

# PEABODY SQUARE, DORCHESTER, MA

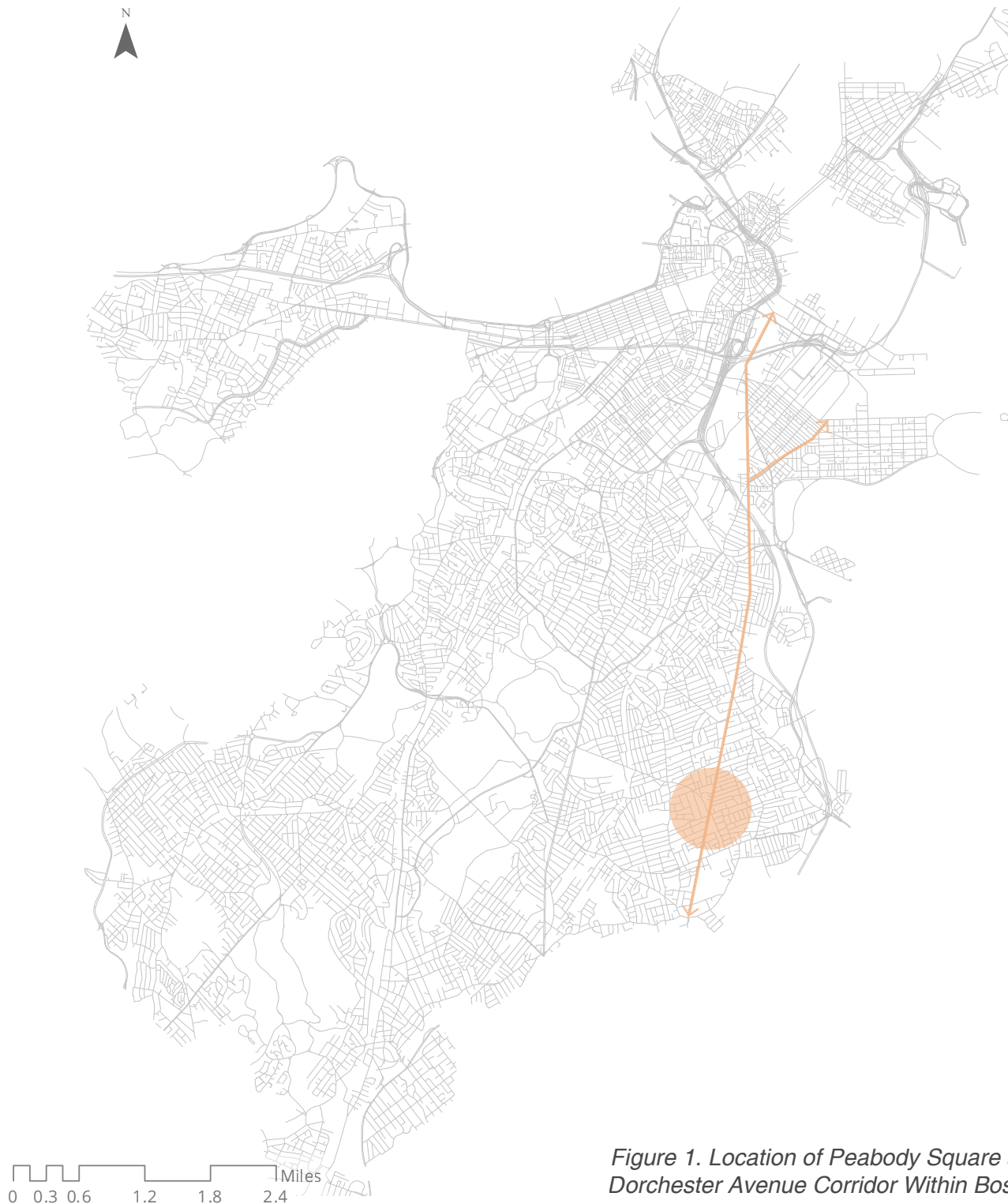
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## CONTEXT

In 2010, spearheaded by community activism, the City of Boston completed a redesigned Peabody Square in Dorchester. The redesign has successfully improved safety and pedestrian access, has provided much-needed new public space and included innovative storm water management systems. The project, while small in scope, has become a significant asset to the surrounding community and an important demonstration project for Boston's complete streets initiatives.

Peabody Square sits in the heart of Dorchester and directly adjacent to the MBTA's Red Line terminus, Ashmont Station. Since Col. Oliver W. Peabody bought the land and donated it to the city for a modest park in 1892, Peabody Square has served as an important crossroads for the neighborhood. [1] In the early 2000s, Dorchester residents began a campaign to advocate for the rehabilitation of all four Red Line stations in the neighborhood. At the same time, residents local to Ashmont began advocating for a redesigned Peabody Square. Greater Ashmont Main Street, then known as St. Marks Area Main Street, is widely credited with leading the community push for redesign. [2] Local residents sought a space with improved aesthetics, new public space and a safer layout.





In 2006, reconstruction began on Ashmont Station and an official design process commenced for a new Peabody Square - officially headed by the Boston Transportation Department but led by the force of community members. The project ultimately became part of a larger \$15.6 million project to construct a portion of Dorchester Avenue and 14 other intersections, funded by the American Reinvestment and Recovery Act. [3] The three goals of the Peabody Square redesign were: improved road safety, increased public space, improved storm water management. Both the Peabody Square project and Ashmont Station rebuild opened in 2010 with final portions completed in 2011.

The project was ultimately a deeply collaborative effort with a long list of stakeholders. Local residents and community organizations led the effort from start to finish, with official project leadership from the Boston Transportation Department, along with MassDOT. The Commonwealth of Massachusetts provided a grant for environmental features in the project, and the Charles River Watershed Association designed those environmental measures. Finally, the federal government provided substantial funding through the ARRA.

*Figure 1. Location of Peabody Square and Dorchester Avenue Corridor Within Boston*

