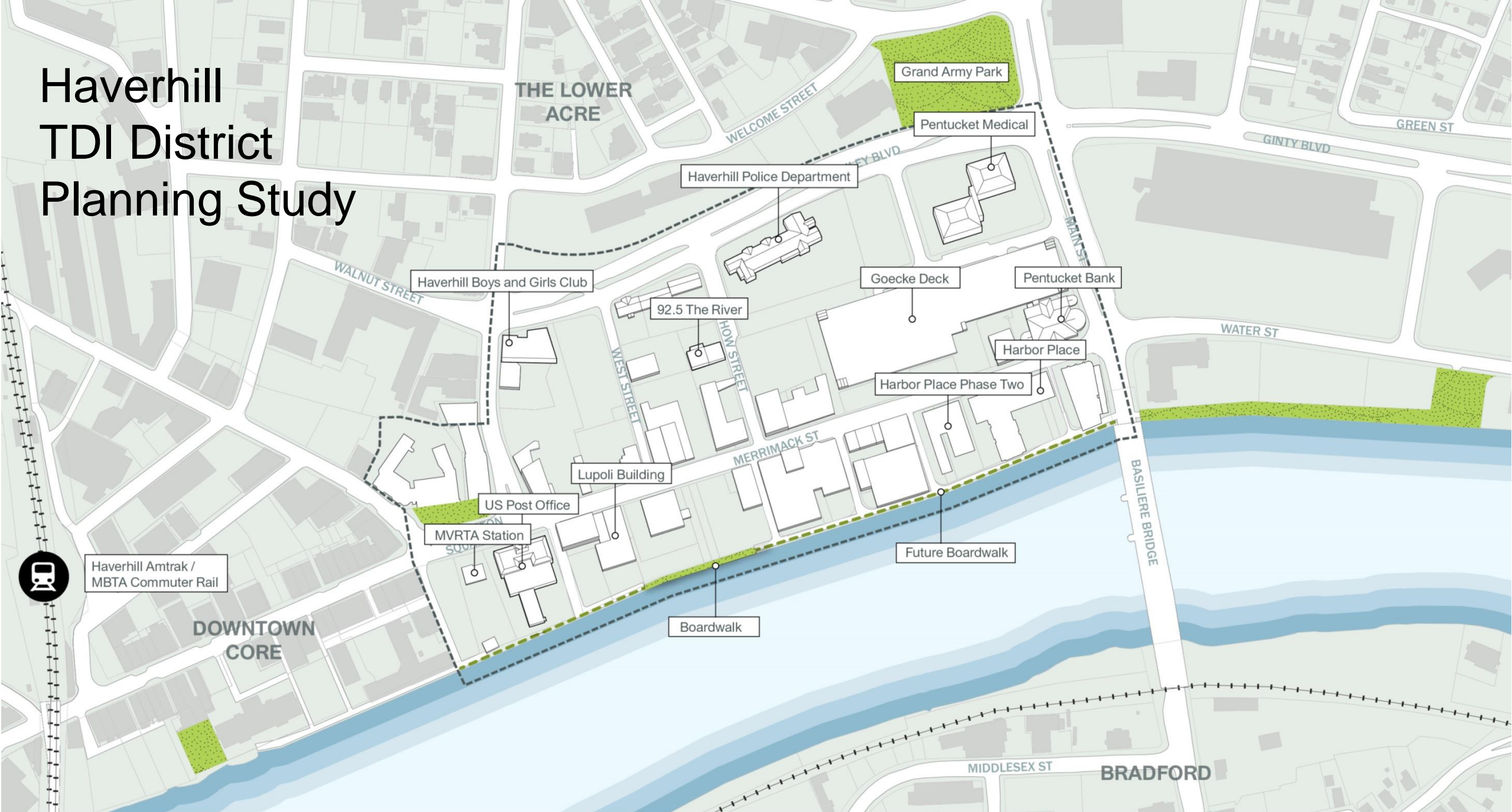
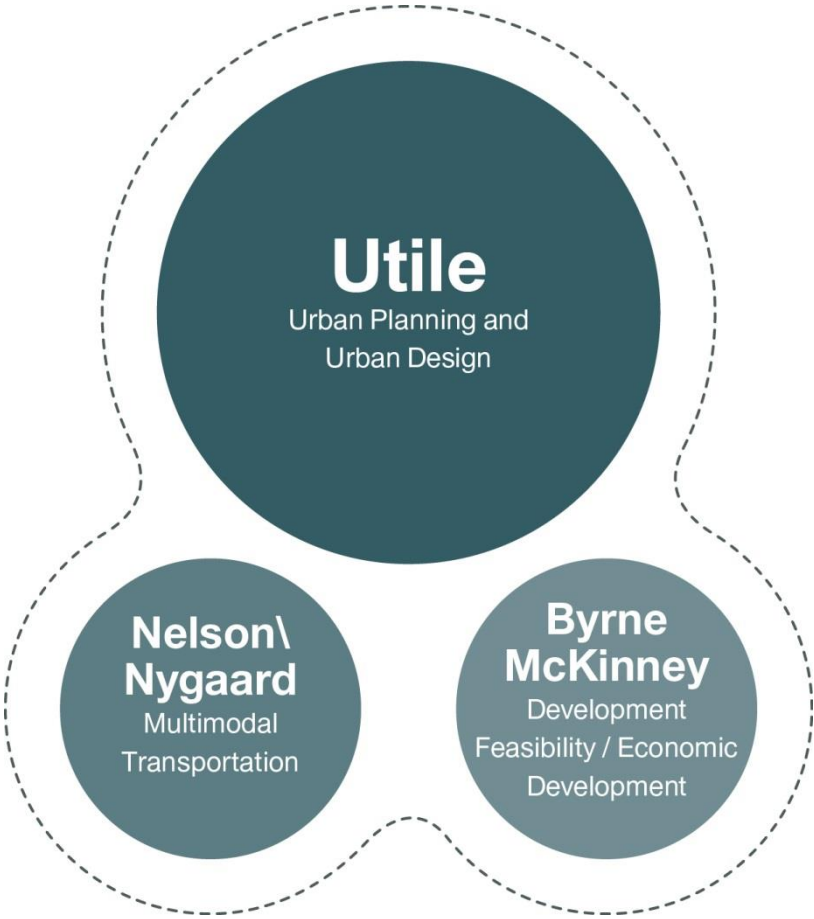


Haverhill TDI District Planning Study



Who we are



Client Team

MassDevelopment on behalf of the TDI
Core Partnership:
City of Haverhill
Greater Haverhill Foundation
Planning Office for Urban Affairs

Consultant Team

Utile

Tim Love, Principal
Sneha Lohotekar, Urban Designer

Advisors

Nelson\Nygaard

Multimodal Transportation

Byrne McKinney & Associates

Development Feasibility / Economic Development

Contents

Project Objectives

Study Area Context and Urban Design Issues

Urban Design Strategies

- Strategy 01: Streetscape and Public Realm Improvements –Merrimack Street and Washington Square
- Strategy 02: Programming and Events along Merrimack Street
- Strategy 03: Reorganize Parking and Enhance the Street Network – Bailey Blvd and Park Way
- Strategy 04: Redesign of MVRTA Station and Boardwalk Extension
- Streetscape and Storefront Guidelines

Redevelopment Strategies: Market Conditions

Redevelopment Strategies: Recommendations

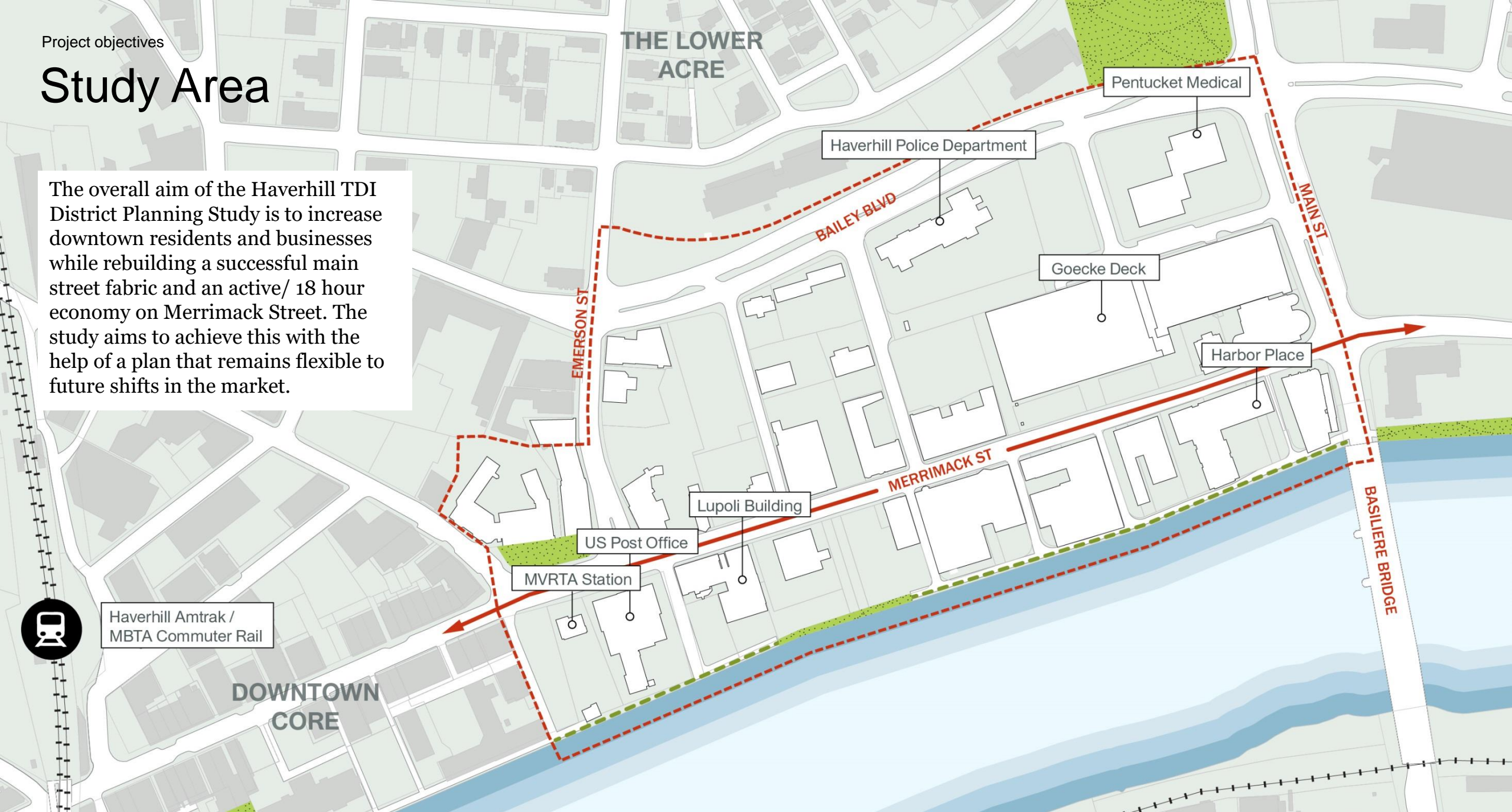
Next Steps

Appendix

Project Objectives

Study Area

The overall aim of the Haverhill TDI District Planning Study is to increase downtown residents and businesses while rebuilding a successful main street fabric and an active/ 18 hour economy on Merrimack Street. The study aims to achieve this with the help of a plan that remains flexible to future shifts in the market.



Haverhill Amtrak /
MBTA Commuter Rail

DOWNTOWN
CORE

Objectives

Develop a redevelopment strategy for the TDI District that addresses three primary issues:

- **Placemaking and District Character**
 - Reconnect the Merrimack Street retail district to Downtown
 - Build a “base layer” of public improvements
- **District-wide Development Strategy**
 - Identify catalytic public and private projects
 - Concentrate housing and commercial development at key locations
- **Transportation and Circulation Solutions**
 - Break up superblocks with ladder and support streets to drive foot and vehicular traffic to the District and river
 - Develop a long term strategy for structured and on-street parking



Project principles

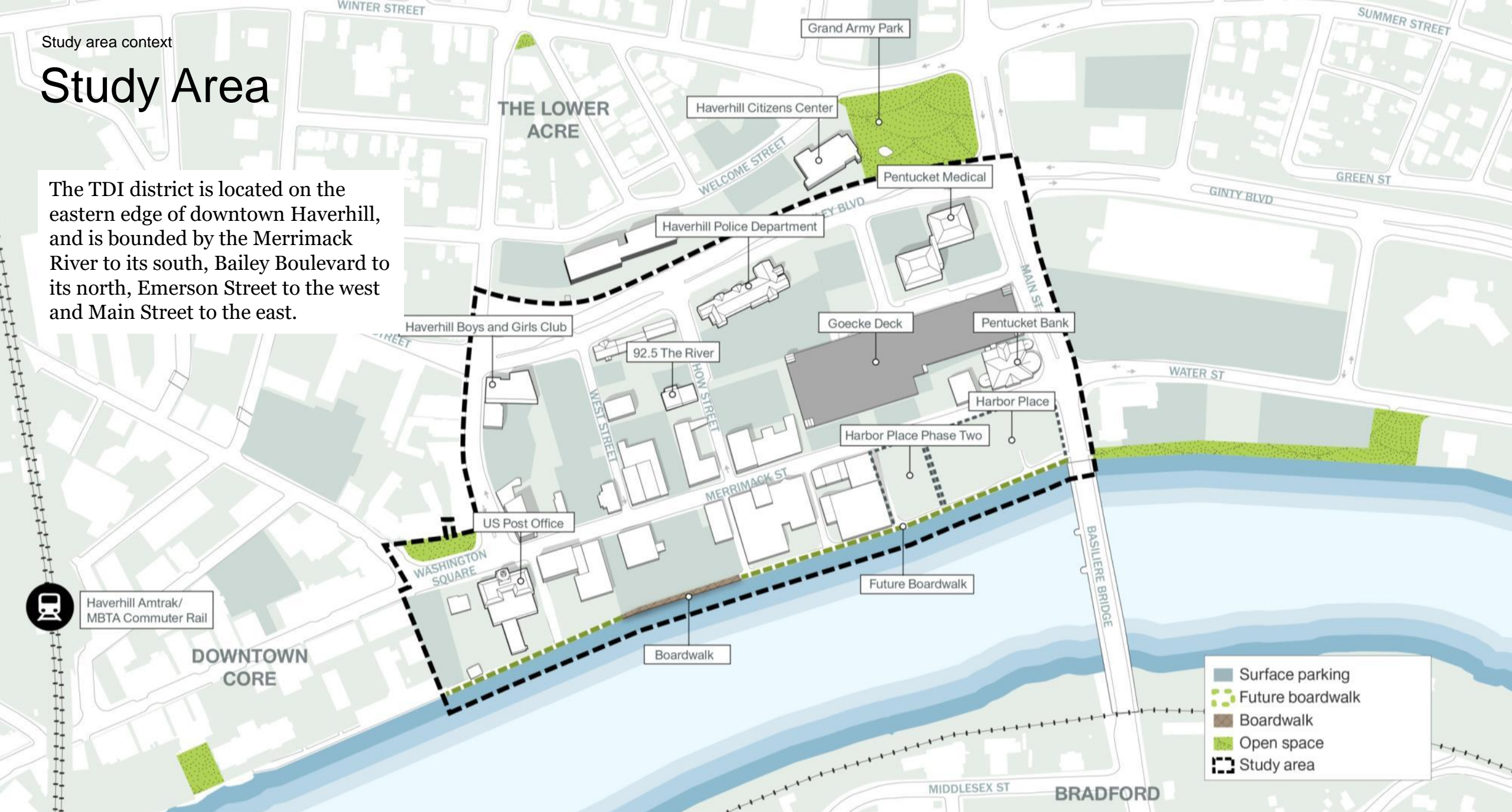
- Develop urban moments along Merrimack Street by focusing development energy along the corridor
- Strengthen connection between Downtown, Washington Square, and Main Street
- Improve existing ladder streets and add new streets to drive development (and value) up from the river
- Attract complementary development at a range of scales
- Spread use types and absorption across the district (don't use it up on one or two sites)
- Don't give up on the City's parking pricing program
- Develop a comprehensive phased parking plan to replace the Goecke Deck and accommodate shifts in demand over time



Study area context and urban design issues

Study Area

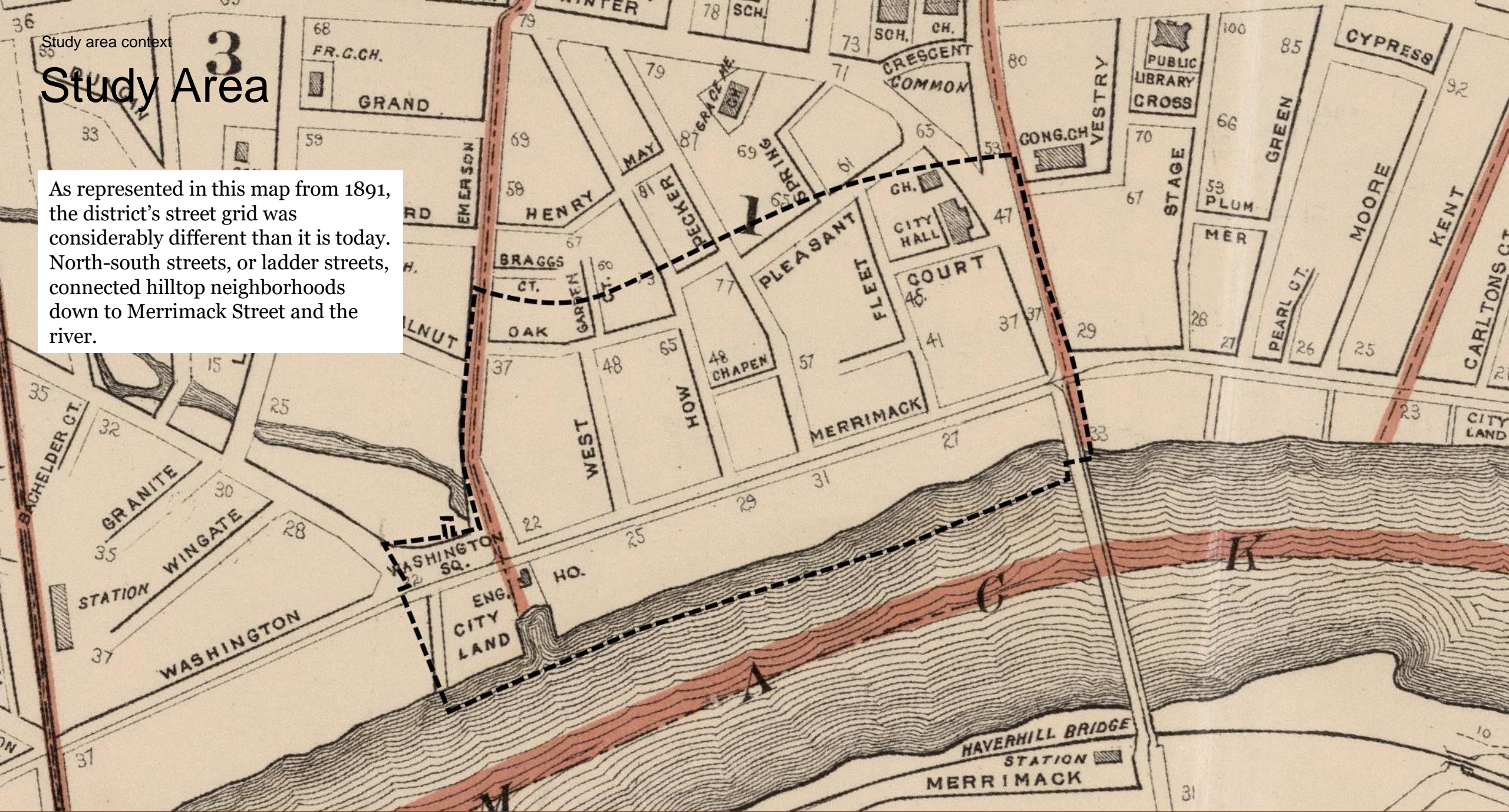
The TDI district is located on the eastern edge of downtown Haverhill, and is bounded by the Merrimack River to its south, Bailey Boulevard to its north, Emerson Street to the west and Main Street to the east.



Study area context

Study Area

As represented in this map from 1891, the district's street grid was considerably different than it is today. North-south streets, or ladder streets, connected hilltop neighborhoods down to Merrimack Street and the river.



Merrimack Street legacy

Merrimack Street served as Haverhill's primary retail street until the 1960's , bustling with commercial activity.



South Side of Merrimack Street in its retail heyday



Merrimack Street in the 1960's (photo credit: David J. Connolly)

Merrimack Street today

The district was drastically changed by urban renewal. Merrimack Street today is still host to a range of scattered shops and services, along with surface and structured parking lots.



Current Land use

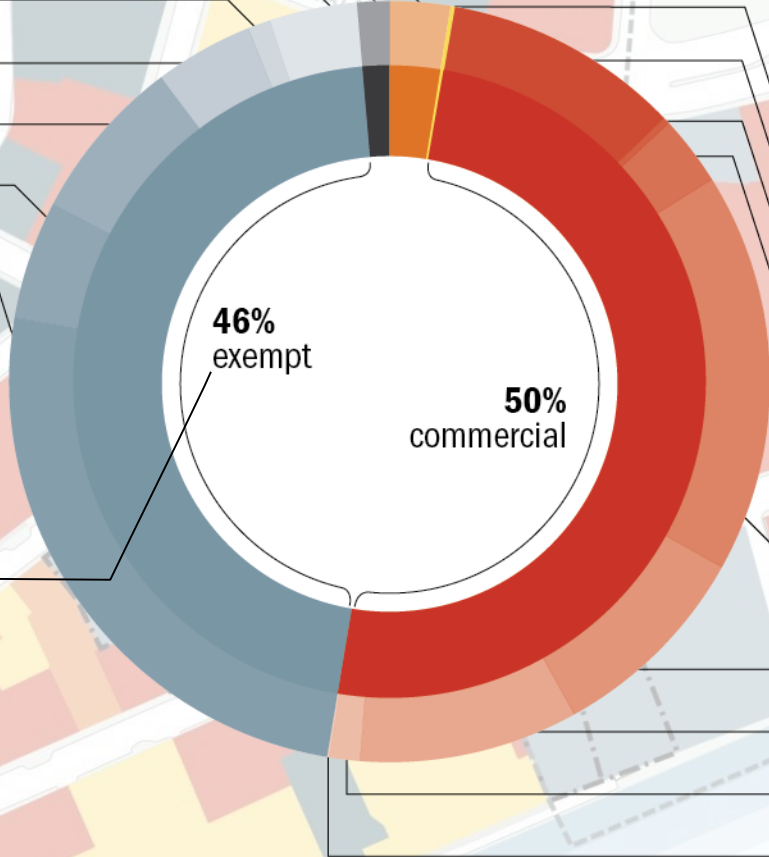
The district is dominated by commercial uses and surface parking lots, with residential population located around the district's periphery



- Commercial
- Mixed-use
- Industrial
- Residential
- Exempt
- Open space
- City-owned
- Study area

Current Land use

- Mixed use
- Industrial
- US Government
- Municipal public safety
- Recreation, active use
- Housing Authority
- City, Vacant
- City, Improved



Opportunity:
develop city-owned
parcels to increase
property tax
revenue within the
district.

- Residential
- Retail
- Restaurant
- Parking
- General office
- Bank
- Medical office
- Office building
- Vacant

The city can be instrumental in triggering transformation in the district as it owns a significant amount of land within the study area.

