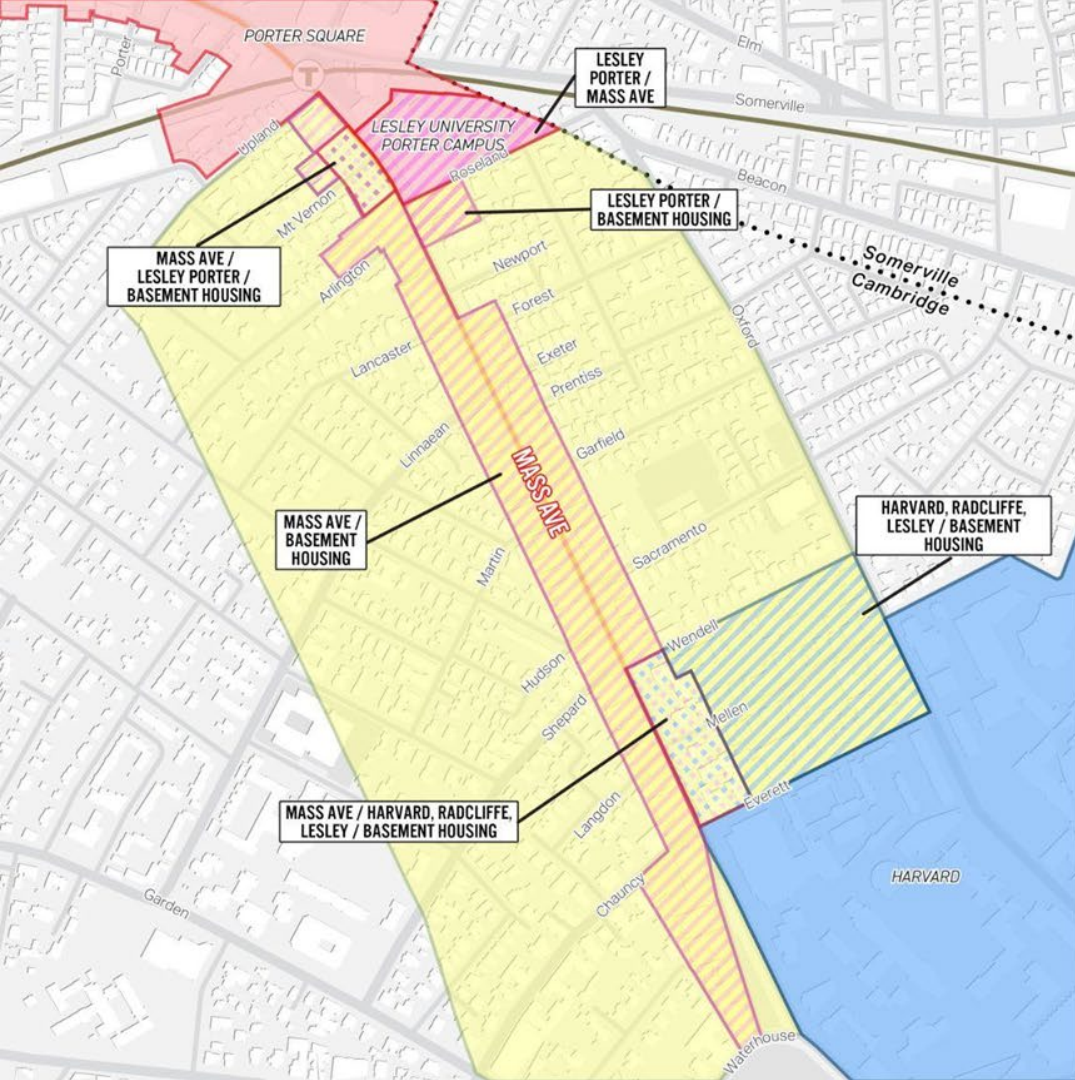
## GENERALIZED LAND USE

Cambridge Open Data, December 2023

- Commercial
- Mixed Use
- Residential
- Institution
- South of Porter Square Study Area



\_INTERFACE STUDIO LLC



# ZONING OVERLAYS

Lower Mass Ave has several overlapping overlays.