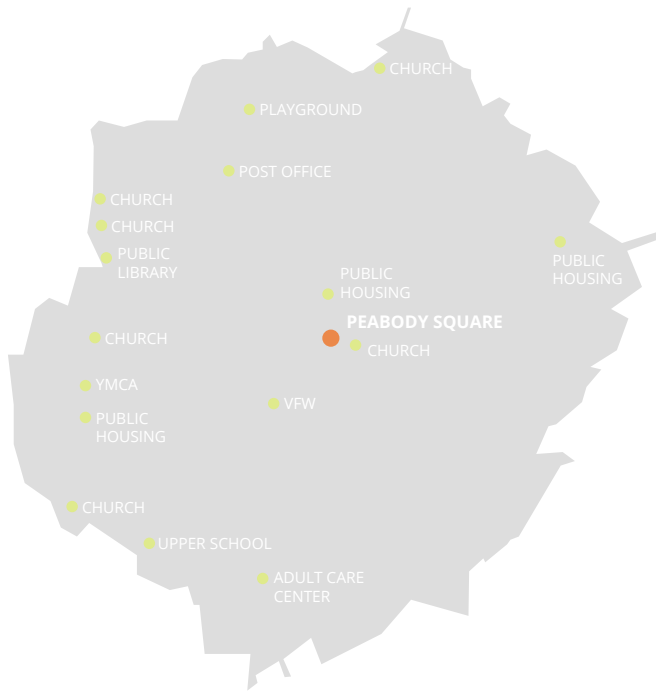


Figure 2. 10 minute walkshed surrounding Peabody Square

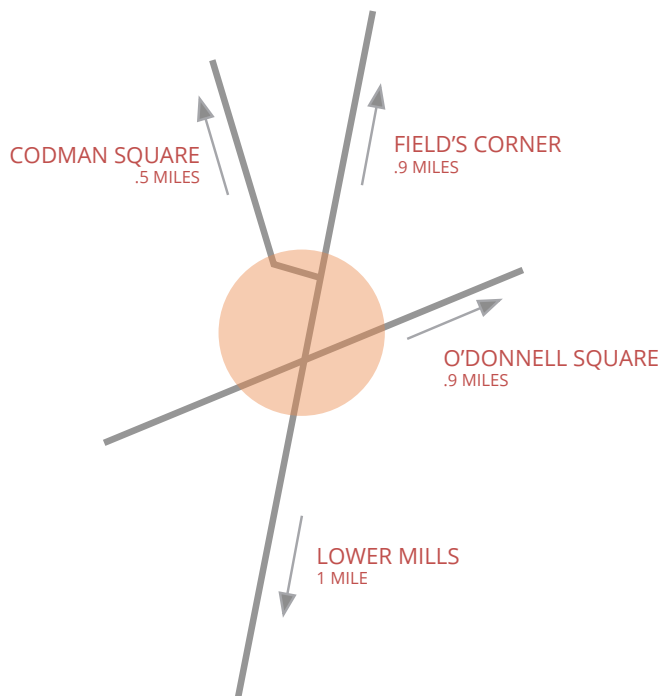


Figure 3. Nearby Neighborhood Hubs

## CULTURAL AND DEMOGRAPHIC CONTEXT

Since 2010, Peabody Square has gotten older, whiter and more wealthy. [4]

Peabody Square intersects with five unique US Census block groups [5] with a combined 2016 population of 5,622 - a 6.3% increase since the start of the redesign in 2010. That population growth is slower than the 9.5% increase seen in Peabody Square's 02124 zip code but almost right on pace with Boston's growth of 6.6% in the same time period.

The median age of residents surrounding Peabody Square is 37.8 years, a significant jump of 2.9 years since 2010. Compare that to a jump of 1.1 years in the 02124 zip code and .9 years in Boston since 2010. Approximately 72.3% of Peabody Square's surrounding residents are people of color, compared to 47% in the City of Boston. Peabody Square has however become more white since 2010, with a 7.6% increase in white residents by 2016. Compare that to a 6.5% increase in white residents in the 02124 zip code but a 1.7% decrease in the population share of white residents in the City of Boston.

Meanwhile, median household income experienced a significant jump

## GEOGRAPHIC CONTEXT

Meanwhile, median household income experienced a significant jump in the area surrounding Peabody Square since 2010. In 2016, median household income stood at \$117,538 - a 108% increase since 2010. However, a significant portion of that jump comes from a quadrupling in just one census block group - 1005/ 022. When you removed that census block group however, the area around Peabody Square has still seen a 29.7% increase in median household income since 2010. Compare that to an 11.9% increase in the 02124 zip code and 13.1% increase in the City of Boston.

Peabody Square sits in the lower quarter of the large Dorchester Neighborhood, about 7.5 miles south of City Hall and one mile north of Boston's southern border. Peabody Square is comprised on the confluence of four streets - Dorchester Avenue, Ashmont Street, Talbot Avenue and Bushnell Street, creating a complicate intersection.

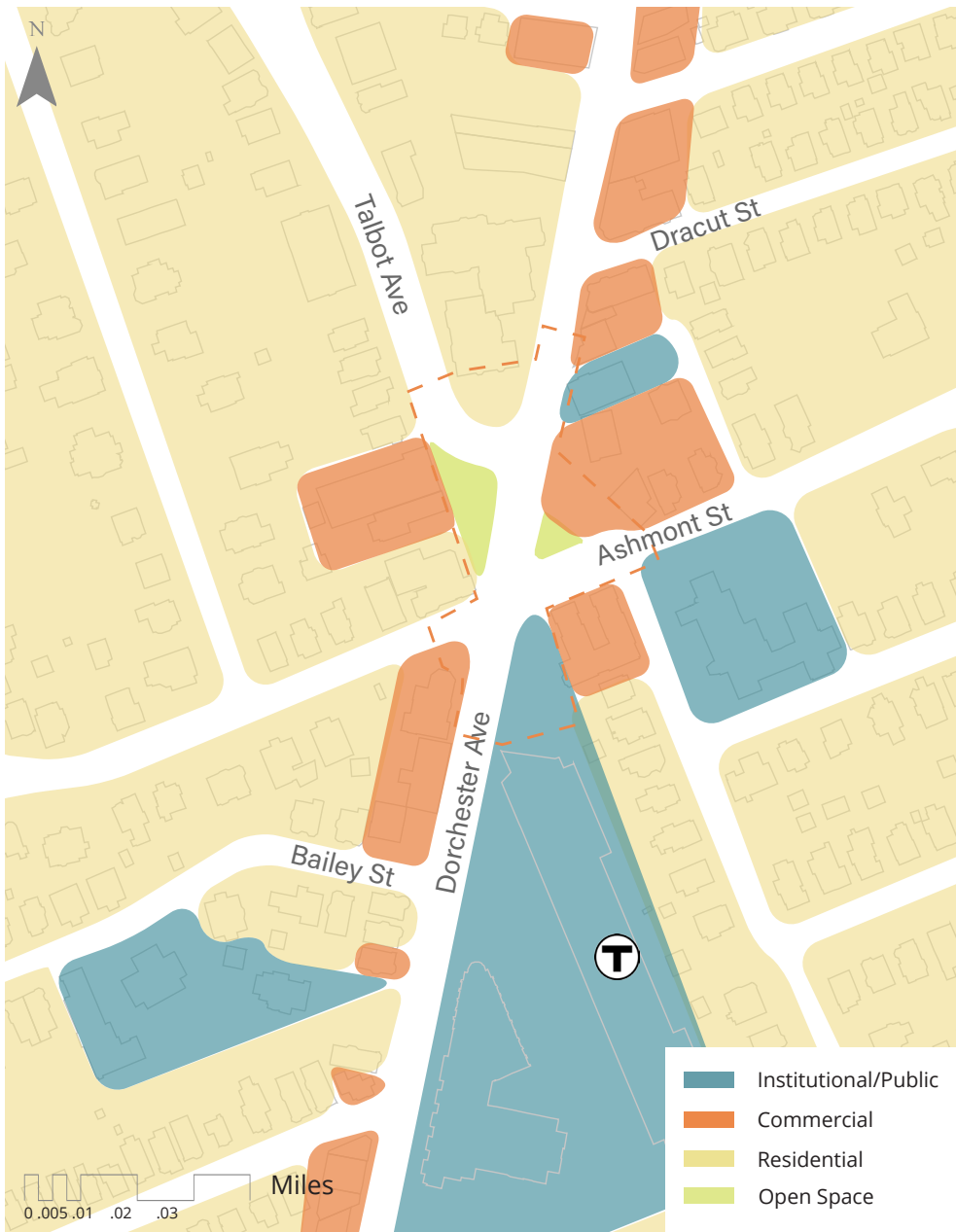


Figure 4. Peabody Square Land Uses

Peabody Square is a neighborhood retail and commercial hub, with businesses mostly along Dorchester Avenue. The surrounding vicinity is mostly detached houses or small apartments. However, the six-story 116-unit Carruth apartment building was completed in 2011 adjacent to Ashmont Station. The Boston Housing Authority also operates 103