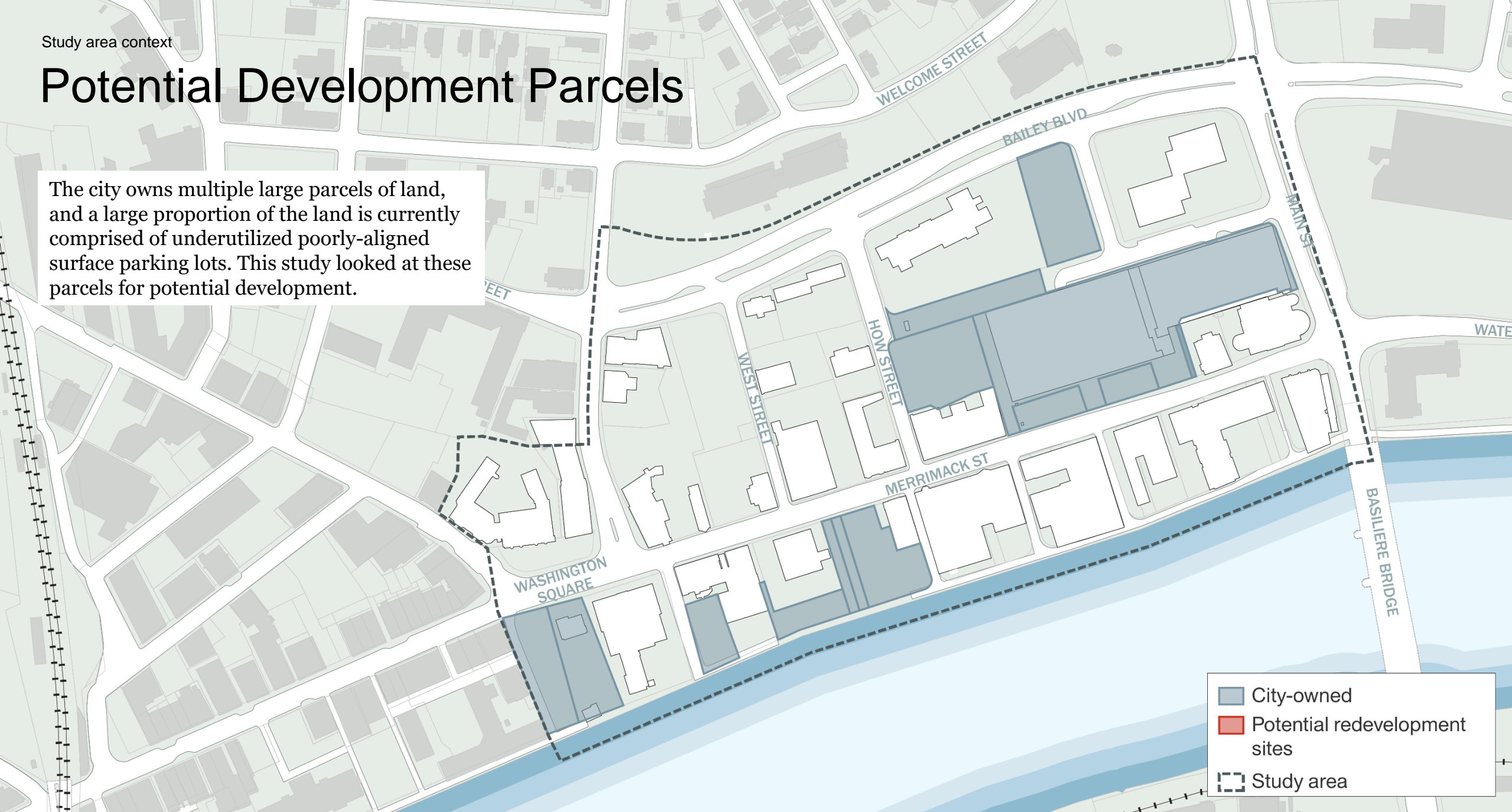


Current Land use



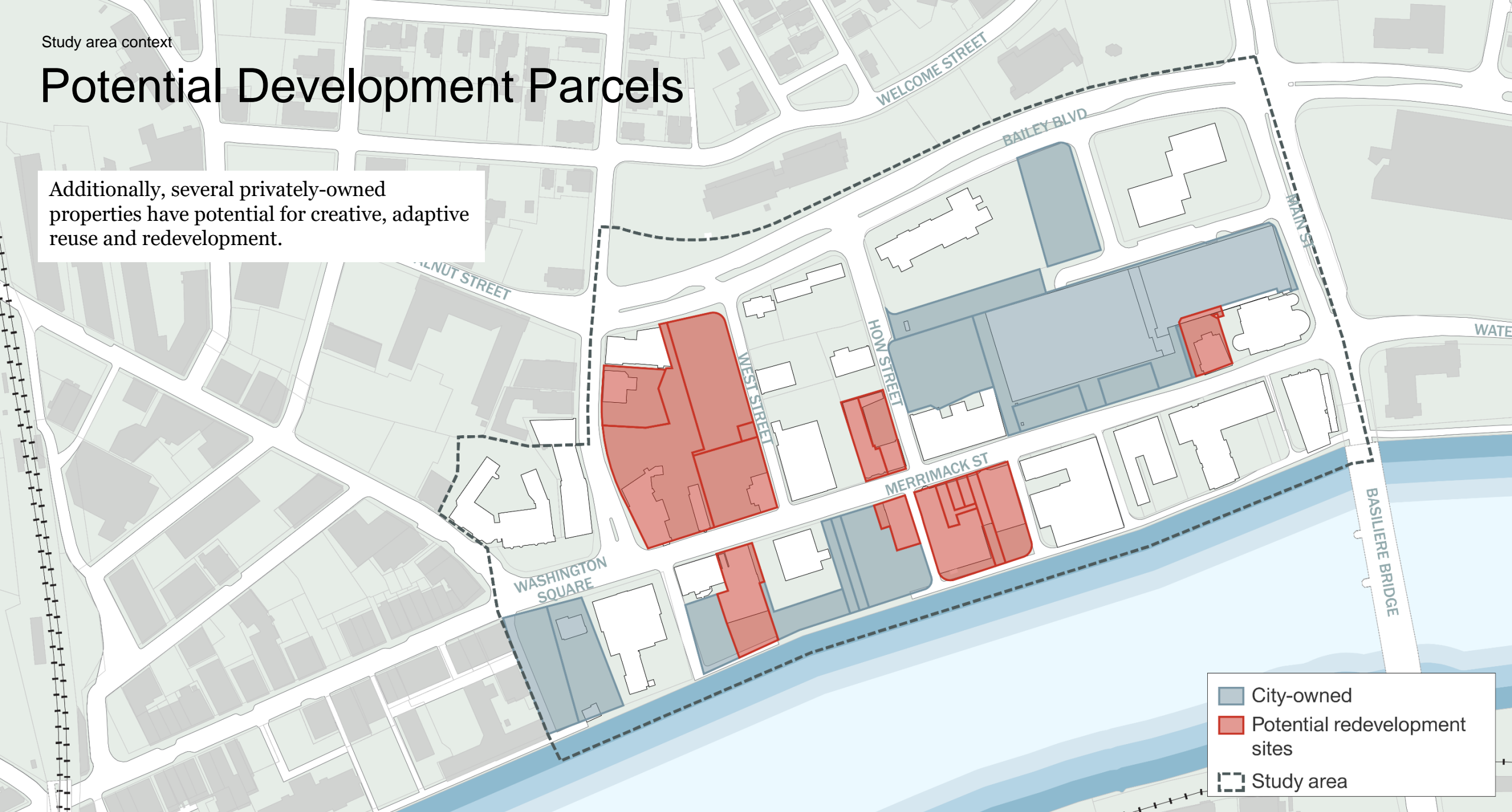
Potential Development Parcels

The city owns multiple large parcels of land, and a large proportion of the land is currently comprised of underutilized poorly-aligned surface parking lots. This study looked at these parcels for potential development.



Potential Development Parcels

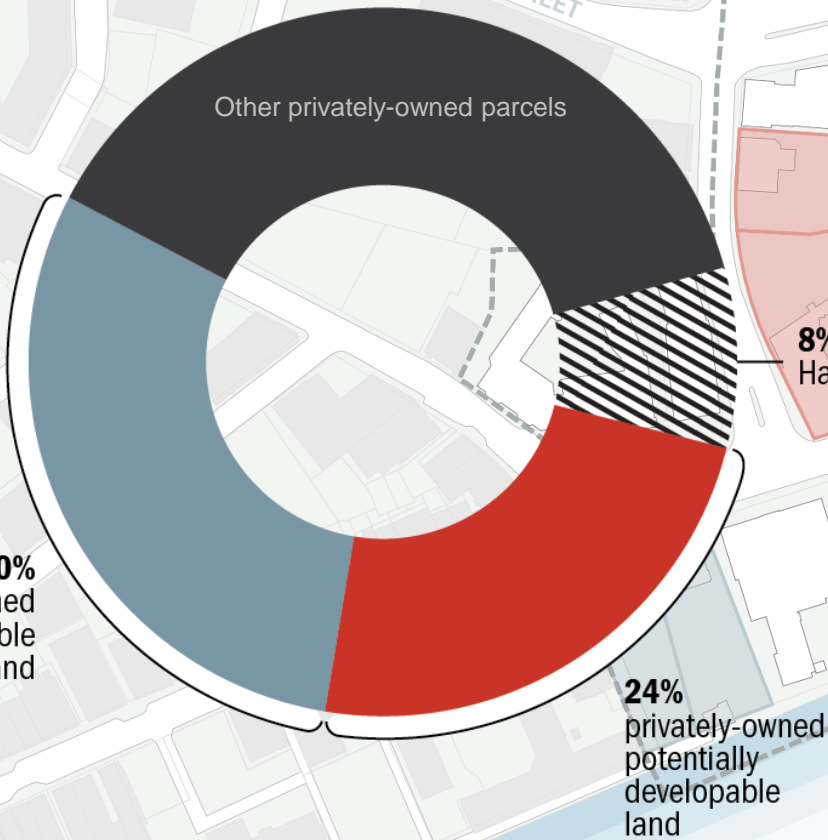
Additionally, several privately-owned properties have potential for creative, adaptive reuse and redevelopment.



- City-owned
- Potential redevelopment sites
- Study area

Potential Development Parcels

City-owned and privately-owned potential development sites constitute more than 50% of parcels within the district.



8% Harbor Place

City-owned

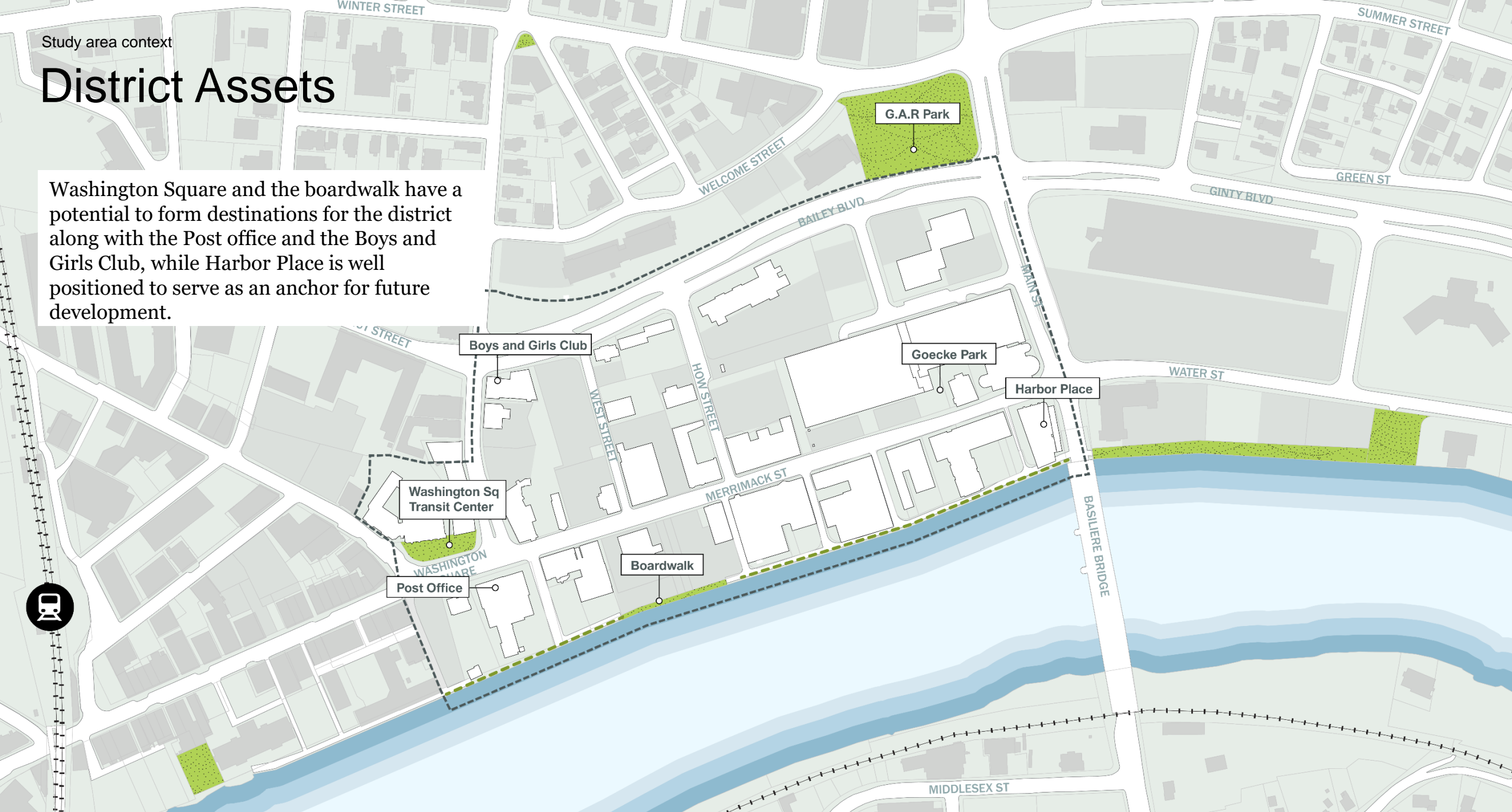
Potential redevelopment sites

Study area

Study area context

District Assets

Washington Square and the boardwalk have a potential to form destinations for the district along with the Post office and the Boys and Girls Club, while Harbor Place is well positioned to serve as an anchor for future development.



District Assets

Washington Square and the Boardwalk along with Harbor place form major assets for the district.



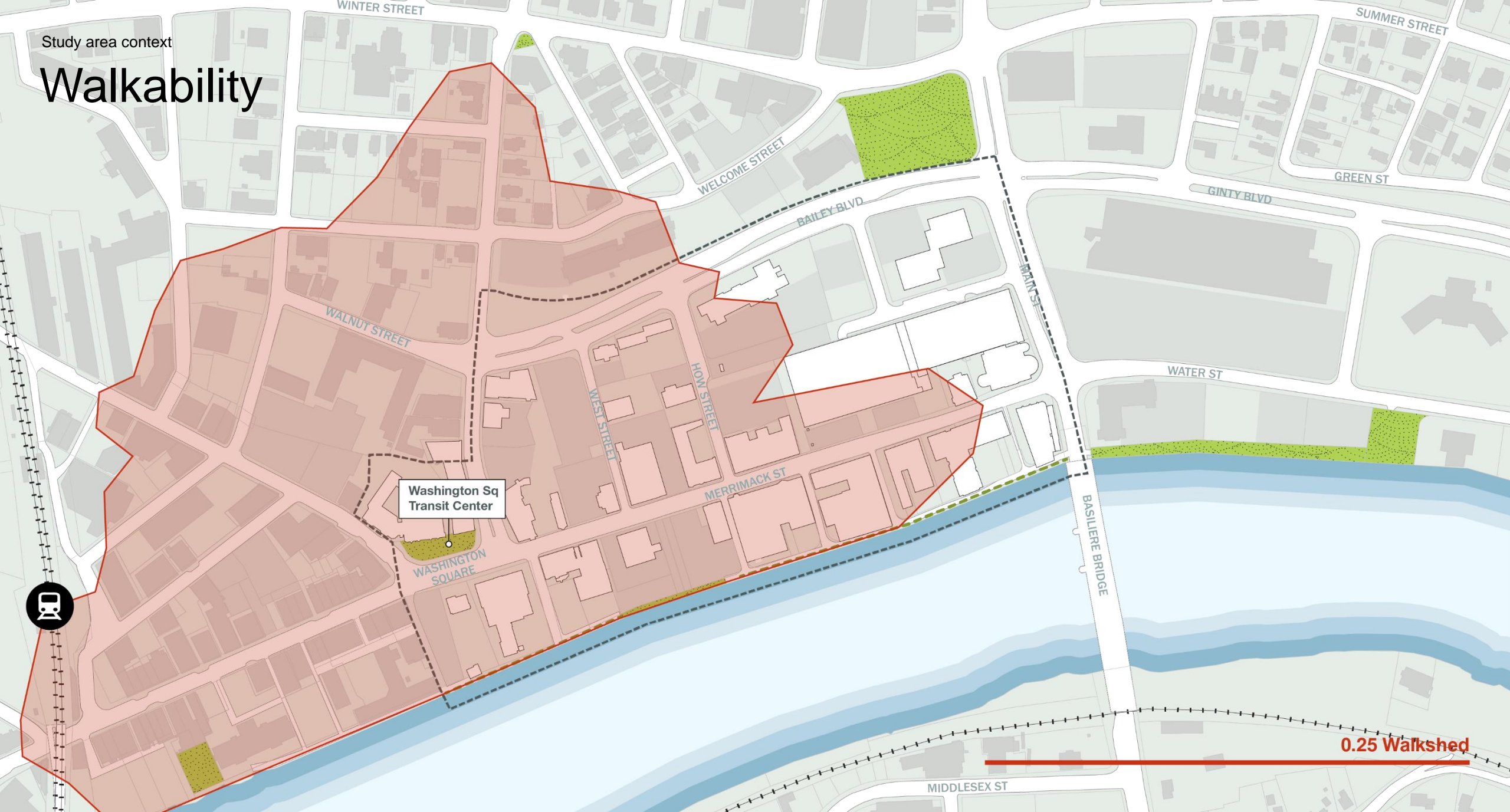
Emerson Street



Completed section of the Boardwalk behind Haverhill Bank

Study area context

Walkability



0.25 Walkshed

Urban Design Challenges

Streets lined with surface parking lots and wide streets pose a challenge to achieve a pedestrian friendly environment.



The Goecke Deck and surface parking create a 300' gap in the street wall



Bailey Boulevard and Main Street intersection

Urban Design Challenges

There are opportunities to have better access and visual links to the river and to improve streetscape along the ladder streets.



Disconnection from the river



Unappealing ladder streets

Study area context

Existing Parking

An inventory of existing parking spaces shows the availability and distribution of parking across the district.

The map displays the study area context, showing the distribution of existing parking spaces across the district. The map includes a dashed line boundary, a legend, and a table of parking data.

Legend:

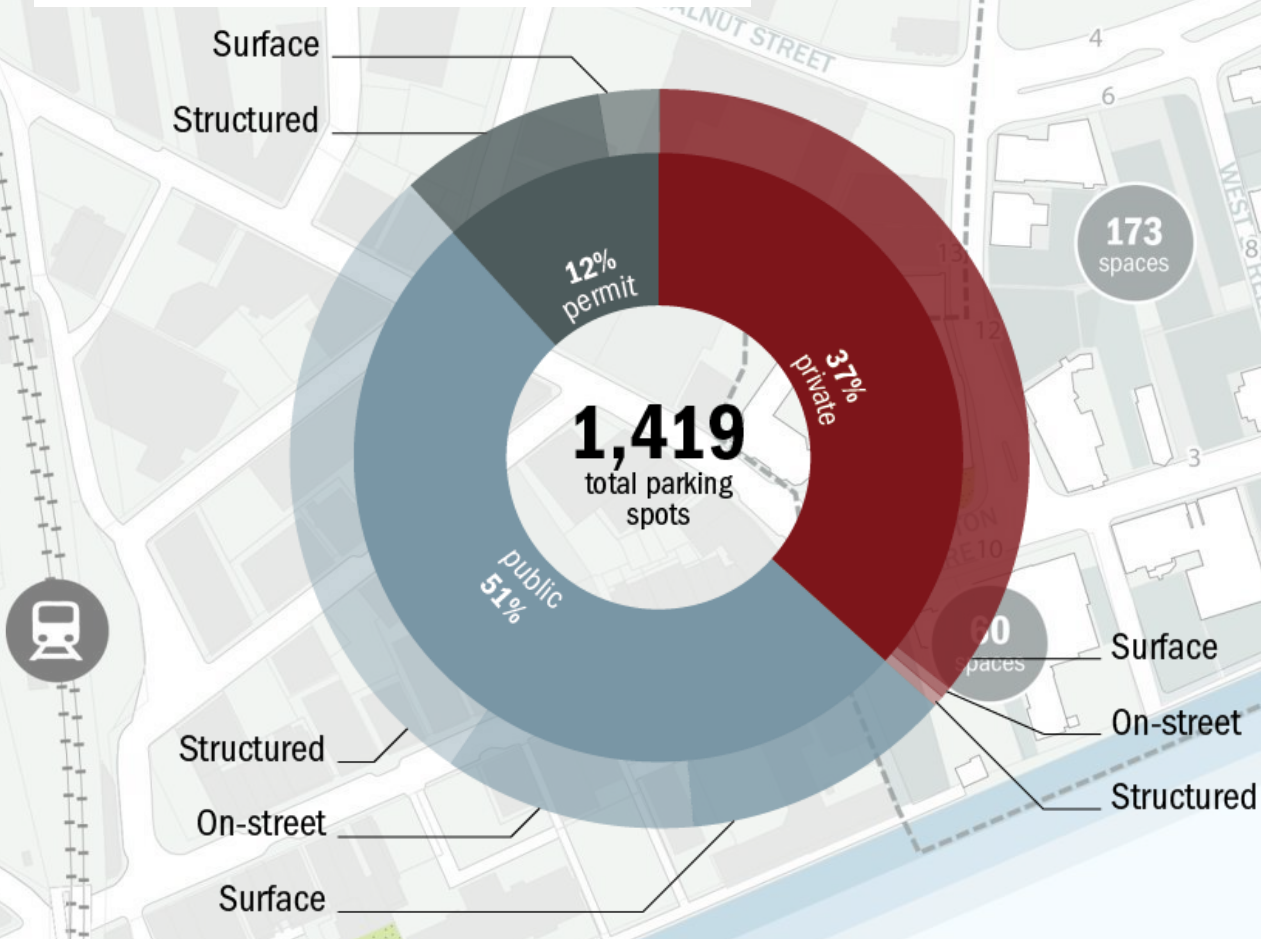
- Existing parking spaces
- Study area boundary
- Water
- Basiliere Bridge
- Washington Square 10
- West Street
- Hon Street
- Merrimack St
- Bailey Blvd
- Welcome Street

Parking Data:

Location	Parking Spaces
Washington Square 10	60
West Street	173
Hon Street	129
Merrimack St	120
Bailey Blvd	105
Welcome Street	52
Basiliere Bridge	5
Washington Square 10	14
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6
Hon Street	6
Merrimack St	6
Bailey Blvd	6
Welcome Street	6
Basiliere Bridge	6
Washington Square 10	6
West Street	6

Existing Parking

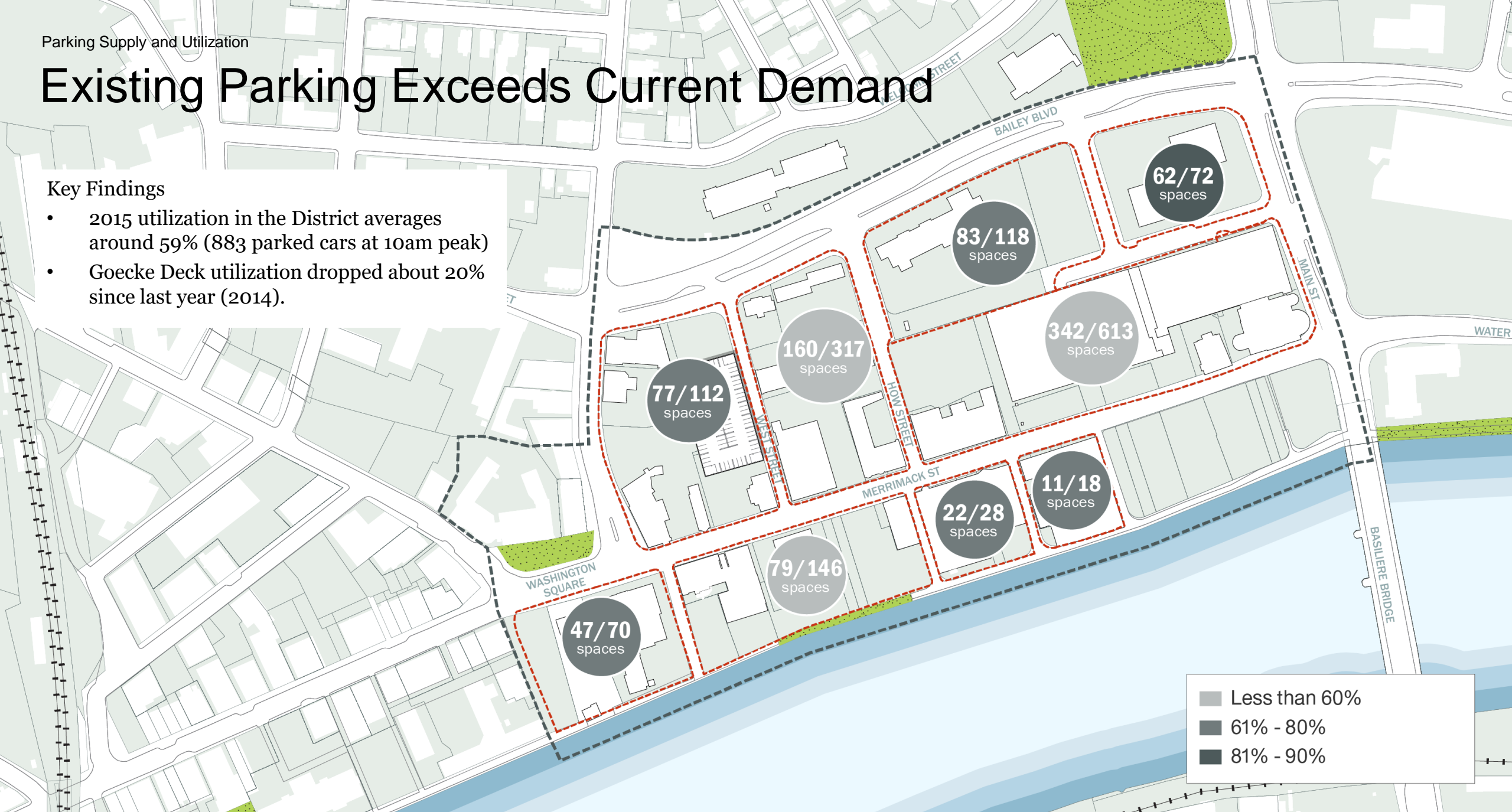
Out of the total supply of parking more than 50% is public parking, which includes Goecke deck.



Existing Parking Exceeds Current Demand

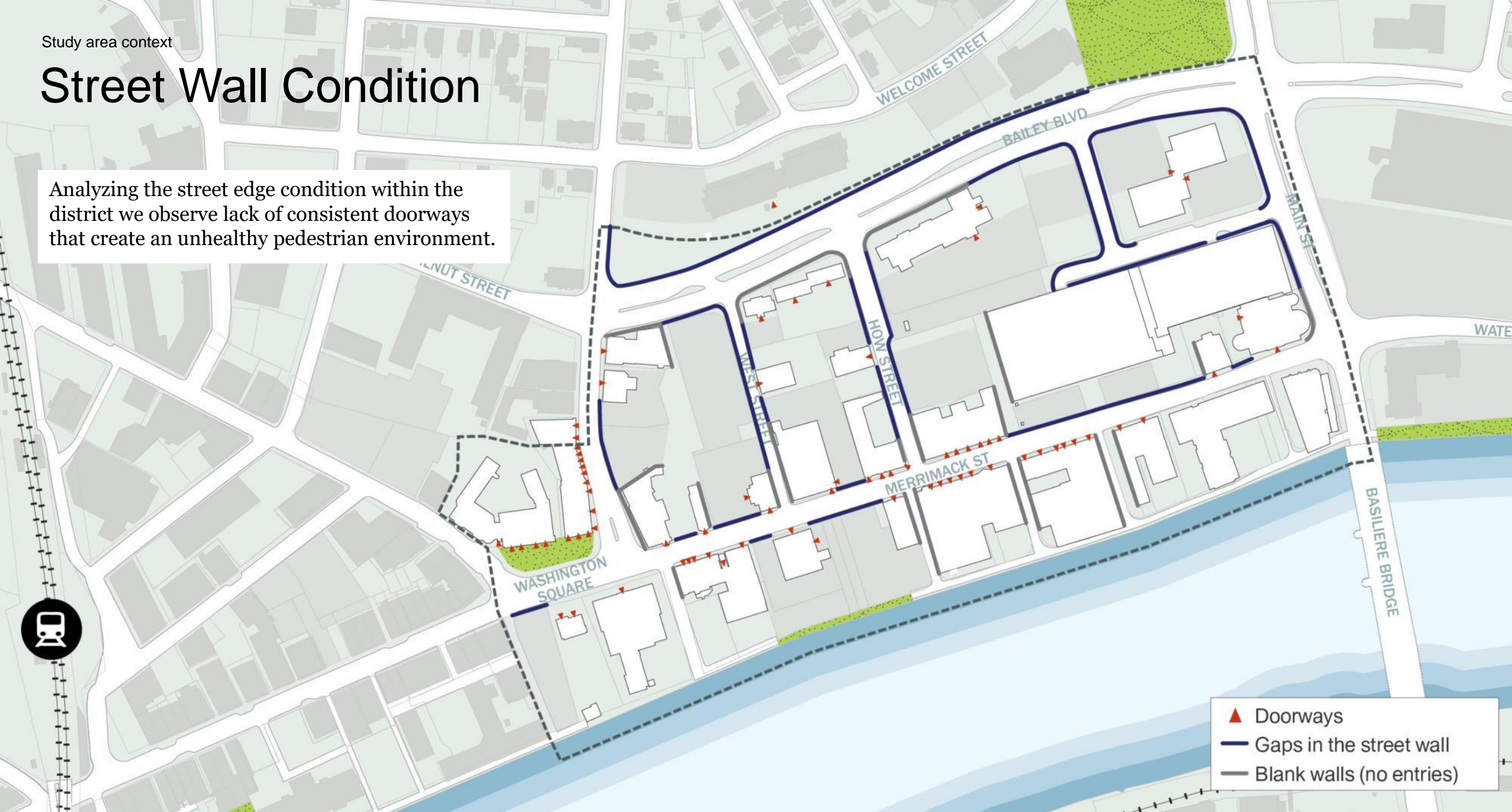
Key Findings

- 2015 utilization in the District averages around 59% (883 parked cars at 10am peak)
- Goecke Deck utilization dropped about 20% since last year (2014).



