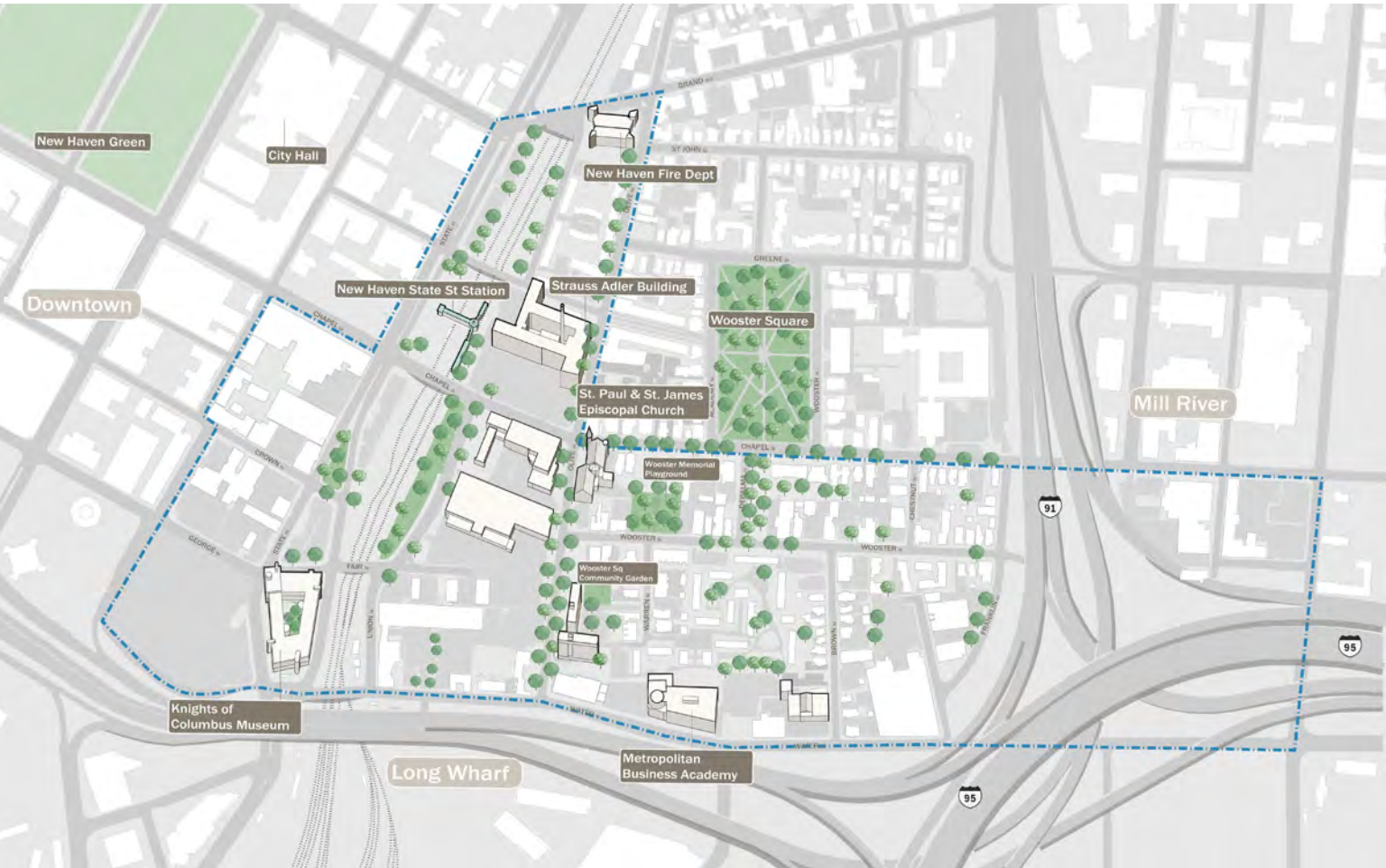


# Wooster Square Planning Study



CITY OF  
**NEW HAVEN**

Mayor Toni N. Harp  
November 2016







## **City of New Haven**

Toni N. Harp, Mayor

Matthew Nemerson, Economic Development Administrator

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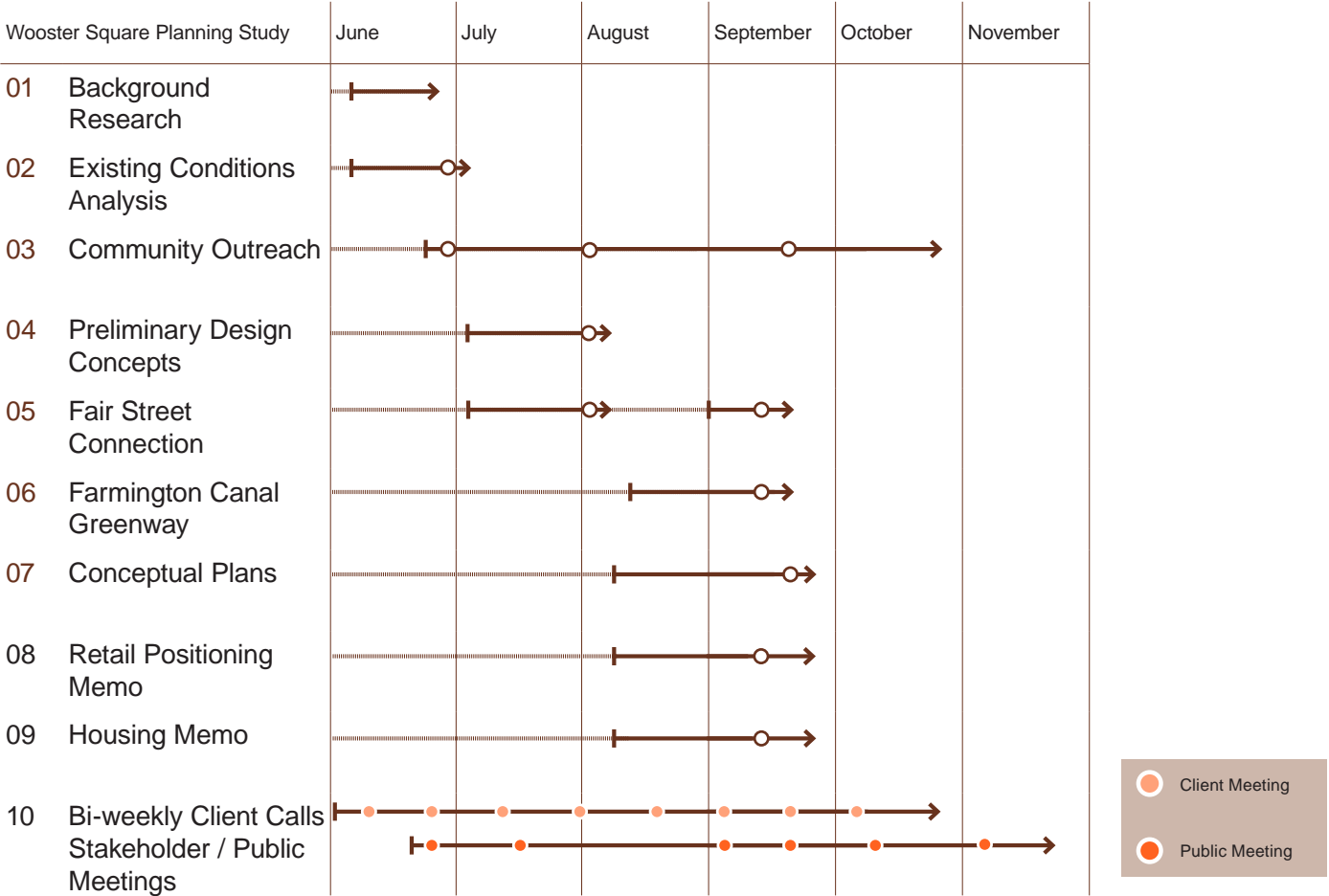
# Purpose of the Plan

## Our Approach

The **Wooster Square Planning Study** sets out to establish a vision for the southern portion of the Wooster Square neighborhood that seeks future opportunities for improvements combined with a preservationist approach to the valued character of the neighborhood. Wooster Square is a cherished neighborhood in New Haven,

steeped in the City’s cultural history and possessing a distinct identity unlike any other. Its walkable quality, lush tree canopy and formal square, as well as its commercial streets are the ingredients of a great neighborhood. Part of the planning assignment was to assess what the future development opportunities are for Transit Oriented Development (TOD); however, over

the course of the planning process, the team, the stakeholders and the residents also made certain to focus on public realm improvements, pedestrian safety, the presence of neighborhood retail and walkable connections to Downtown New Haven. More than a TOD plan, this is a neighborhood plan, viewing Wooster Square as a place unto its own, and as part of the larger city.





## Objectives and Goals

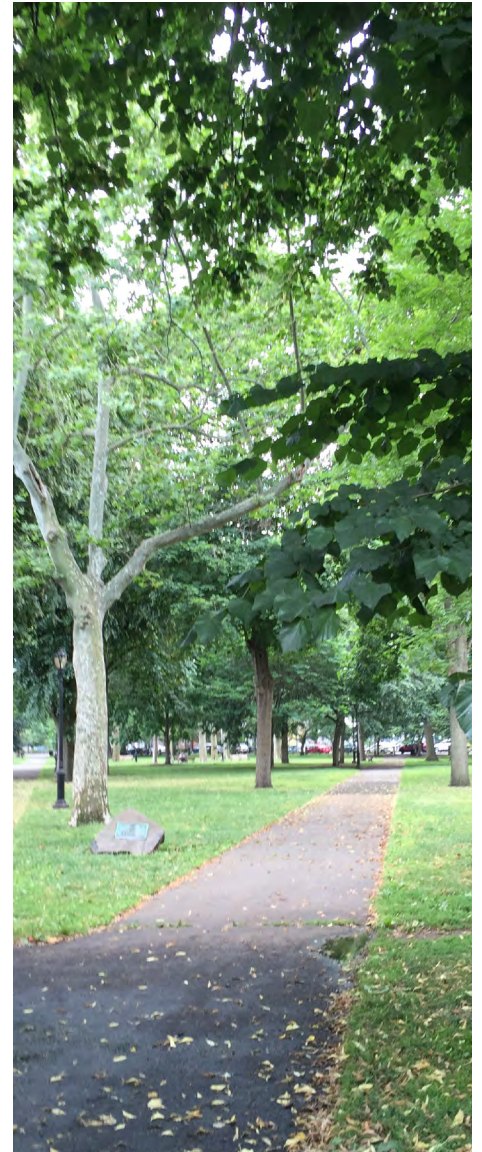
This distinct character of Wooster Square is in part what helps to define it today, and it can be seen in its architectural makeup and outward cultural landscape of restaurants and annual festivals. That said, there is still a major chance to contribute to the unique makeup of the neighborhood by identifying sites that present opportunities for additional context-sensitive development, ranging from fully new construction to the preservation and rehabilitation of valuable existing historic structures.

Our goal is to ensure that Wooster Square stays healthy, so we intend to ensure that future development respects existing scale and identity. Development of any use, whether residential, commercial or industrial space, should provide opportunities for either affordable housing or incentives for small commercial or industrial start-up businesses.

A true mix of uses will help create a neighborhood where people live and work, and which provides activity throughout the day. This plan makes informed recommendations with lasting effect, and demonstrates our understanding of the relationship between planning, design, policy, and economic development strategy.

Our interaction with the Stakeholder Committee, the residents, property owners and businesses, and our own observations led us to establish the following objectives.

- Ensure safe and accessible connections from Wooster Square to Downtown;
- Prioritize pedestrian improvements in Wooster Square including new open spaces and redesigned streetscapes;
- Find more productive uses for underutilized sites to bring additional amenities to the neighborhood;
- Maintain the valued architectural character of the neighborhood; and
- Embrace and promote the cultural diversity of Wooster Square



# Understanding the Neighborhood

## Local Identity and Neighborhood Form

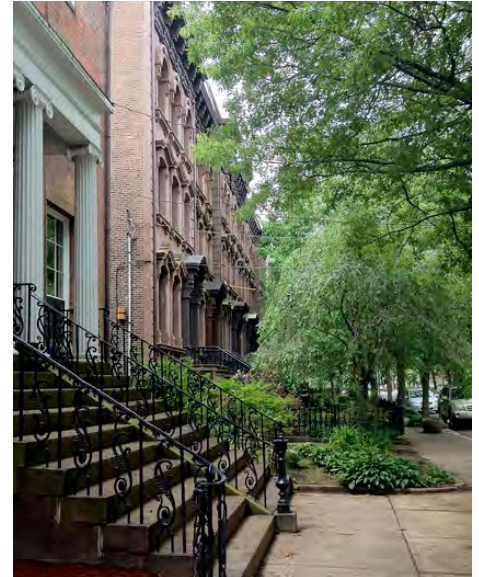
**W**ooster Square is one of the most resonant and identifiable neighborhoods in the City of New Haven.

Historically, a residential neighborhood along the waterfront, that partly survived the threat of demolition during urban renewal, the neighborhood has come a long way to be one of the most sought after neighborhoods in the city due to its thriving local business, charming neighborhood character, cultural identity and proximity to Downtown.

Its most striking characteristics—along with the square itself—are the distinct architectural style and the robust tree canopy lining the neighborhood streets. The built form and the lush landscape create a scale conducive to a pedestrian neighborhood.

The neighborhood is also home to a host of festivals, events and a weekend farmer's market that take advantage of the neighborhood's design, as well as the cultural heritage of the neighborhood.

The edges of the neighborhood present a very different physical and aesthetic condition. The era of urban renewal ushered in the destruction of historic neighborhoods in the city





and the construction of massive infrastructure, such as regional highways. This, in addition to the presence of a major rail line separating the neighborhood from Downtown, was responsible for isolating Wooster Square from the adjacent areas of Mill River, Long Wharf and the central business district.

As New Haven built highways and dissolved neighborhoods, Wooster Square, Oak Street and The Hill bore the disproportionate brunt of this renewal. Route 34 and Interstate 91 disconnected them from downtown and from each other. On the west the Railway lines and State Street form a perceived barrier between Wooster Square and Downtown due to the significant gap created by the rail right-of-way. The wide intersections with long crosswalks on State Street adds to the perception of disconnect with downtown.