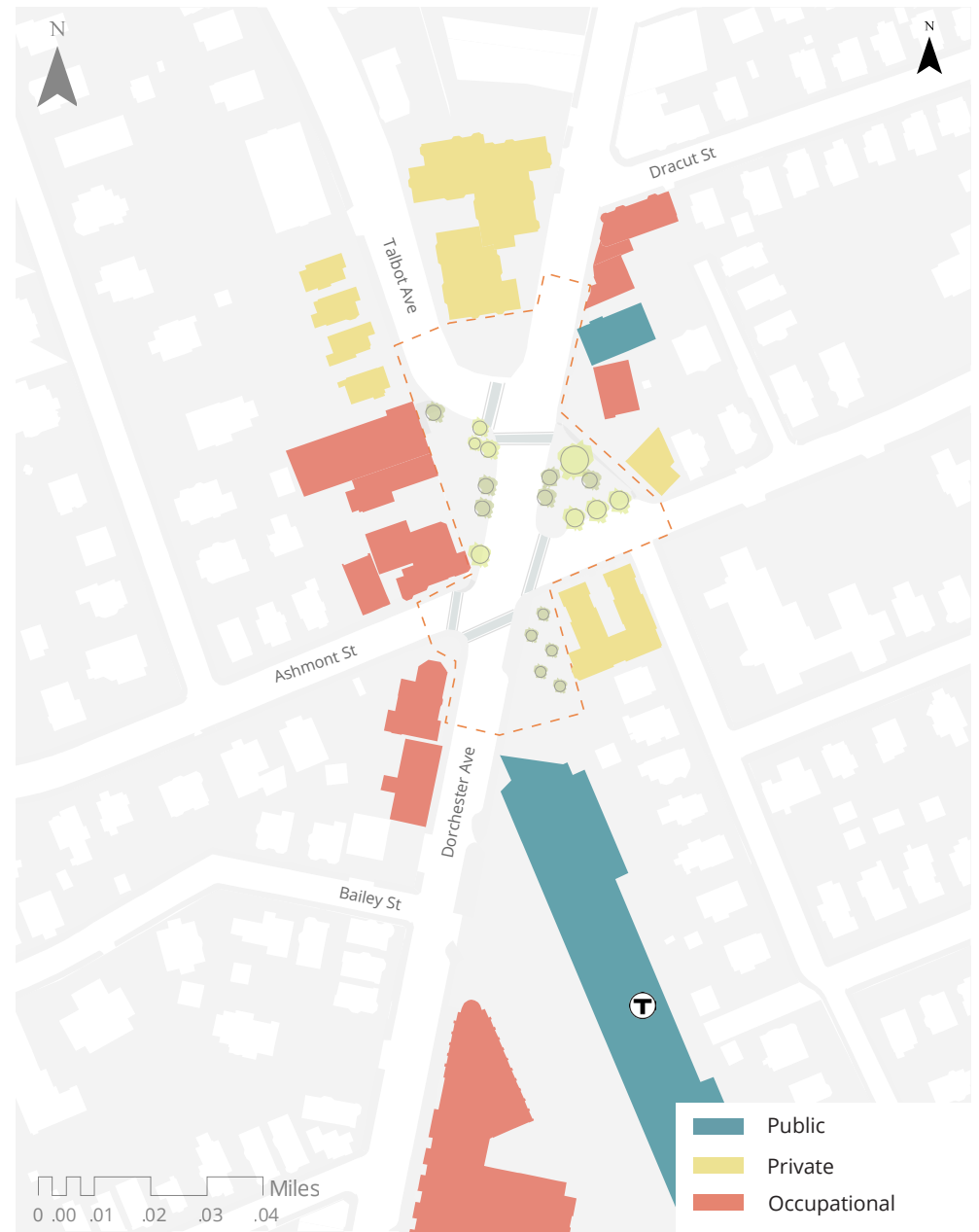


Figure 5. Peabody Square Occupational Spaces

units of public housing immediately north of Peabody Square. Figure 2 shows the public open space, public housing, institutional spaces and community gathering spaces within a 10-minute walk of Peabody Square.