Street Wall Condition

Analyzing the street edge condition within the district we observe lack of consistent doorways that create an unhealthy pedestrian environment.



- ▲ Doorways
- Gaps in the street wall
- Blank walls (no entries)

Street Wall Condition

...While the street edge condition of Merrimack Street west of Washington square has consistent pedestrian entries that creates a inviting pedestrian environment.



- ▲ Doorways
- Gaps in the street wall
- Blank walls (no entries)

Summary of Urban Design Opportunities and Challenges

Opportunities

- Walkability
- Available parcels for development
- Latent potential in district assets: Boys and Girls Club, boardwalk, Washington Square, GAR park, Harbor Place

Challenges

- Street and intersection conditions
- Perception of parking scarcity
- Gaps in the street wall
- Underutilized parcels
- Poor connectivity between centers of activity
- Disconnection from the waterfront
- Streets to nowhere



Washington Square

The team looked at the traffic volumes accessing the study area in order to understand the major circulation routes in the city.

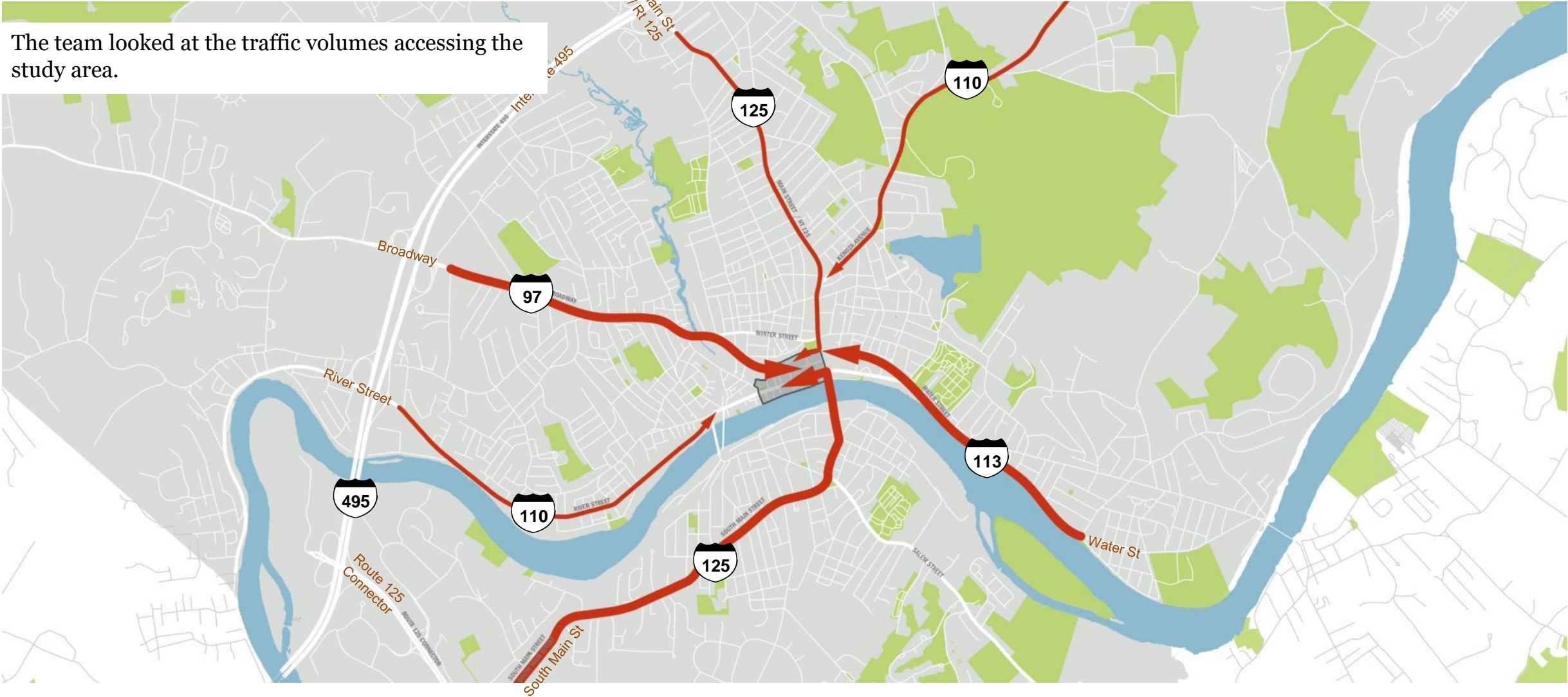
2014 Average Daily Traffic

- 25,001 to 32,000
- 20,001 to 25,000
- 15,001 to 20,000
- 10,001 to 15,000
- Study area

*Figures adjusted to 2014
Source: MassDOT

Arrival/Departure Patterns

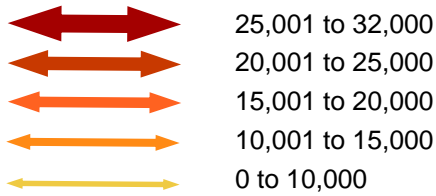
The team looked at the traffic volumes accessing the study area.



Average Annual Daily Traffic

The team analyzed the traffic volumes moving through the study area and internal circulation within the district.

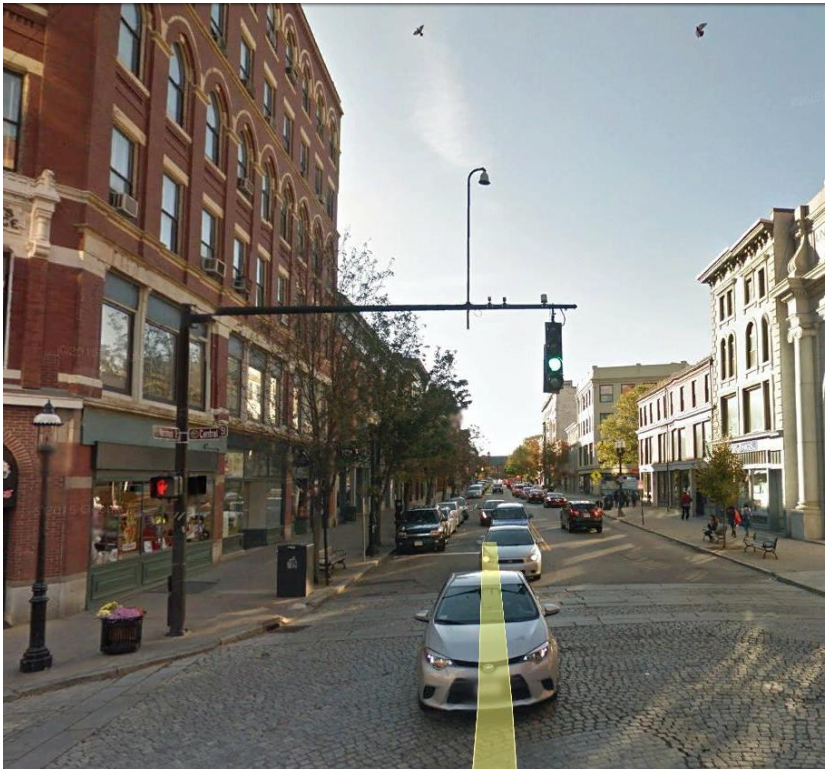
2014 Avg. Annual Daily Traffic



* Figures Adjusted to 2014
Source: MassDOT



Average Annual Daily Traffic for Comparable Downtown Streets



Lowell, MA - Merrimack Street between Bridge Street and Dutton
AADT ~9,850 vehicles
(NOTE: this is an estimate based off TMC counts and was collected when Merrimack was one-way 2012 counts)



Newburyport, MA- State Street between Liberty Street and Middle Street
AADT ~9,400 vehicles
(2004)



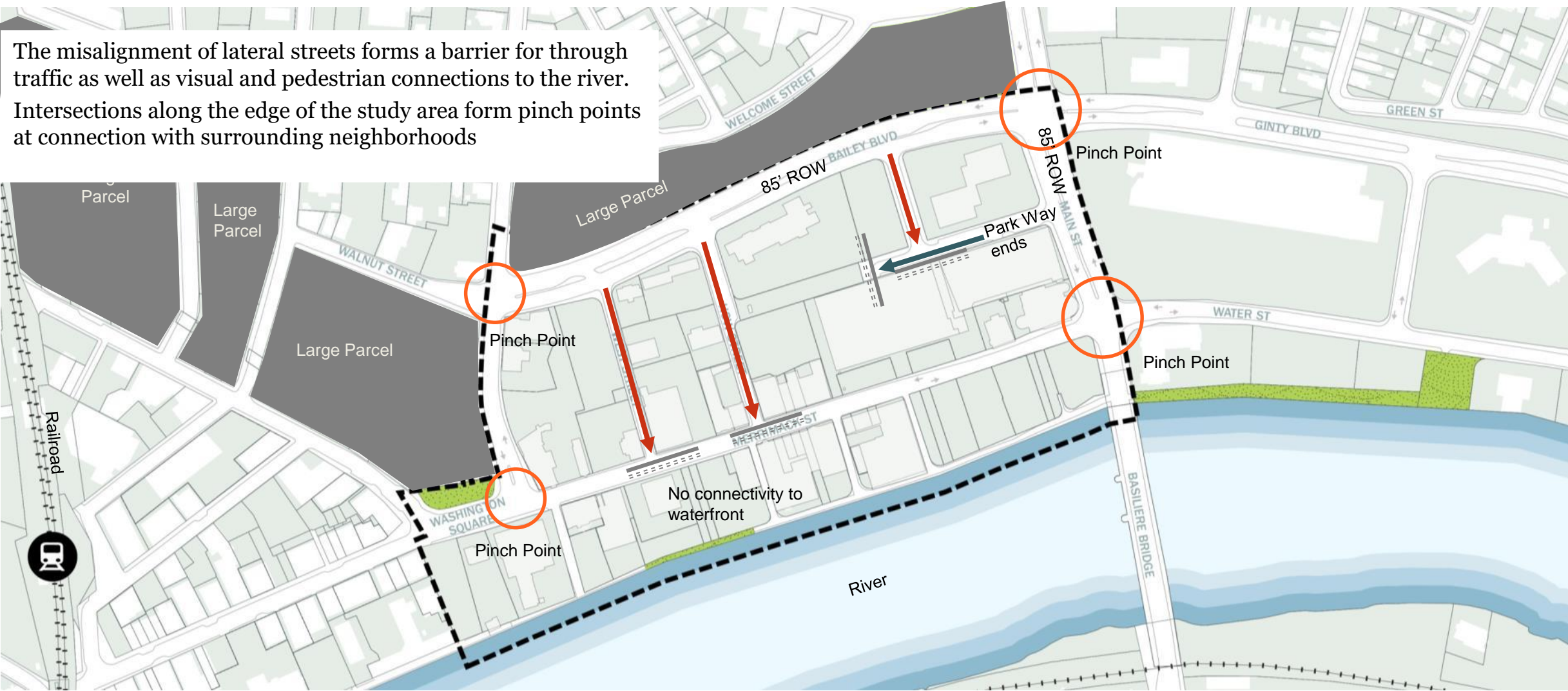
Salem, MA- Washington Street between Lynde Street and Essex Street
AADT ~18,500 vehicles
(2010)

As compared to 12,000 vehicles on Merrimack Street

A look at comparable downtown streets shows successful retail streets with inviting pedestrian environments despite having comparable or less vehicular traffic than Merrimack Street. Thus, this study has put more emphasis on improved pedestrian environment as a driver for successful retail on Merrimack Street.

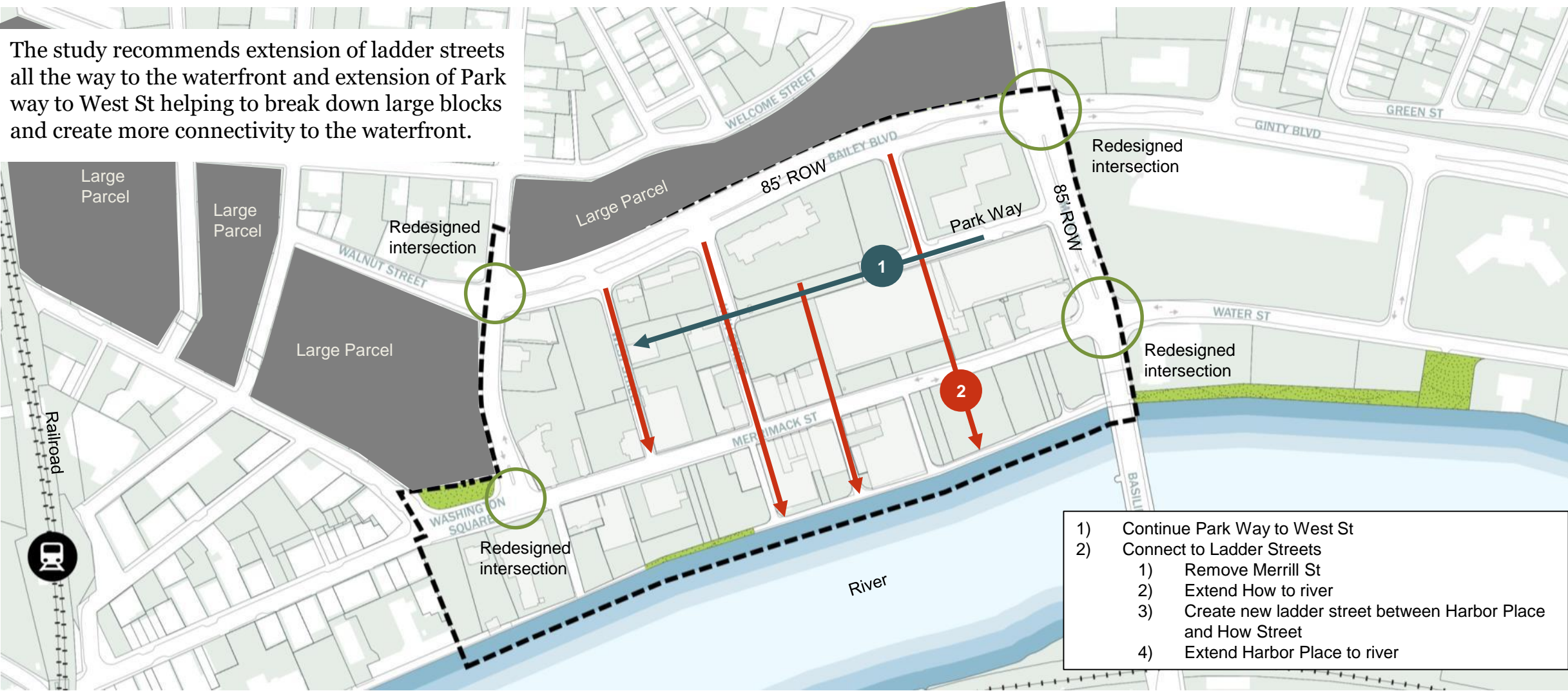
Downtown Haverhill Barriers

The misalignment of lateral streets forms a barrier for through traffic as well as visual and pedestrian connections to the river. Intersections along the edge of the study area form pinch points at connection with surrounding neighborhoods



Connectivity and Circulation Strategies

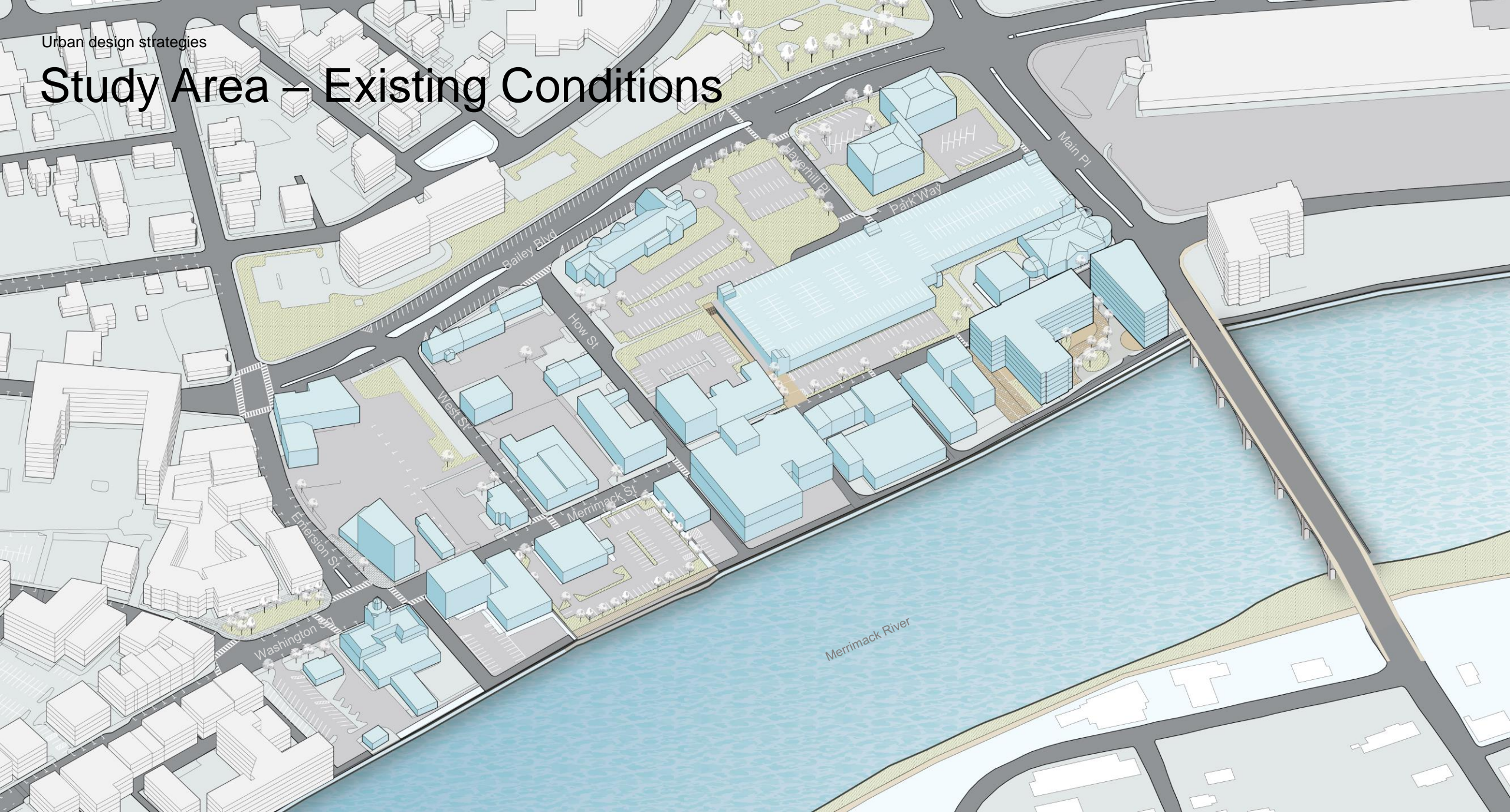
The study recommends extension of ladder streets all the way to the waterfront and extension of Park way to West St helping to break down large blocks and create more connectivity to the waterfront.



Urban Design Strategies

- Strategy 01: Streetscape and Public realm improvements – Merrimack Street and Washington Square
- Strategy 02: Programming and Events along Merrimack Street
- Strategy 03: Redesign of MVRTA Station and Boardwalk Extension
- Strategy 04: Reorganize Parking and Enhance the Street Network – Bailey Blvd and Park Way
- Streetscape and Storefront Guidelines

Study Area – Existing Conditions



Strategy 1: Streetscape and Public Realm Improvements

Merrimack St and Washington Square

Strategy 1 proposes streetscape improvements along Merrimack Street which includes curb extensions, painted crosswalks, street lights and street trees along with extending Washington Square Plaza.

Consistent streetscape identity from Washington Square to Main Street

72

+7

District-wide landscape improvements

Plaza expansion

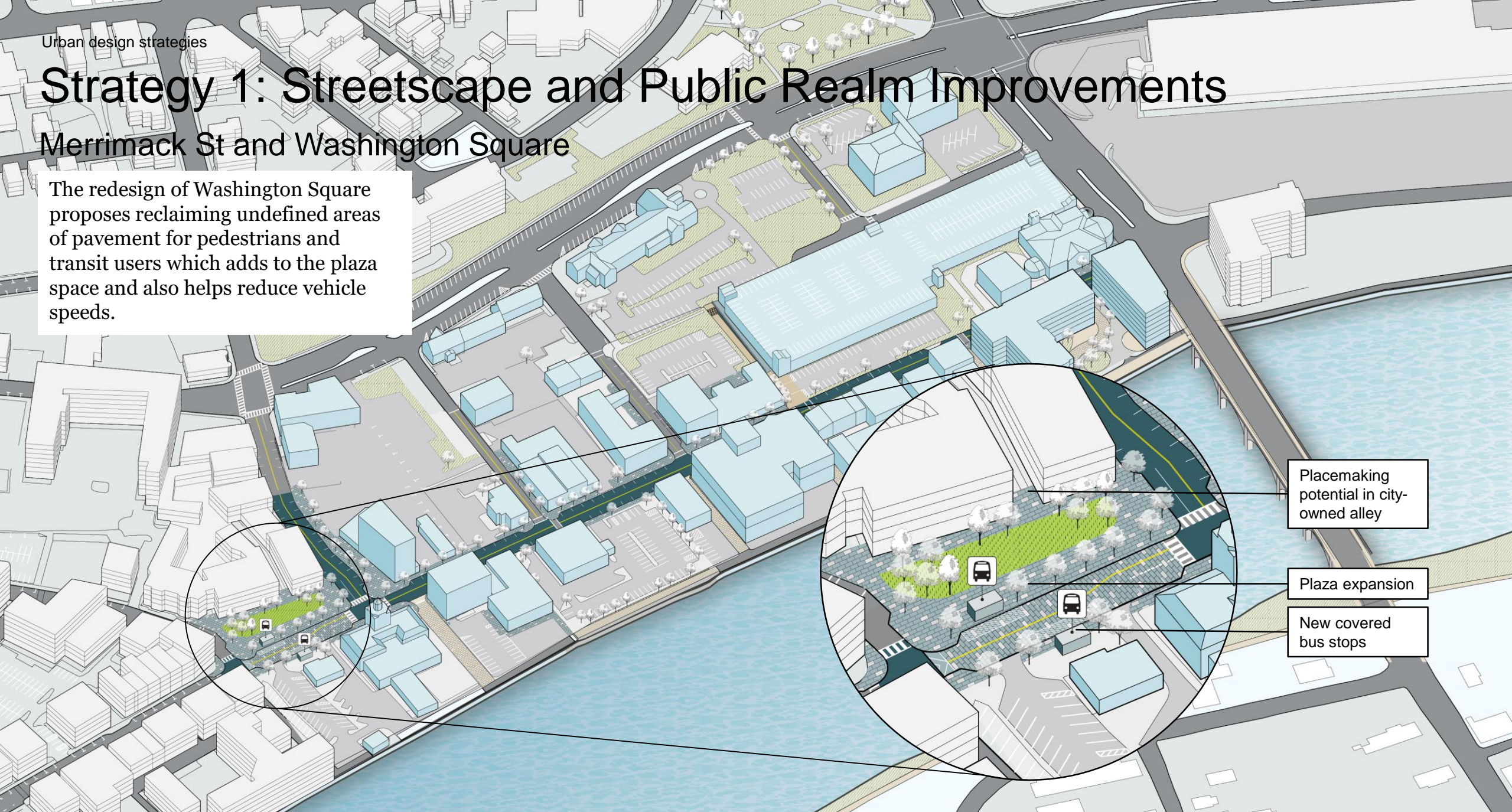
Neckdowns at key intersections

Improved pedestrian crossings

Strategy 1: Streetscape and Public Realm Improvements

Merrimack St and Washington Square

The redesign of Washington Square proposes reclaiming undefined areas of pavement for pedestrians and transit users which adds to the plaza space and also helps reduce vehicle speeds.



Placemaking potential in city-owned alley

Plaza expansion

New covered bus stops

Washington Square - Existing



Washington Square - Proposed



Curb extensions

Curb extensions help slow turning vehicles and improve pedestrian visibility and safety.



Portland, OR



Hoboken, NJ



Seattle, WA

Shared Space



Market Square, Pittsburgh: street is on the same plane as the sidewalk cafés on the perimeter



New Road, Brighton: Motor vehicles, cyclists, and pedestrians share the same space.

Strategy 2: Programming / Events along Merrimack Street

Near term placemaking strategy includes activating the riverfront and Goecke Park, and parklets along Merrimack Street.