## ZONING DISTRICTS

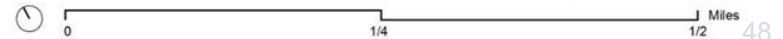
Interface Studio, October 2023

Relevant Overlay Districts\*

- Massachusetts Avenue
- Lesley Porter
- Harvard, Radcliffe, Lesley
- Basement Housing
- Lesley Porter / Mass Ave
- Lesley Porter / Basement Housing
- Mass Ave / Basement Housing
- Mass Ave / Lesley Porter / Basement Housing
- Mass Ave / Harvard, Radcliffe, Lesley / Basement Housing
- Harvard, Radcliffe, Lesley / Basement Housing

\* Affordable Housing Overlay not mapped but applies citywide

INTERFACE STUDIO LLC

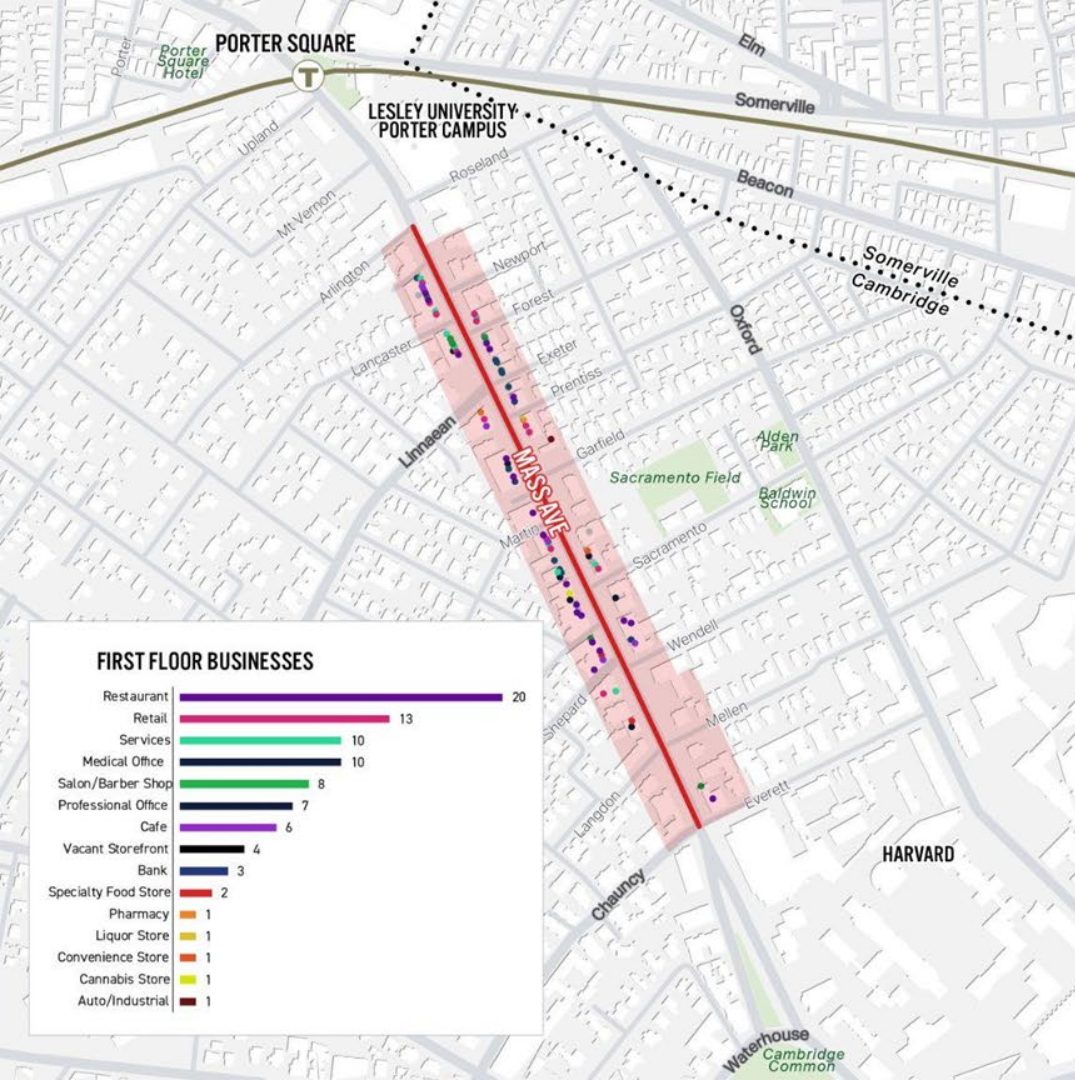




# ZONING OVERLAYS

Much of the corridor is governed by an overlay, or combination of overlays.