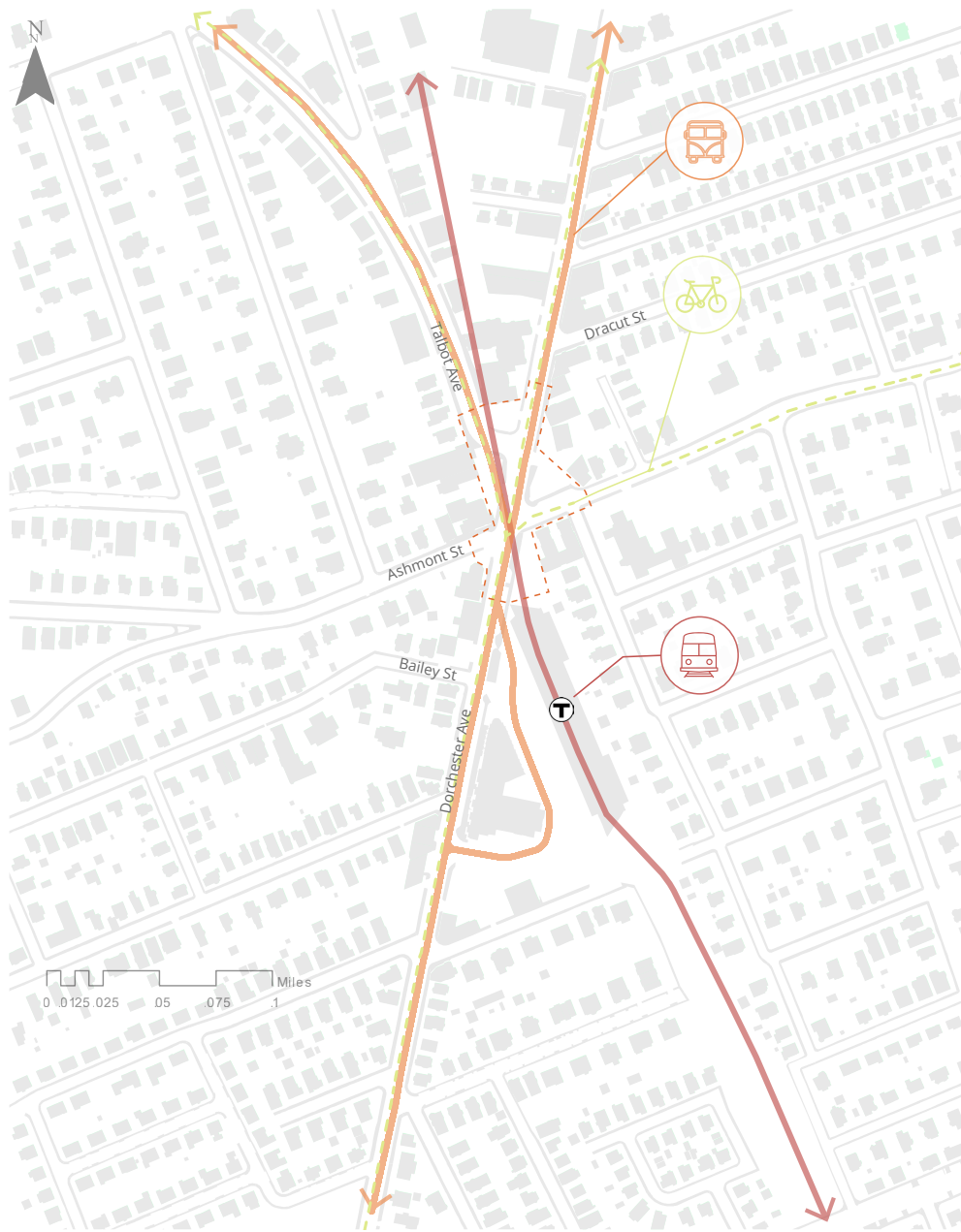


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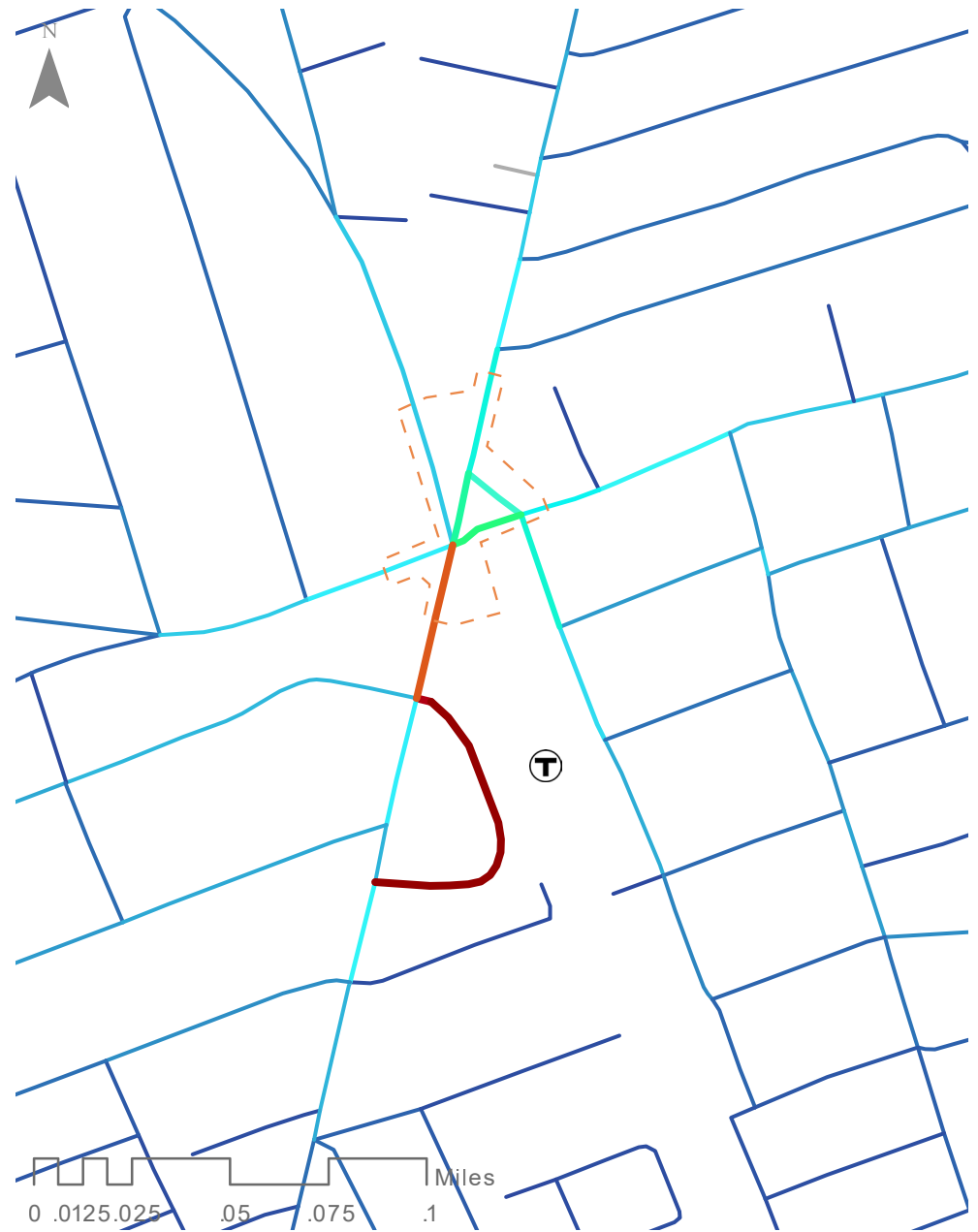


Figure 5. Peabody Square Occupational Spaces

## PROJECT MOTIVATION

The Peabody Square redesign had three goals: improved road safety, increased public space, and improved storm water management. Peabody Square is a critical confluence in the neighborhood and a

significant pass-through point for pedestrians accessing Ashmont Station. A Between Analysis conducted using the UNA Toolbox for Rhino, shown above, demonstrates Peabody Square's substantial geographical significance for Red Line riders. Warm-hued and thicker lines indicate heavier pedestrian usage, with the opposite indicating



Figure 6. Peabody Square - Before Redesign

lighter usage. Additionally, an analysis of MassDOT crash data reveal a dangerous Peabody Square before its redesign. From 2001-2010, the area saw 50 crashes - 21 involving injuries and 2 involving fatalities. [6] Finally, as shown in Figure 6, the area surrounding Peabody Square lacks substantial open space. The 2010 redesign carved new public