Initiate parklet program

Extend downtown street festivals to Merrimack St

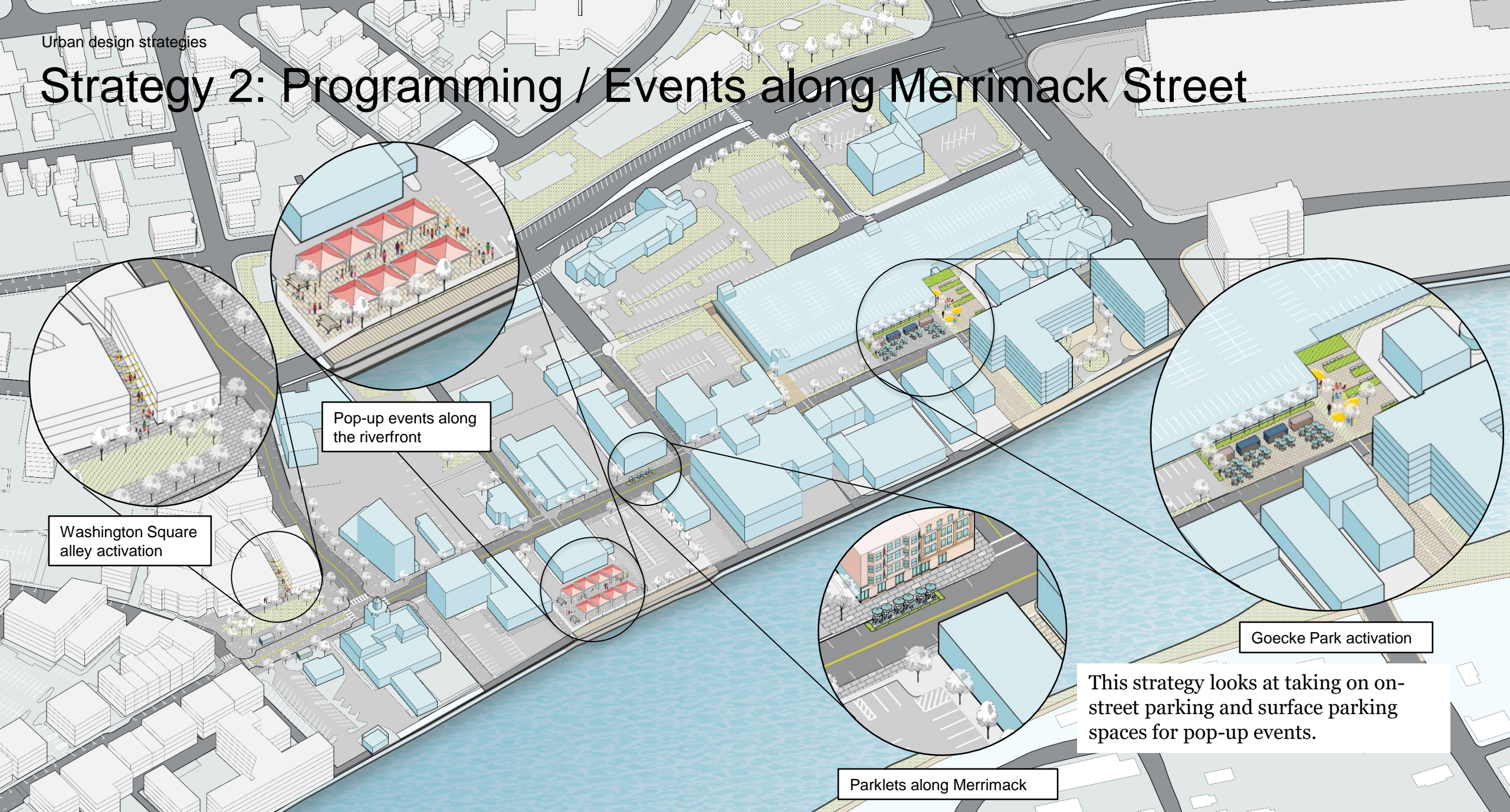
Activate public alleyway

Plaza programming

Activate east end of district through flexible/temporary retail spaces

Regular boardwalk-proximate events to draw activity to Merrimack St and the river

Strategy 2: Programming / Events along Merrimack Street



Pop-up events along the riverfront

Washington Square alley activation

Parklets along Merrimack

Goecke Park activation

This strategy looks at taking on on-street parking and surface parking spaces for pop-up events.

Programming and Activation: Public Alleys

A look at an alley activation precedent
in Austin, TX



20 ft wide alley in Austin, TX



Programming and Activation: Festivals and Open Streets

Festivals and open street precedents like the River Ruckus in Haverhill MA; Open Street programming ongoing nationwide; and Street Dinners, an international program



Programming and Activation: Parklets and Plazas

Plaza activation efforts at Goecke Park, Haverhill MA; Grays Ferry Triangle plaza improvements, Philadelphia, PA; and parklet design Forge Baking Co. in Somerville, MA

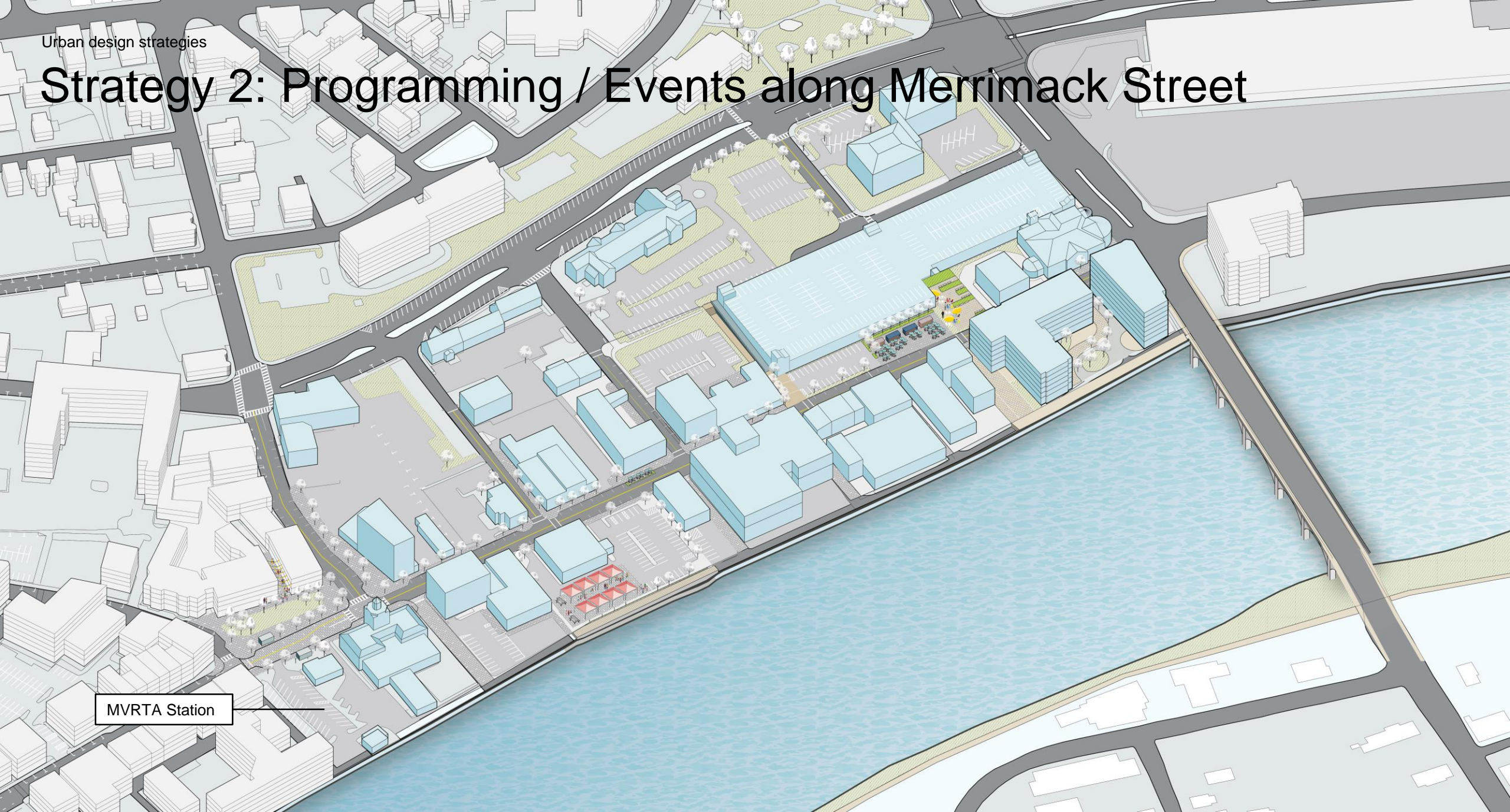


Programming and Activation: Shipping Containers/Temporary Retail

Precedents for use of shipping containers as temporary retail space done in Proxy, San Francisco, CA; café and retail activation of vacant parking lot and Chaiwalla & Co container café, Malaysia



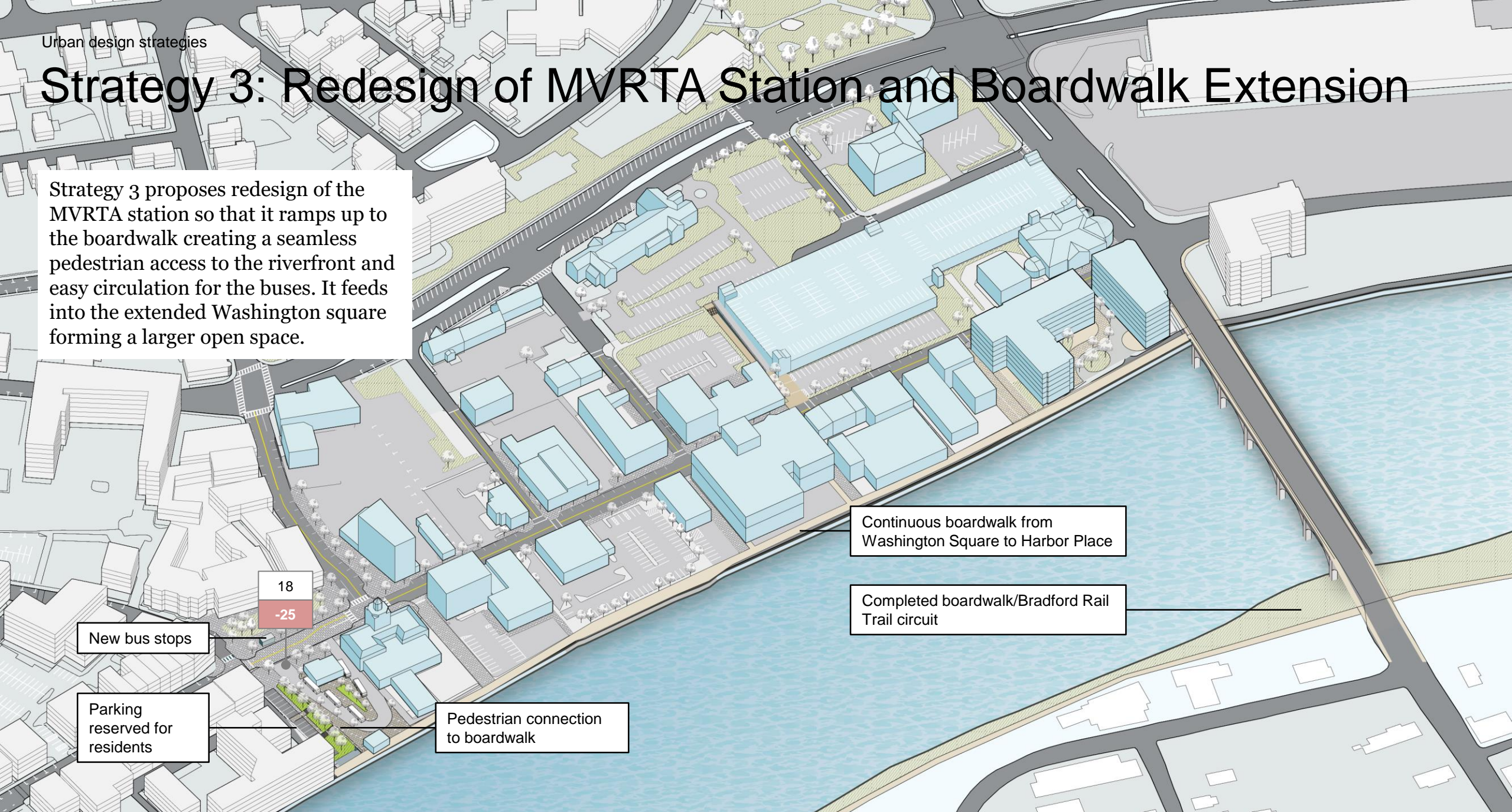
Strategy 2: Programming / Events along Merrimack Street



MVRTA Station

Strategy 3: Redesign of MVRTA Station and Boardwalk Extension

Strategy 3 proposes redesign of the MVRTA station so that it ramps up to the boardwalk creating a seamless pedestrian access to the riverfront and easy circulation for the buses. It feeds into the extended Washington square forming a larger open space.



Continuous boardwalk from
Washington Square to Harbor Place

Completed boardwalk/Bradford Rail
Trail circuit

New bus stops

Parking
reserved for
residents

Pedestrian connection
to boardwalk

18

-25

Strategy 3: Redesign of MVRTA Station and Boardwalk Extension

The proposed design has queuing space for 6 buses at the station site and two additional spaces along Merrimack St. The raised plinth allows connection to the boardwalk while keeping access to the existing pump house.

The design retains surface parking at the extension of Essex St.

Pedestrian connection to boardwalk

Resident parking

Pump house access

Additional parking for post office below plinth

Strategy 3: Redesign of MVRTA Station and Boardwalk Extension

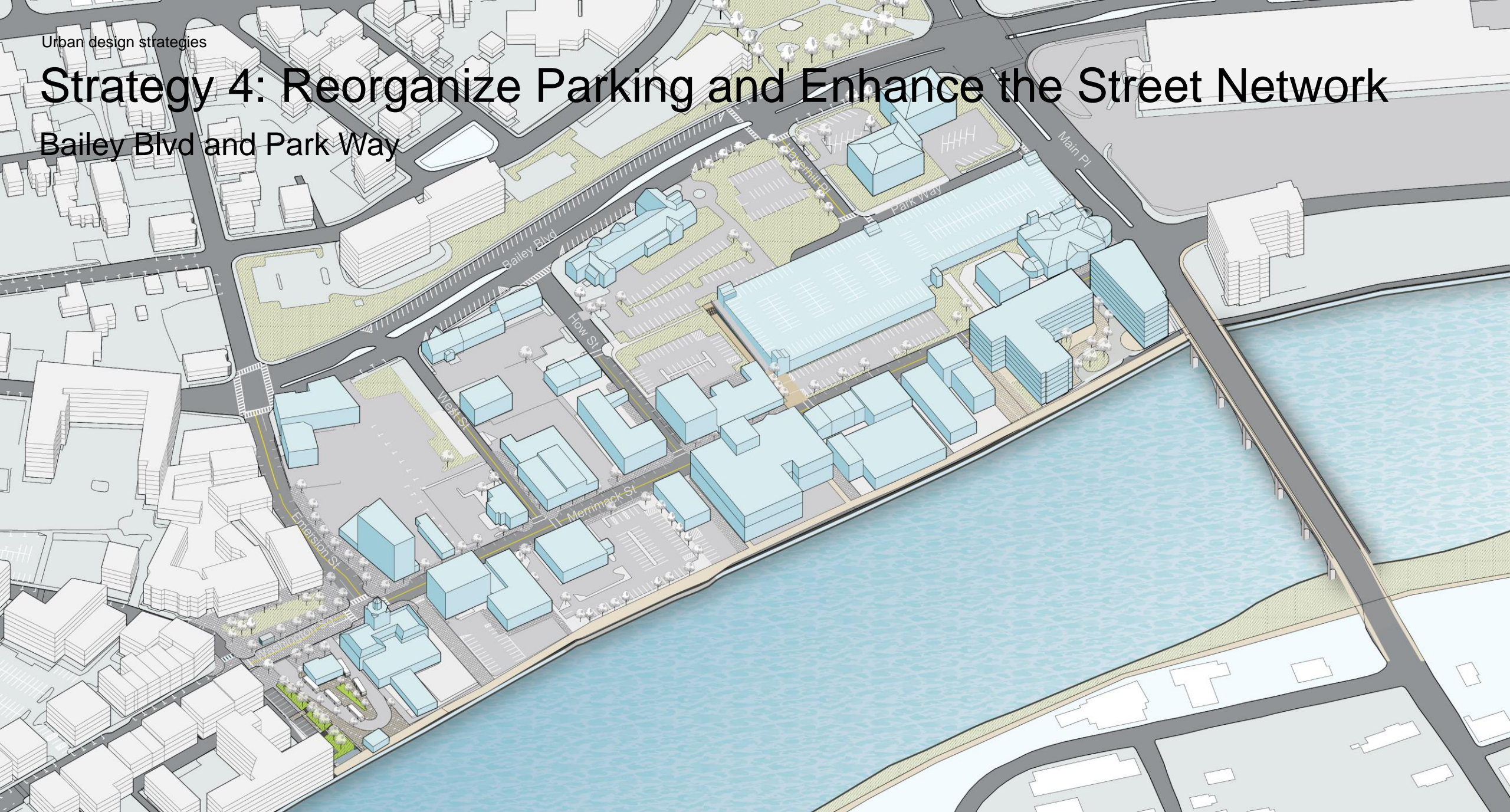
In case of the future possibility of relocation of the MVRTA station, the plinth could be converted into a park looking over the river.

Continuous lawn,
considering the
MVRTA station will
move

Pump house access

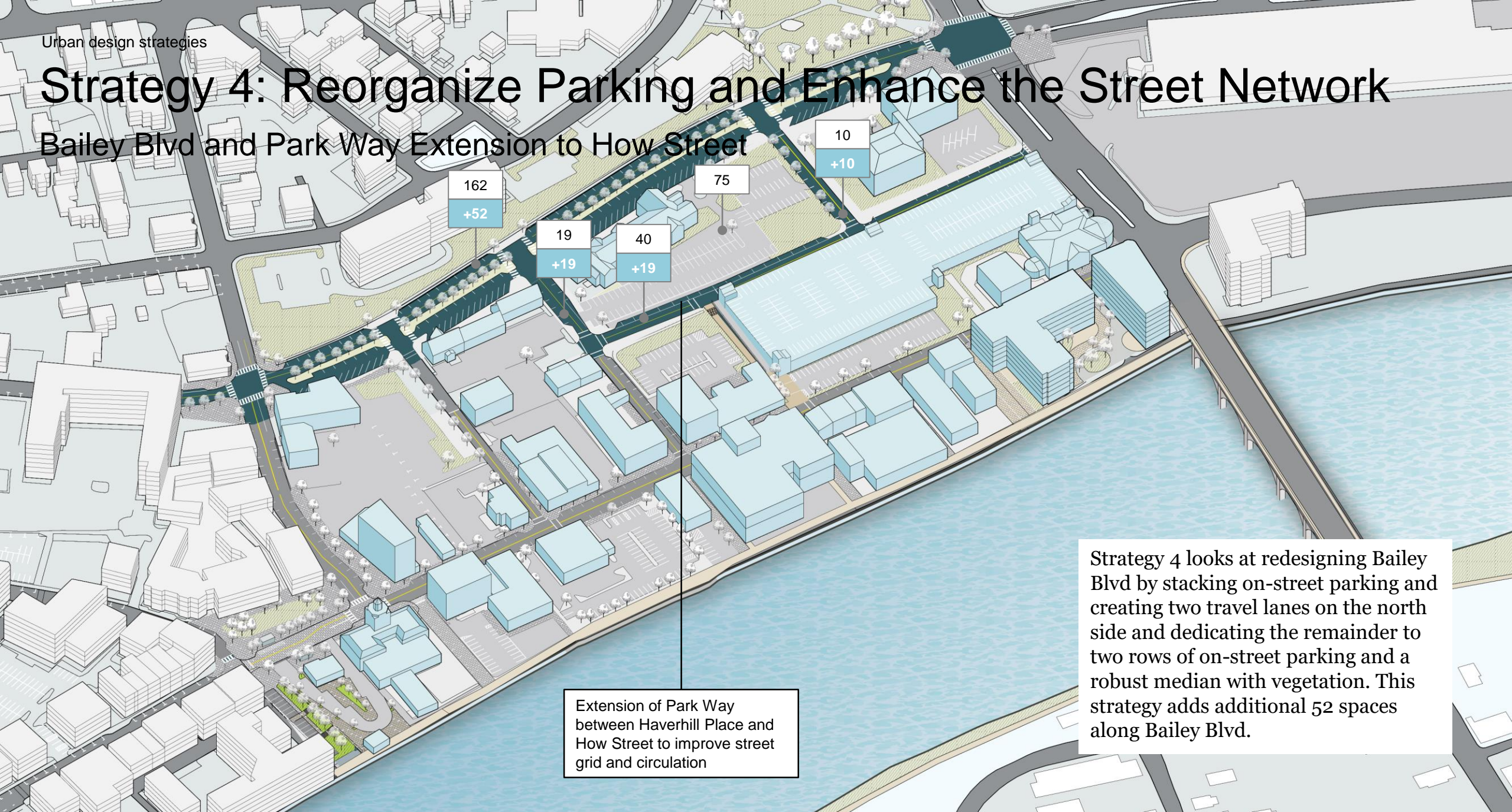
Strategy 4: Reorganize Parking and Enhance the Street Network

Bailey Blvd and Park Way



Strategy 4: Reorganize Parking and Enhance the Street Network

Bailey Blvd and Park Way Extension to How Street



Strategy 4 looks at redesigning Bailey Blvd by stacking on-street parking and creating two travel lanes on the north side and dedicating the remainder to two rows of on-street parking and a robust median with vegetation. This strategy adds additional 52 spaces along Bailey Blvd.

Extension of Park Way between Haverhill Place and How Street to improve street grid and circulation

Strategy 4: Reorganize Parking and Enhance the Street Network

Bailey Blvd and Park Way Extension to West Street

Extension of Park Way to improve street grid and circulation

162
+52

19
+19

40
+19

75

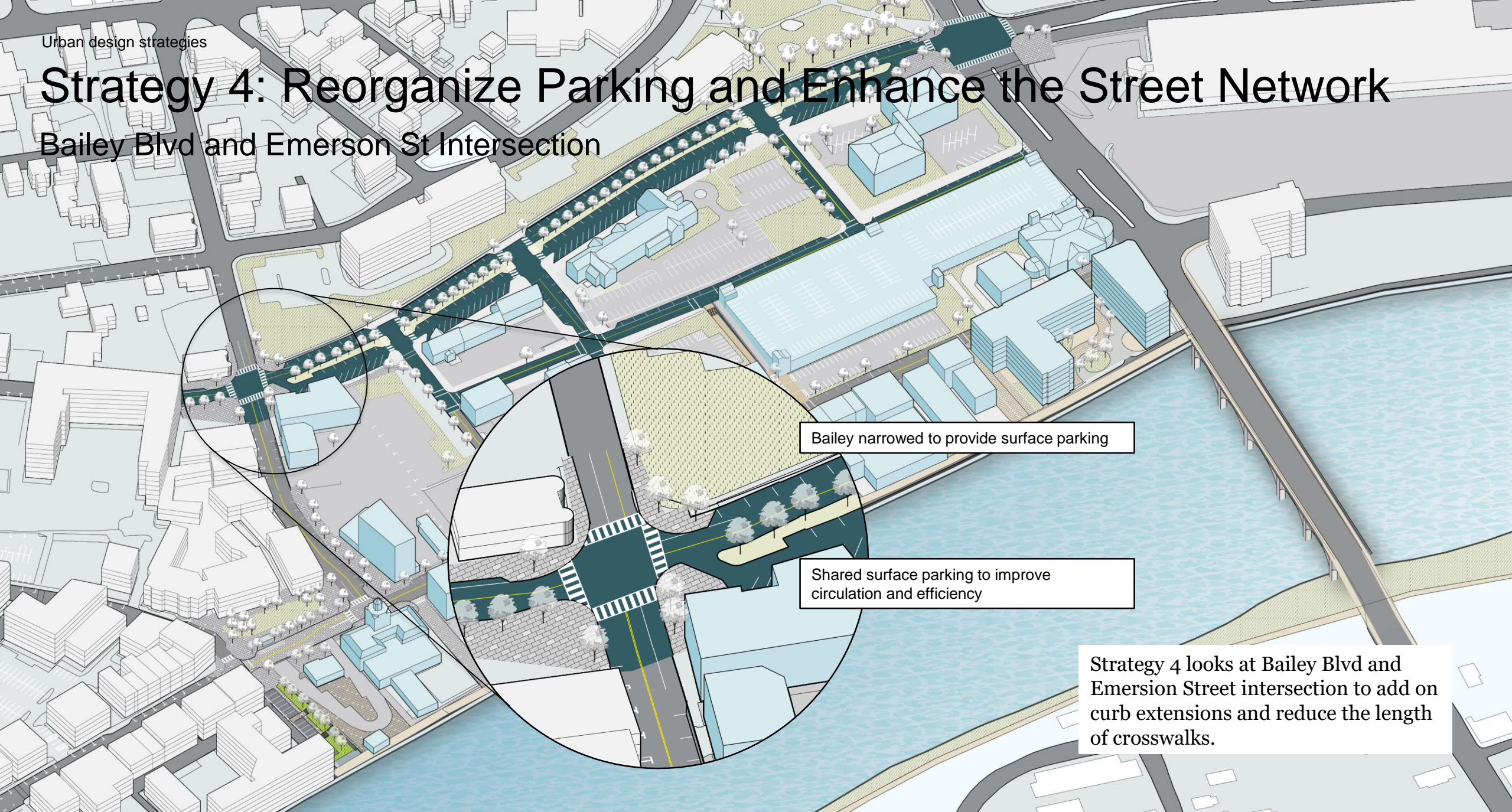
10

+10

Strategy 4 also proposes extension of Park Way between Haverhill Place and How Street to facilitate better circulation through the district and overcome the superblock condition.

Strategy 4: Reorganize Parking and Enhance the Street Network

Bailey Blvd and Emerson St Intersection



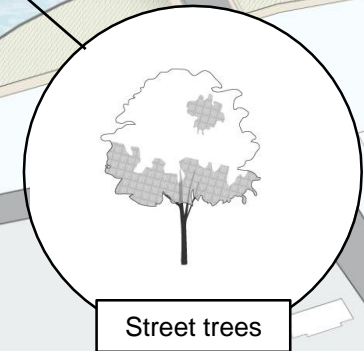
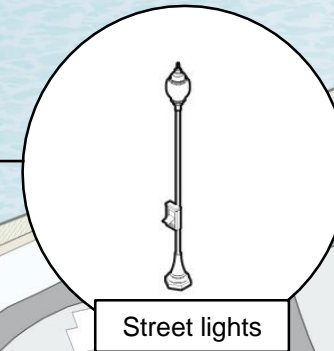
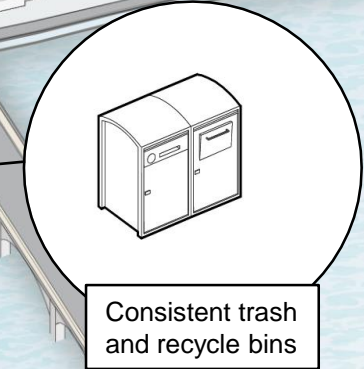
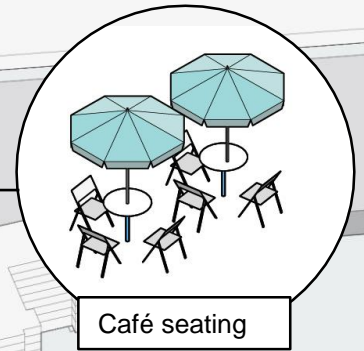
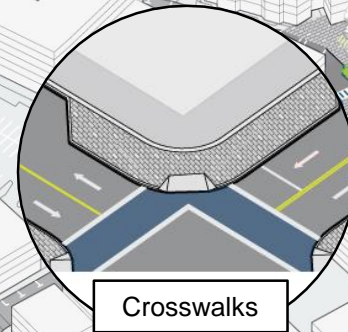
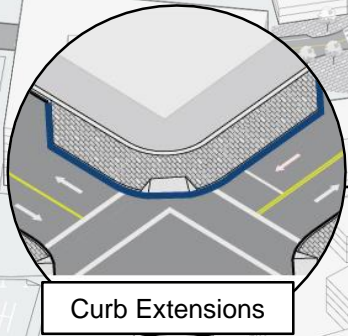
Bailey narrowed to provide surface parking

Shared surface parking to improve circulation and efficiency

Strategy 4 looks at Bailey Blvd and Emerson Street intersection to add on curb extensions and reduce the length of crosswalks.