There is still a major opportunity to contribute to the unique makeup of the neighborhood by identifying sites that present opportunities for additional context-sensitive development, ranging from fully new construction to the preservation and rehabilitation of valuable existing historic structures.



## On-going Development Activity

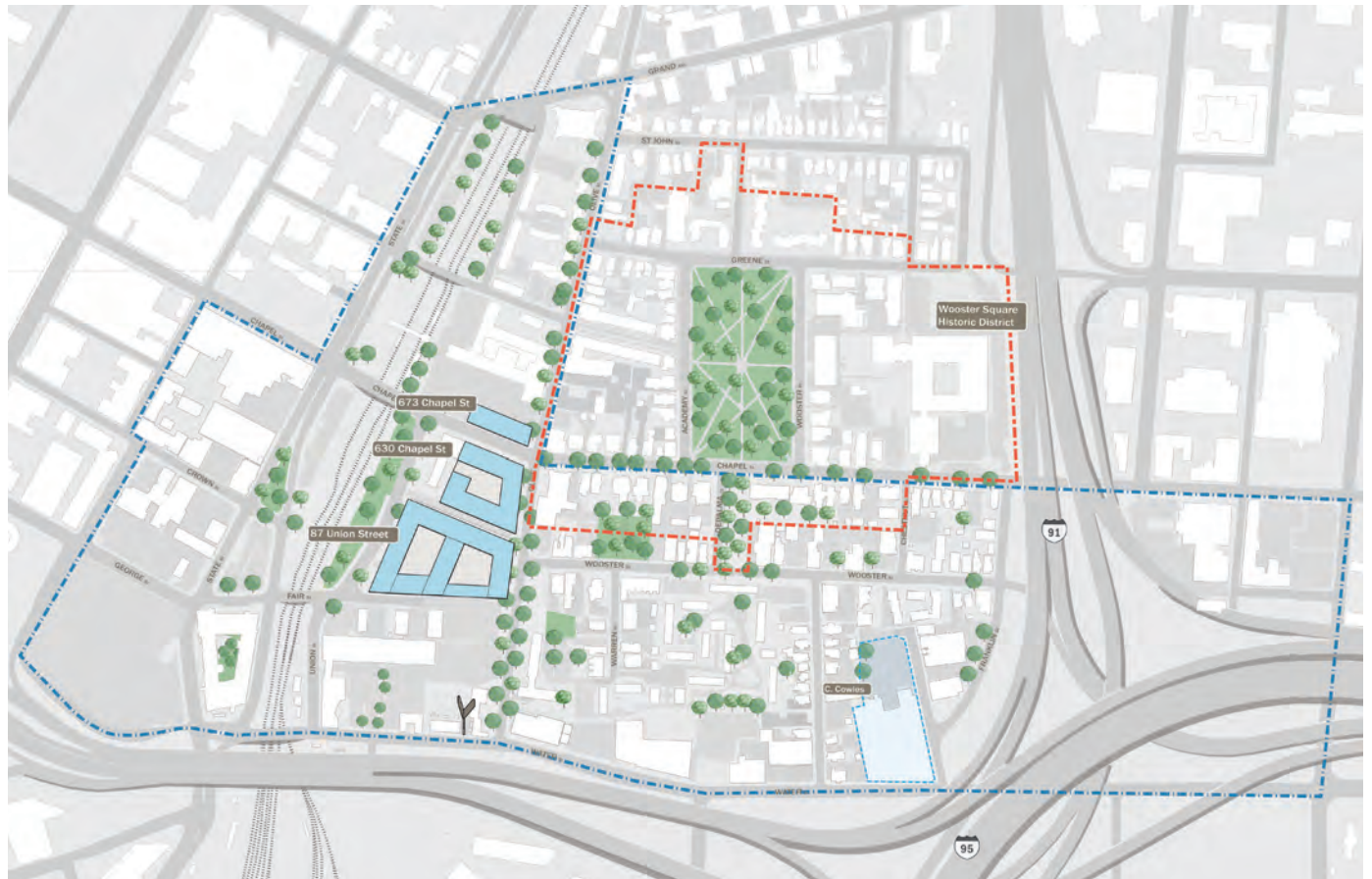
Thanks to an engaged community, initiative from the city and developer interest, Wooster Square is on the forefront of development activity in New Haven.

The most significant of these are the residential projects on the edge of Wooster Square and Downtown namely:

- 87 Union Street - 299 dwelling units
- 630 Chapel Street - 166 dwelling units
- 673 Chapel Street - 72 dwelling units

These projects clearly show the market interest in investing in the neighborhood and Downtown, which encourages testing out other potential development opportunities within the study area.

Along with the mixed-use residential developments there is advocacy for rezoning to permit conversion of existing industrial buildings into multi-use buildings including shared work space.





Property owner appeals New Haven zoning case

By Mary O'Leary, molyary@nhregister.com, @nhmolyary on Twitter

POSTED: 09/19/16 12:17 PM EDT

UPDATED: 09/19/16 12:17 PM EDT

0 COMMENTS

NEW HAVEN >> PMC Property Group, which owns the former Strosser Adler/Steele Carpet Factory, has appealed one of the zoning cases it lost that impacts one of two proposed developments in the Wooster Square neighborhood.

Superior Court Judge Thomas Cornelius ruled last month in favor of the city and Ryduskar, which has proposed building 223 apartments at the former Comcast Building on Chapel Street and a lot across the street, as well as a separate 299-unit complex at 15 Union St. proposed by developer Noel Petra.

Supporters of the new apartments feel PMC brought the suits to slow development of the housing units which would compete with the Steeleville building apartments.

Proposal to change New Haven's light industrial zone regulation to be aired



The interior of the former factory floor of Building No. 1 of C. Cowles Co. in New Haven. Aerial photo — New Haven Register

By Mary O'Leary, molyary@nhregister.com, @nhmolyary on Twitter

POSTED: 09/19/16 7:09 PM EDT

UPDATED: 09/19/16 09:09 PM EDT

0 COMMENTS

Opposition Kills Historic District Expansion

By AURIA SWARTZ | Jan 11, 2014 12:26 am

0 Comments | Post a Comment | Email the Author

Filed to: Business/Economic Development, Housing, Wooster Square

State officials scaled back plans for promoting historic preservation in Wooster Square after a small but vocal group of neighbors protested the proposal.

The area of Wooster Square just around the park is listed on the National Register of Historic Places, which helps recognize properties of historical significance and gets homeowners grants to preserve them.

The state Historic Preservation Office had been working with officials from the New Haven Preservation Trust to include the whole neighborhood on the National Register — funding the process through the Hurricane Sandy disaster relief program.

But a group of Wooster Square neighbors, mainly on Lyon and William Streets, challenged this proposal at a set of public meetings in May and late June. They argued that although the National Register itself cannot be used to restrict private owners from developing their property, the listing would make it easier for the city to adopt a more stringent municipal preservation ordinance in Wooster Square.



Neighborhood activist Franklin.

Look What He Found

By THOMAS MACMILLAN | Jan 18, 2013 5:40 pm

140 Comments | Commenting has been closed | Email the Author

Filed to: Transportation



Photo by Thomas Macmillan



Chris Ciolek came upon a hidden pocket of the city—which he thinks offers the secret for how best to finish connecting the Farmington Canal Greenway through downtown streets to the harbor.

Ciolek, who helps run a tree-planting organization in the city, said he's found a way to connect the canal trail to the waterfront while creating a scenic greenway that could be an economic engine for the city—right in downtown New Haven.

He proposes to install a trail alongside the train tracks that run between State Street and Olive Street, where a gravel drive already exists from Grove Street to Fair Street.

Ciolek has been pumping the idea—or rather resurrecting it as a proposed route—as the city heads toward a final plan for that last New Haven stretch of the hiking and biking trail.

Yet Another Wooster Square Housing Plan Debuts

By PAUL BASS & LIANA TETTERBA | Jan 17, 2014 8:02 am

55 Comments | Commenting has been closed | Email the Author

Filed to: Housing, Wooster Square



The envisioned expansion of Wooster Square to the downtown border has taken another leap, as a third-generation New Haven builder unveiled a proposal to build a 325-apartment community on Union Street.

The developer, Noel Petra, brought his plan to a community meeting attended by just a dozen people Monday night at the Episcopal Church of St. Paul & St. James at the corner of Olive and Chapel streets.



Petra has quietly shopped the plans to city officials in recent weeks. His 2.50-acre project—tentatively entitled '17 Union Street'—would replace a series of warehouses and a plumbing supply store with six wood-framed stories of market-rate studios, one-, two- and three-bedroom apartments, and townhouses, plus some ground-floor retail on Olive Street. The project would face Olive Street, Union Street, and Fair Street—which, Petra hopes, the city will extend to connect Olive and Union.

Petra's project is right next to another proposal, which has come further along, to convert the empty Comcast building at Olive and Chapel into 200 luxury apartments. That project is already on its way to city approval.



Like the developers of the Comcast project, Petra is not seeking any public subsidy, and is seeking zoning relief: a change from a warehouse-oriented district to a BID-1 zone, which allows for denser development and for mixed-use development, and a text amendment allowing for a roof height of 70 feet. He also seeks permission to include less than one parking space (0.75 spaces, to be exact, per apartment).

Taken together, the two projects would bring more than 550 new apartments to the no-man's land connecting Wooster Square with downtown. They would effectively bring Wooster Square right to railroad tracks dividing the area from downtown.

And immediately on the other side of the tracks, the 35-story 360 State Street tower has brought hundreds of new renters downtown, while developer Max Deim of Live/Work/Lease/Play has obtained permission to build a \$295 million mini-city of apartments, stores, offices, a hotel, and a public plaza atop the old New Haven Coliseum.

In other words, housing is hot. People want to build downtown and in Wooster Square, and people want to live there. The closeness of two train stations, the lively mix of restaurants and nightspots downtown, and the growth of medical and high-tech jobs in the area appear to be helping to drive the revival.

## Assets and Opportunities - Wooster Square's Public Realm

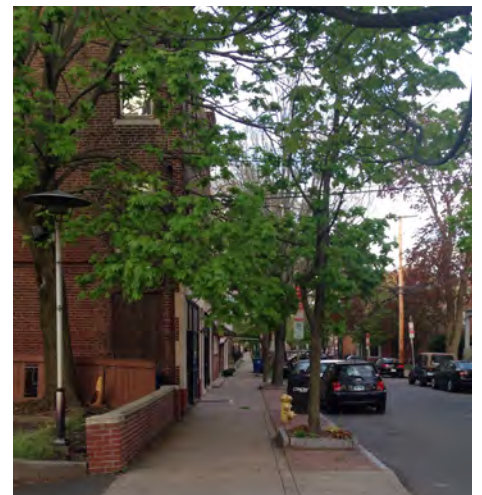
With its charming and inviting neighborhood character, Wooster Square offers an array of assets that this study has taken inspiration from.

The **consistent tree canopy** of the neighborhood is an identifying characteristic. Tree coverage helps to define the street edge and create a sheltered pedestrian experience. While celebrating the tree canopy there is an opportunity to check the conditions of tree pits to ensure appropriate room for healthy tree growth and sidewalks that house them.

Wooster Square benefits from **consistent pedestrian access**, but the sidewalks are inconsistent in quality. There could be curb extensions particularly along Olive Street, Wooster Street and Chapel Street to ensure pedestrian safety, pedestrian visibility and slow vehicular traffic.

**DePalma Court** along with **Paul Russo Memorial Park** provides abundant shade and forms an appropriate location for the farmers market. The link between Paul Russo Memorial Park and Wooster Square could be further strengthened and made pedestrian friendly.

**Water Street's** wide travel lanes and adjacency to the highway make it a very imposing street to walk or bike along, lacking any definition of a street wall or pedestrian experience. A multi-use path is now under construction. When complete, there will be enhanced connections from Olive Street to Chestnut Street and, by extension, to the Long Wharf district. Narrower



DePalma Court and Paul Russo Memorial Park with tree lined street edge and public space. Sidewalks with tree pits along Wooster Street and the continuous tree canopy within the Wooster Square neighborhood.





Water Street forms the south boundary of the study area



Wooster Square neighborhood is surrounded by a clear edge of large scale infrastructure that contributes to the perceived disconnect between Wooster Square and the surrounding neighborhoods.

travel lanes and on-street parking would also have the effect of slowing down travel but these items are not currently planned.

**State Street's intersections** are large and challenging to cross, adding to the sense of a gap between Downtown and Wooster Square. There is a significant delay for pedestrians crossing State Street due to the width of the crossing and the many traffic movements at this intersection, including an exclusive phase for turning vehicles. The number of travel lanes required to cross State Street further

adds to its inhospitable condition for pedestrians.

The number of street crossings into the Wooster Square neighborhood are common and regularly spaced, but often imposing. All crossings have to mitigate the gap caused by the **bridges over the railway tracks**.

Curb extensions, crossing islands, road diets and aesthetic improvements to the bridges could reduce the actual and perceived distance of crossing State Street and the rail right-of-way into Wooster Square.

# Community Engagement and Feedback

**T**his study has been positively informed by the outreach and community engagement process.

Working side by side with the city and stakeholders, the design team was able to have a meaningful dialogue with the Wooster Square neighborhood residents and business owners.

The engagement process included two large community meetings (mid-July and early October) and a series of on-going meetings with the Wooster Square stakeholder committee. The first public meeting was focused on understanding what the community values about the neighborhood and

what aspects need to be improved upon. The meeting was structured to have a table discussions with the neighborhood participants preceded by a brief presentation by the design team. This presentation outlined early observations, analysis and hunches about the issues facing the neighborhood and areas for improvement.

Informed by the thoughts and ideas from the public through this process, the design team developed concepts for infill development, streetscape improvements and new open spaces.

For the second meeting the design team presented these alternatives for the priority areas that emerged out of the first community meeting. There

was also a breakout session where the attendees responded to the design ideas and expressed their support, concern and priorities.