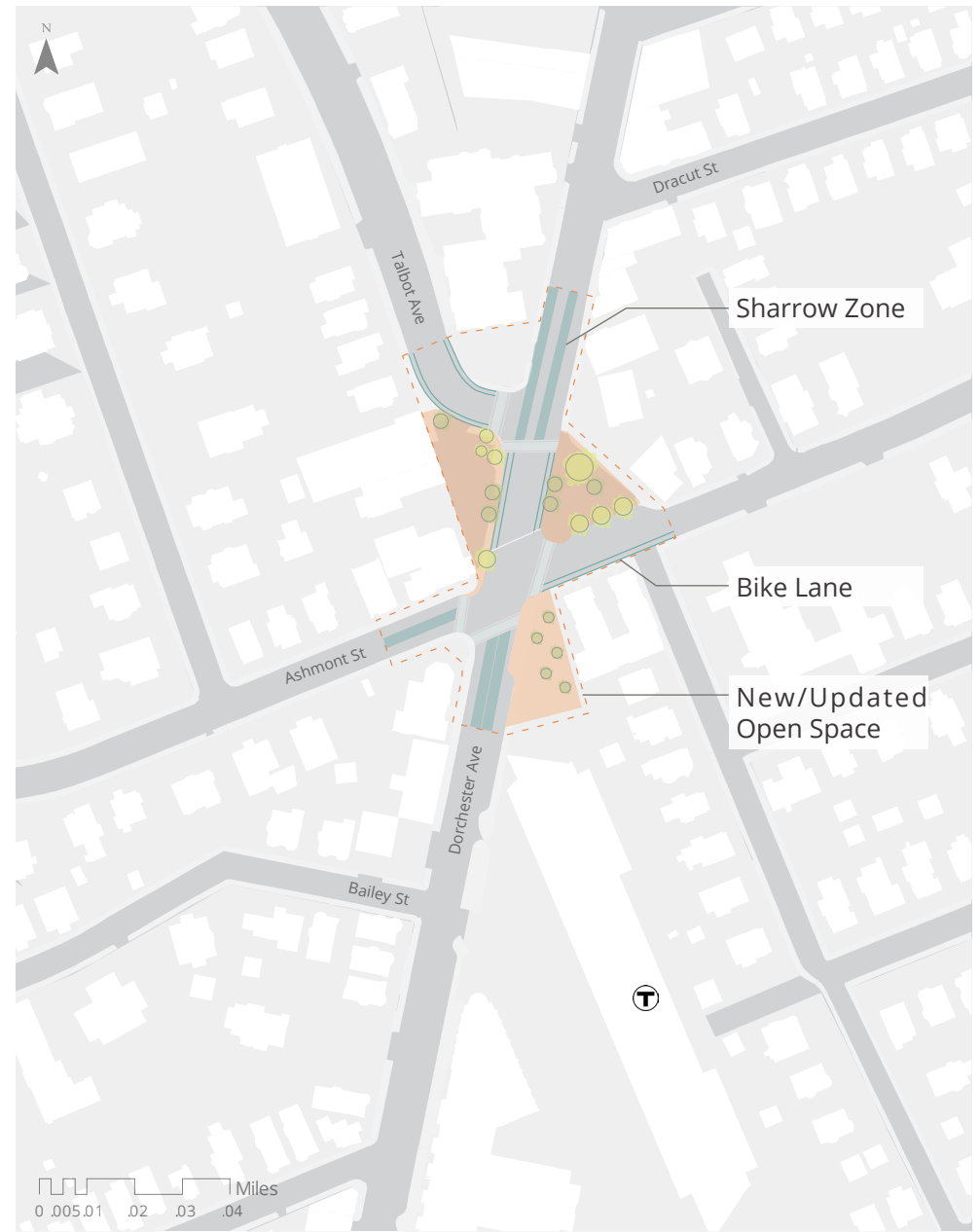


Figure 7. Peabody Square - After Redesign

## PROJECT

The most significant portions Peabody Square's redesign center around a simplified road geometry. Talbot Avenue was adjusted to meet Dorchester Avenue at a 90-degree angle just north of Ashmont

Street and Bushnell Street between Ashmont Street and Dorchester Avenue was eliminated - both created new public space. The project also included the use of pervious hardscaping and a rain garden - both designed to capture storm water instead of sending it to sewer system. Surrounding structures vary from one to six stories in height with most situated along the street edge.

## TYPICAL USERS

Peabody Square features a diverse population of users. Figure 8 shows the incredible diversity of income in the surrounding area. [Median income graphic and chart] Additionally 72.3% of surrounding residents are people of color - much more diverse than the City of Boston as a whole. [7 Additionally a significant number of people in Peabody Square are transit riders. The most recent MBTA data show 11,329 riders entered Ashmont Station each weekday for both the Red Line and the adjacent Mattapan Trolley. [8] MBTA data from 2018 show that 80% of Ashmont Station riders walked to the station. [9]

Peabody Square also features a significant diversity of employees. Waiters at Ashmont Grill might make as little as \$3.75 an hour in wages while dentists at Affordable Family Dental are likely making \$135,000 per year or above. (Based on average dentist salary in Boston). [10] This diversity in employee profile has not changed significantly since 2010.