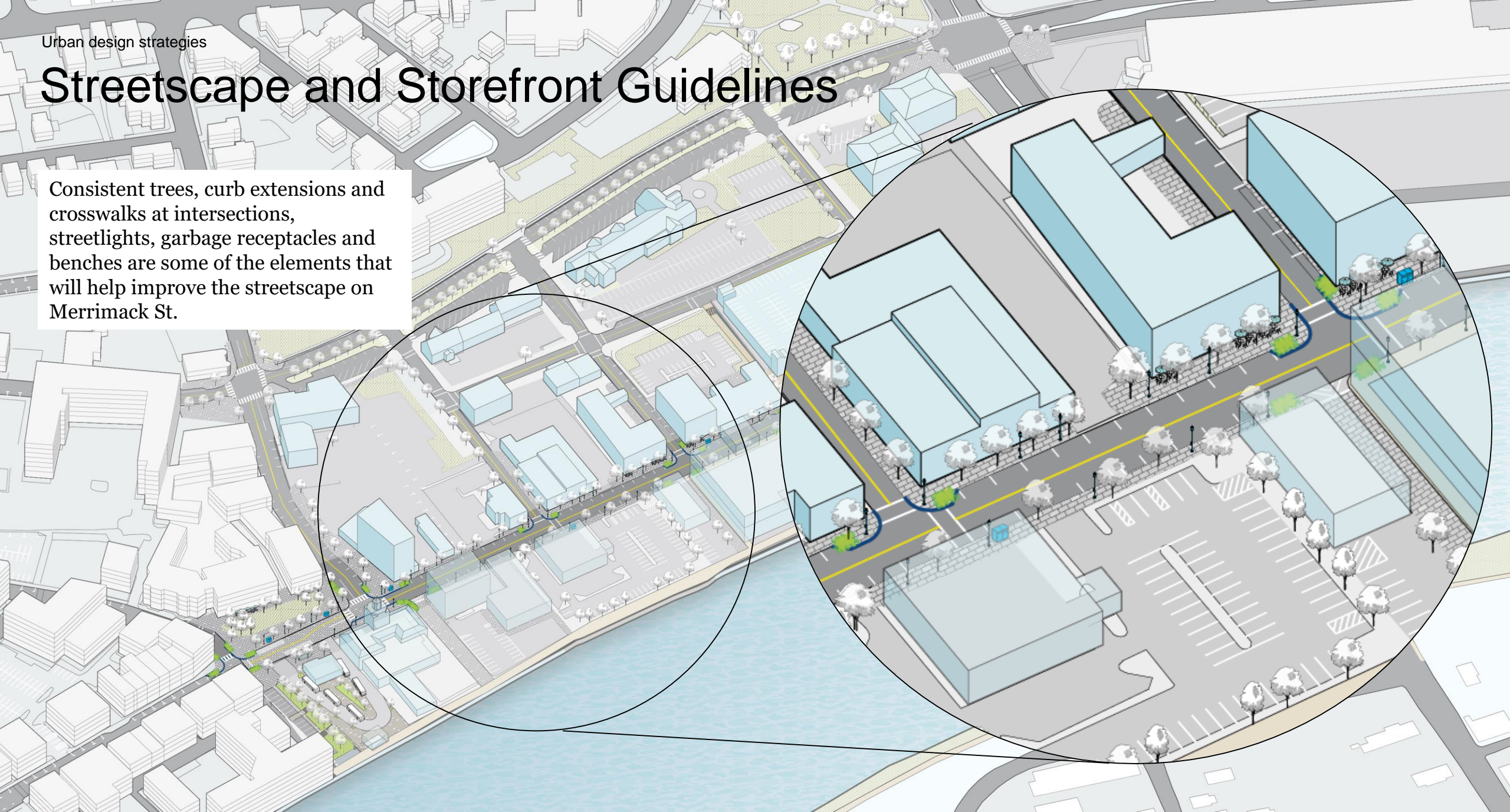
Streetscape and Storefront Guidelines

Streetscape improvement strategies and elements are a part of a short term strategy to improve the quality of public realm on Merrimack St and enhance the appeal for the potential development properties.



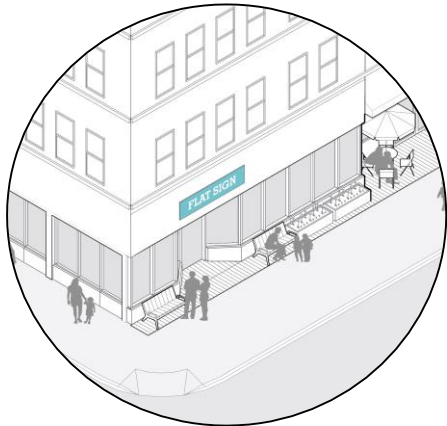
Streetscape and Storefront Guidelines

Consistent trees, curb extensions and crosswalks at intersections, streetlights, garbage receptacles and benches are some of the elements that will help improve the streetscape on Merrimack St.



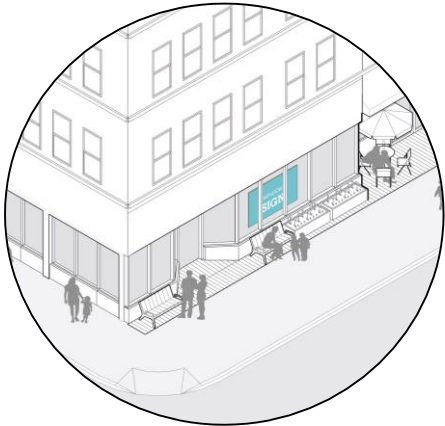
Signage Guidelines

The team recommends that the City disseminate a set of storefront improvement “guidelines” that advise store owners on a number of discrete, inexpensive improvement projects, which though consistent, embrace and respect the kind of diversity that marks a truly vibrant district.



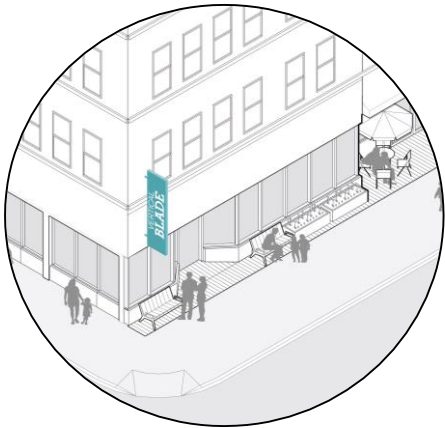
Flat Sign

- Maximum letter height: 24 inches
- Maximum letter projection: 6 inches
- Maximum letter recession: 1 inch



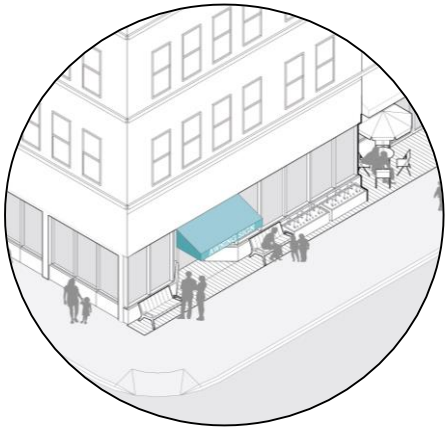
Window Sign

- Signage may not exceed 30% of the total glass area of the storefront.
- If the window sign includes an opaque background, it must be located below 36 inches.



Vertical Blade

- Maximum sign projection: ½ of the sidewalk width
- Sign must be located above the first floor cornice line.
- Signage should be limited to the front and back faces of the blade.



Awning

- Maximum sign projection: 48 inches or ½ the sidewalk width, whichever is less
- Graphics should be limited to the front face of the awning.

Redevelopment Strategies: Market Overview

Market Context

How does Haverhill and how do the Study Area sites fit in the marketplace?

Opportunities

- Positive growth and unmet demand
- Accessibility to/from surrounding market area
- Substantial population and employment densities
- Historic significance of existing built environment
- Authentic downtown environment

Challenges

- Existing site conditions and market perceptions
- Substantial market competition in surrounding area
- Economics of new construction in the downtown

Key Questions for the Study Area Sites

- Given market and economic realities, how best to position new development – short term and long term?
- What uses on which sites? What should lead, what should follow? What kind of incentives can be brought to bear to enhance feasible development?

Residential Market Observations

- Haverhill is a **“value” market offering a cost competitive alternative** to submarket locations closer to Boston, Cambridge and other Rte 93/495 employment centers.
- The **downtown is an attractive location** for housing, providing a handsome historic environment, commercial amenities and Commuter Rail access to Boston.
- The downtown also serves **direct market demand** generated in Haverhill proper which enjoys a significant employment base.
- **Demand is strong, but rents in the downtown cannot easily shoulder the cost of new construction** without supports. And the economics of urban scale/mid- and high-rise construction are especially challenging in the current market.
- **Incentives that reduce the cost of development (land costs, parking, amenities, tax credits, etc.), enhance project marketability** (and rents/sale prices) and reduce or slow the growth of occupancy costs (RE taxes, maintenance, etc.) offer the potential to produce feasible urban-scale market rate residential construction
- Until or unless incentives are made available to support larger scale urban development, residential production is expected to remain feasible in the **near term only for low-rise (stick-built) product on infill sites**, where costs are lower, developer return requirements are more modest and the necessary balance between cost and revenue expectations can be achieved.

Retail Market Observations

- Haverhill is primarily a **neighborhood/community serving market** offering goods and services to the indigenous residential and day-time employee markets (restaurant, grocery, convenience goods, entertainment, etc.).
- Visitation to educational institutions, historic sites and other transient demand has the potential to bolster downtown retail performance (for existing and new space) provided that there is a concerted effort to **match the transient demand to the supply (restaurants, gifts, sundries, etc.)**.
- Economic fundamentals support new development feasibility for certain kinds of retail users and for certain locations. Specifically, **retail space must be concentrated to succeed and CANNOT be targeted for occupancy of all ground floors on all streets** (certain nodes on Merrimack Street for example).
- **Identifying credit quality build-to-suit tenants or owner-users** is seen as essential to any major retail development success in both the short and long terms.
- **Incentives that reduce the cost of development (land costs, parking, amenities, tax credits, etc.)**, enhance project marketability (and rents) and reduce or slow the growth of occupancy costs (RE taxes, maintenance, etc.) are seen as essential to the feasibility of new construction aimed at non-anchor, independent retail occupancy.

Office Market Observations

- **Haverhill is a “local” market** offering a cost competitive option to local finance, insurance and real estate (FIRE) users that serve the commercial office needs of the community.
- **Economic fundamentals do not support new development feasibility** – achievable office rents are not insufficient to underwrite the cost of new construction. Substantial upper floor space (in varying states of renovation) is available to meet the identified demand targets.
- **Identifying build-to-suit anchor tenants or owner-users is seen as essential to any office development** success in both the short and long terms (speculative office development is a non-starter).
- **Incentives that reduce the cost of development (land costs, parking, amenities, tax credits, etc.),** enhance project marketability (and rents) and reduce or slow the growth of occupancy costs (RE taxes, maintenance, etc.) are seen as essential to the feasibility of new construction
- The downtown hotel market does not support feasible new hotel development today, but successful business attraction and expansion initiatives and downtown **revitalization efforts are expected to provide an economic rationale for downtown hotel development in the future.**
- **Institutional and public sector office uses,** including existing non-profit, educational and governmental entities are seen as **anchoring influences in the downtown,** providing a destination draw that enhances activity levels in the downtown market overall.

Redevelopment Strategies: Recommendations

Potential redevelopment sites

This study looks at potential development sites which include the following parcels owned by the City of Haverhill along with privately owned parcels.



- City-owned
- Potential redevelopment sites
- Study area

Redevelopment Strategies – Redevelopment Zones

These potential development sites are divided into three ‘Redevelopment zones’ to facilitate a comprehensive parking strategy and phasing throughout the district.



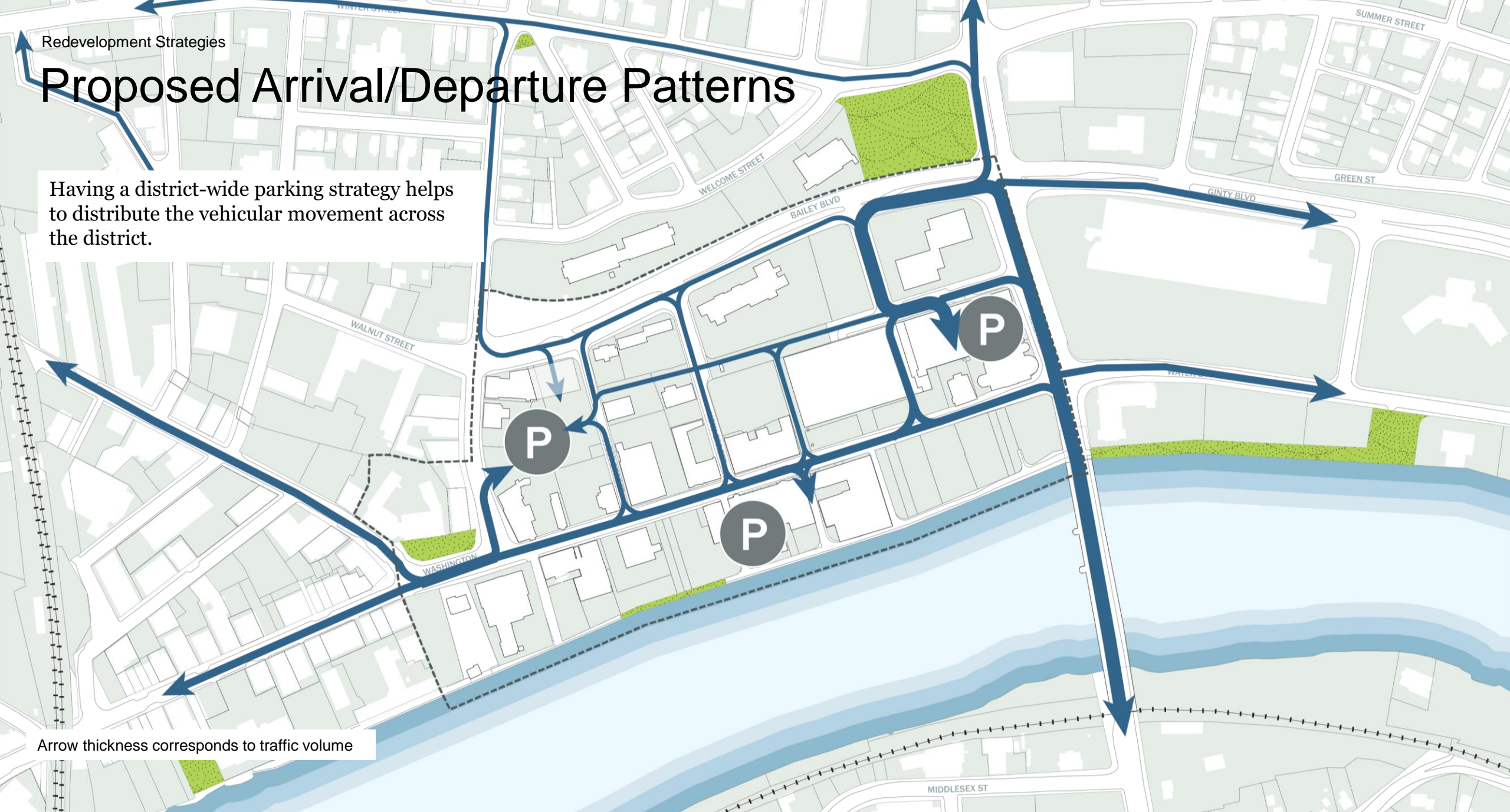
Redevelopment Strategies – Overall Parking Strategy

The parking strategy for each redevelopment zone reinforces the proposed residential and mixed-use developments in these zones.



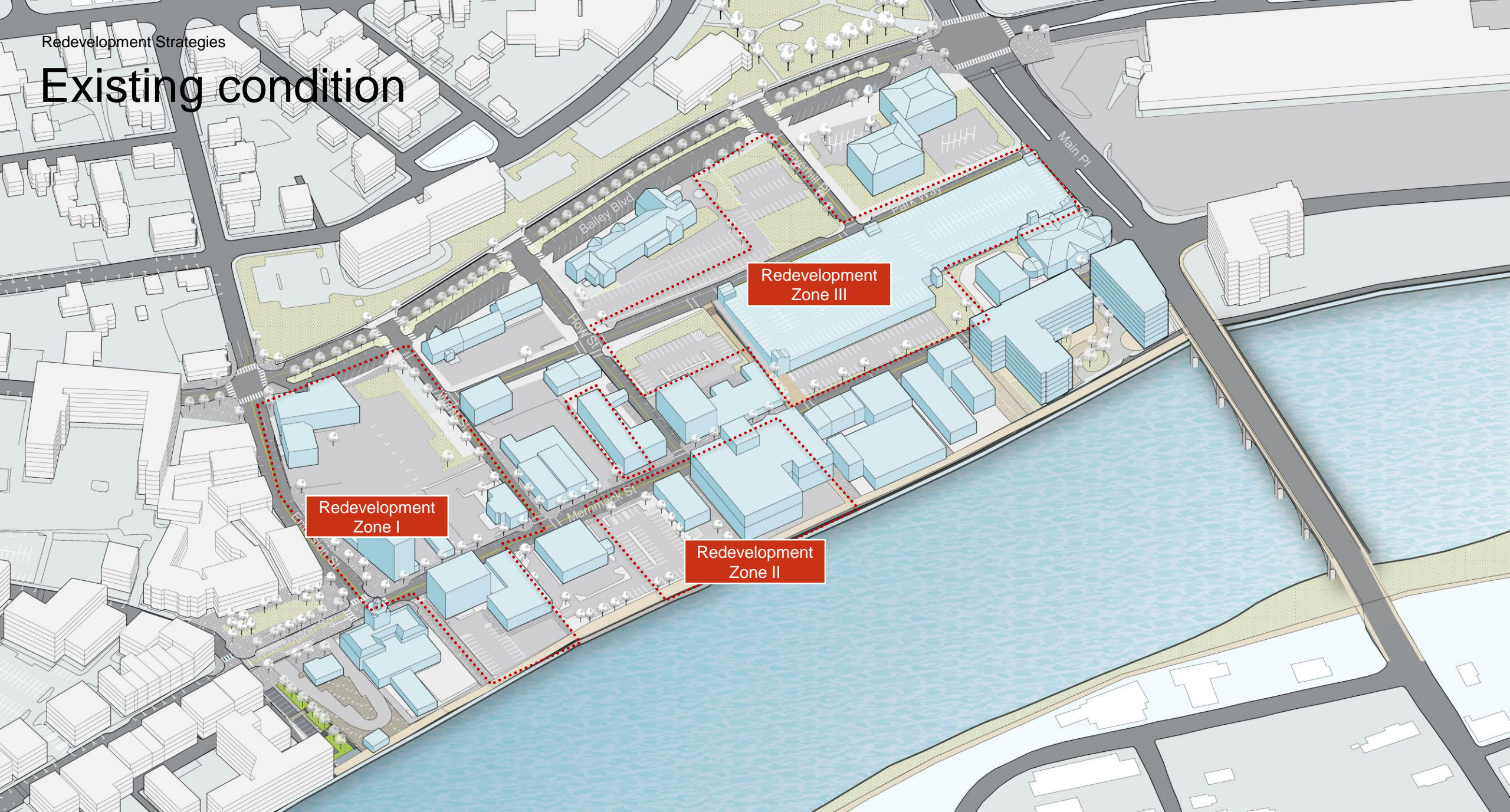
Proposed Arrival/Departure Patterns

Having a district-wide parking strategy helps to distribute the vehicular movement across the district.

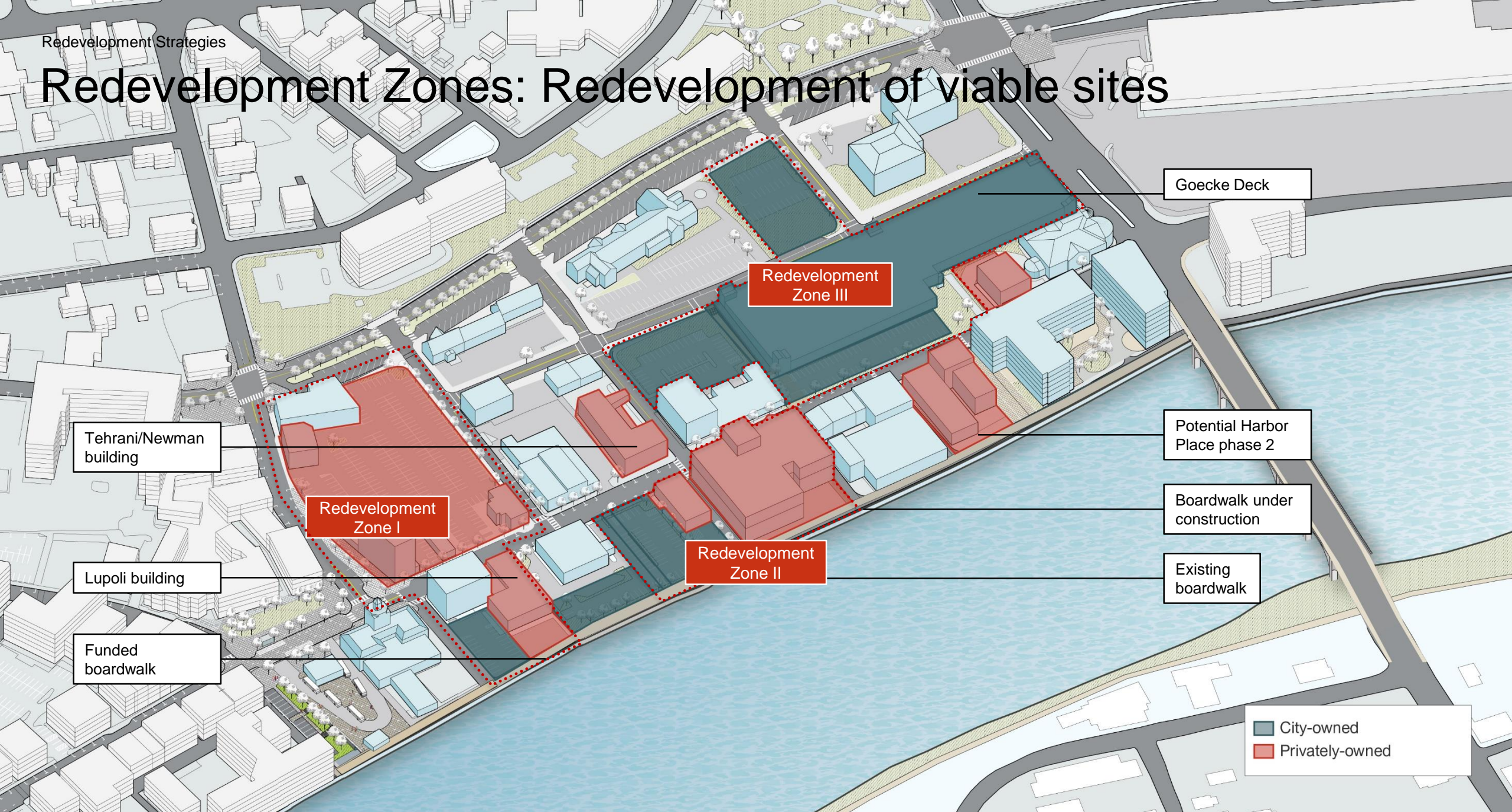


Arrow thickness corresponds to traffic volume

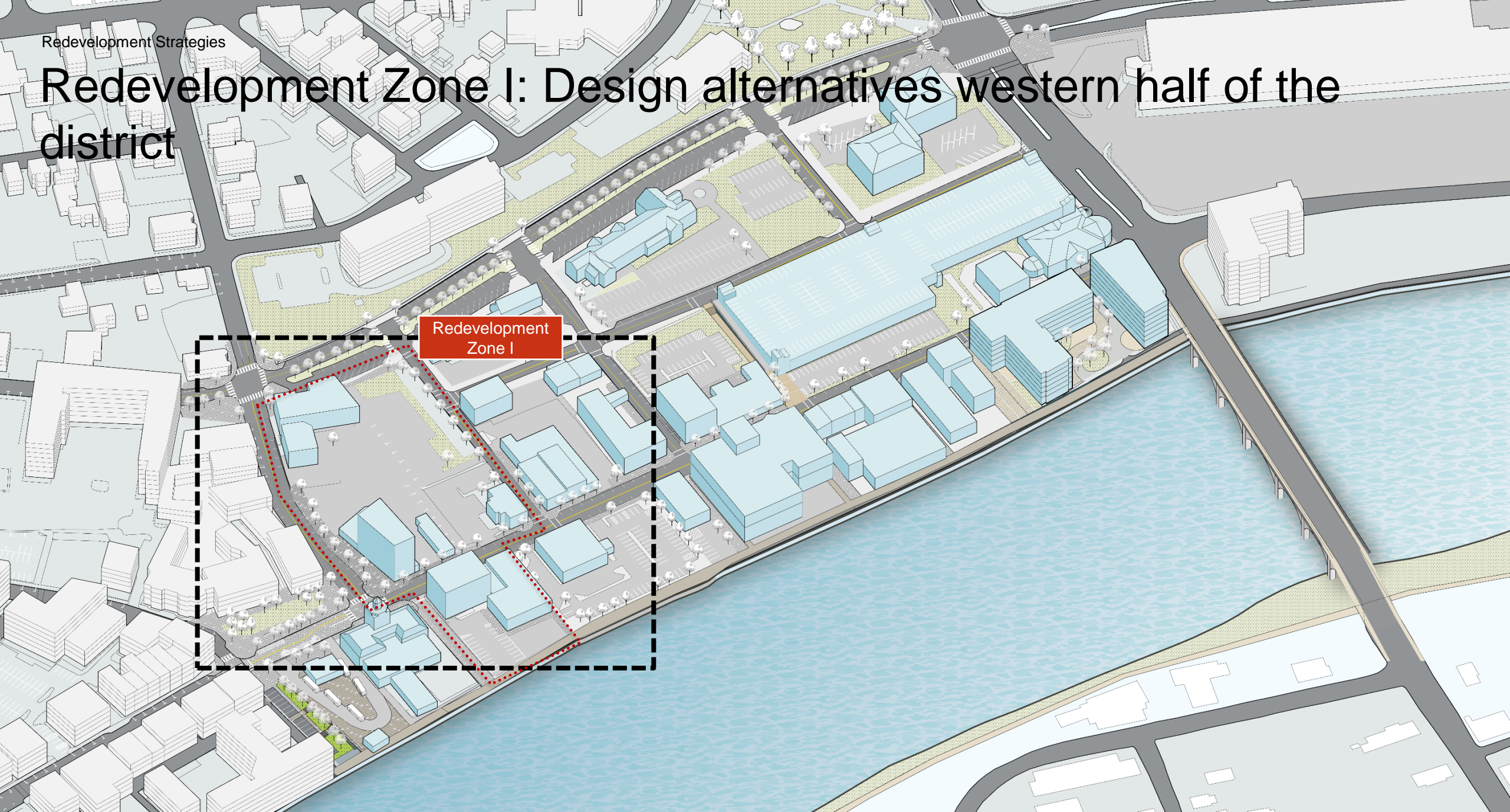
Existing condition



Redevelopment Zones: Redevelopment of viable sites



Redevelopment Zone I: Design alternatives western half of the district



Redevelopment Zone I: Existing Parcel Alignment

Redevelopment zone I looks at parcels 5, 17,18,19 and 20 shown in the adjacent map.