On July 18th, 2016 over 50 people attended the first pubic meeting and here's what they said

## **People like...**

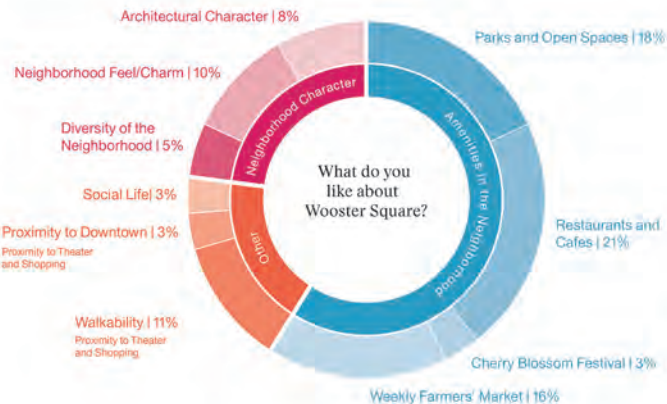
- Architectural character of the neighborhood
- Wealth of open space
- Restaurants and cafes
- Walkability

## **People would like to see...**

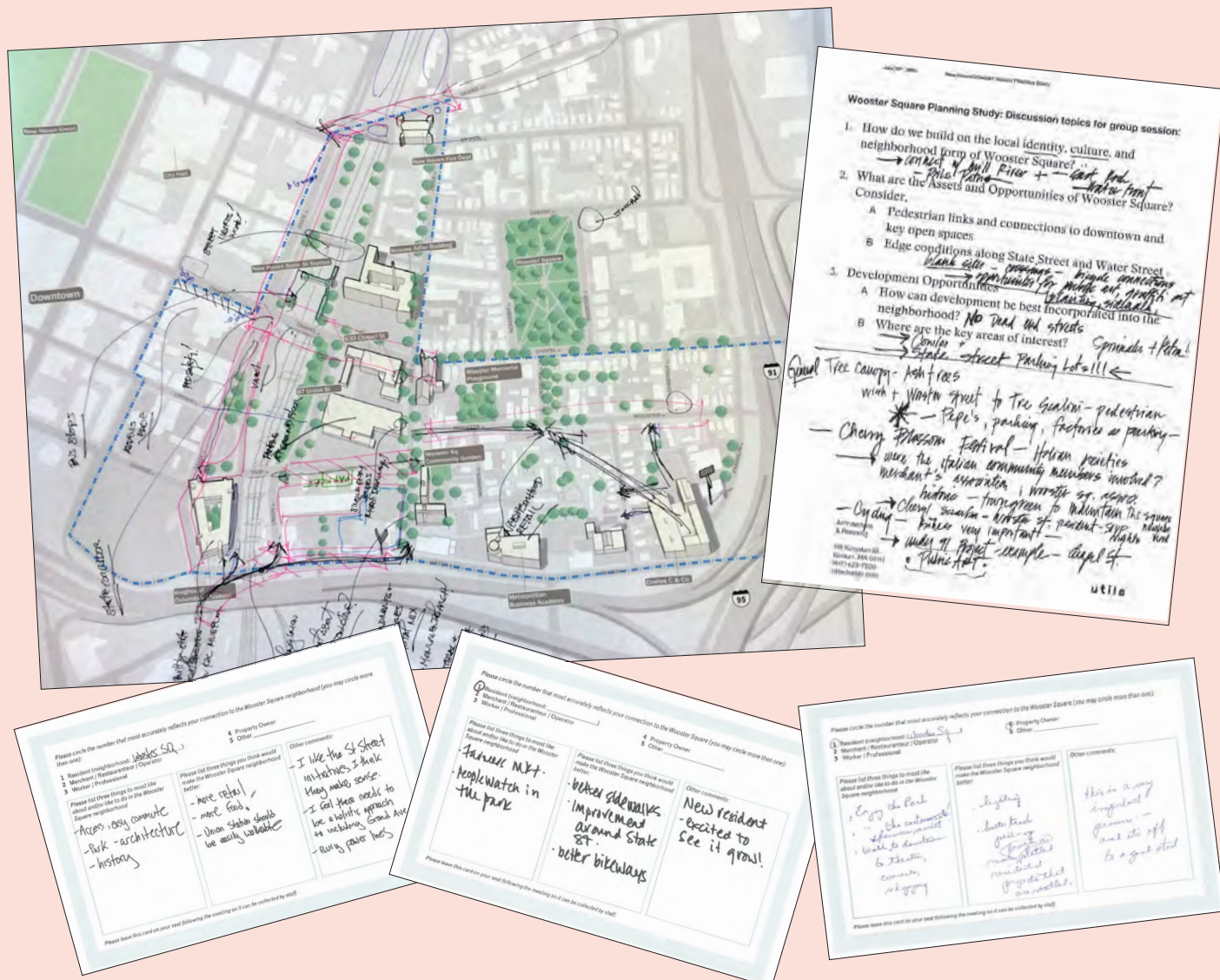
- Improved pedestrian and streetscape conditions
- Safer connections to Downtown
- Greater diversity of businesses
- More affordable housing options







**The planning team collected the resident feedback and tabulated the results to further inform future decision making and refine the objectives of the project.**







The two community meetings held on July 18th and October 5th, 2016 were well attended by an involved group of residents, business owners and people working within the neighborhood. The format of these community meetings allowed for group discussions and one-on-one dialogue between the attendees and the design team.



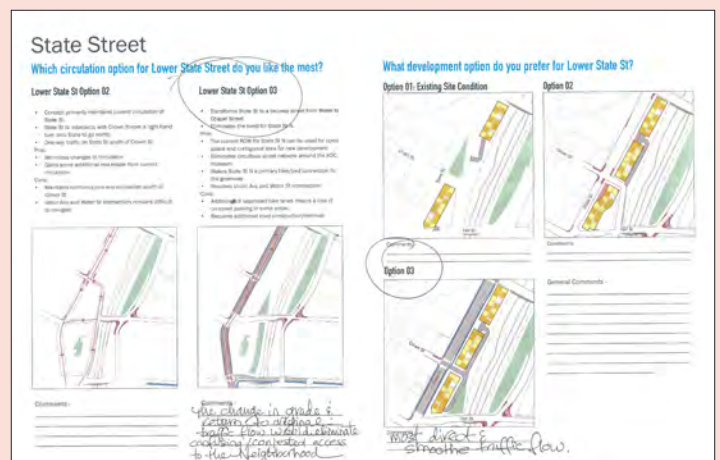
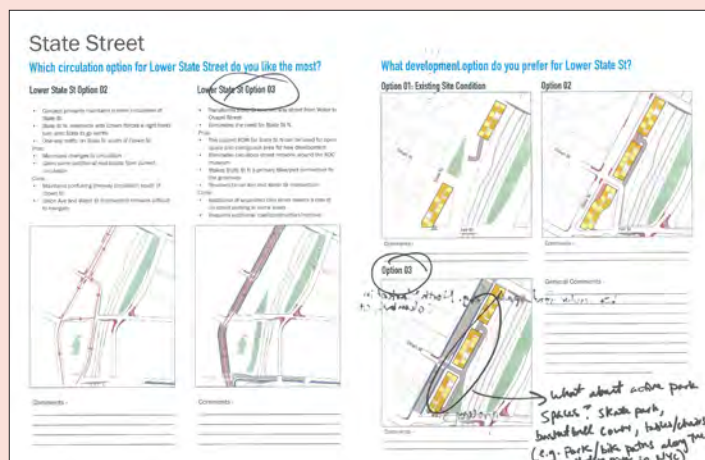
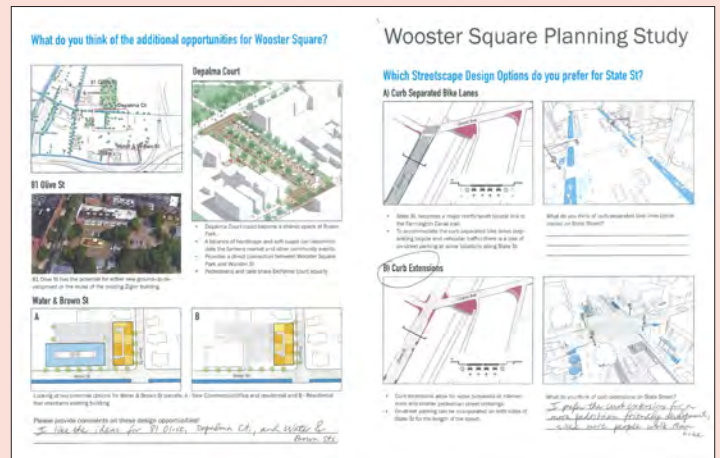
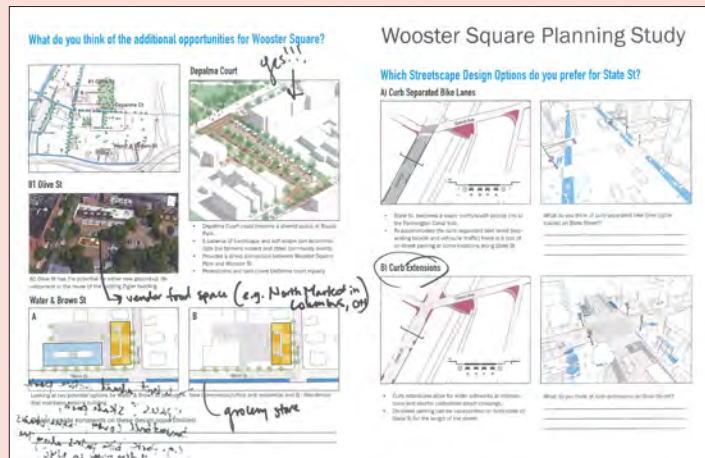


At the second meeting there was overwhelming support towards the public realm and streetscape design strategies presented by the design team. The big winners included redesigning DePalma Court and Paul Russo Memorial Park, realignment of State Street to remove the one-way pair, reconfiguration of intersections

on State Street to reduce crosswalk lengths and the infill development along State Street. There were a few concerns with the type of retail that could thrive in the neighborhood and safety for bikes along State Street.

The larger takeaway is that residents value the internal condition of the neighborhood and its historic character;

however, they recognize the needs to address its edges, and provide safe and accessible connections to downtown for all modes of transportation.



Participatory exercises, such as drawing on maps allowed residents to provide feedback on the proposed concepts.

# Design and Planning Concepts

## Focus Areas

Through existing conditions analysis and input from the community and stakeholders we focused on opportunity areas for testing development potential and public realm improvements. Design and planning solutions for particular sites are divided into the following areas -

- **State Street (north of Chapel):**

This consists of the State Street streetscape, the State Street and Grand Avenue intersection, Grand Avenue and Olive Street

intersection, and mixed-use development test-fit for 417 State Street.

- **State Street (south of Chapel):**

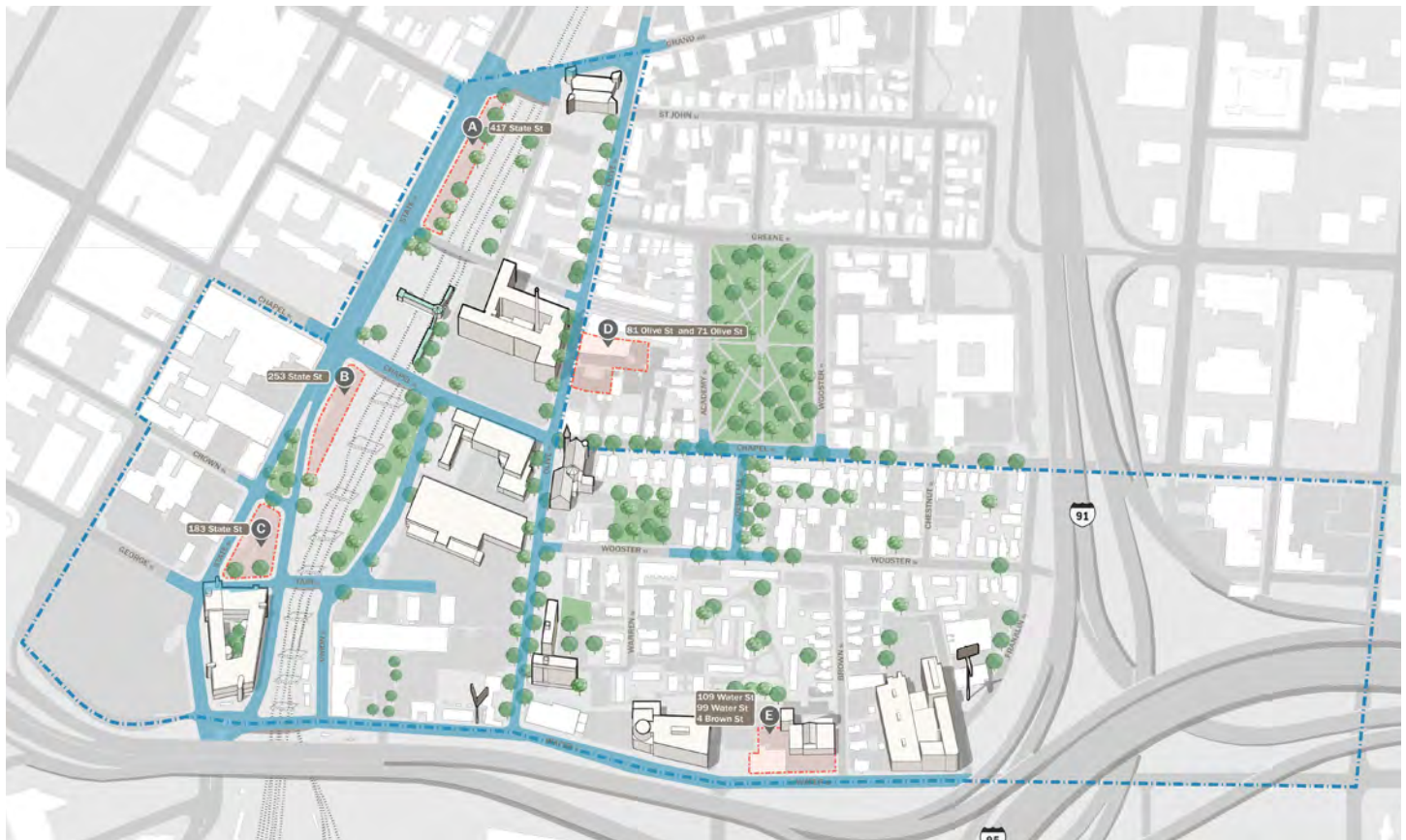
This comprises alternative State Street alignments for vehicular movement and mixed use test fits for 183 and 253 State Street.