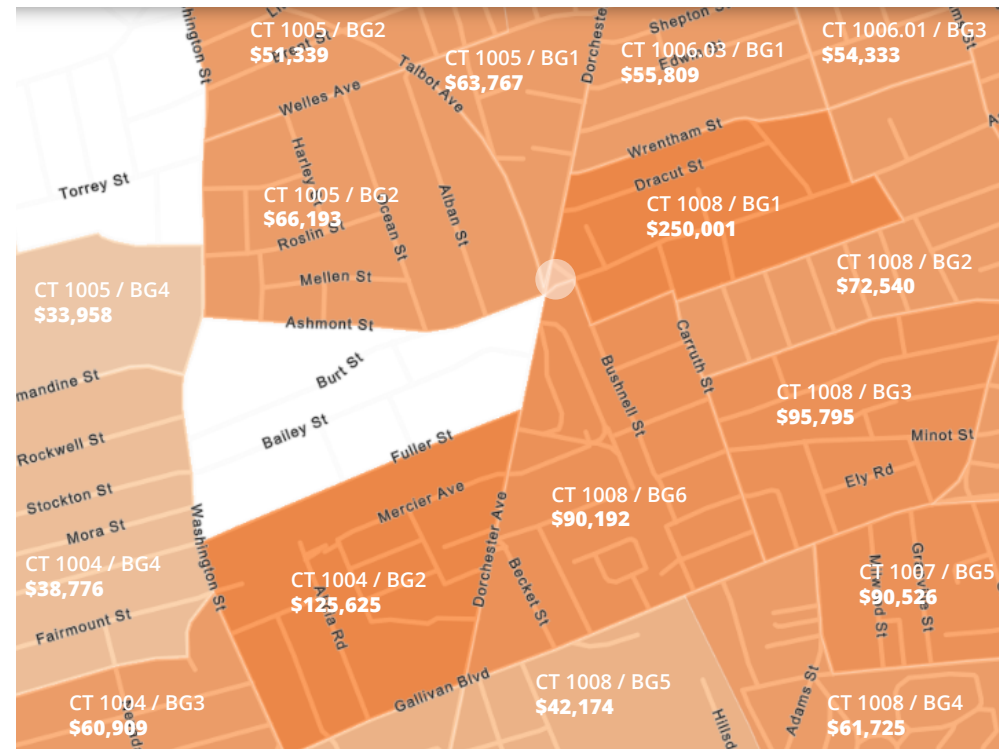


Figure 8. Median Income by Census Tract

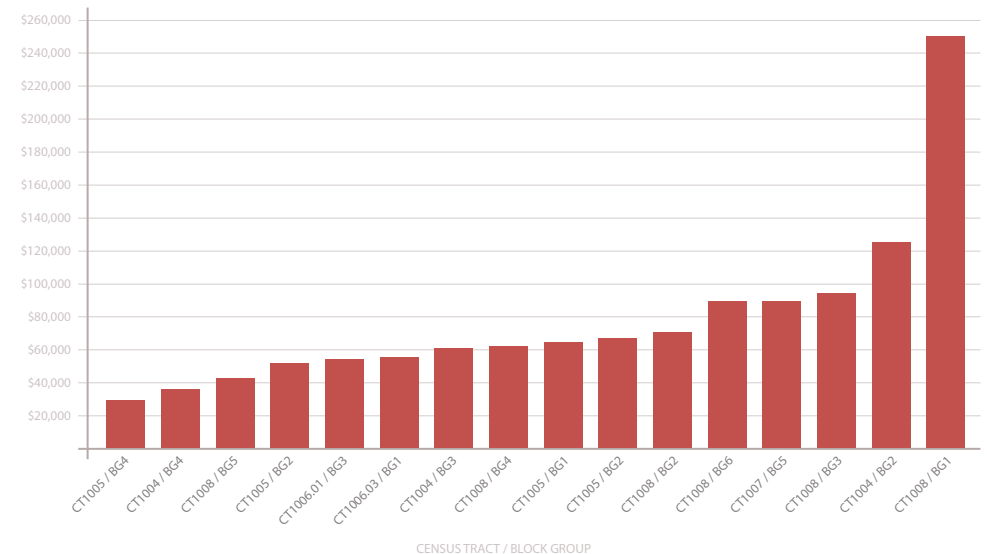


Figure 9. Median Income by Censust Tract and Block Group

# EFFECTS

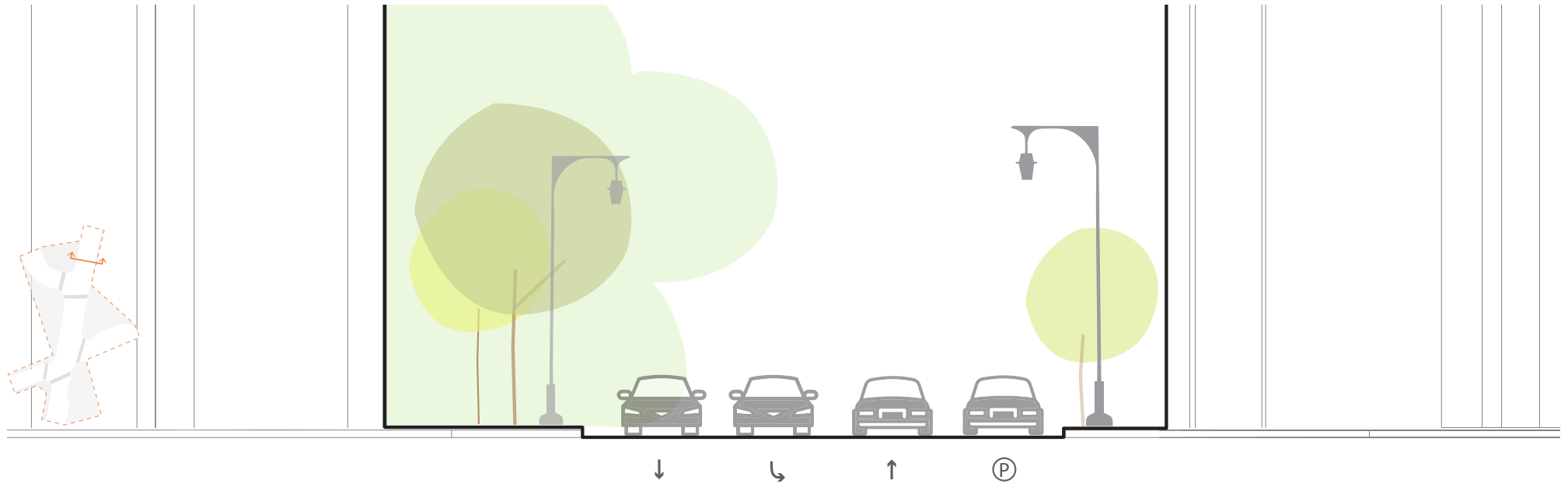


Figure 10. Dorchester Ave - North

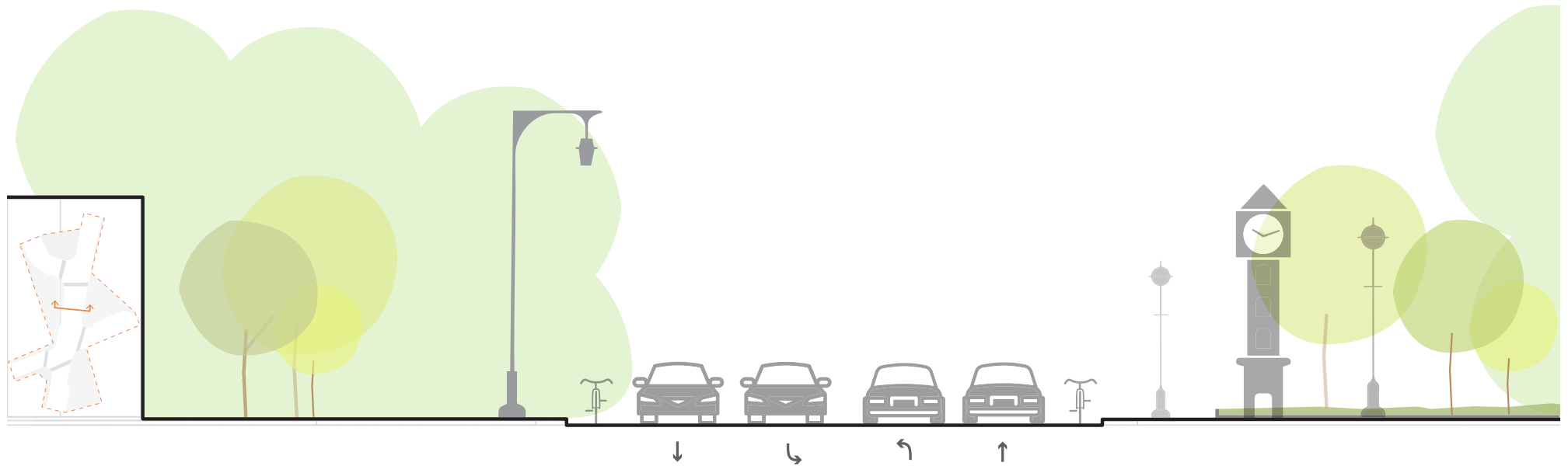


Figure 11. Dorchester Ave - Mid-Section

## Space

Along with narrowed traffic lanes, the geometry adjustments netted Peabody Square 11,857 sq ft of new plaza and sidewalks space as well as 2,021 sq ft of new space for bike lanes. [11] The new plaza

space includes both natural landscaping and hardscape, providing opportunities for a variety of new uses - from passive relaxation to outdoor restaurant seating. The redesign allowed improved edge