Redevelopment Zone I: Future Development Parcels

Re-parcelization allows for a comprehensive strategy for this zone.



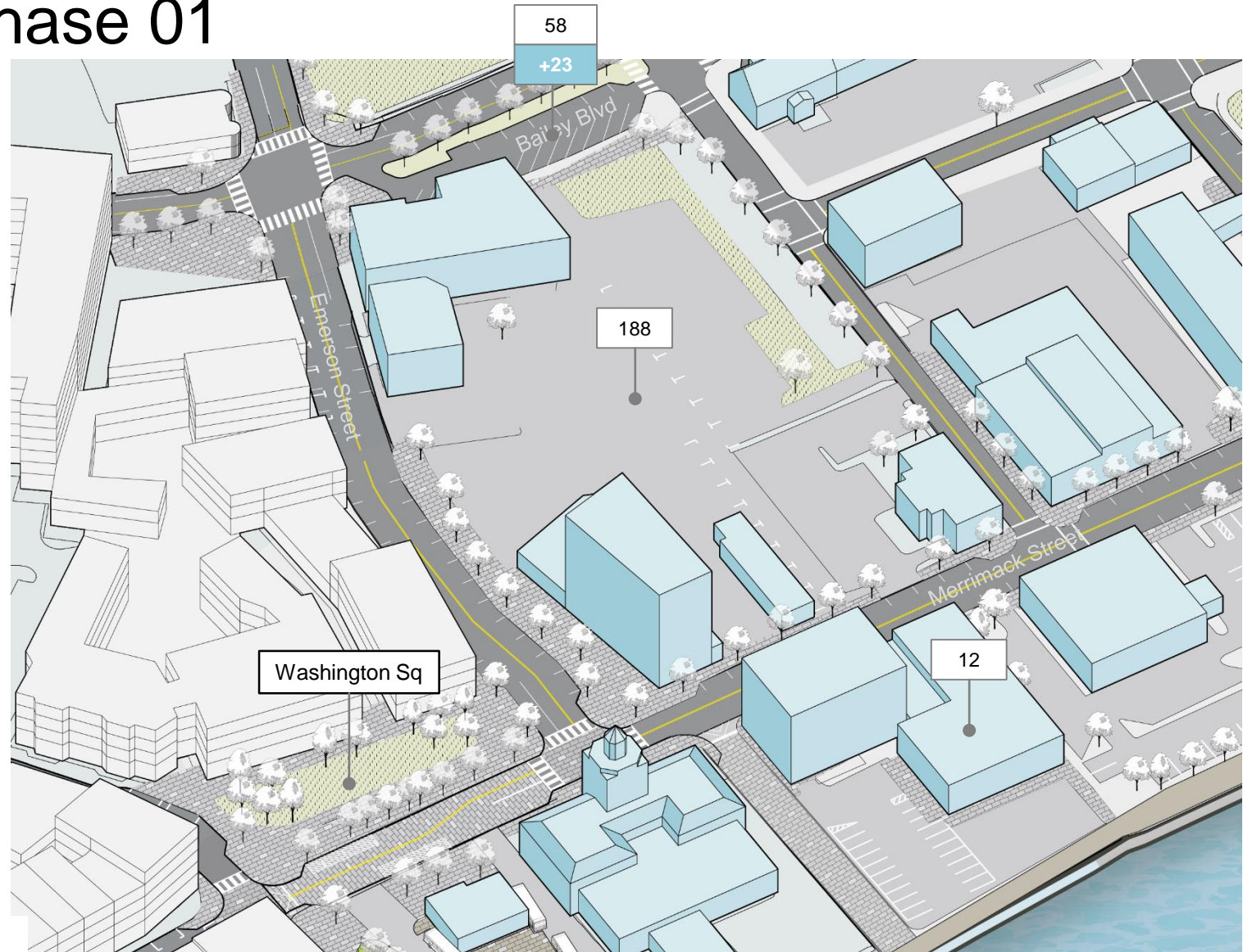
Redevelopment Zone I: Phase 01

Phase 01 incorporates the public realm improvements to Washington Square and along Merrimack St and Bailey Blvd.

Parking Inventory

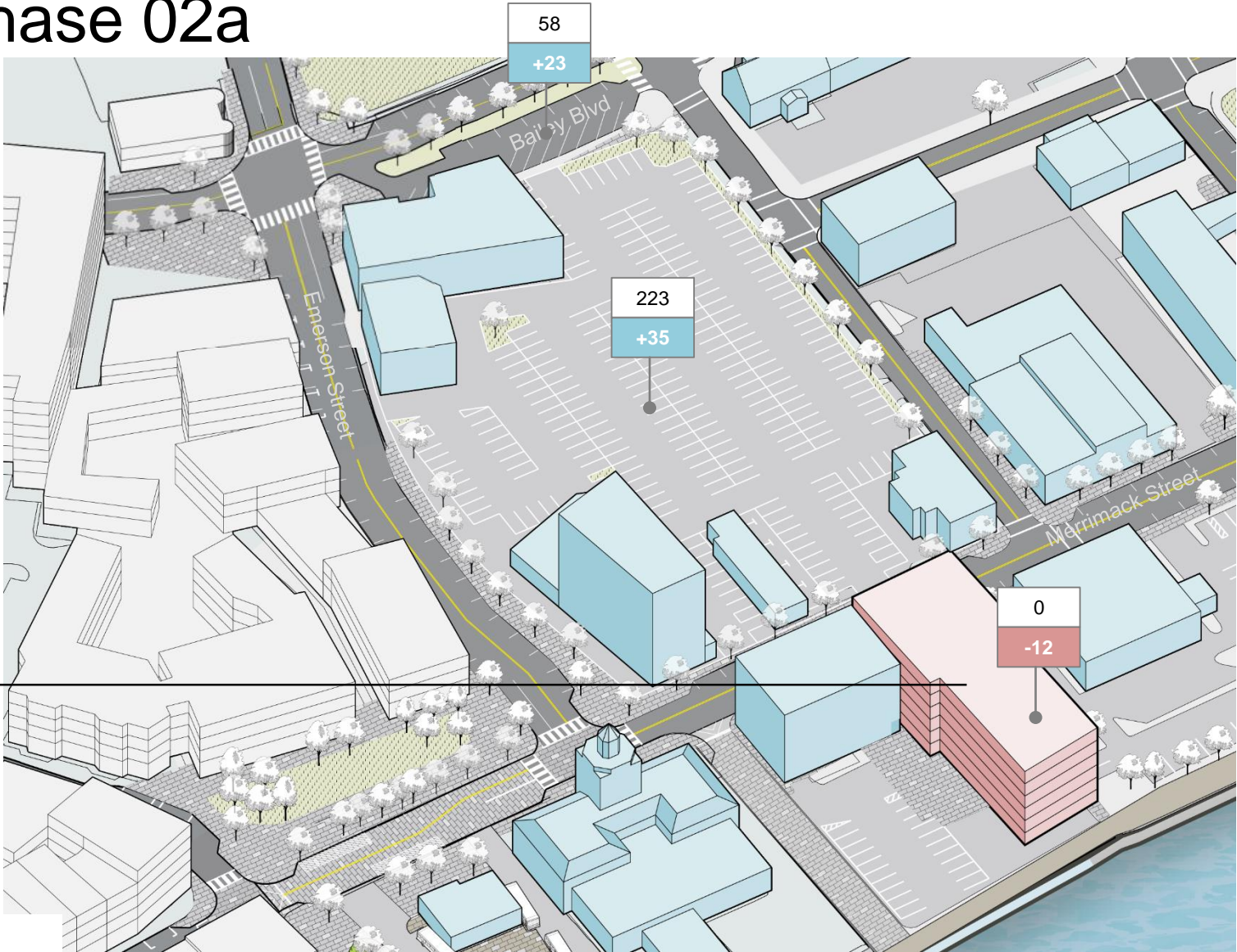
Total Supply – 258 spaces
Total Demand – 136 spaces
96 Surplus* Parking spaces

* Surplus to reserve capacity (90% of total supply)



Redevelopment Zone I: Phase 02a

Phase 02a proposes consolidating the existing surface parking lots and restriping them to get 35 additional spaces. Phase 02 also looks at a 6 story commercial/office development on Lupoli site.



5
6-story commercial – ~75,000 SF

Parking Inventory
Total Supply – 281 spaces
Total Demand – 221 spaces
32 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

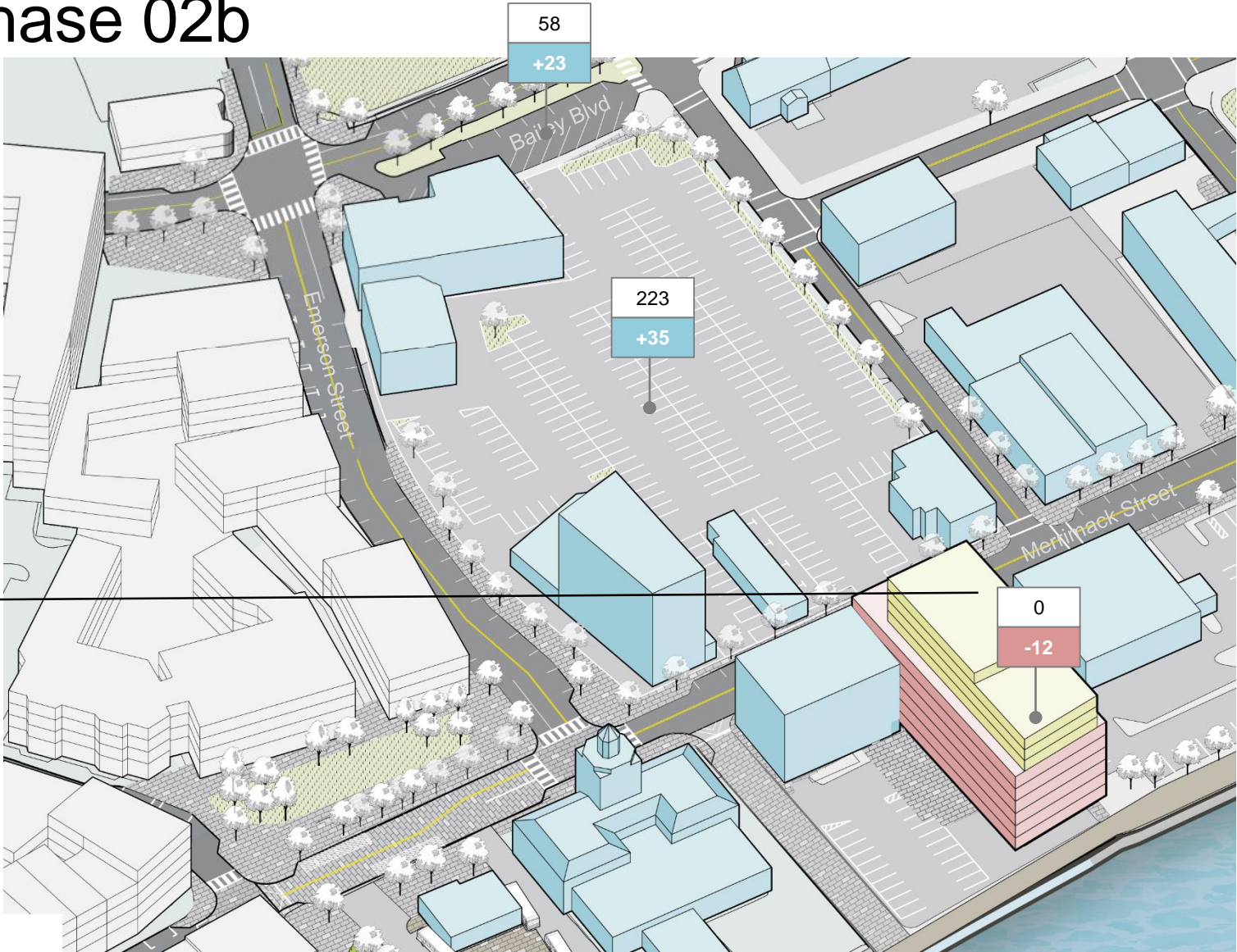
Redevelopment Zone I: Phase 02b

Phase 02b looks at an alternate 10 story mixed use commercial/office and residential development option on Lupoli site.

5
10-story mixed use
6-story commercial – ~75,000SF
4-story residential – 37,170 SF, 41 units

Parking Inventory
Total Supply – 281 spaces
Total Demand – 237 spaces
16 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF



Redevelopment Zone I: Phase 3a

Phase 03a looks at the expansion of the Boys & Girls Club preserving the surface parking.

Additional 10,000sf of indoor recreational space with ground floor parking

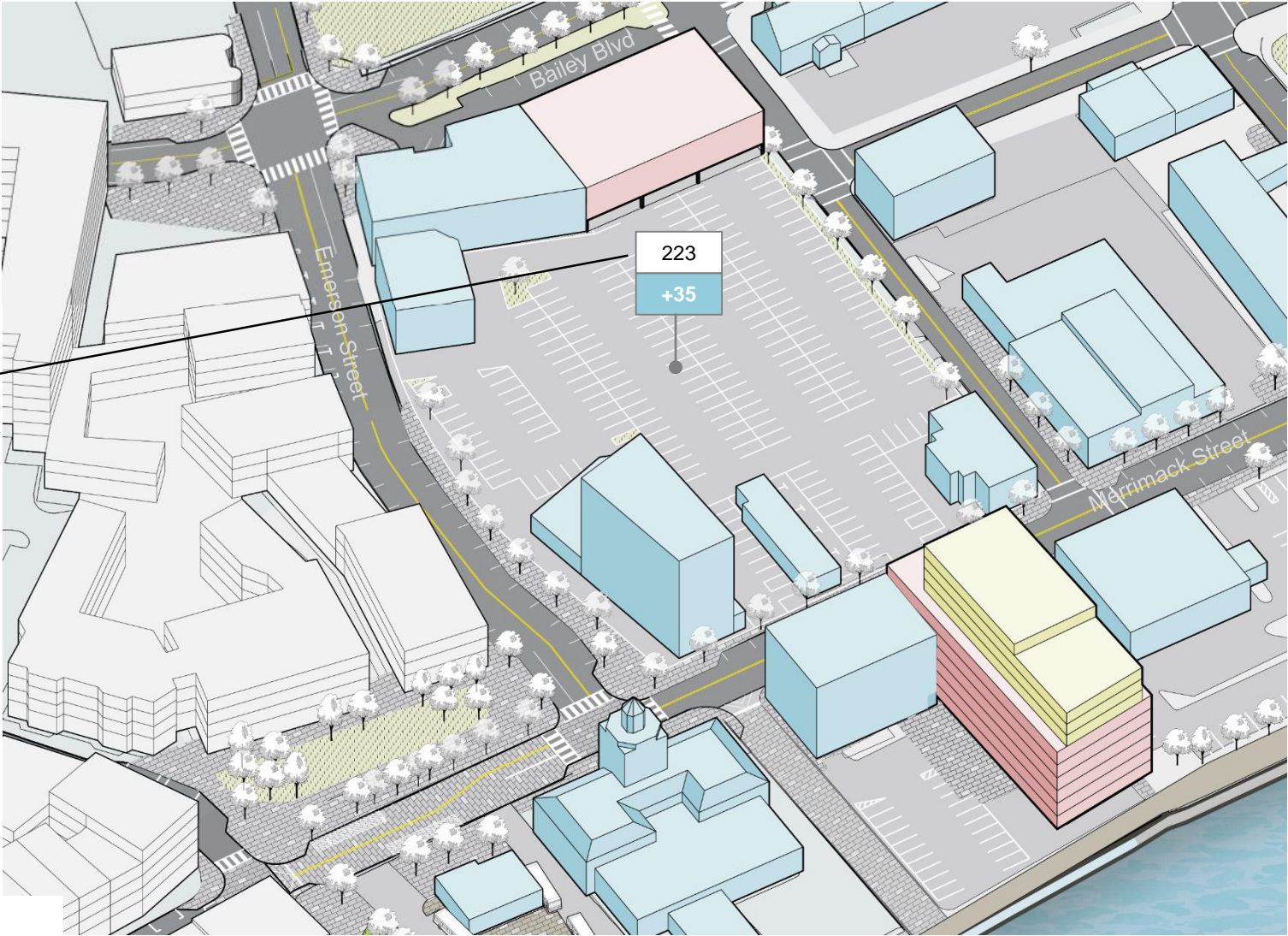
Parking Inventory

Total Supply – 281 spaces

Total Demand – 239 spaces

14 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF



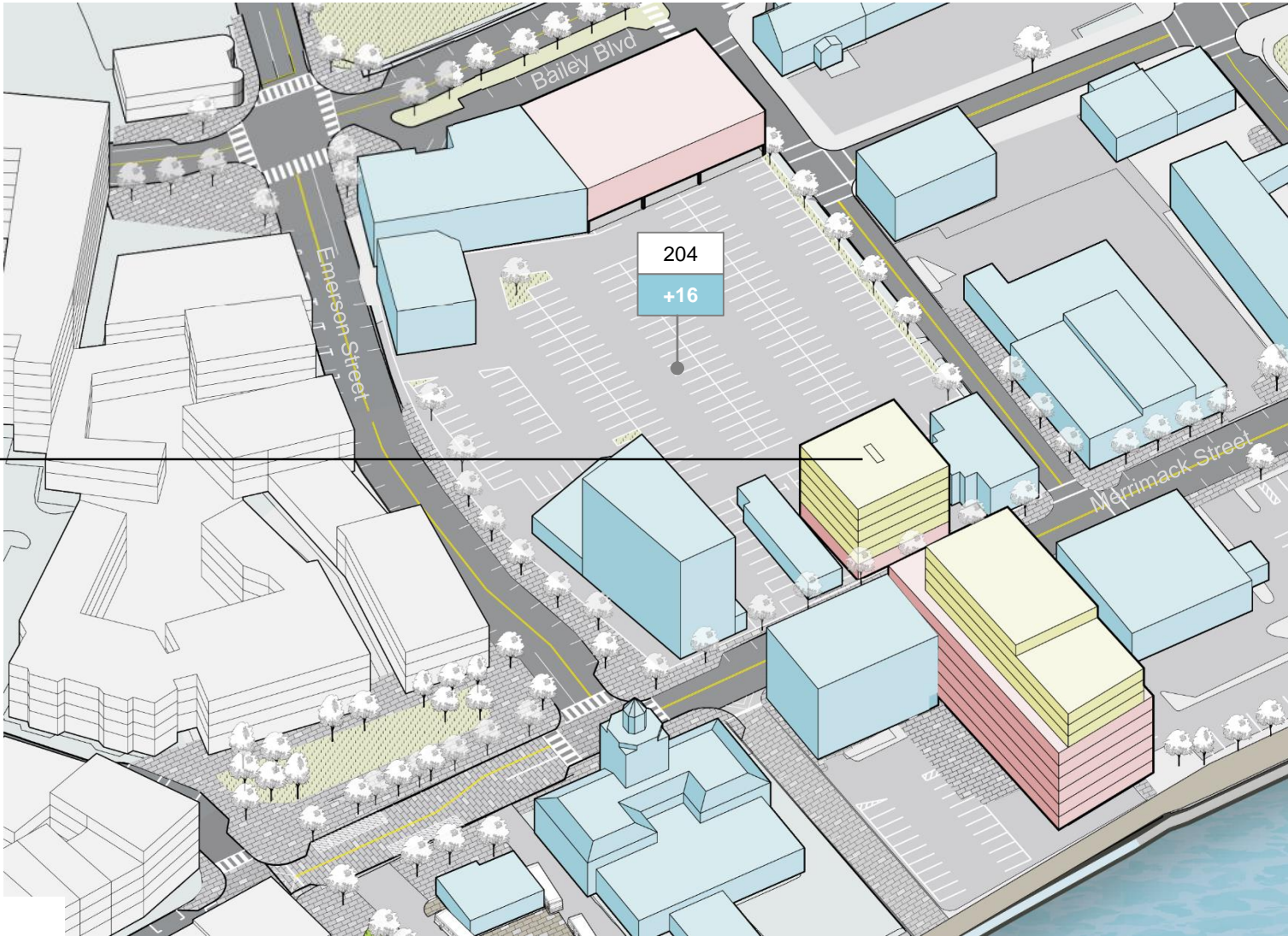
Redevelopment Zone I: Phase 3b

Phase 03b looks at an additional 5 story mixed use development along Merrimack Street which helps maintaining an active street edge.

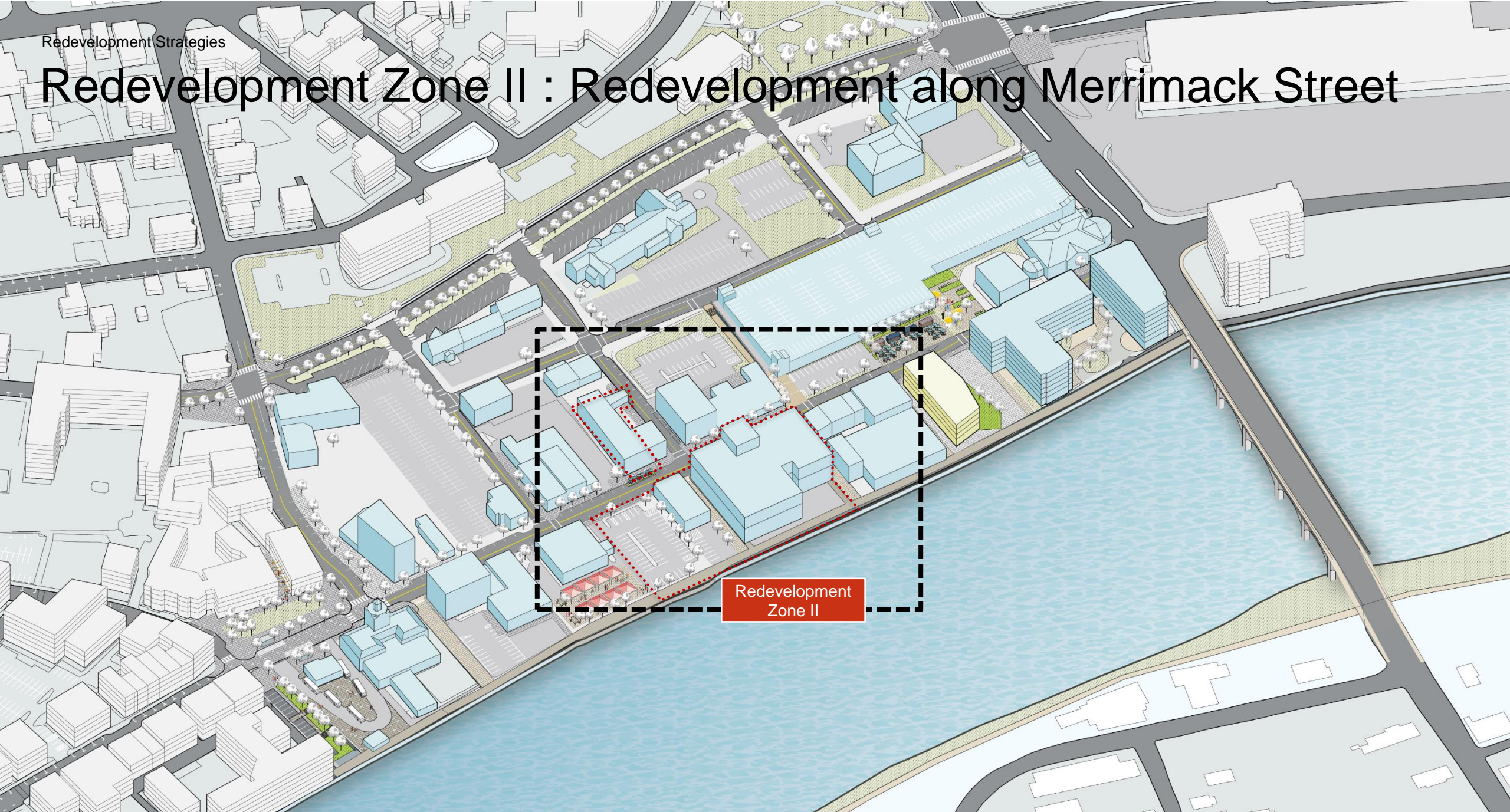
6-A
5-story mixed use
Residential – 15,600 SF, 16 units
Retail – 3,900 SF

Parking Inventory
Total Supply – 262 spaces
Total Demand – 250 spaces
-14 Deficit* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF



Redevelopment Zone II : Redevelopment along Merrimack Street



Redevelopment
Zone II

Redevelopment Zone II: Existing Parcel Alignment

Redevelopment zone II looks at parcels 7, 8, 9, 10, 11, 12, 13, 14, 15 and 22 shown in the adjacent map.