	Definitions
<b>Mass Ave</b>	To promote retail, design, and pedestrian amenities. Maximum height 60'; FAR of 1.60 allowed for a lot located in both a Business C and a Residence B Zoning District; Required Ground Floor Non-Residential Uses in BA-2; regulated store size maximums; Parking Exemption for Seasonal Outdoor Seating; setback and use regulations for area between building and street/park dedicated to Green Area; ground floor facing street/park for specific uses.
<b>Basement Housing</b>	The overlay district aims to address the increasing cost of rental housing in Cambridge and the shortage of affordable studio and one-bedroom units. It allows for the creation of such units in the unused basement space of certain existing multifamily residential buildings. Applies to existing structures with at least 30 dwelling units, built before 1930, and requires a SP.
<b>Lesley Porter</b>	Overlay District for Lesley University's Porter Square campus; Business C District base zoning designation; address institutional use issues near Porter Square's MBTA station; promote an emerging art district and access to retail users outside institutional population.
<b>Harvard, Radcliffe, Lesley</b>	In Municode it is just Harvard Square.



# BUSINESSES

Total number of first floor businesses: 88

## BUSINESS MIX

Cambridge, Interface Studio, December 2023



INTERFACE STUDIO LLC



# BUSINESSES

Total number of restaurants: 20

## BUSINESS MIX

Cambridge, Interface Studio, December 2023

- Restaurant
- Cafe
- Retail
- Specialty Food Store
- Convenience Store
- Pharmacy
- Liquor Store
- Cannabis Store
- Salon/Barber Shop
- Services
- Bank
- Social Service Organization
- Medical Office
- Professional Office
- Auto/Industrial





# BUSINESSES

Total number of offices (professional and medical):  
17

## BUSINESS MIX

Cambridge, Interface Studio, December 2023

- |                        |                               |
|------------------------|-------------------------------|
| ● Restaurant           | ● Bank                        |
| ● Cafe                 | ● Social Service Organization |
| ● Retail               | ● Medical Office              |
| ● Specialty Food Store | ● Professional Office         |
| ● Convenience Store    | ● Auto/Industrial             |
| ● Pharmacy             |                               |
| ● Liquor Store         |                               |
| ● Cannabis Store       |                               |
| ● Salon/Barber Shop    |                               |
| ● Services             |                               |



0

1/4

Miles  
1/2

52



# BUSINESSES

Pharmacies, grocery, neighborhood goods

## BUSINESS MIX

Cambridge, Interface Studio, December 2023

- |                        |                               |
|------------------------|-------------------------------|
| ● Restaurant           | ● Bank                        |
| ● Cafe                 | ● Social Service Organization |
| ● Retail               | ● Medical Office              |
| ● Specialty Food Store | ● Professional Office         |
| ● Convenience Store    | ● Auto/Industrial             |
| ● Pharmacy             |                               |
| ● Liquor Store         |                               |
| ● Cannabis Store       |                               |
| ● Salon/Barber Shop    |                               |
| ● Services             |                               |

# BUSINESSES

---

Mass Ave is home to many legacy businesses that have served diverse communities in Cambridge. It is fairly mixed in terms of what types of businesses are there, which can draw foot traffic, although most is neighborhood serving, rather than destination retail.

- Maximum space sizes regulate floorplans and tenants.
- Rapidly changing retail consumer patterns (ie. online shopping, food delivery) put added pressure on retailers.
- Do we know how rents have changed over time?



# EXPERIENCE

---

Interface Studio conducted an assessment of experiential qualities to better understand where there are opportunities to help activate the street.