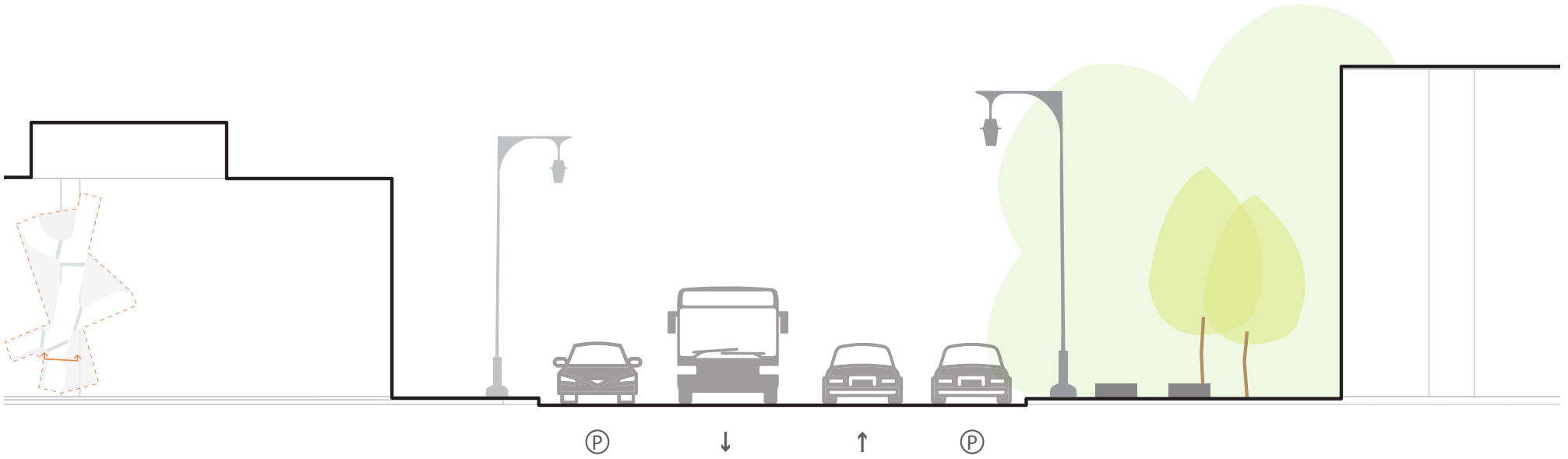


Figure 12. Dorchester Ave - South

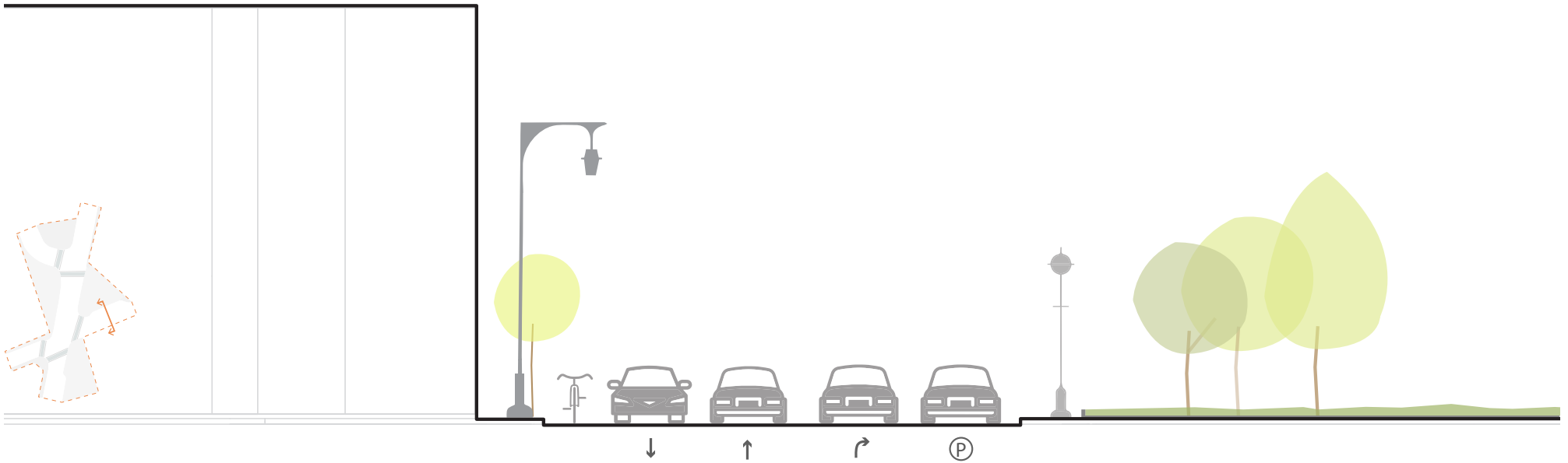


Figure 13. Ashmont Street

conditions, particularly with the new plaza space created by the truncated Talbot Street.

The redesigned road geometry features one lane of thru-travel in each direction in addition to turn lanes, parking lanes and bike lanes.

Approximately 49% of space in Peabody Square is now allocated to cars, with 45% allocated to pedestrians and 6% to cyclists. Bicycle infrastructure is spotty, with a few small stretches of painted bike lanes, combined with car travel lanes featuring painted sharrows.

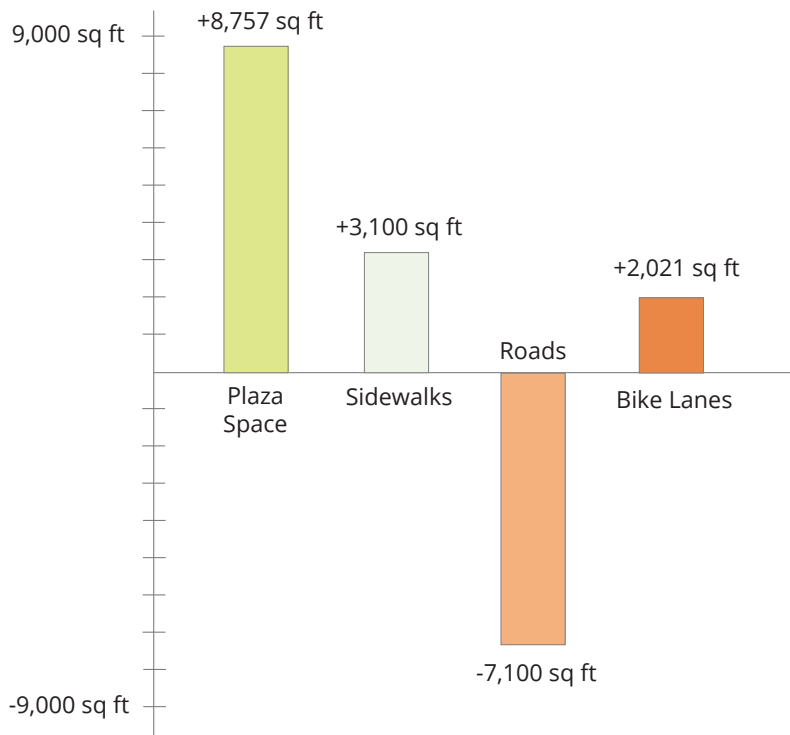


Figure 14. Transportation Mode Rates (Per Hour)

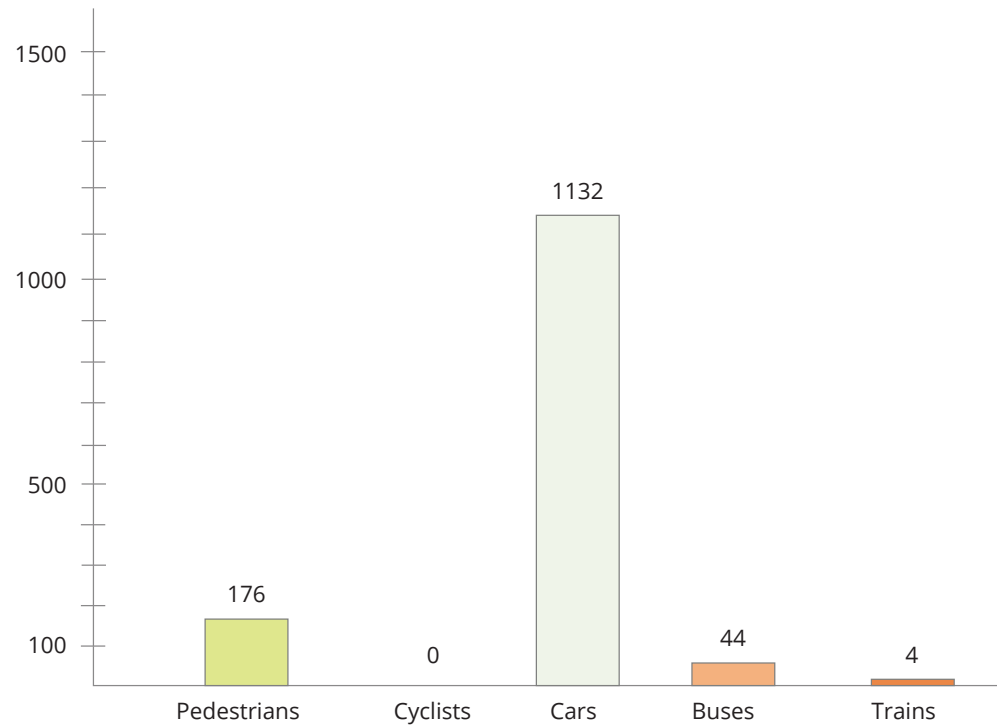


Figure 15. Transportation Mode Rates (Per Hour)

Our observations on a weekday afternoon in March revealed 1,132 cars per hour, 176 pedestrians per hour, 44 buses per hour and four trains per hour passing through Peabody Square. We did not observe any cyclists, though we expect this is impacted by the time of year we completed the observation.