Redevelopment Zone II: Existing Parcel Alignment + Surplus

Parcel 9 within Redevelopment Zone II has been declared 'surplus property'



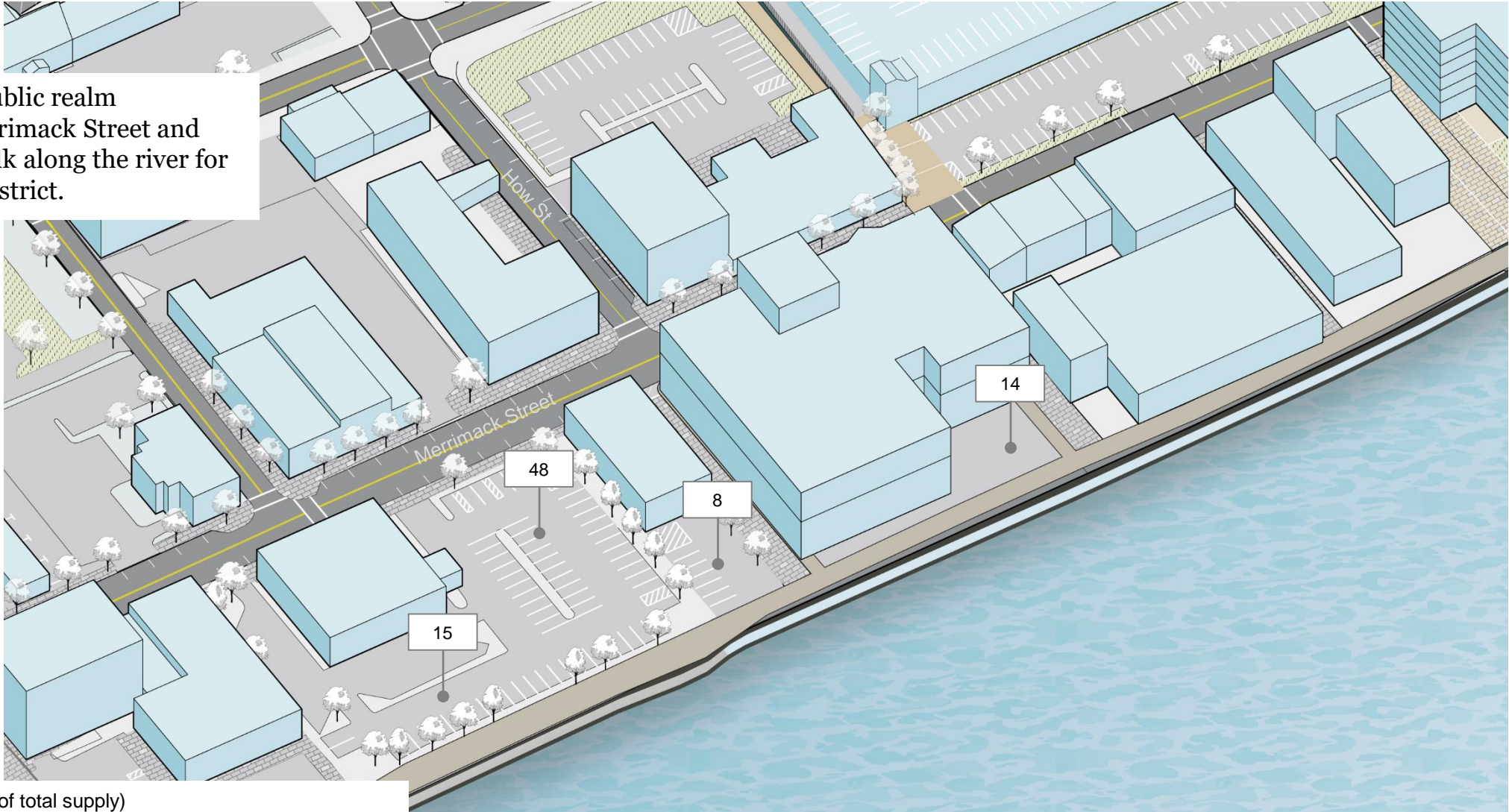
Redevelopment Zone II: Future Development Parcels

Consolidation of parcels south of Merrimack Street allows for continuing How Street all the way to the river and having two or three medium size developments along Merrimack Street.



Redevelopment Zone II: Phase 01

Phase 01 considers the public realm improvements along Merrimack Street and extension of the boardwalk along the river for the whole length of the district.

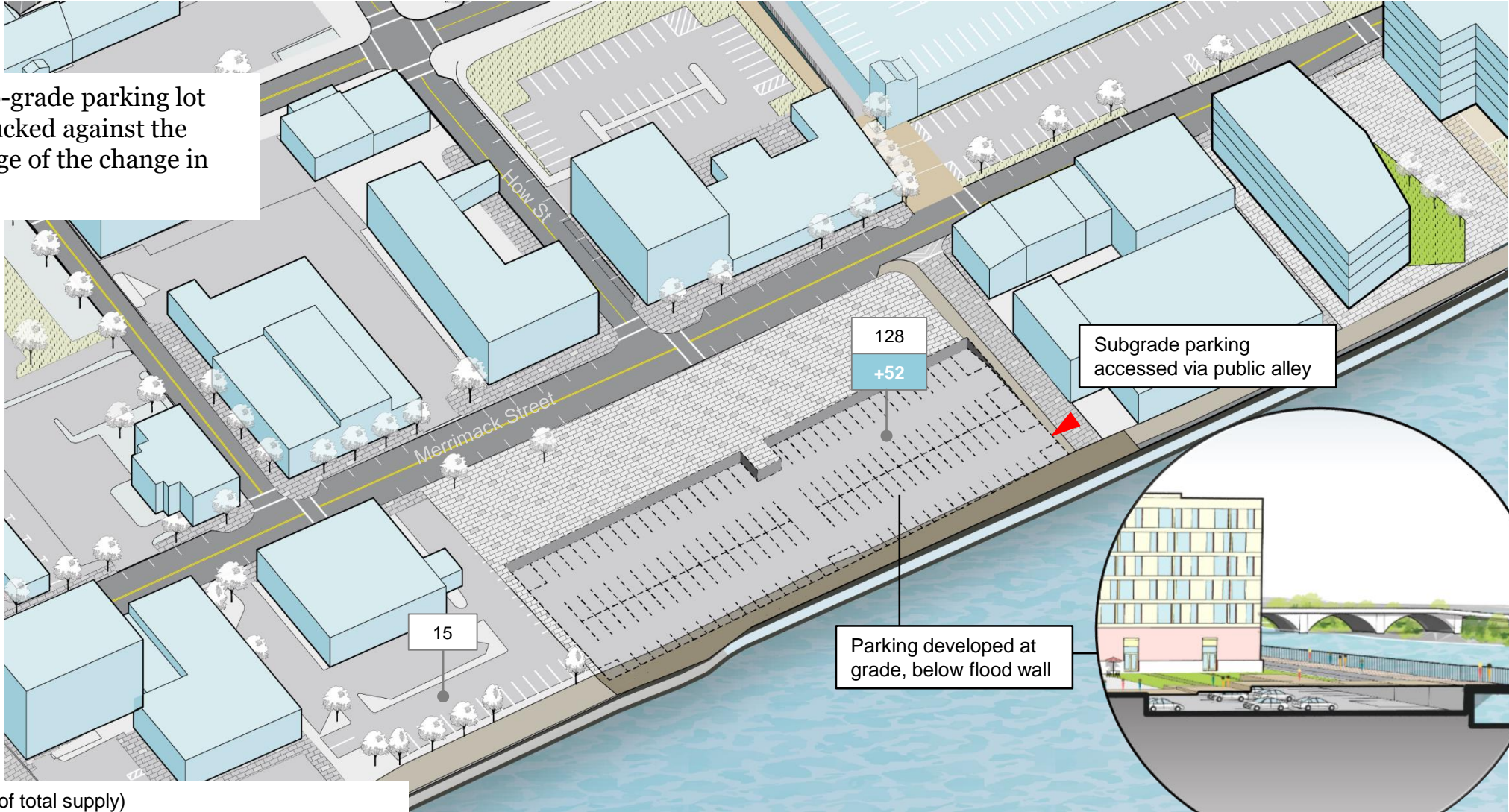


Parking Inventory
Total Supply – 85 spaces
Total Demand – 46 spaces
31 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

Redevelopment Zone II: Phase 02a

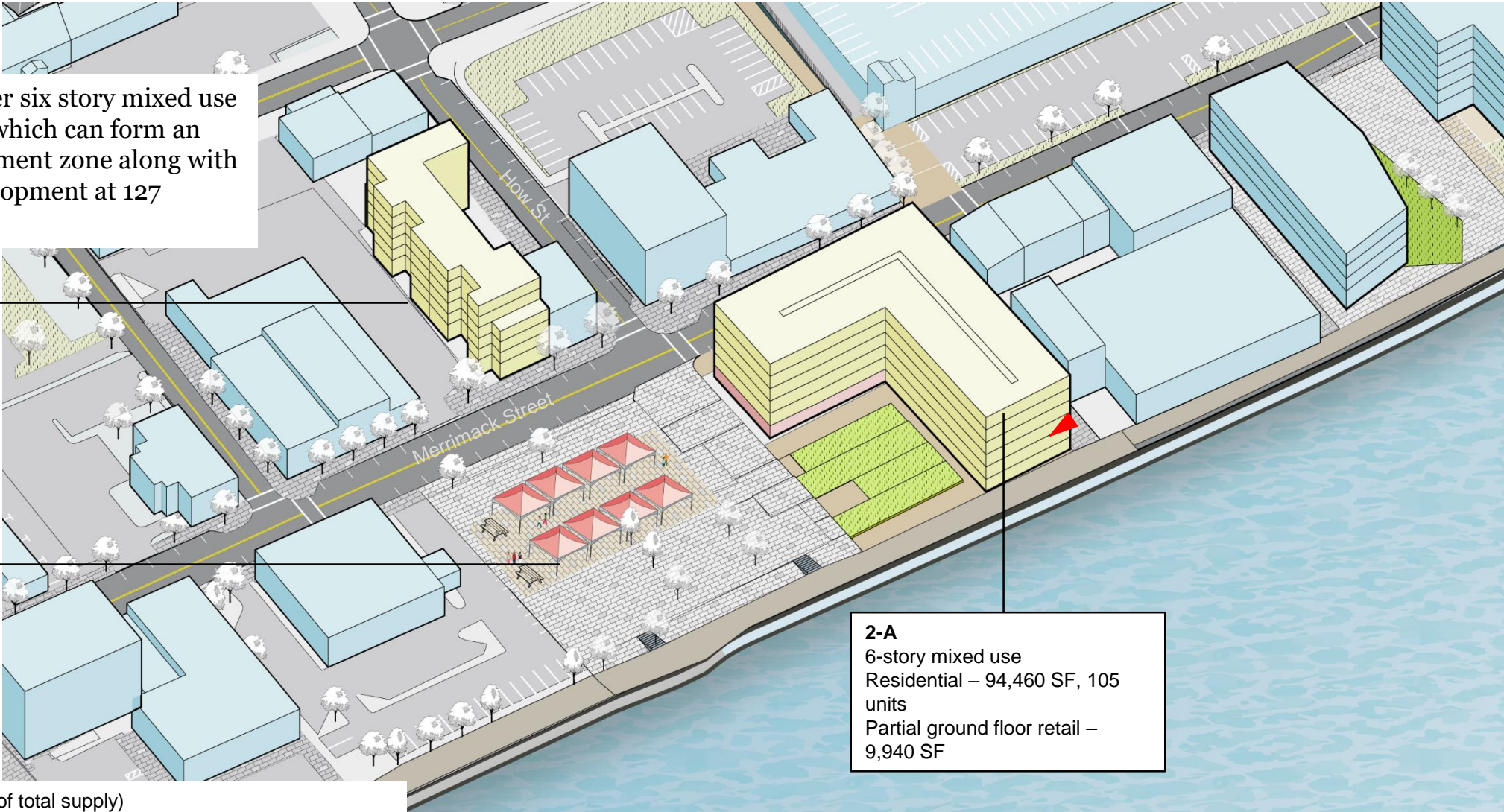
Phase 02a proposes a sub-grade parking lot for future development tucked against the flood wall taking advantage of the change in topography.



Parking Inventory
Total Supply – 143 spaces
Total Demand – 46 spaces
83 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

Redevelopment Zone II: Phase 02b



Phase 02b looks at a larger six story mixed use residential development which can form an anchor for this redevelopment zone along with a smaller mixed use development at 127 Merrimack St

11
6-story mixed-use
Residential – 26,560 SF, 35 units
Retail – 6,500 SF

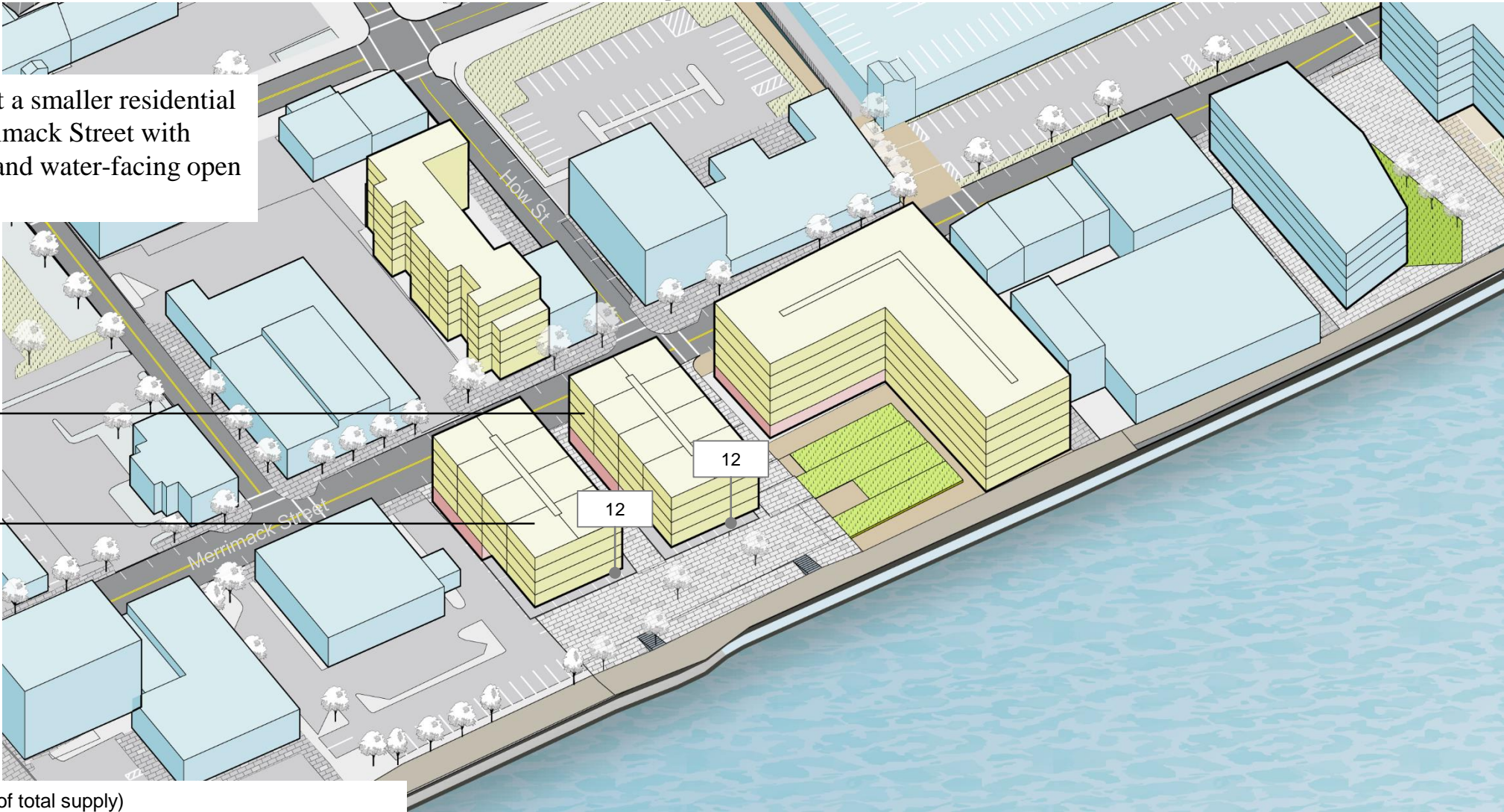
Programmable area available for activating uses until development occurs

Parking Inventory
Total Supply – 143 spaces
Total Demand – 100 spaces
29 Surplus* Parking spaces

2-A
6-story mixed use
Residential – 94,460 SF, 105 units
Partial ground floor retail – 9,940 SF

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

Redevelopment Zone II: Phase 03 Option A



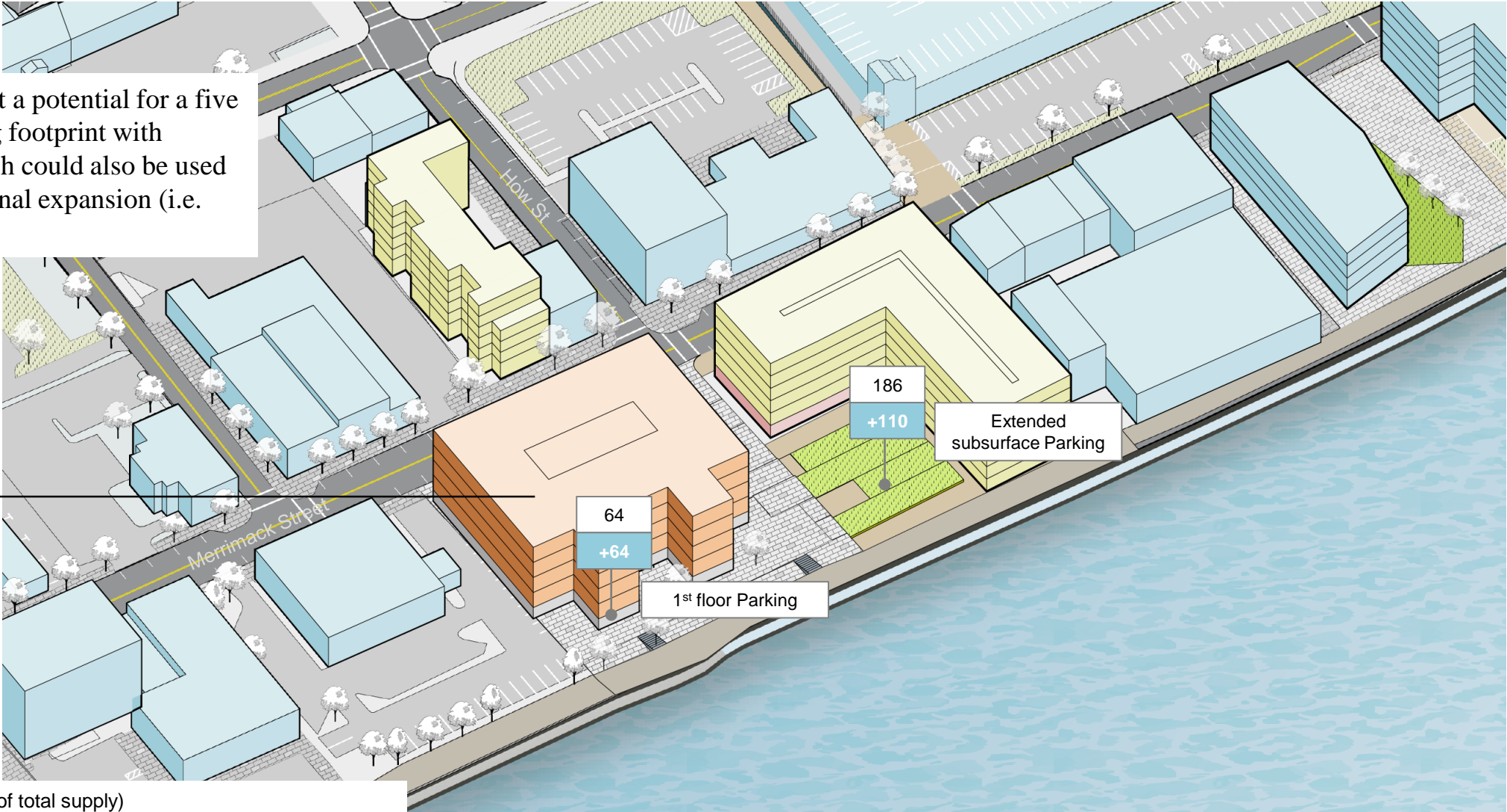
Phase 03 option A looks at a smaller residential developments along Merrimack Street with street-facing commercial and water-facing open space

3-A, 3-B
Two Developments
5-story
Residential – 32,330 SF, 32 units each
Partial ground floor commercial – 3,900 SF each

Parking Inventory
Total Supply – 167 spaces
Total Demand – 128 spaces
22 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

Redevelopment Zone II: Phase 03 Option B



Phase 03 option B looks at a potential for a five story commercial building footprint with ground floor parking which could also be used to accommodate institutional expansion (i.e. Umass or Necco)

3
Commercial / Institutional development – **84,000 SF (21,000 SF/floor)**
1st floor parking in addition to extended subsurface parking

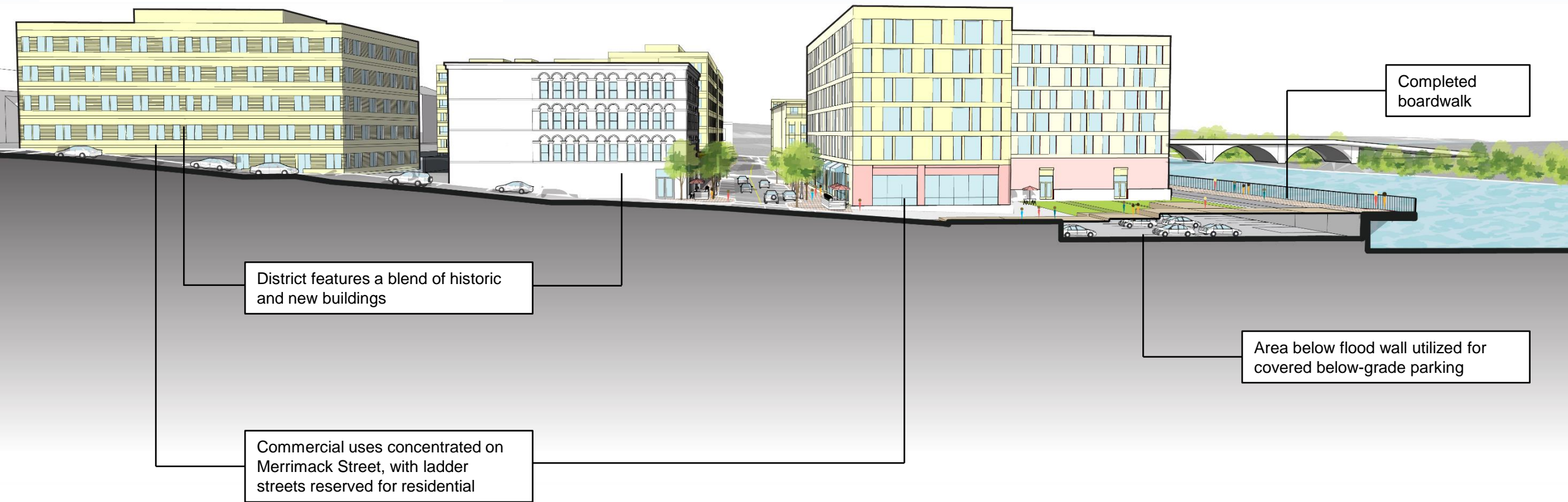
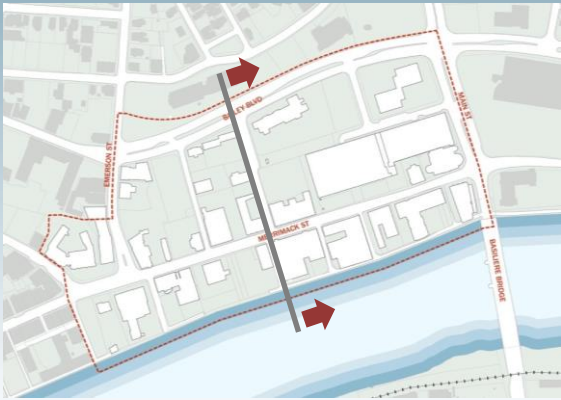
Parking Inventory
Total Supply –265 spaces
Total Demand – 190 spaces
49 Surplus* Parking spaces

*Surplus to reserve capacity (90% of total supply)
Residential Parking ratio – 0.75, Commercial Parking ratio – 3spaces/1,000 SF

Section

Section through How St and Merrimack St looking west

Section through How Street shows continuous pedestrian access, a view corridor south to the river and parking tucked against flood wall.