**Public Realm Activation Opportunities**

Blank Walls



**Open Space Activation Opportunities**

Unprogrammed Plaza



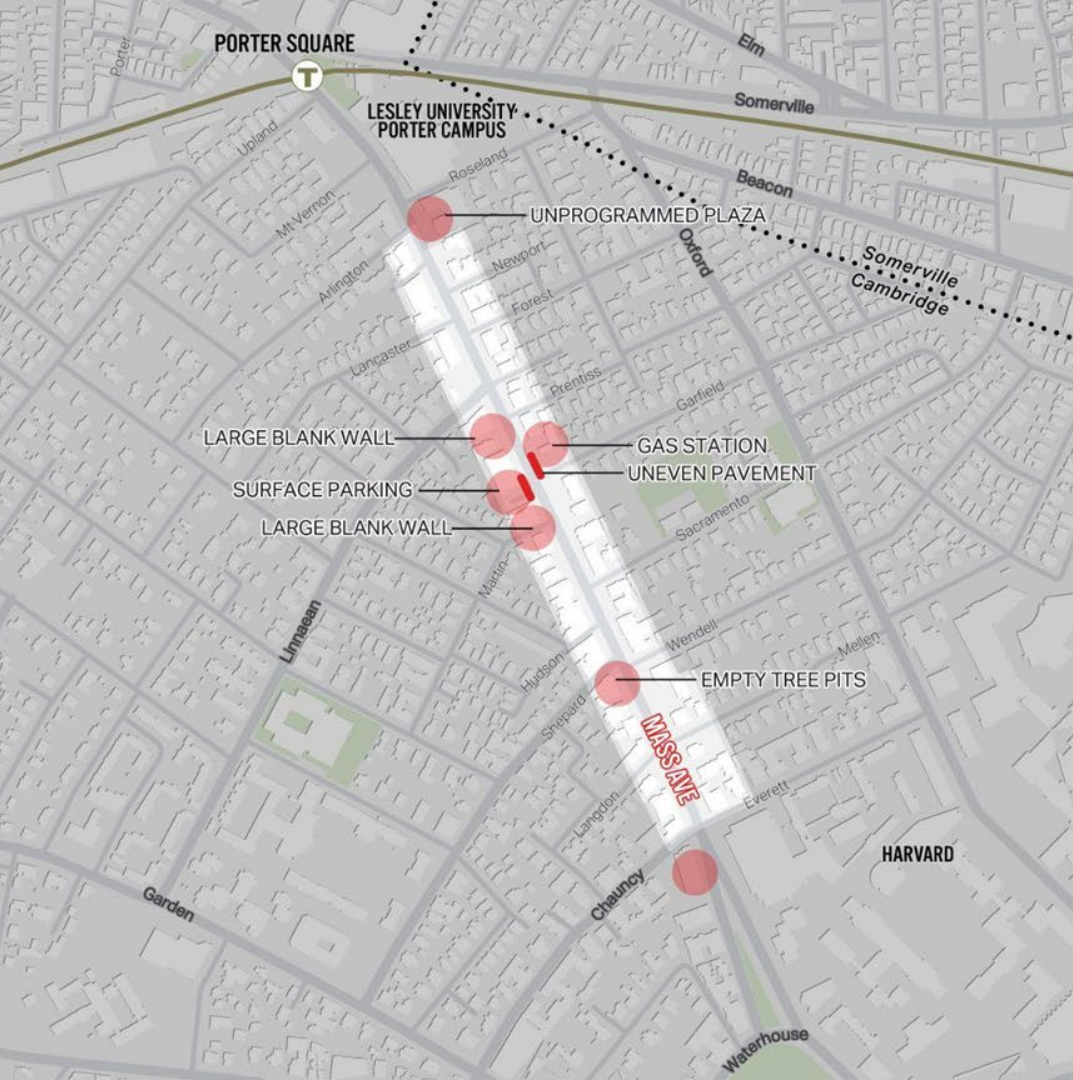
**Potential Redevelopment Opportunities**