- **Other neighborhood**

**interventions:** These include streetscape design of Chapel Street and Wooster Street, public realm improvements for DePalma Court

and test-fits for 109 Water Street and 81 Olive Street.

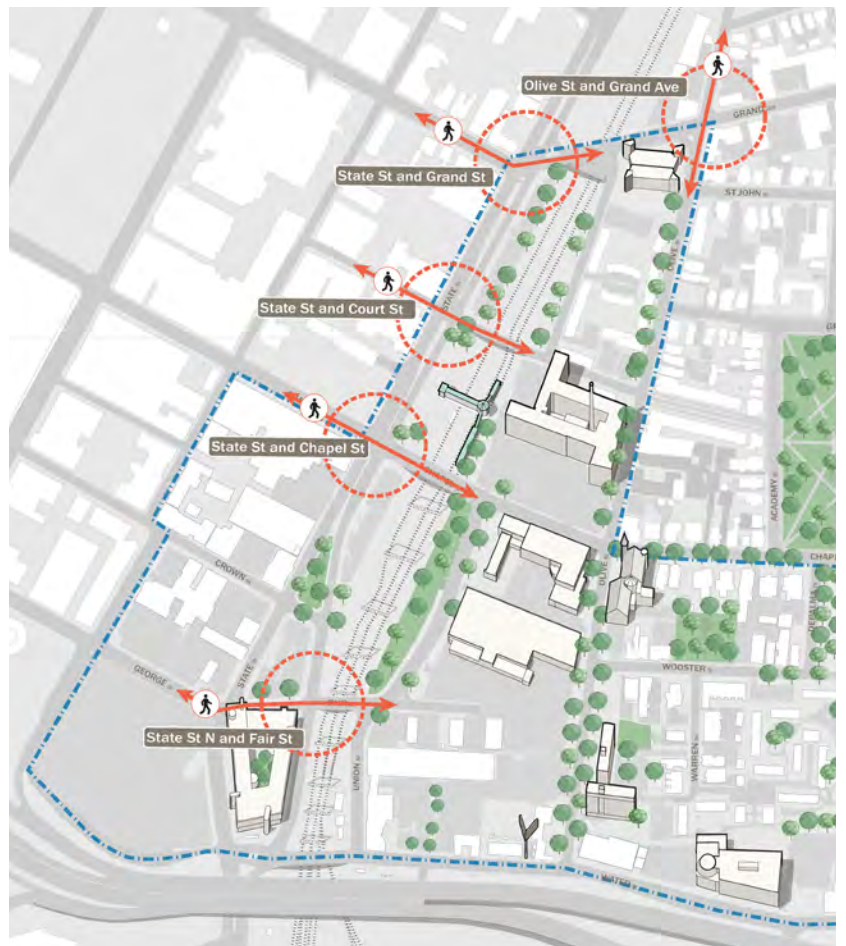
- **New vehicular and regional bike connections:** This consists of proposals for a Fair Street extension, using State Street as a future link within the Farmington Canal Greenway between Grove Street and Water Street and the recommended short term alignment of the Greenway.







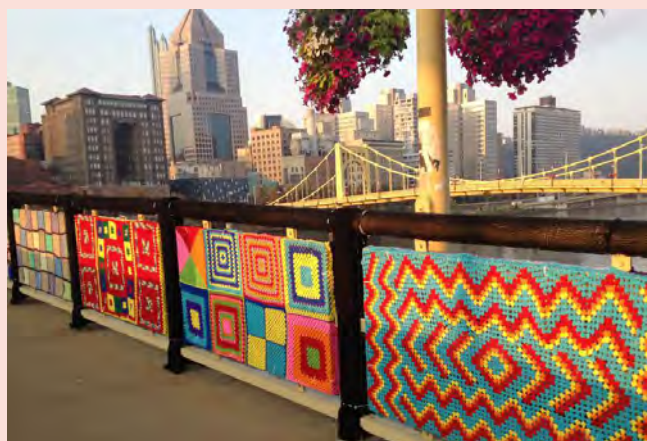
State Street connections between Downtown and the neighborhood were a primary focus of the planning assignment. Mitigating the actual and perceived distance between these areas was achieved through new infill development, safer street crossings and suggested enhancements to the bridges.



## Public Realm Considerations and Principles

### 1. **Ensure safe and accessible connections from Wooster Square to Downtown**

The pedestrian environment along bridges connecting Wooster Square Neighborhood and Downtown could be spruced up with public art and better street lighting. Buffered bike lanes with removable bollards, curb separated bike lanes or an elevated cycle track could be used along State Street and Water Street to accommodate bike infrastructure.



### 2. **Embrace and promote the cultural diversity of Wooster Square**

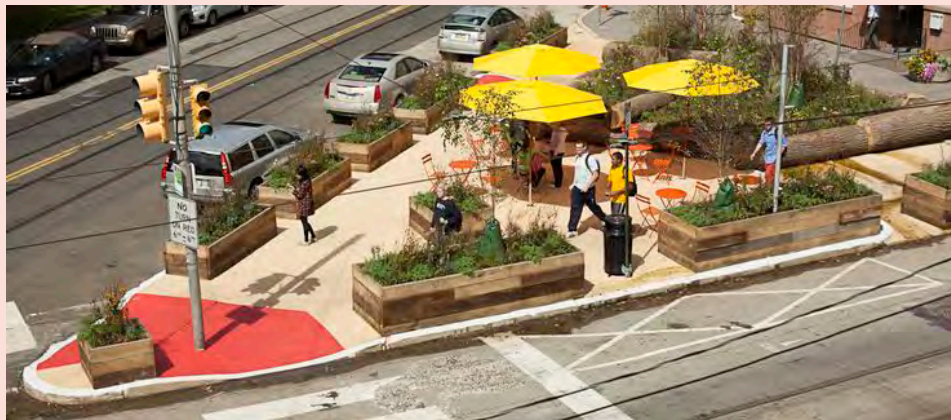
Wooster Square is an active neighborhood with a rich cultural heritage and an involved resident and business community. It could undertake small scale initiatives to create lively and memorable spaces such as parklets, festivals, artwalks, pop-up retail, and farmers' markets.





### 3. **Prioritize pedestrian improvements** in Wooster Square including new open spaces and redesigned streetscapes.

There are multiple ways in which public realm improvements can be tested by low cost techniques, such as painted curb extensions with bollards and temporary small scale open space with movable planters and street furniture. Based on the success of these interventions they can be made permanent thorough fixed curb extensions and landscape improvements. A combination of these strategies could be used to reclaim pedestrian space, increase pedestrian safety and reduce vehicular speeds along State Street and DePalma Court.



### 4. **Find more productive uses for underutilized sites** to bring additional amenities to the neighborhood.

The following parcels are identified as potential development sites and the plan looks at various programs and possible uses for each of these based on their adjacent uses, scale of surrounding buildings, location, proximity to transit and market conditions.

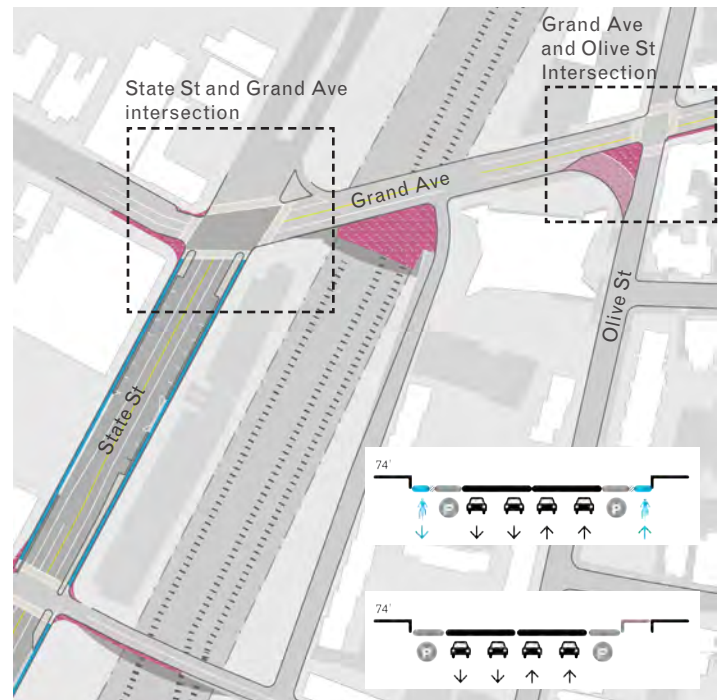
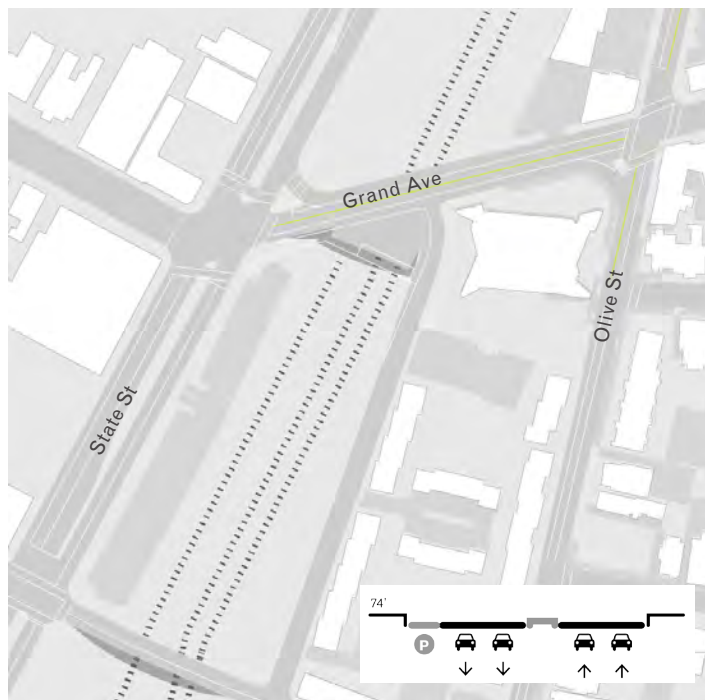
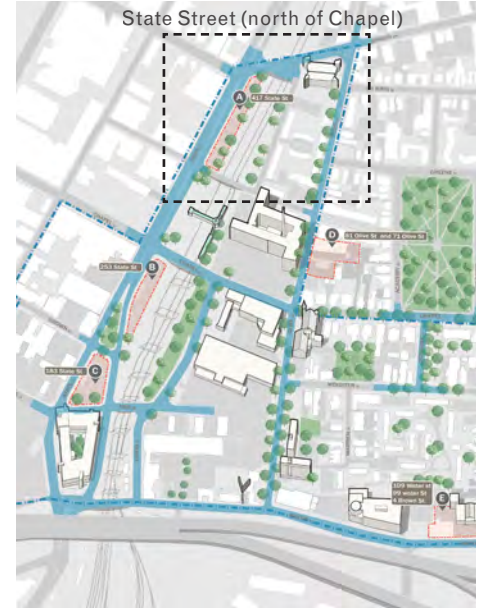


## State Street (North of Chapel)

State Street is consistently between 5-7 lanes wide with a center median. Lane widths, sidewalks and crossing distances should all be examined for the potential to reclaim pedestrian space. Surface-parking lots line the length of the eastern side of State Street with the exception of the State Street Station

- **Curb extensions** can be used to minimize crossing distances where possible at intersections or mid-block crossings.
- **New public spaces** can reclaim excess space as public plazas or pocket parks where possible.

- **On-street parking** can be accommodated by reducing the width of oversized travel lanes. Where possible it can be incorporated on both sides of State Street.
- **Curb separated bike lanes** can also be accommodated by reducing the width of oversized travel lanes. A dedicated, protected bicycle lane along State Street can provide a future link for the Farmington Canal Greenway, as well.

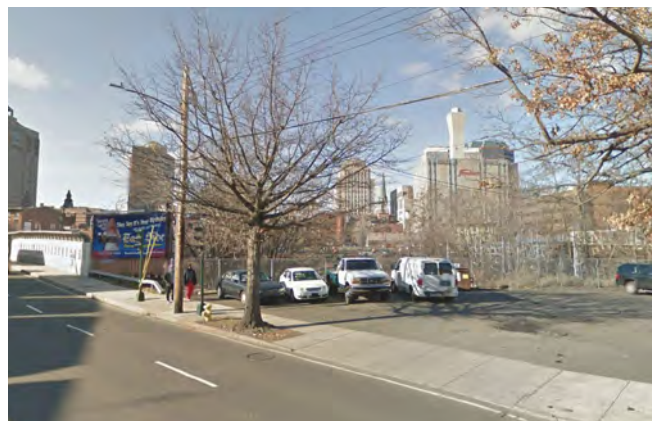




Because this study did not go to the extent of a full traffic analysis of State Street, the proposed design maintains the same number of travel lanes and curb-to-curb dimensions, but introduces new design concepts for a more “people-oriented” street.

Infill development is possible along the series of surface parking lots that line State Street. At the northern end of the study area, between Court Street and Grand Avenue there is room for

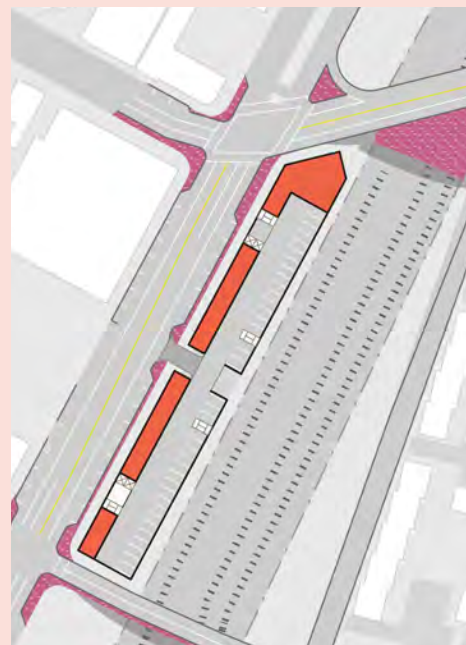
a standard double-loaded residential building with active, albeit shallow, ground floor uses. This might include temporary retail or incubator spaces, as well as lobbies for the residential units above. Parking for the building will be incorporated under the upper floors, which will cantilever out over the surface parking to allow for the building depth needed for a double-loaded corridor.