## Value

Rent and house values around Peabody Square have grown since 2010, but at a slower rate than the City of Boston overall. Since 2010, Peabody Square residential rents rose 9.6%, compared to 9.4% in the 02124 zip code and 14% in the City of Boston. House values around Peabody Square have risen 3.8% since 2010, compared to a 1.4% decrease in the 02124 zip code and a 7.1% increase in the City of Boston. [12] However, according to data from Zillow, from Nov. 2013 to Feb. 2018, median home list prices in the 02124 zip code have risen 65%, compared to 58% in Boston overall. [13]

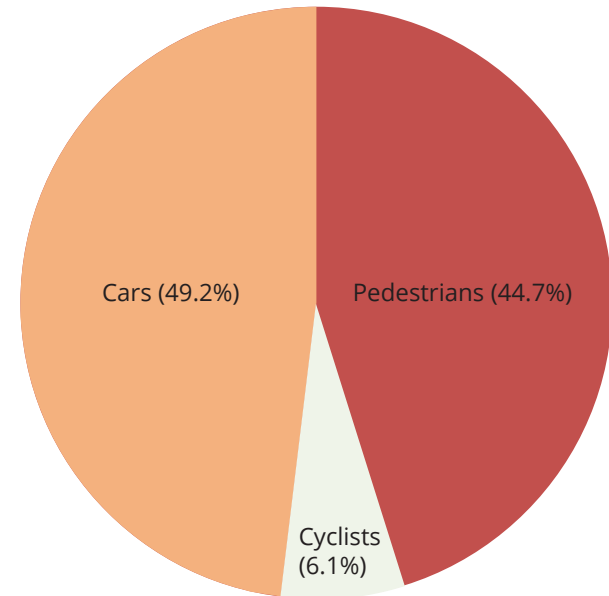


Figure 16. Peabody Square Vehicle Space Allocation

## Crash Data

Since the reconstruction of Peabody Square, the percentage of crashes resulting in an injury or fatality has fallen significantly, although the number of crashes per year has risen. From 2001-2010, Peabody Square saw an average of five crashes per year, and 46% of those crashes resulted in a fatality or injury, including two fatalities. From 2011-2015, post-redesign, Peabody Square has seen an average of 7.2 crashes per year but only 33% of those crashes have resulted in an injury and there have been no fatalities. [14] Pat Hoey, who oversaw the redesign for the Boston Transportation Department, suggested that the rise in crashes overall may be contributed to an increase in traffic volume since 2011. [15]

## Street Activity

Newspaper accounts provide anecdotes that the Peabody Square redesign has succeeded in bringing increased street activity to the new public spaces. “Now, overhaul supporters say, the area is turning once again into a place people are gravitating towards. “That’s what we want,” says Dan Larner, the executive director of the St. Mark’s Area Main Streets, a nonprofit seeking to revitalize the area. “And that’s what we see.” [16] Additionally, Greater Ashmont Main Street and community residents launched a fundraising campaign in 2017 to further build out and enhance the design of the main plaza, demonstrating a strong community affinity for the project and a demand for further improved use. [17]

## PEABODY SQUARE 2001-2015 CRASH DATA

	Crashes	Injury	Fatality	% Injury or Fatality
2015	8	2	0	25%
2014	10	4	0	40%
2013	8	5	0	62.5%
2012	7	1	0	14.3%
2011	3	0	0	0%
Post-Project Avg/Yr	36 7.2	12 2.4	0 0	33.3%
2010	7	3	0	42.9%
2009	4	2	0	50%
2008	3	2	0	66.6%
2007	8	3	1	50%
2006	13	5	0	38.5%
2005	2	1	0	50%
2004	2	1	0	50%
2003	6	2	1	50%
2002	3	2	0	66.6%
2001	2	0	0	0%
Pre-Project Avg/Yr	50 5	21 2.1	2 0.2	46%

SOURCE: MASS DOT

Figure 17. MassDOT Crash Data

## Business Activity

In 2016, there were 15 unique businesses located in Peabody Square, a slight decrease from 2010. And although there has been turnover in the first six years following the redesign, the nature and types of businesses has not changed significantly. There remains a fairly even mix of non-professional and professional businesses and a consistent mix of food, retail, service and professional offices. [18] Seven businesses remain in Peabody Square since 2010. Significant new additions since 2010 include a professional counseling office, a bank, a cycle shop and a home gas and fuel service shop. The Ashmont Grill is a particularly important community establishment. Additionally, Peabody Square employs a wide variety of people, from hourly employees at the Ashmont Grill and Metro PCS, to small business owners at the Asian Gallery Art & Gift Shop, to professional real estate agents, to blue collar fuel repair mechanics, and to highly educated counselors and dentists.



Figures 18-22. Peabody Square Businesses and Open Space



Figures 20-23. Current Bicycle Lanes and Sharrow Zones in Peabody Square

## LESSONS

“Peabody Square was a car disaster. It became more like a village green. It’s a charming little square now. The planners got it right.” -Boston Preservation Society Board President Susan Park. [19]

The goals behind Peabody Square’s redesign were to: improve road safety, increase public space, improve storm water management. We believe the project has been a success in all goals. Simplified geometry has helped both with aesthetics and safety, and crash data show fewer injuries and fatalities as a result. The project’s consolidation and elimination of complicated sidewalks has also made life for pedestrians less confusing. The new public space has also, by all accounts, been a success. This success was aided by strong community input and involvement. The community today has taken ownership of the space and is continually working to improve it. Additionally, creating plaza space has opened new opportunities for businesses.

Aesthetically, Peabody Square is much improved and the redesign has enhanced the edge effect. Finally, innovative storm water management design is performing well and helping to reduce inflow into the city’s underground infrastructure.

However, we don’t believe Peabody Square is a perfect redesign. Our most significant concern is the lack of bicycle infrastructure. If Peabody Square really wants to be bicycle friendly, the city needs to actually create a clear division in the streets. Painted lines and sharrows are not enough. The width of bicycle lanes also changes through the intersection and observation has shown that drivers mostly ignore the current bike lanes.

Additionally, according to the redesign’s project manager Pat Hoey, maintenance of the storm water management systems was never properly factored in. [20] The pavers and layers underneath need semi-regular maintenance that currently is not fully included in any city department’s priorities. This could inhibit the full potential of these features.

Overall, we believe the major goals of this project have been met in substantial ways. While we don’t believe the redesign of Peabody Square will become an internationally renowned demonstration project, it has been a significant project for the surrounding neighborhood and an important showcase for subsequent complete streets projects in Boston.