One Story Retail



**Pedestrian Mobility Barrier**

Uneven Pavement



## EXPERIENCE

Interface Studio, October 2023

— Walkability and Accessibility Barriers

● Public Realm Activation and Open Space Enhancement Opportunities



0

1/4

Miles

1/2

56

INTERFACE STUDIO LLC

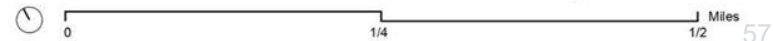


## PARKING

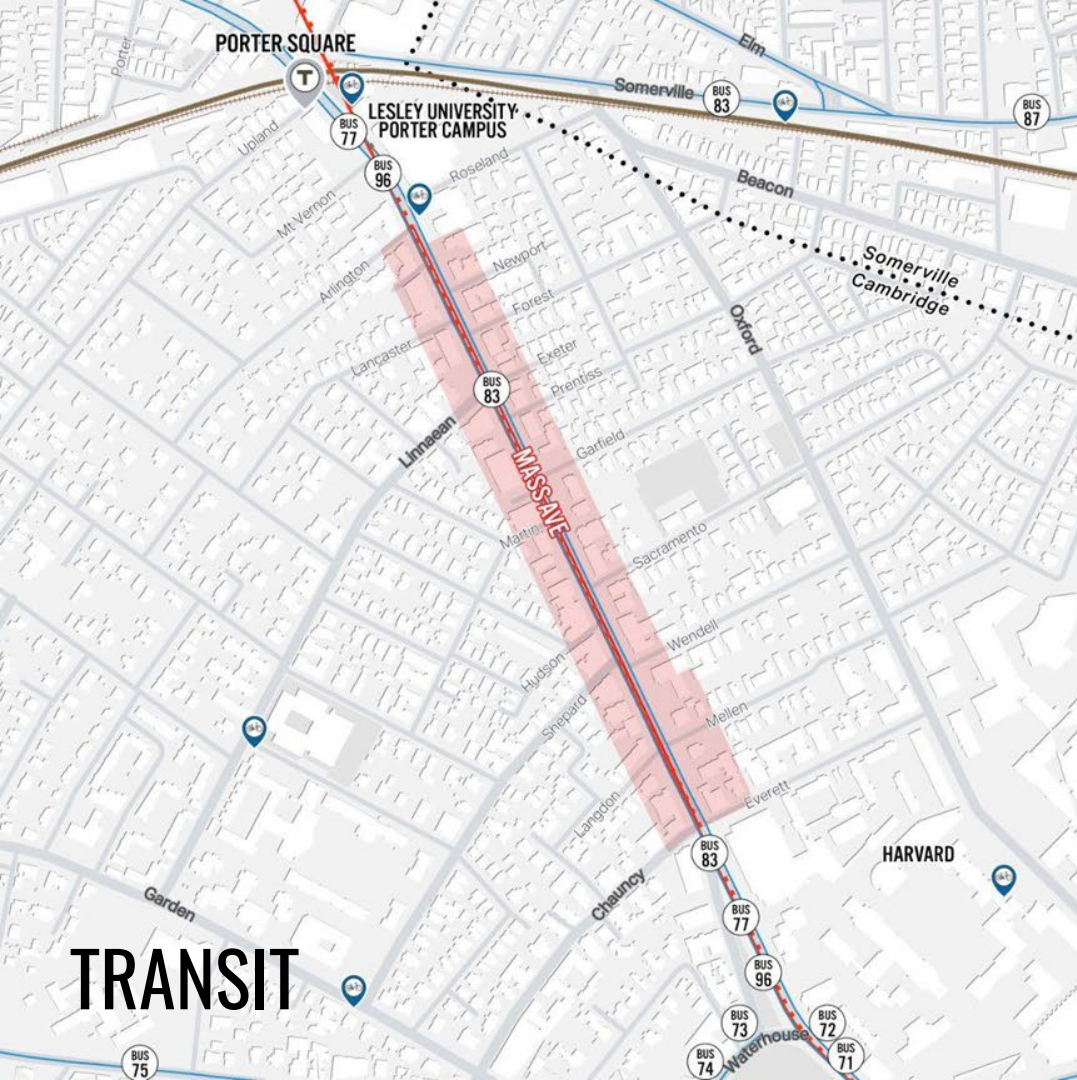
Cambridge GIS, Interface Studio, December 2023

- Surface Parking Lot
- Metered Street Parking
- South of Porter Square Study Area