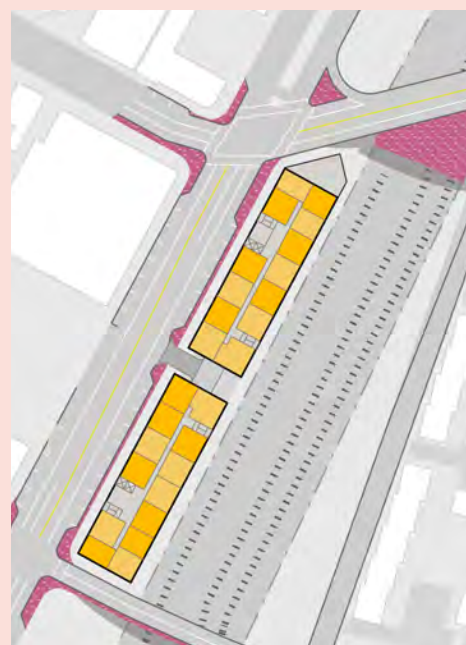
Long crosswalks, lack of adequate pedestrian refuge and poor visibility make the Grand Avenue and Olive Street intersection a challenge for pedestrians.

## 417 State Street Test-fit

GSF	170,010 SF (6 stories)
FAR	5.21
Residential	14,040 SF (per floor)
Units	130 (~65 units per bldg.)
Retail	9,770 SF
Parking	38 spaces (0.29 spaces per unit)



Ground Floor Plan



Typical Floor Plan

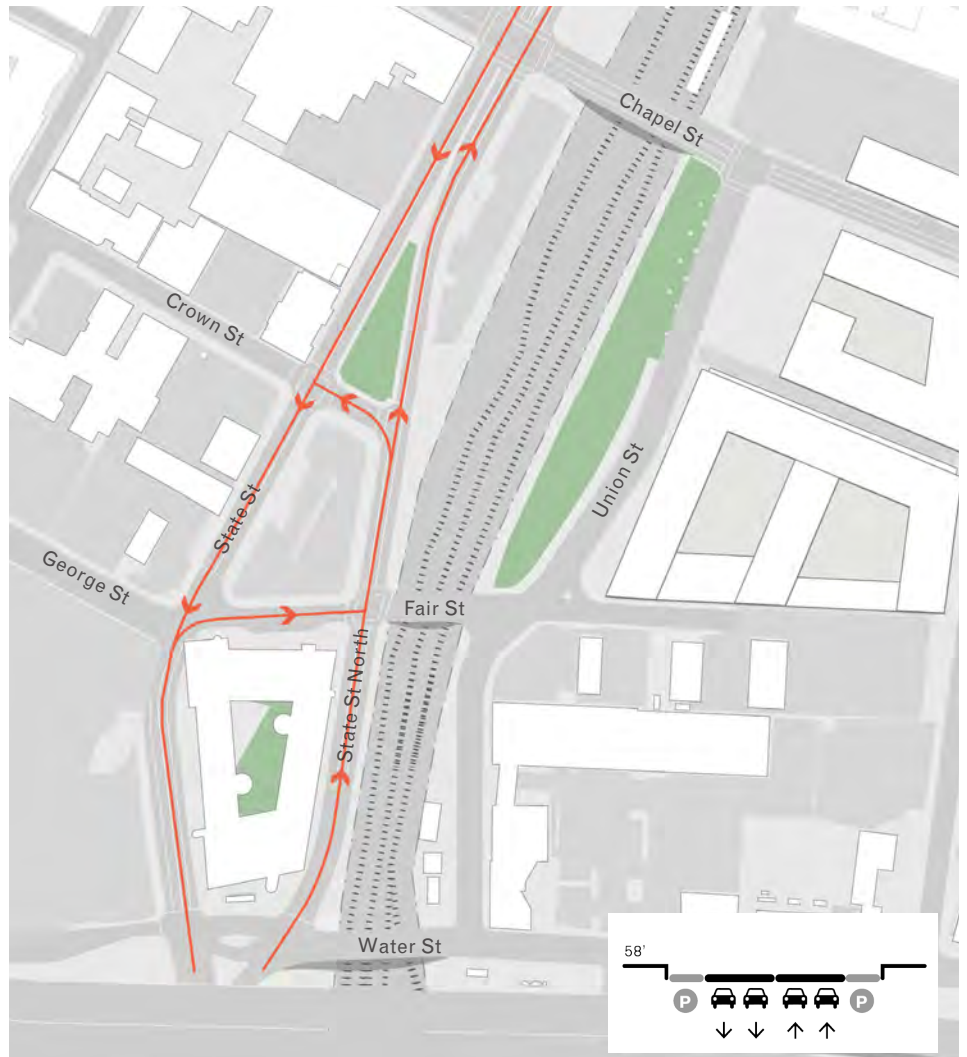
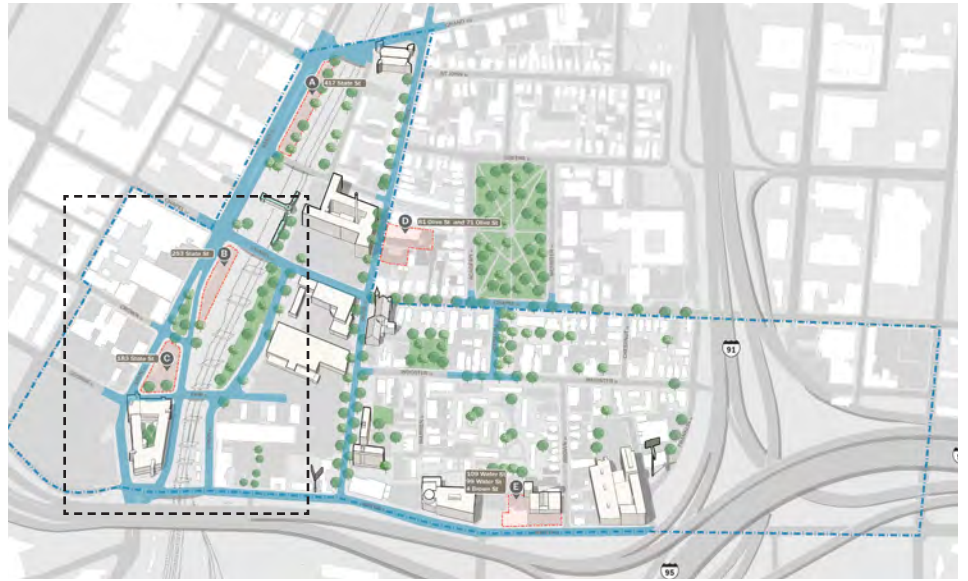
## State Street (south of Chapel)

The area designated as State Street (south of Chapel) is between Chapel Street and Water Street. Today, the configuration of State Street in this area is inefficient and disorienting. Despite being technically a two-way street, State Street actually functions as one-way pairs between Water Street and Chapel Street, making the crossing distance exceptionally wide and navigating less intuitive. Our team looked at three different options of how to reconfigure the design of State Street, as well as opportunities for future infill development along the corridor.

### Option 01:

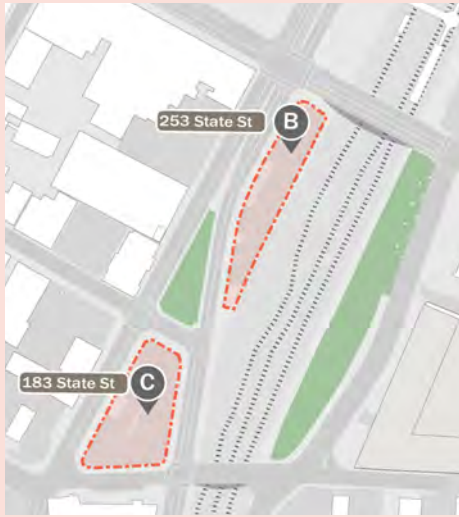
If there is no action on a redesign for State Street, this option looks at development on the eastern edge of State Street keeping the one-way loop along State Street south of Chapel Street.

This scenario tests the development capacity of the surface parking lots, maintaining the existing property lines and not changing the design of State Street. Keeping the street alignment and adhering to existing parcel boundaries, there are two potential development sites. These are city owned parcels east of State Street that are used as surface parking lots. Testing mixed use development scenarios on these parcels helps to start building a healthy street edge along the east edge of State Street, reducing the disconnect between Wooster Square and Downtown.



Existing Traffic Pattern





### 253 State Street

GSF 98,280 (6 stories)  
 FAR 4.33  
 Residential 14,040 SF (per floor)  
 Units 65 (13 per floor)  
 Retail 14,040 SF (excluding residential lobby)  
 Parking 37 spaces (0.57 spaces per unit)

### 183 State Street

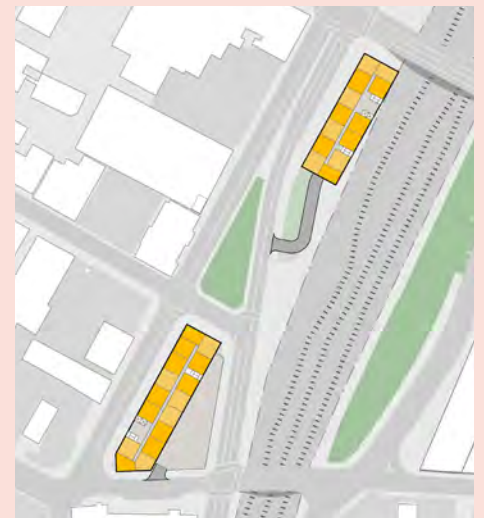
GSF 126,980 (6 stories)  
 FAR 4.70  
 Residential 16,755 SF (per floor)  
 Units 80 (16 per floor)  
 Retail 23,930 SF (excluding residential lobby)  
 Parking 40 spaces (0.50 spaces per unit)



Lower Floor Plan



Ground Floor Plan



Typical Floor Plan

The existing condition images below show the State Street one-way loop south of Chapel Street where it splits into State Street North and State Street going south creating a large landscape island and a surface parking lot.



## State Street (south of Chapel)

### Option 02:

The second option for State Street (south of Chapel) maintains the one-way circulation of State Street from Crown Street south to Water Street, but creates a forced right hand turn from State Street N onto State Street.

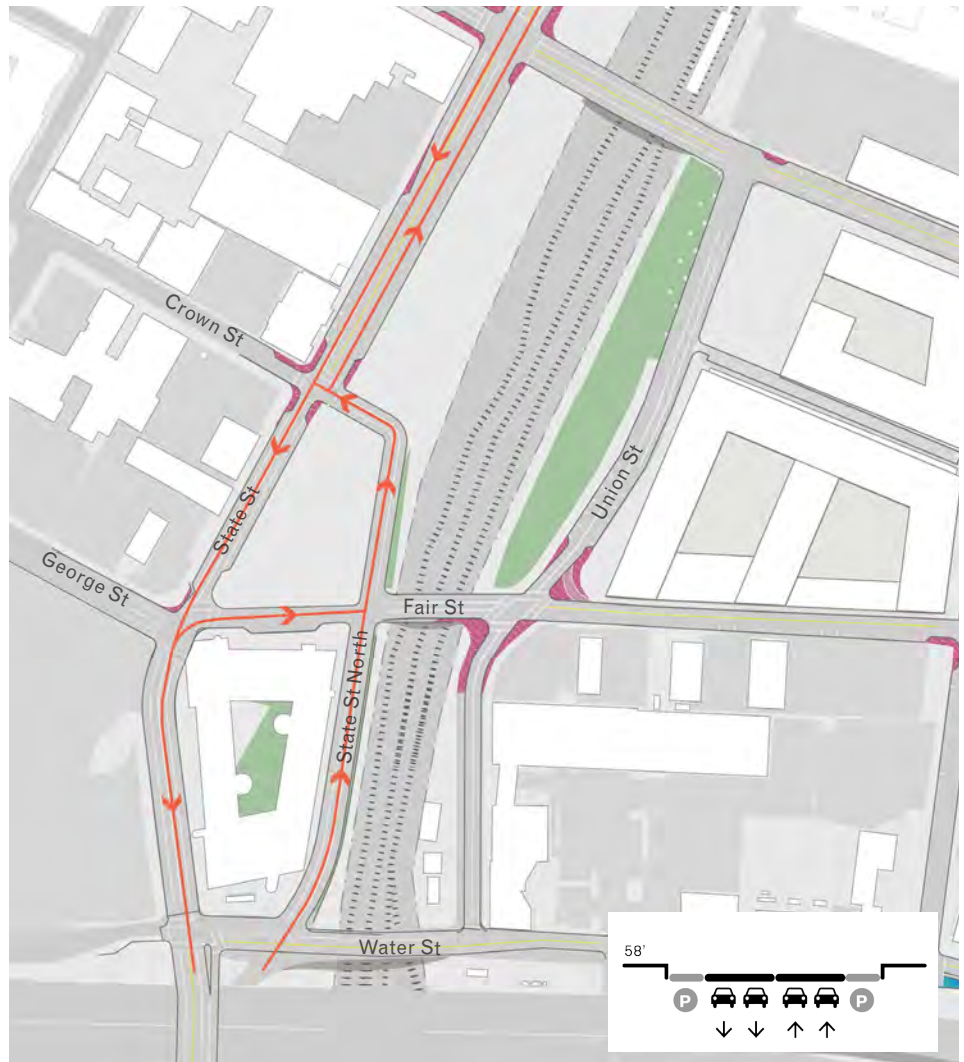
This redesign of State Street also provides curb extensions at intersections to shorten pedestrian crossing distances and pick up remnant open space.

### Pros:

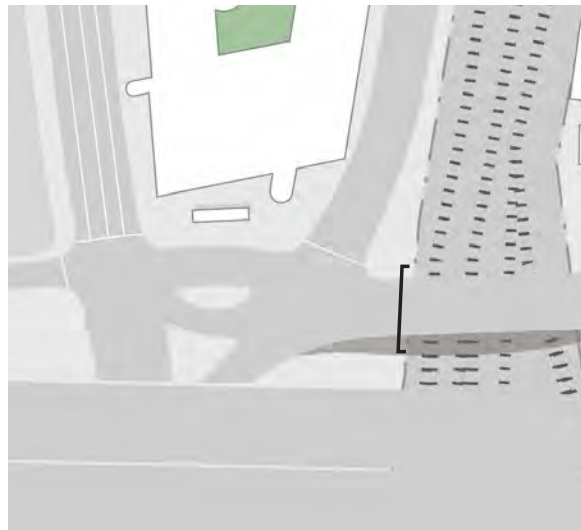
- Allows for on-street parking on both sides of State Street for the length of the street;
- Shortens crossing distances at intersections;
- Minimizes changes to circulation and thus reduces cost of new infrastructure; and
- Provides a new signalized intersection at Crown Street which will facilitate east to west movement.