INTERFACE STUDIO LLC





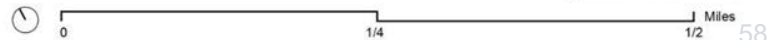


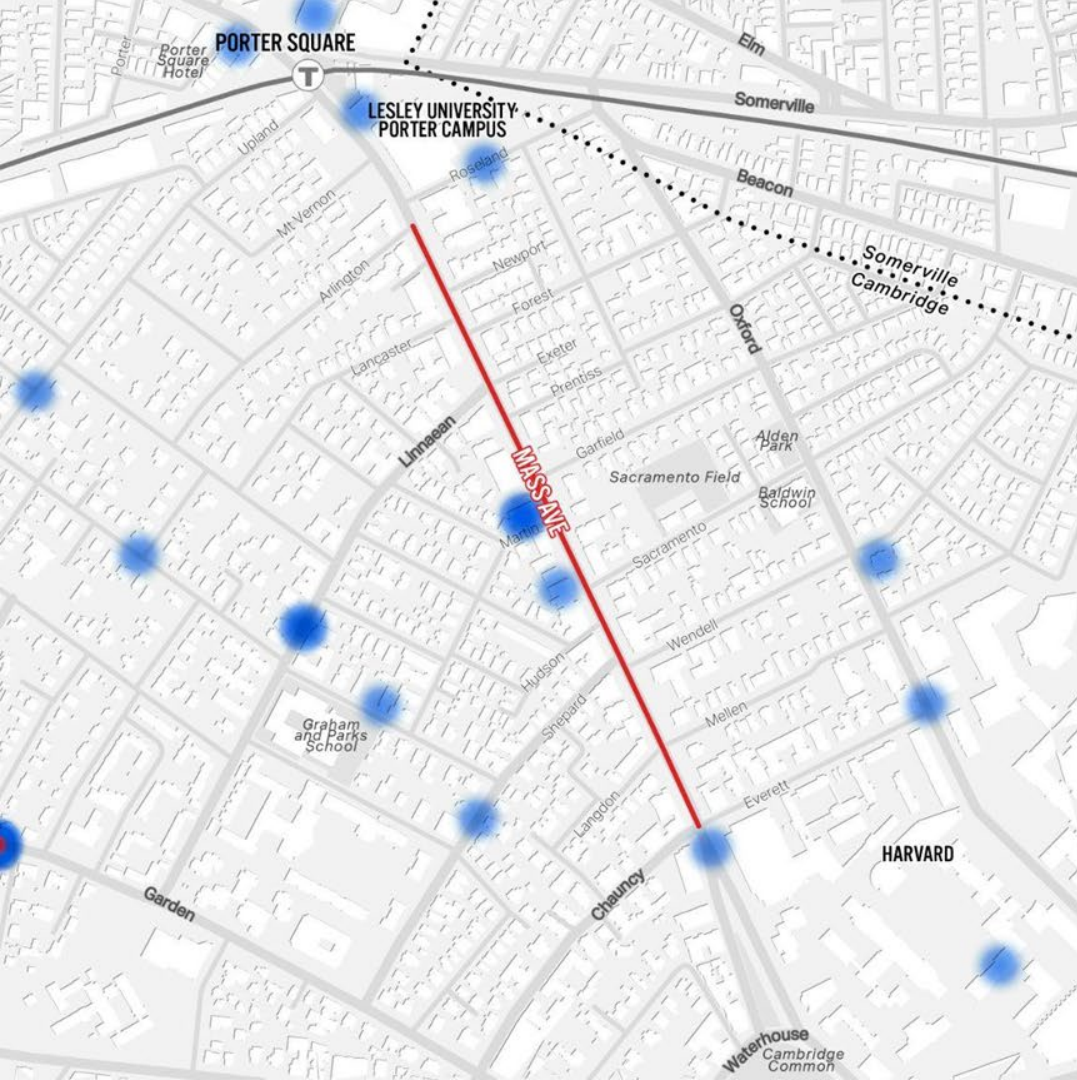
## LOCAL TRANSPORTATION

MBTA, Cambridge Open GIS, Interface Studio,  
January 2024

- South of Porter Square Study Area
- Commuter Rail
- ... City Boundary
- Red Line
- T T Stops
- Bus Routes
- B BlueBike Stations

INTERFACE STUDIO LLC





# CRASHES

## 3

Study Area crashes with pedestrians involved on Mass Ave

### COLLISIONS INVOLVING PEDESTRIANS 2019-2023

Cambridge Open Data Portal, Interface Studio  
January 2024

High Number of Accidents  
Low Number of Accidents



0

1/4

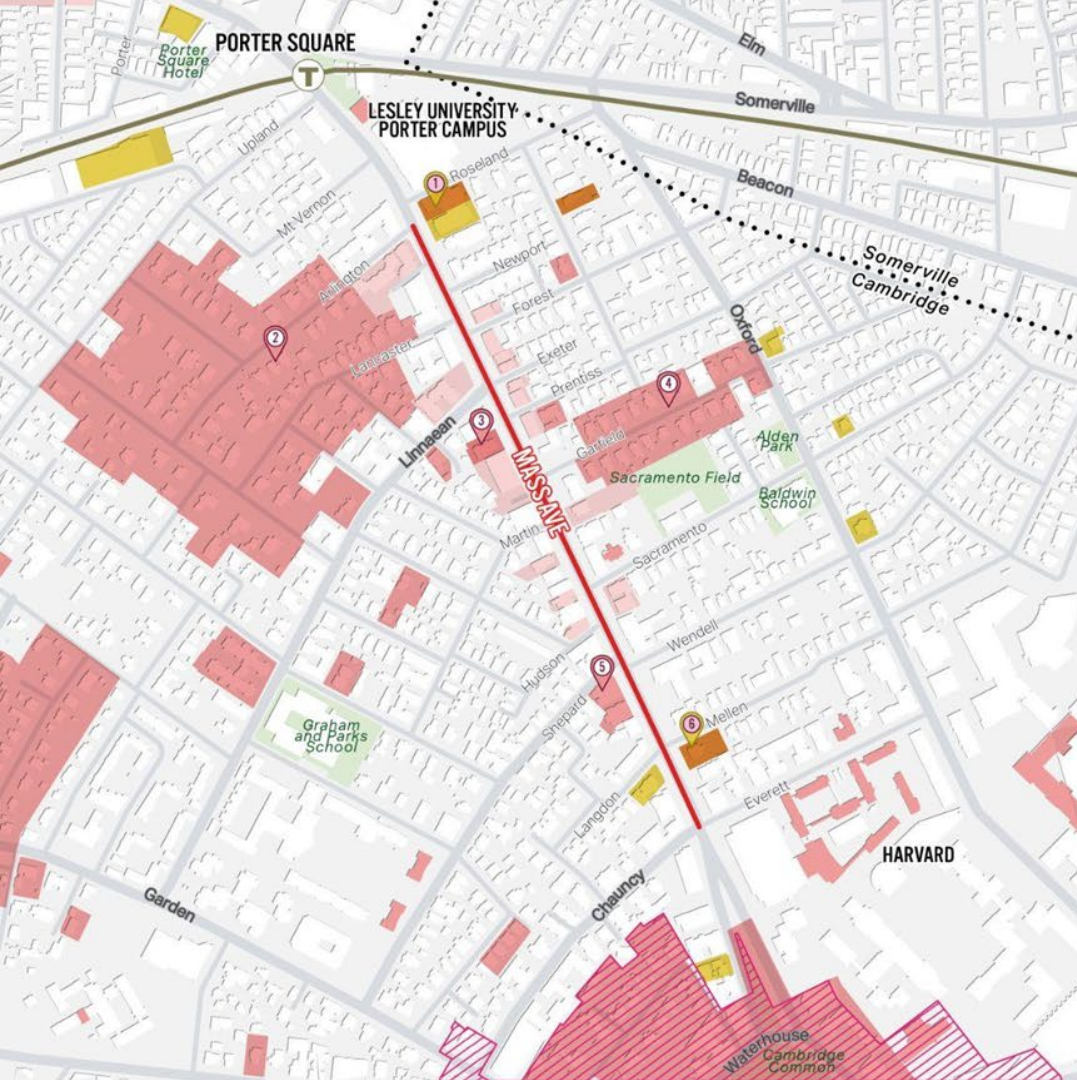
Interface Studio LLC

Miles

1/2

59





## Selected Historic Places

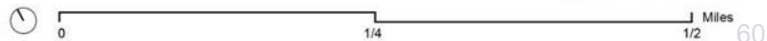
- ① North Avenue Congregational Church
- ② Avon Hill National Register Historic District
- ③ Worcester House
- ④ Garfield Street National Register District
- ⑤ The Montrose
- ⑥ Charles Hicks House