### Cons:

- Does not accommodate bike lanes considering the current roadbed dimension as fixed;
- Maintains awkward and inefficient one-way circulation south of Crown Street on State Street;
- State Street remains overbuilt; and
- Water Street and State Street intersection is not resolved and remains challenging to circulate to State Street North.

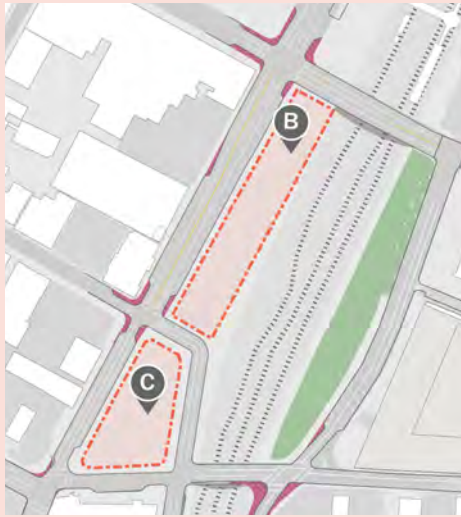


Proposed Traffic Pattern Option 02



State St, Union St and Water St intersection





### 253 State Street

GSF 196,560 (6 stories)  
 FAR 4.61  
 Residential 14,040 SF (per floor)  
 Units 130 (~65 units per bldg / 13 per floor)  
 Retail 28,080 SF (excluding residential lobbies)  
 Parking 74 spaces (0.57 spaces per unit)

### 183 State Street

GSF 130,228 (6 stories)  
 FAR 4.35  
 Residential 17,250 SF (per floor)  
 Units 80 (16 per floor)  
 Retail 23,980 SF (excluding residential lobby)  
 Parking 42 spaces (0.53 spaces per unit)



Lower Floor Plan  
Parking



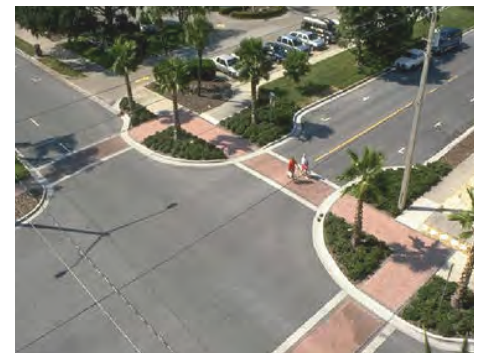
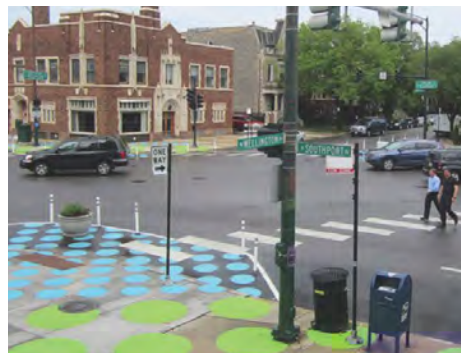
Ground Floor Plan  
Retail and Commercial



Typical Floor Plan  
Residential

In this scenario the realignment of State Street to form a four-way intersection at Crown Street allows for a larger developable parcel north of this intersection. By locating parking on the lower floor a continuous active street edge is created.

This option also looks at curb extensions as a streetscape strategy to realign the intersections on State Street and the adjacent examples represent temporary or a more permanent alternative for curb extensions.



## State Street (south of Chapel)

### Option 03:

This option proposes that State Street is redesigned to function as a fully two-way street along the length of the study area corridor, from Water Street to Chapel Street, thereby continuing State Street as a true two-way.

The reconfiguration will also allow for curb separate protected bike lanes on either side of the street. There is potential to put them on the same side, as a two-way cycle track, as well.

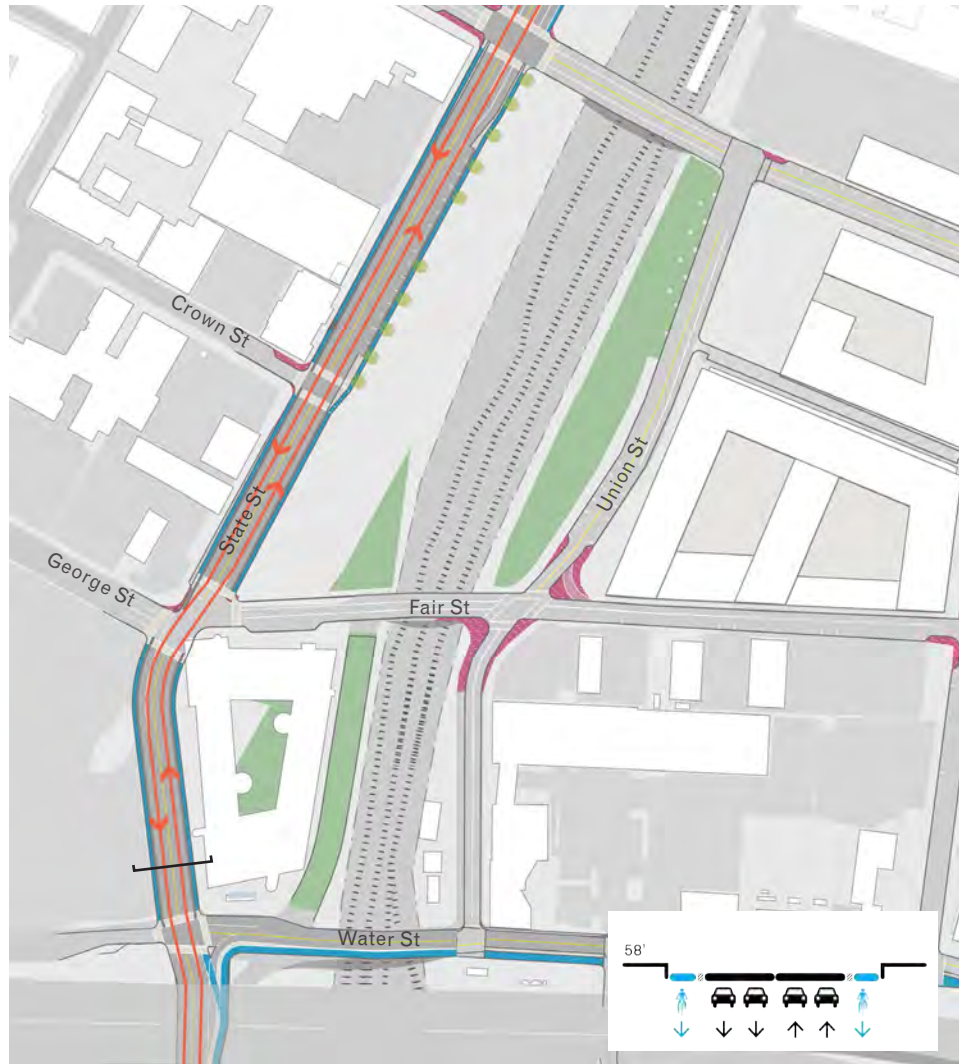
This concept eliminates the need for State Street N., thereby opening up additional area for future development and turning the area to the east of the Knights of Columbus building into a linear park, connecting to the Vision Trail.

#### Pros:

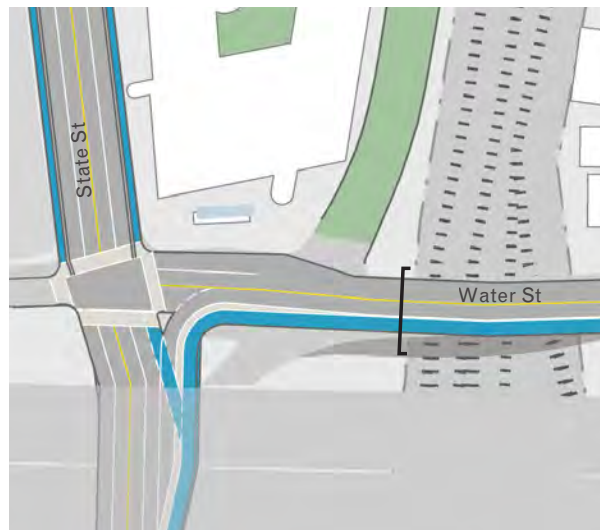
- The current right-of-way for State Street North can be used for open space and additional area for new development
- Eliminates circuitous street network around the Knights of Columbus Museum
- Makes State Street a primary bicycle connection for the greenway

#### Cons:

- Addition of separated bike lanes means a loss of on-street parking in some areas of State Street.



Proposed Traffic Pattern: Option 03



Proposed Union Avenue, State Street and Water Street intersection





### 183 & 253 State Street

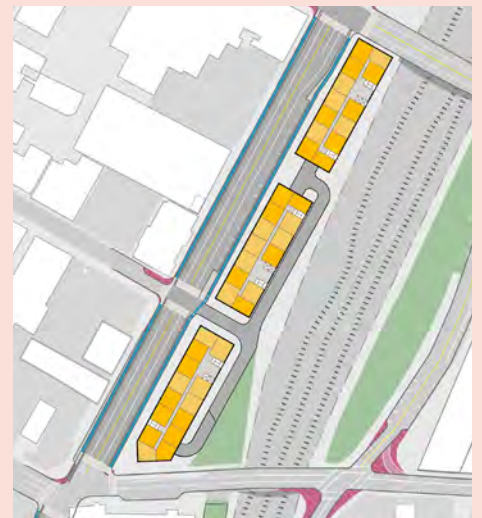
GSF 302,120  
 FAR 3.97  
 Residential 14,040 - 15,080 SF  
 (per floor)  
 Units 200 (~66 units per bldg. / 13-14  
 per floor)  
 Retail 43,160 SF (excluding  
 residential lobbies)  
 Parking 110 spaces (0.55 spaces per  
 unit)



Lower Floor Plan



Ground Floor Plan



Typical Floor Plan

By removing the one-way system for State Street North additional area is created for future development. These development parcels will also be able to accommodate below grade parking. Development here can create a continuous streetwall, thereby making a more pedestrian oriented environment rather than surface parking.

Curb separate bike lanes (right) provide a safe environment for bicyclists of all levels of experience and provide a link for the Farmington Canal Greenway. The parking lot (far right) will be a future development site in the study area.



# State Street (south of Chapel) Alignment and Development Matrix

## Option 01

- No changes are made to existing State Street design, circulation and right-of-way
- Future development adheres to existing parcel conditions



### 253 State Street

GSF	98,280 (6 stories)
FAR	4.33
Residential	14,040 SF (per floor)
Units	65 (13 per floor)
Retail	14,040 SF (excluding lobby)
Parking	37 spaces (0.57 spaces/unit)

### 183 State Street

GSF	26,980 (6 stories)
FAR	4.70
Residential	16,755 SF (per floor)
Units	80 (16 per floor)
Retail	23,930 SF (excluding lobby)
Parking	40 spaces (0.50 spaces/unit)

## Option 02

- Redesign State Street with curb extensions at intersections
- Concept primarily maintains current circulation of State Street
- State Street North intersects with Crown Street
- One-way traffic on State Street south of Crown Street
- Provides a new signalized intersection at Crown Street



### 253 State Street

GSF	196,560 (6 stories)
FAR	4.61
Residential	14,040 SF (per floor)
Units	130 (~65 units per bldg / 13 per floor)
Retail	28,080 SF (excluding lobbies)
Parking	74 spaces (0.57 spaces/unit)

### 183 State Street

GSF	130,228 (6 stories)
FAR	4.35
Residential	17,250 SF (per floor)
Units	80 (16 per floor)
Retail	23,980 SF (excluding lobby)
Parking	42 spaces (0.53 spaces per unit)

## Option 03

- Redesigned State Street with protected bike lanes
- Concept transforms State Street to a two-way street from Water to Chapel Street
- Eliminates the need for State Street North



### 183 & 253 State Street

GSF	302,120
FAR	3.97
Residential	14,040 - 15,080 SF (per floor)
Units	200 (~66 units per bldg. / 13-14 per floor)
Retail	43,160 SF (excluding residential lobbies)
Parking	110 spaces (0.55 spaces per unit)



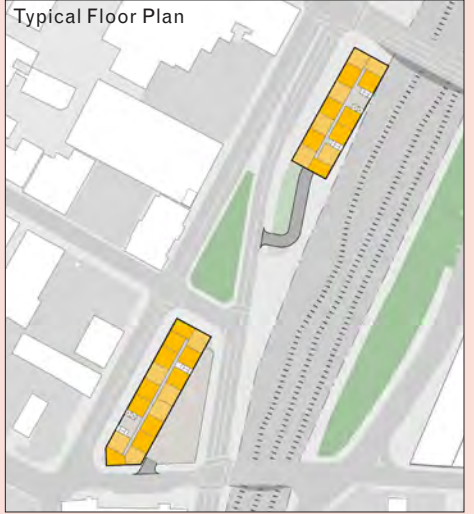
Lower Floor Plan



Ground Floor Plan



Typical Floor Plan



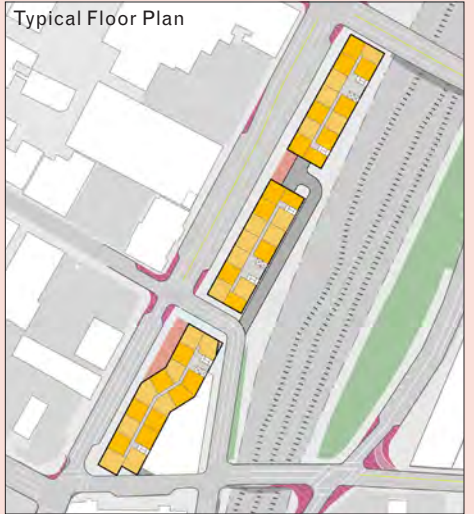
Lower Floor Plan



Ground Floor Plan



Typical Floor Plan



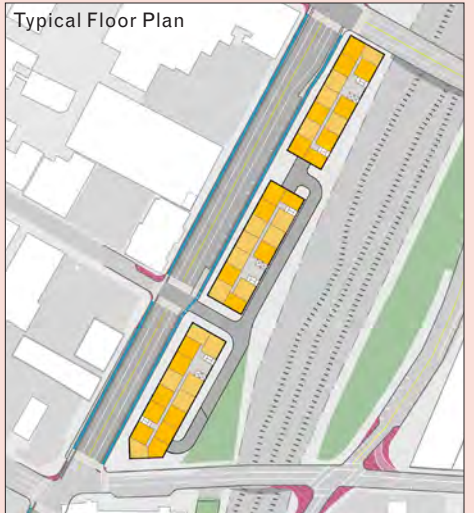
Lower Floor Plan



Ground Floor Plan



Typical Floor Plan

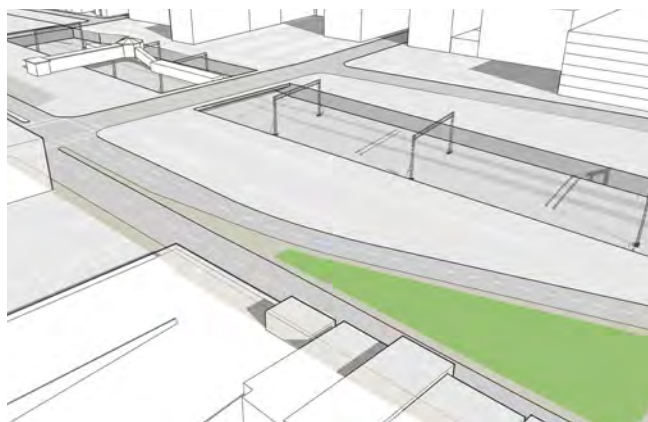




## State Street (south of Chapel)



View looking at State and Chapel Street intersection and State Street Station. The proposed development scenario recommends a two-way street from Crown Street to Water Street creating a continuous development parcel on the east side of State Street.