## HISTORIC PRESERVATION

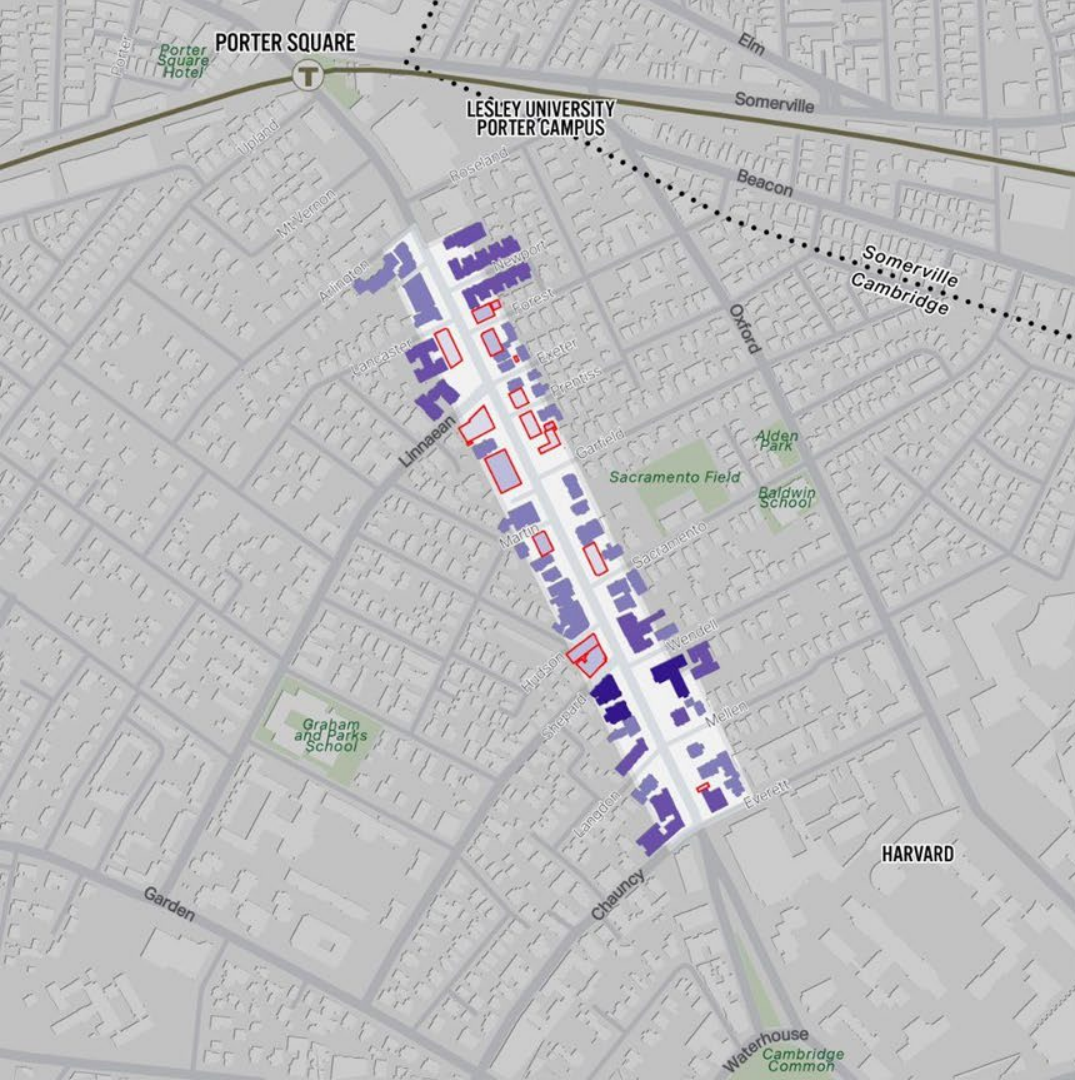
Interface Studio, January 2023

-  Historic Districts (Old Cambridge)
-  Historic Landmarks and Easements
-  National Register of Historic Places
-  Mass Ave Overlay District Historic Properties

INTERFACE STUDIO LLC

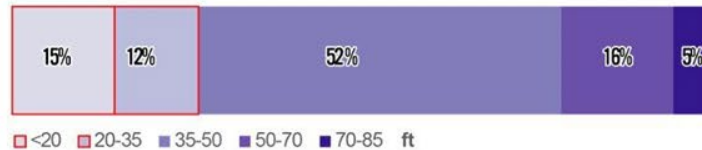






# BUILDING HEIGHTS

PERCENT OF BUILDINGS BY HEIGHT



## BUILDING HEIGHTS

City of Cambridge, Interface Studio, January 2024



INTERFACE STUDIO LLC





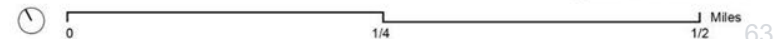




## CAMBRIDGE IMPERVIOUS SURFACES AND TREE CANOPY COVERAGE

Interface Studio, Cambridge Open Data,  
February 2024

- Impervious Surfaces
- Parks
- Tree Canopy
- Sacramento Street Urban Garden



\_INTERFACE STUDIO LLC



# PUBLIC SPACE

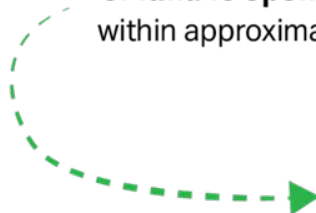
---

1.3

**Acres per 1,000 Residents**  
within approximately .25 miles

5%

**of land is open space**  
within approximately .25 miles



7%

**of Cambridge is parks and recreation**

15%

**national median of city land  
dedicated to parks and recreation**