## State Street Compiled

The future proposal for State Street aims at creating a “pedestrian friendly” urban arterial street with active street edges. The proposed streetscape also accommodates buffered bike lanes on either side and on-street parking while maintaining the existing number of lanes. With the addition of bike lanes, State Street acts as a major north-south link between Grove Street and Water Street / Union Avenue along the Farmington Canal Greenway and the Vision Trail.

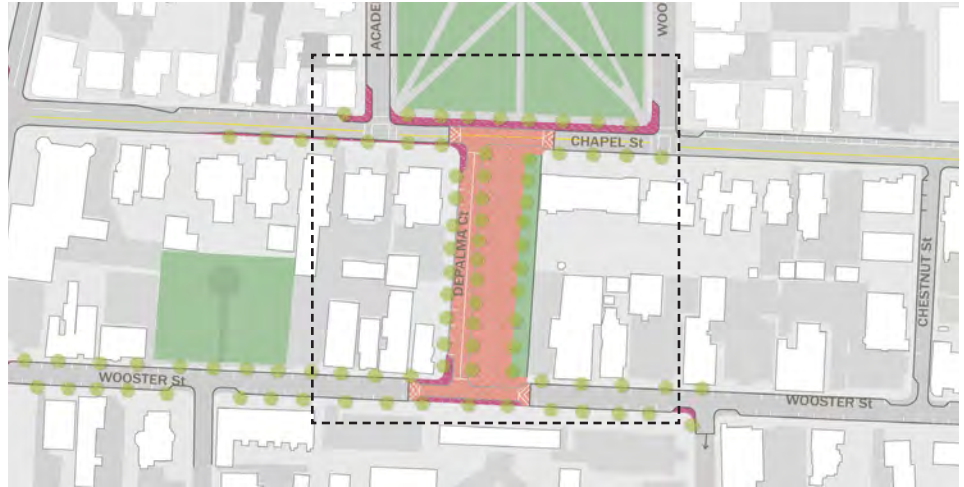


## Additional Neighborhood Interventions

### Improving Chapel Street, Wooster Street and DePalma Court

**P**ublic space in Wooster Square and the Wooster Street retail district help define the character of the neighborhood. However, these two elements, despite their relative proximity, do not directly relate to each other. Open space improvements in Wooster Square should consider how to make these areas connect and emphasize the walkable quality of the neighborhood.

The Wooster Square neighborhood is fortunate to have a significant, lush and well preserved central open space. The square is the centerpiece of the neighborhood and it is accented by the mature tree canopy that lines the streets. There are also additional smaller open spaces, including playgrounds, dog parks and community gardens that are scattered throughout the neighborhood providing a variety of open spaces.



Streetscape enhancements along Chapel Street and Wooster Street, such as curb extensions, are part of the larger move to provide open space connections from Wooster Square to Wooster Street.

One open space, in particular, has the potential to be a transformative link in the neighborhood for residents and visitors alike. DePalma Court and Paul Russo Memorial Park are situated between Wooster Square and Wooster Street. The park space, which consists of a small linear lawn and a broad sidewalk, hosts the weekend farmers' market, but is largely unused during the week.

The street itself is not a primary street and it is only a block long. One idea for improving the condition would be to create a continuous "shared space" between Russo Park and DePalma Court. This would allow for more flexibility of the spaces. The weekend markets could be spatially

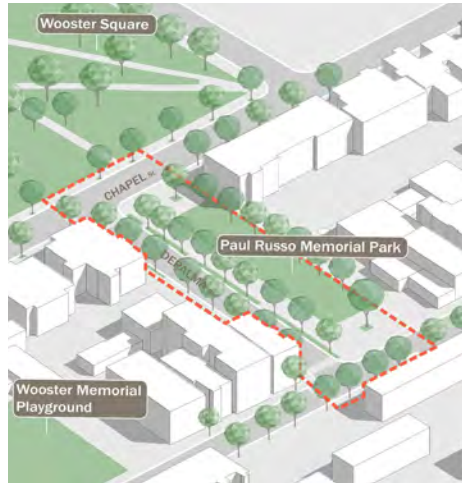
organized in a fluid manner and larger events could be accommodated.

The shared space also means that pedestrians and vehicles share the same right-of-way. This is one way to slow vehicular speeds and create a continuous public space between Wooster Square and Wooster Street.

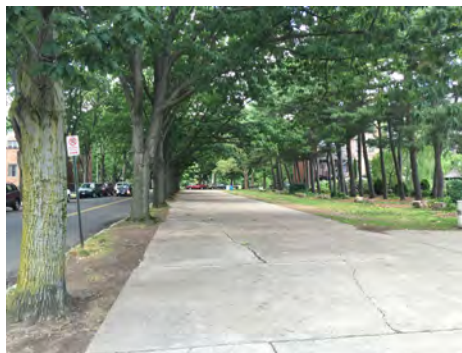
This open space link would provide seamless pedestrian access across







Wooster Square from all corners of the neighborhood along DePalma Court and to the Wooster Square retail district, as well as the Wooster Memorial Playground, an additional community resource. Tabled intersections on Wooster Street and Chapel Street will emphasize the equal ground plane between the square and Wooster Street.

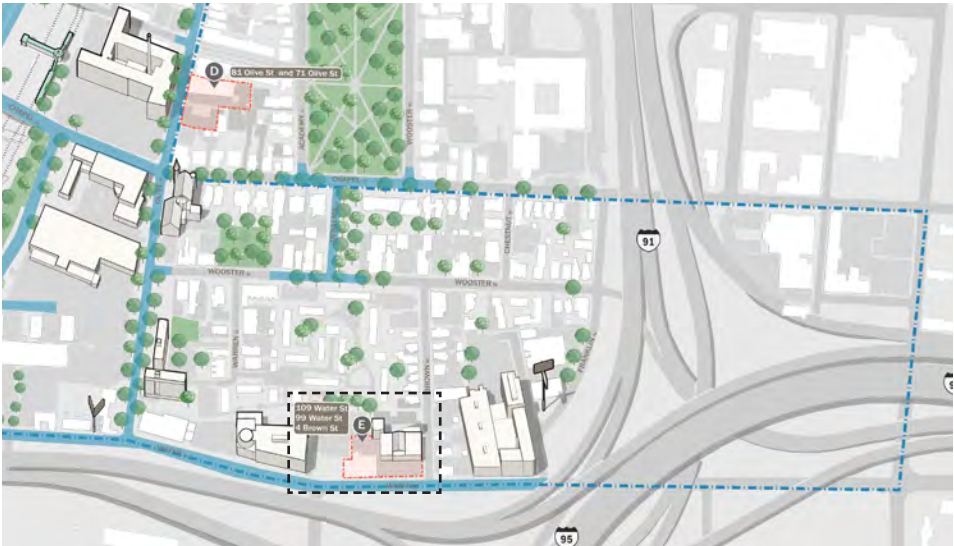


A redesigned DePalma Court/Russo Park will provide a larger flexible open space and a continuous ground plane between the street and the park. A "shared street" means that the space is open to both pedestrian and vehicular traffic, thereby not distinguishing hard boundaries.

# 109 Water Street

Additional "test-fit" sites in the neighborhood were analyzed for their development potential. These exercises were completed to see how many residential units or commercial SF could reasonably fit on a site. Different programs were proposed for each site.

In this scenario the planning team looked at a series of parcels along Water Street, at the intersection of Water Street and Brown Street. The team recognizes that there might not be immediate development potential for this site; nonetheless, understanding the future potential of the site, based on ownership, use and future program will be helpful.



Option 01 - Lower Level of site plan proposes ground floor residential on Brown Street and commercial office on Water Street.



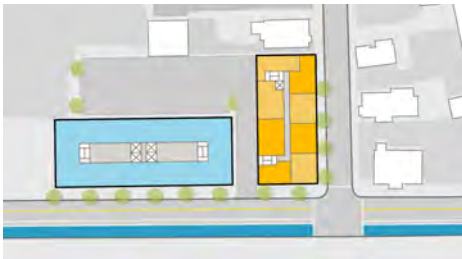
Option 02 - Lower Level of site plan proposes ground floor residential on Brown Street and commercial office on Water Street.

## 109 Water Street - Option 01

GSF	37,960
FAR	1.82
Units	37
Parking	51 spaces (1.11 space/unit)

## 109 Water Street - Option 02

GSF	104,880
FAR	2.83
Residential Units	36
Office	65,130 SF
Parking	47 spaces (0.5 space/unit and 0.27 space/600SF office)



Option 01 - Typical floor plan site plan proposes ground floor residential on Brown Street and commercial office on Water Street.



Option 02 - Typical floor plan site plan proposes ground floor residential on Brown Street and commercial office on Water Street.



# 81 Olive Street

There are limited infill sites internal to the neighborhood. The projects at 87 Union Avenue and the Spinnaker sites, at Chapel Street and Olive Street, are already in progress and have been approved.

81 Olive Street, between Court Street and Chapel Street, is currently used for surface parking and the Zigler Building. It has the potential for either new ground-up development or the reuse of the existing Zigler building on the site into smaller spaces.

Parking will be the biggest constraint on the site pending the scale of new development since much of it is shared with adjacent uses. Our team looked at one solution (seen below) that included a small number of townhomes and limited corner retail. Parking would be accommodated at the back of the site and behind the proposed buildings.



View of 81 Olive Street looking north



Ground level plan for test-fit on 81 Olive Street

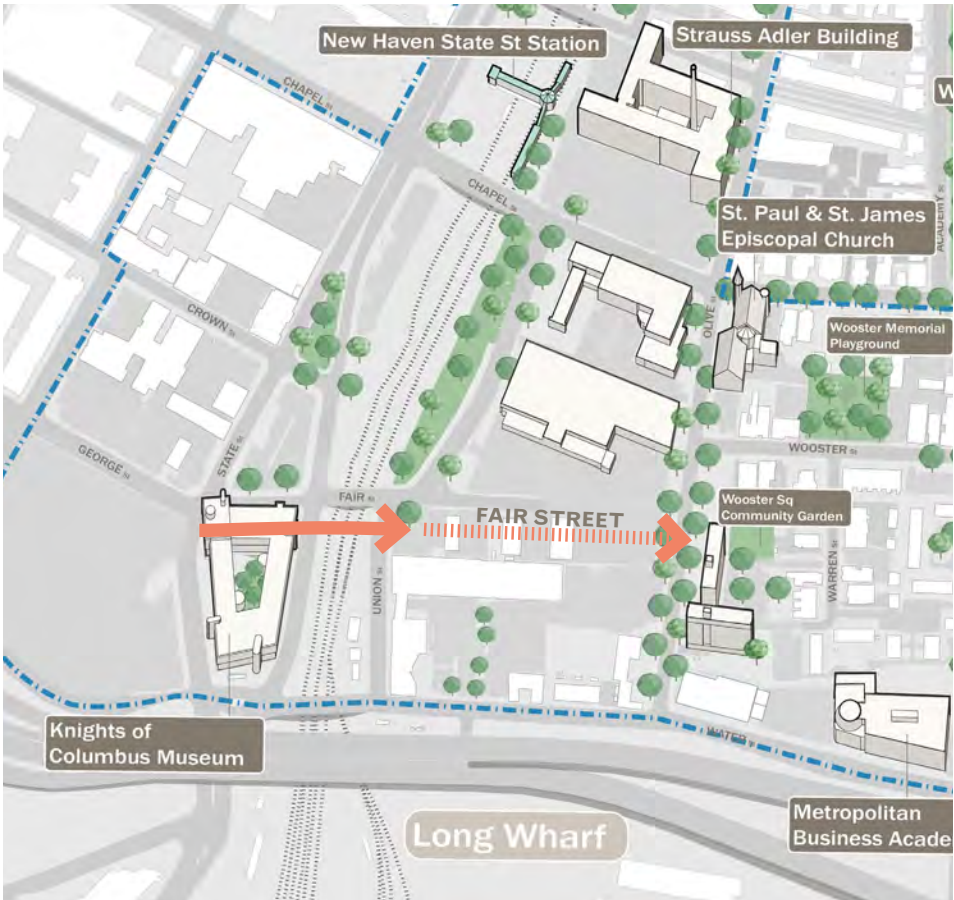


Aerial View of 81 Olive Street

<b>81 Olive Street</b>	
GSF	54,000
FAR	1.17
Residential	18,000 SF (per floor)
Units	16-20 duplexes
Retail	14,000 SF (excluding residential lobbies)
Parking	33 spaces

# Fair Street Assessment and Alternatives

Fair Street (at right) is a dead-end street running east-west from Union Street towards Olive Street. If connected east to Olive Street, it has the potential to provide new access for travelers between Downtown and the Wooster Square neighborhood. In 2008, data was collected to determine the cost-benefits of providing such access, and interest in this connection has been re-ignited by recent investment and nearby redevelopments, which could benefit from enhanced access.



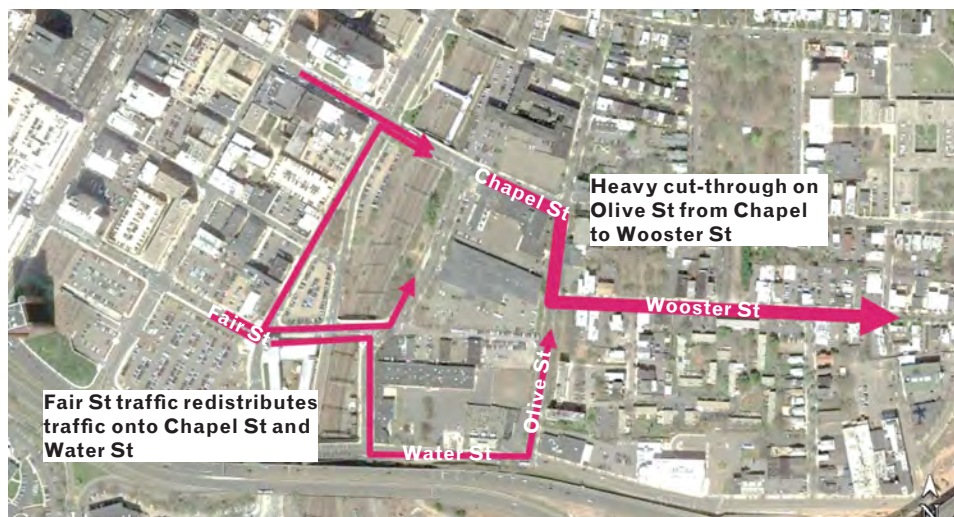
Fair Street existing alignment and potential extension



## 2008 Alternatives Analysis

The 2008 study examined a direct roadway extension to Olive Street, a curved roadway extension to make Fair Street connect at Wooster Street in a four-way intersection, and only a multi-use trail connection to Olive Street. As exhibited in the diagram (right), this study found that significant traffic is diverted onto Chapel and Water Street due to the lack of the Fair Street connection and proved that, relatedly, cut-through access to the interstate system must be factored into any future analysis, since the only other interstate access alternatives are provided to the west from Route 34, farther south of Long Wharf Park, and farther north at Trumbull Street (lower right).

The 2008 study found that a through-street connection would improve vehicular delay and travel time across the study area. It determined that the cost of constructing it would not outweigh the broader benefits. However, the study did not count or analyze walking, biking, quality of life, or business access benefits, and it did not anticipate the future development of the sites between Fair Street, Union Street, Chapel Street and Olive Street.



Existing configuration adds congestion to Chapel and Water Street



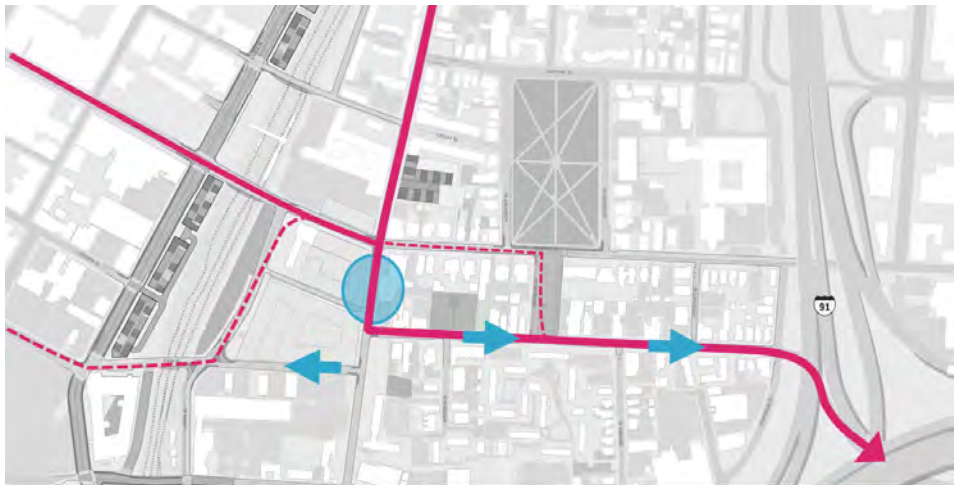
Re-routing needs to consider regional access impacts and implications for cut-through traffic

# Fair Street Assessment and Alternatives

## Recommendation

A Fair Street extension is likely and needed with upcoming developments, and such an extension would also benefit walkability between downtown and Wooster Square by breaking up the superblock between Water Street and Chapel Street. An additional through connection for walking will also be provided in this block via a service alley between the two forthcoming developments.

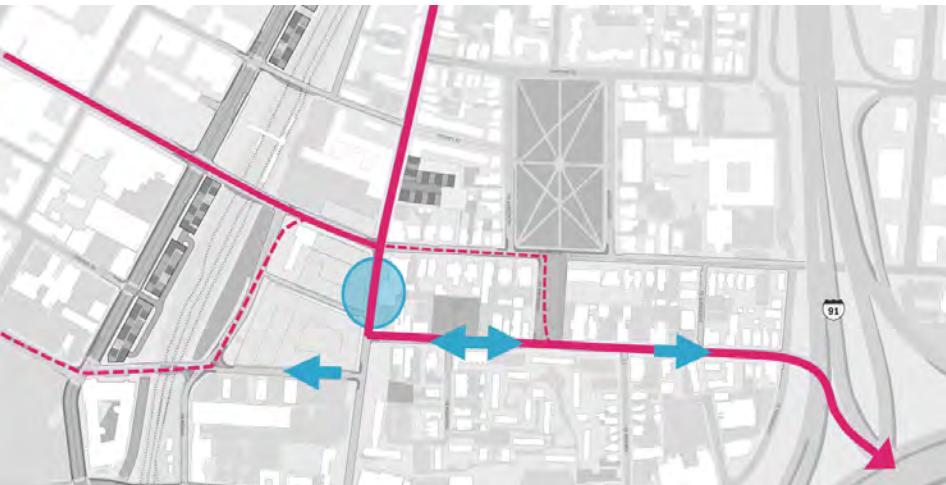
Given these forthcoming developments, the team developed three alternatives for connecting Fair Street directly to Olive Street, south of Wooster Street. At a minimum, there will be a pedestrian and bike connection between Union Street and Olive Street. Each alternative benefits walking and biking connectivity between Wooster Square and Downtown. Depending on the alternative, different vehicle traffic impacts can be expected.



Route Option 1

### Routing Option 1: Westbound One-Way on Fair Street

The addition of a one-way westbound Fair Street extension has minimal negative vehicular impact but improves local access for vehicular trips from Wooster Square to downtown. It would also provide enhanced walking and biking access, but a designated bike lane would only be one-way unless a contra-flow facility is installed.



Route Option 2

### Routing Option 2: Westbound One-Way on Fair Street, Two-Way Traffic on Wooster Street between Olive Street and DePalma Court

Extending Fair Street with a one-way westbound circulation, coupled with a two-way section of Wooster Street between Olive Street and DePalma Court, would have varying impact depending on whether on-street parking is removed or not. If on-street parking for local businesses is preserved, this block of Wooster



Street will function with a high amount of “friction” from opposing traffic, reducing speeds, increasing safety, and potentially diverting some traffic bound for the I-95 north on-ramp to the east, reducing traffic on Olive Street. If on-street parking is removed on one side of the street to facilitate vehicle flow, little diversion from existing interstate access patterns is expected, and a new minor cut-through towards Fair Street and downtown could evolve, increasing visibility to businesses on that stretch of Wooster Street, while also increasing traffic on Olive Street somewhat.

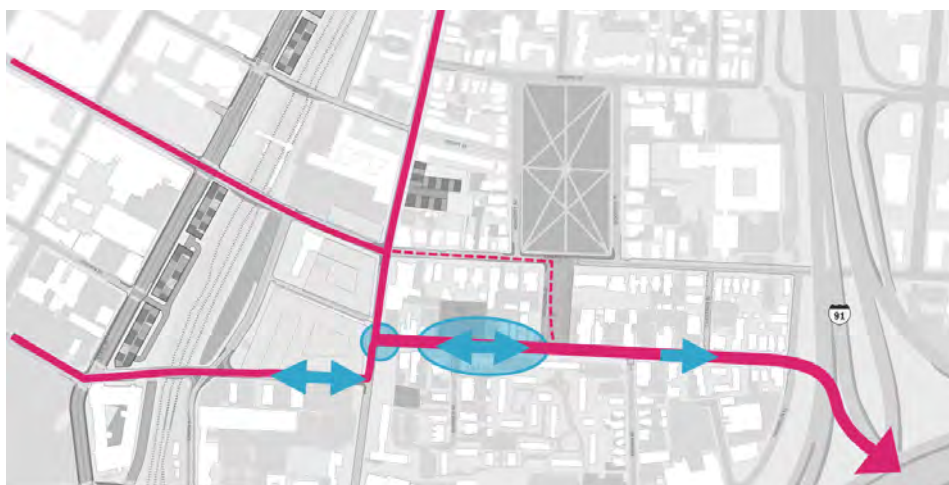
### **Routing Option 3: Two-Way Traffic on Fair Street, Two-Way Traffic on Wooster Street between Olive Street and DePalma Court**

Providing a complete two-way circulation option along Fair Street and a portion of Wooster Street allows a direct two-way connection from Church Street in downtown through to DePalma Court as a result of the recent two-way conversion of a portion of George Street. This new access between downtown and Wooster Square would benefit people in both neighborhoods as well as many destinations beyond them by opening an additional route. Today, local east-west traffic east of downtown must rely mostly on Chapel Street, especially in the westbound direction since Grand Avenue becomes one-way eastbound at State and Water Street stops at the connection to George

Street at Orange Street. With the new two-way connection, all east-west trips get another routing, which can enhance business access, disperse trips to uncongest Chapel Street, and increase overall visibility and activity for future development, “eyes on the street,” and community connectivity.

This connection may also mean increased traffic on the portion of Wooster Street that becomes two-way, though this will help lessen impacts to Olive Street if Fair Street could only be accessed from Chapel Street or Water Street. While the traffic diversion would improve overall delay, increased volume at and between the intersections of Olive Street with Fair Street and Wooster Street can be expected, but lower volume on the rest of Olive is likely.

Finally, the diversion of traffic from Chapel Street to Fair Street for accessing I-95 northbound may induce some additional traffic due to the reduced delay at Olive Street and Chapel Street and at Olive Street and Wooster Street, but significant increases are not expected and any increase improves visibility of Wooster Street businesses. A potential off-setting connection if traffic volumes are excessive would be to improve the viability of Franklin Street to access I-95 north from Water Street. In the long-term, the City should also consider other two-way conversions of its one-way network to help spread traffic to parallel corridors.



Route Option 3

# Farmington Canal Greenway

## Routing Alternatives

The Farmington Canal Heritage Greenway runs for over 80 miles from Northampton, MA to downtown New Haven—providing non-motorized access to the city’s jobs, retail, restaurants and services. Phase IV of the project will complete the New Haven segment of the Farmington Canal Trail, connecting the heart of downtown with Long Wharf Park. This trail has primarily served recreational and touring cyclists, but once this last missing link is completed, additional walking and biking access to jobs and other destinations will be provided to residents and workers in the Wooster Square neighborhood area.

Since there is not yet funding to support separated infrastructure, the City has wisely proposed to provide the missing link of the trail via a shared on-street connection, and 90% design drawings are already completed. This plan calls for trail users to exit the trail by way of a ramp up to street level near the intersection of Grove and Orange Streets. Farmington Canal Trail users will share the road with cars by taking Grove to Olive Street heading south, then taking Water Street until it connects with the Vision Trail. The entire route will have on-street markings and appropriate signage. While the most feasible short-term option, this routing poses concerns

from a clarity and safety perspective, since there will still be many conflict points with motorists for people biking in mixed traffic. This routing follows the dotted yellow line routing in the 2010 proposal, depicted below. Longer term, there has been discussion of a more dramatic change to Olive Street which would, in essence, replace on-street parking with protected bike lanes. This option, should it move forward, would be implemented after the Farmington Canal project is completed since, as mentioned previously, funding and approvals are not yet in place to support separated infrastructure

travels along the northeast corridor railroad tracks, but the City has assessed that this will be prohibitively expensive and logistically difficult given needed minimum Federal safety separation from the active rail lines among a variety of competing uses. Additionally, a trail along the rail bed, while giving a contiguous rail-trail feel to the ending of the trail, would also be invisible to people riding bikes at the street level, thereby limiting its attractiveness to those needed to connect with the on-street biking network and local destinations.

### 2. Separated Facility on State Street

The project team assessed the feasibility of creating an off-street trail connection from the end of the existing

### 1. In the Rail Bed

City planners and advocates have long considered a route that approaches then



2010 Proposal: Farmington Canal Greenway Phase 4 - Olive Street Routing, Credit: Milone & MacBroom



trail along Grove Street, State Street and Water Street, which would also plug into the eventual transformation of Route 34 and Water Street as an urban

boulevard. There is adequate right-of-way to carry out this design, especially along State Street, though this design would involve several curblined

modifications and some intersection re-configurations. Nonetheless, this routing would provide a beneficial sense of continuity with the otherwise separated nature of the below-grade trail at far less cost than the rail bed option. It also would better serve the local cycling network, prominently enhance overall visibility of biking in New Haven, and provide a vital biking connection to and from Union Station.

### Recommendation

A separated bicycle facility is recommended to connect the Farmington Canal Greenway to Long Wharf along Grove, State, and Water Streets. This facility will eliminate conflicts and have better performing operations and higher throughput and speeds for all users, while also creating a separated but highly-visible trail connection that serves both regional and local biking traffic going to key destinations like Union Station. The facility would be bi-directional and curb-separated, with special care paid to intersection treatments and signage.



Proposed Greenway Alignment – Phase IV and Phase V



A curb-separated bike lane (cycle track) is a long-term vision for the FCG along State St.