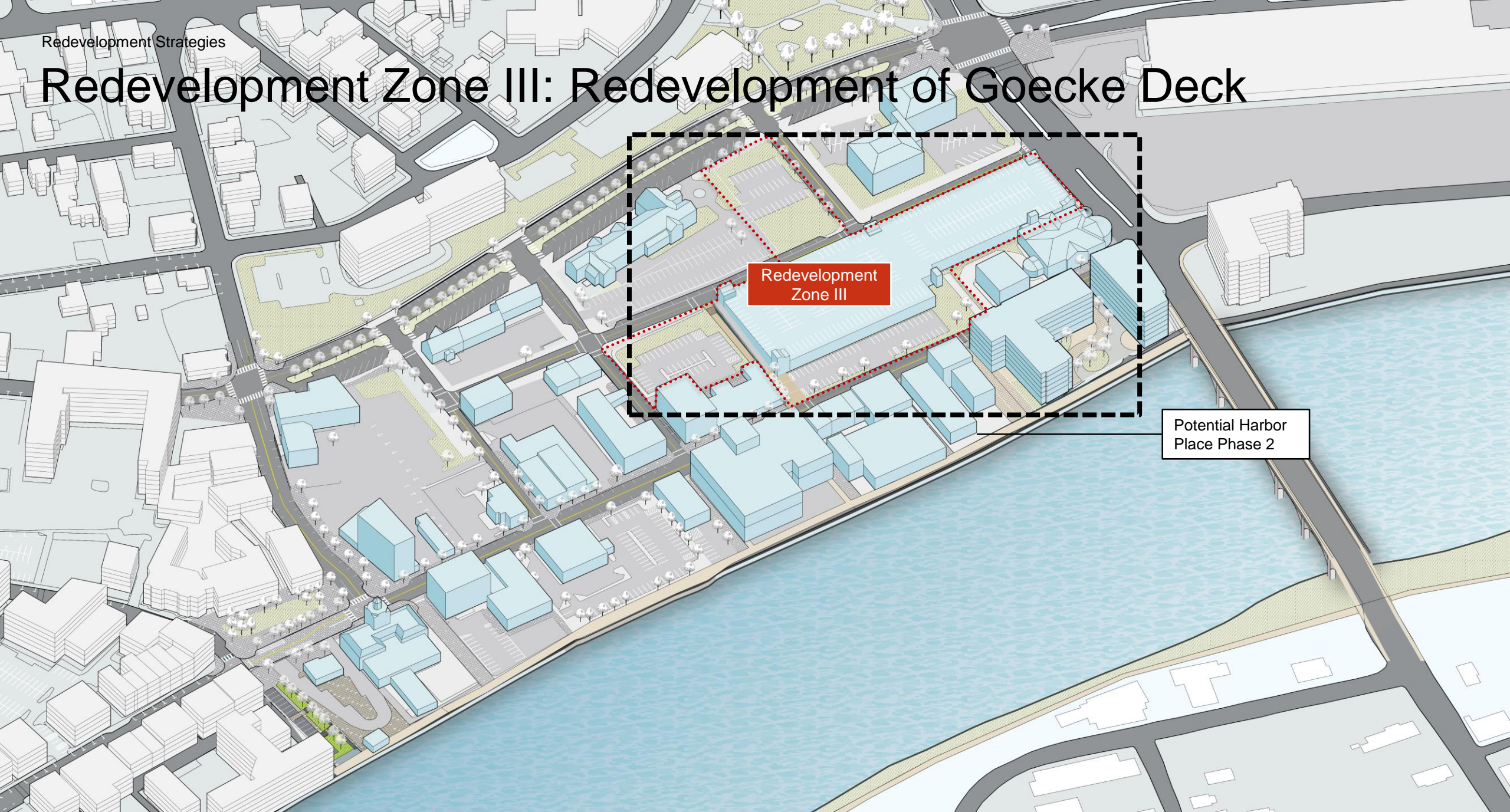
How Street



How Street



Redevelopment Zone III: Redevelopment of Goecke Deck



Redevelopment
Zone III

Potential Harbor
Place Phase 2

Redevelopment Zone III : Existing Parcel Alignment



Redevelopment Zone III : Existing Parcel Alignment + Surplus Parcels

Parcel 26, 27, 28 and 30 within
Redevelopment Zone II has been declared
'surplus property'

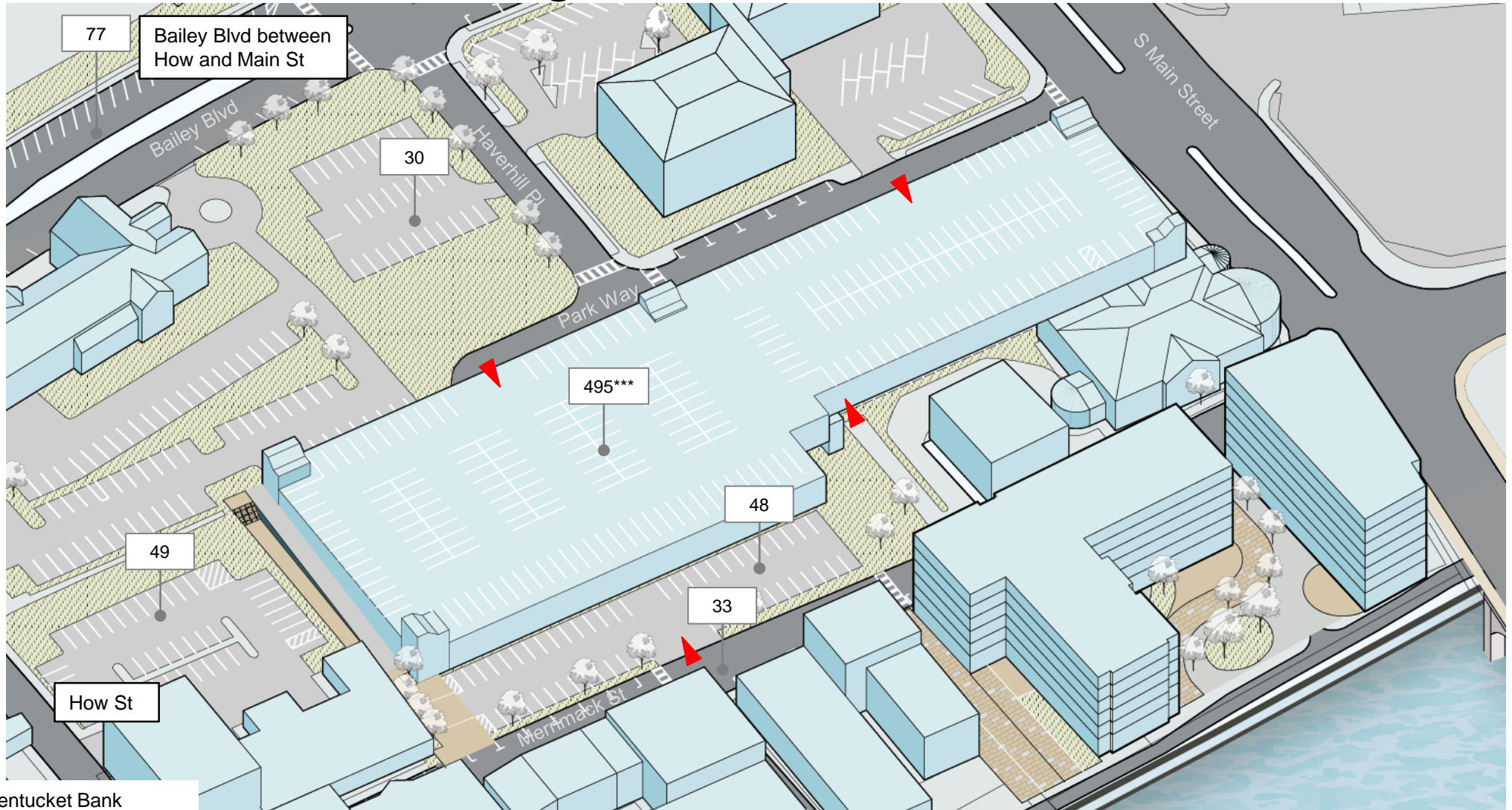


Redevelopment Zone III : Future Development Parcels

Consolidation of city owned parcels allows for comprehensive development and phasing for this zone



Redevelopment Zone III: Existing



*** includes 7 spaces behind old Pentucket Bank

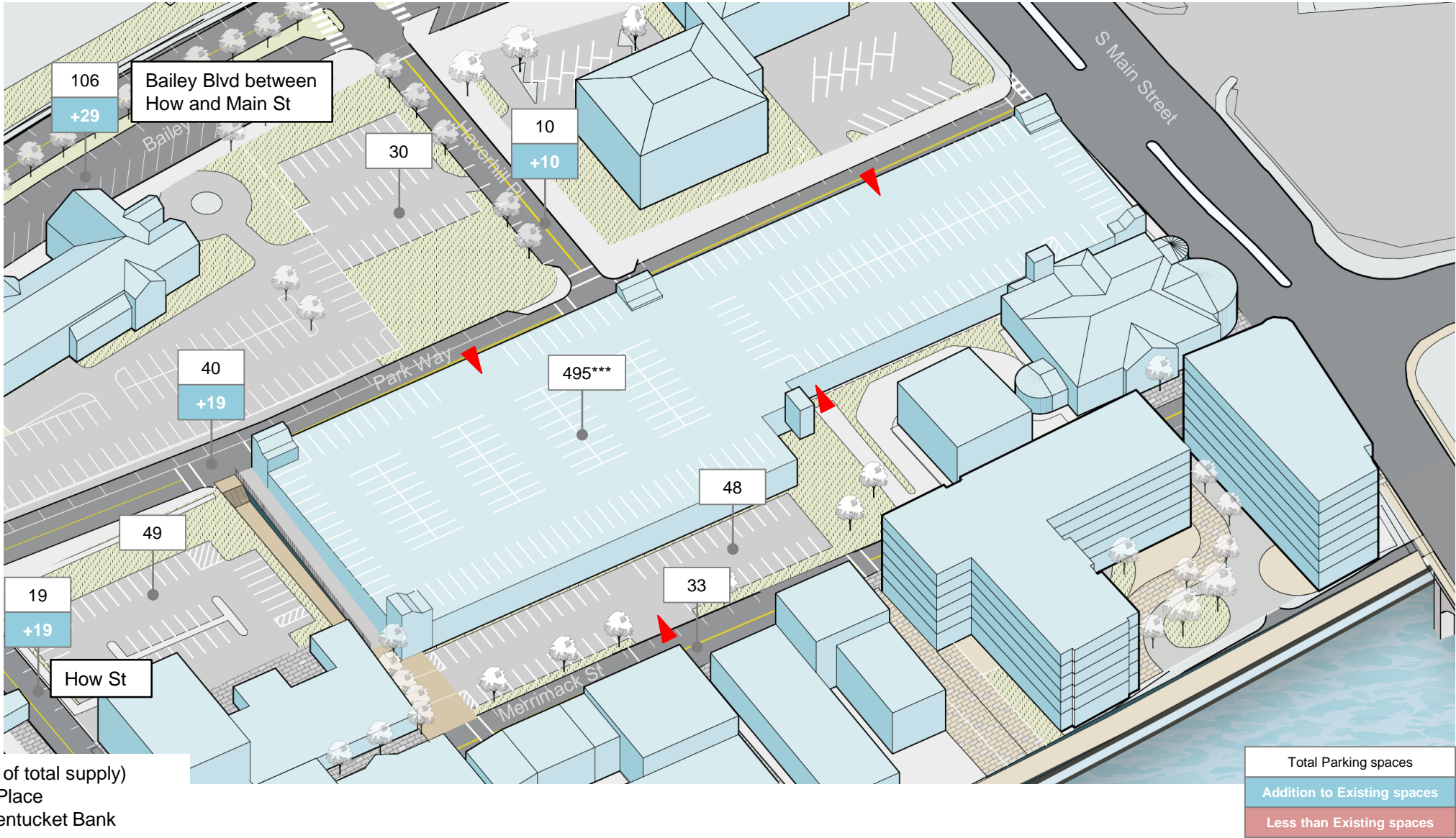
Redevelopment Zone III: Phase 01

Phase 01 considers the public realm improvements and additional on-street parking at Merrimack Street, Baily Blvd, Haverhill Pl and Park way extension.

Average parking utilization in this district is less than 60%

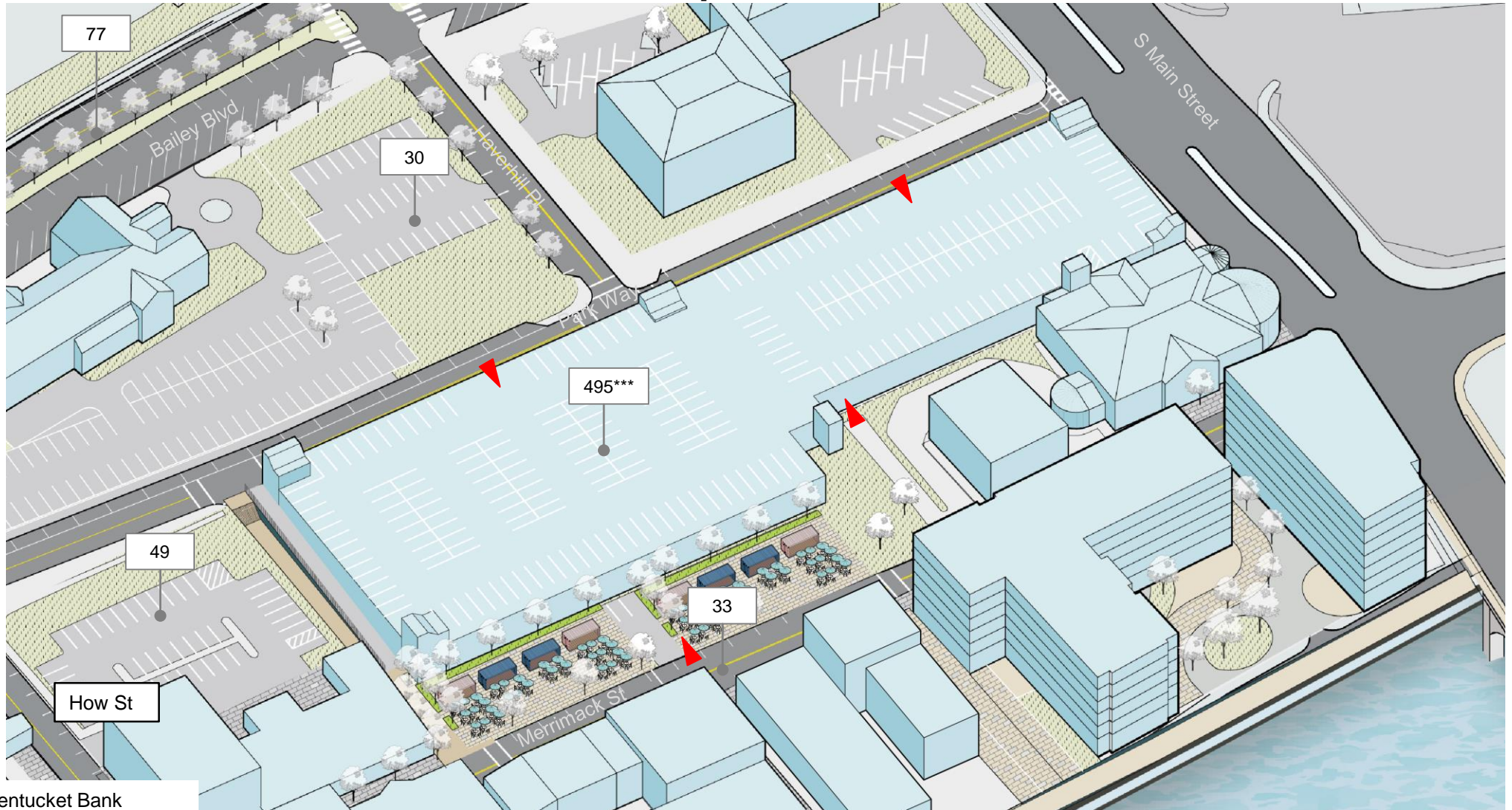
Parking Inventory
Total Supply – 830 spaces
Total Demand – 541 spaces**
206 Surplus* Parking spaces

* Surplus to reserve capacity (90% of total supply)
** Includes 100 spaces for Harbor Place
*** includes 7 spaces behind old Pentucket Bank



Redevelopment Zone III: Phase 02, Option 01

Option 02 looks at temporary popup event, retail and restaurant space on the existing surface parking



*** includes 7 spaces behind old Pentucket Bank

Redevelopment Zone III: Phase 02, Option 02

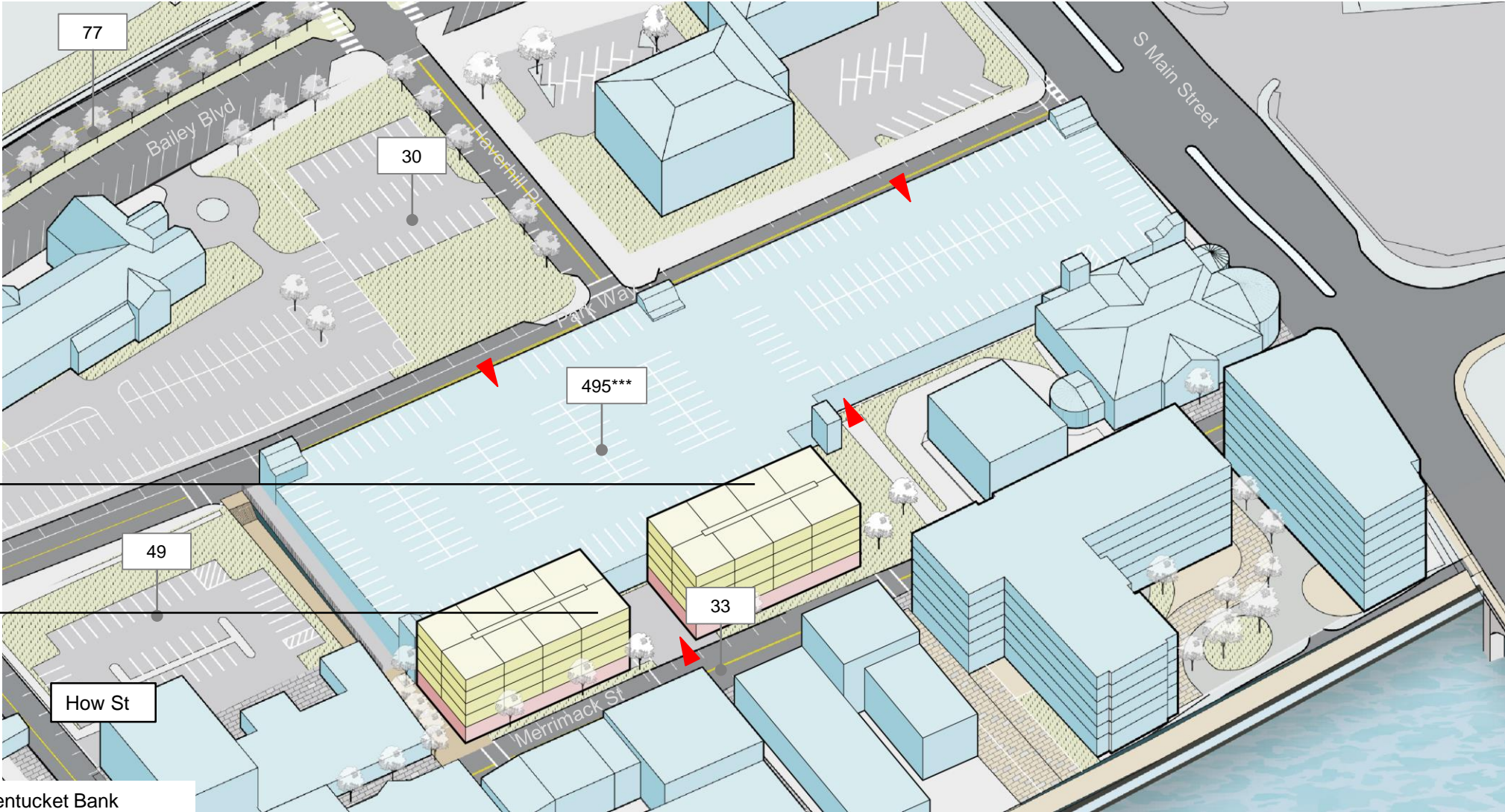
Option 01 looks at a development option retaining the parking deck and having two smaller developments along Merrimack Street

5-story mixed-use
Residential –31,500 SF 30 units
Retail – 7,880 SF

5-story mixed-use
Residential –31,500 SF 30 units
Retail – 7,880 SF

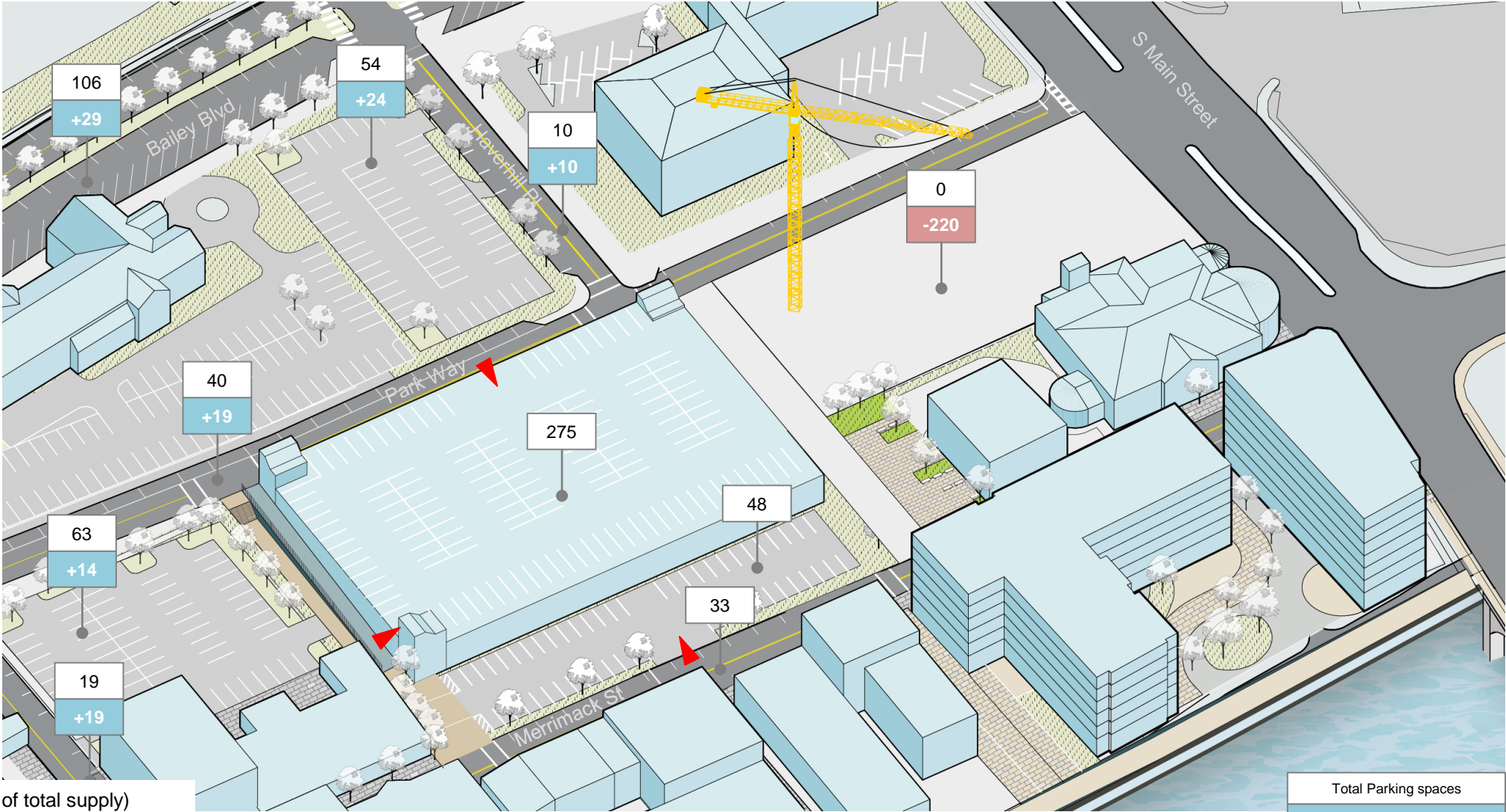
Retaining parking deck would provide sufficient parking for this development option

*** includes 7 spaces behind old Pentucket Bank



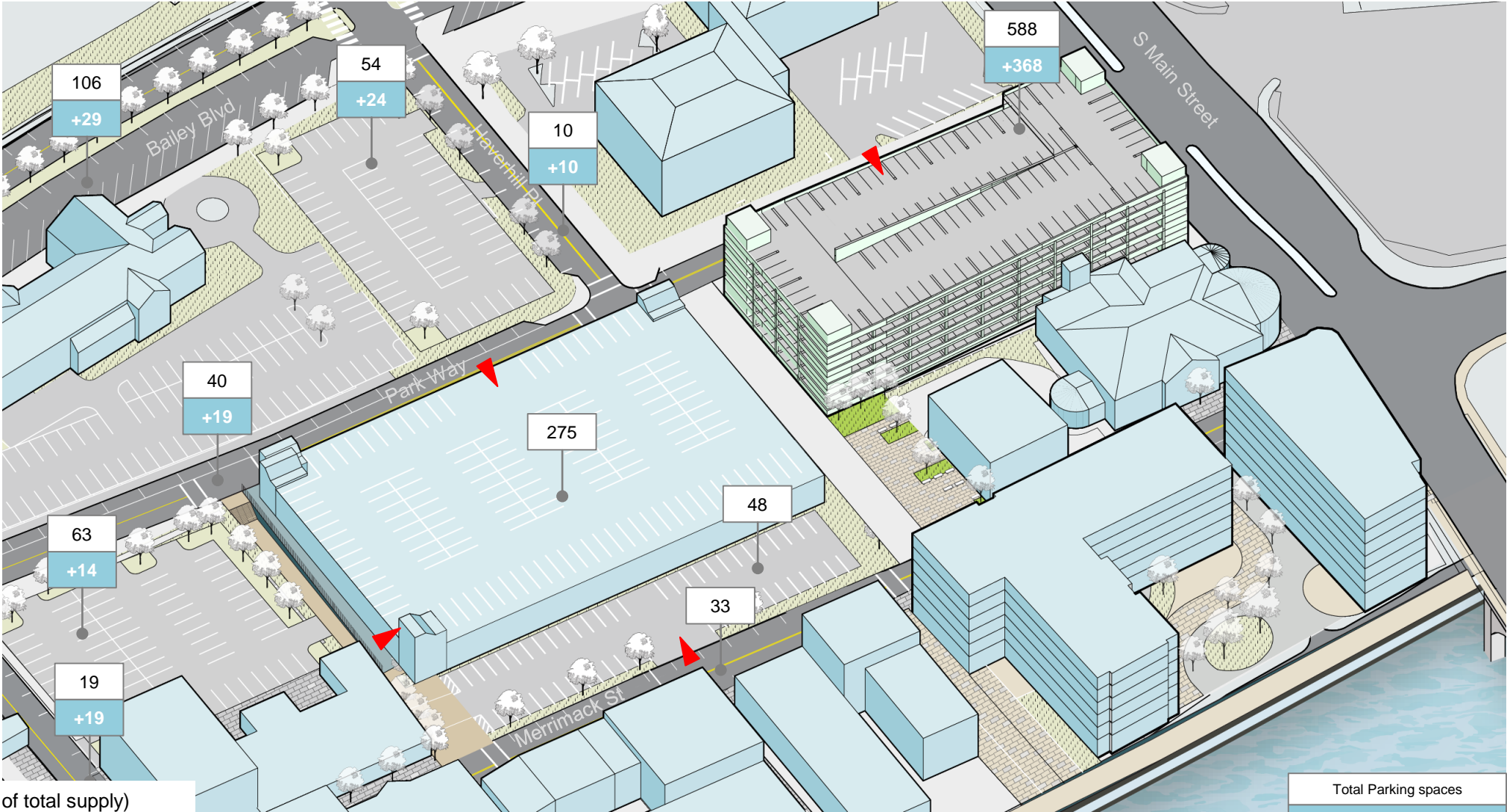
Redevelopment Zone III: Phase 2a, Option 03

Phase 02a looks at distribution of parking during the partial demolition of Goecke deck when the parking garage is under construction.



Redevelopment Zone III: Phase 2a, Option 03

Phase 02a looks at development of the new parking garage



Parking Inventory
Total Supply – 1,236 spaces
Total Demand – 541 spaces**
571 Surplus* Parking spaces

* Surplus to reserve capacity (90% of total supply)
** Includes 100 spaces for Harbor Place

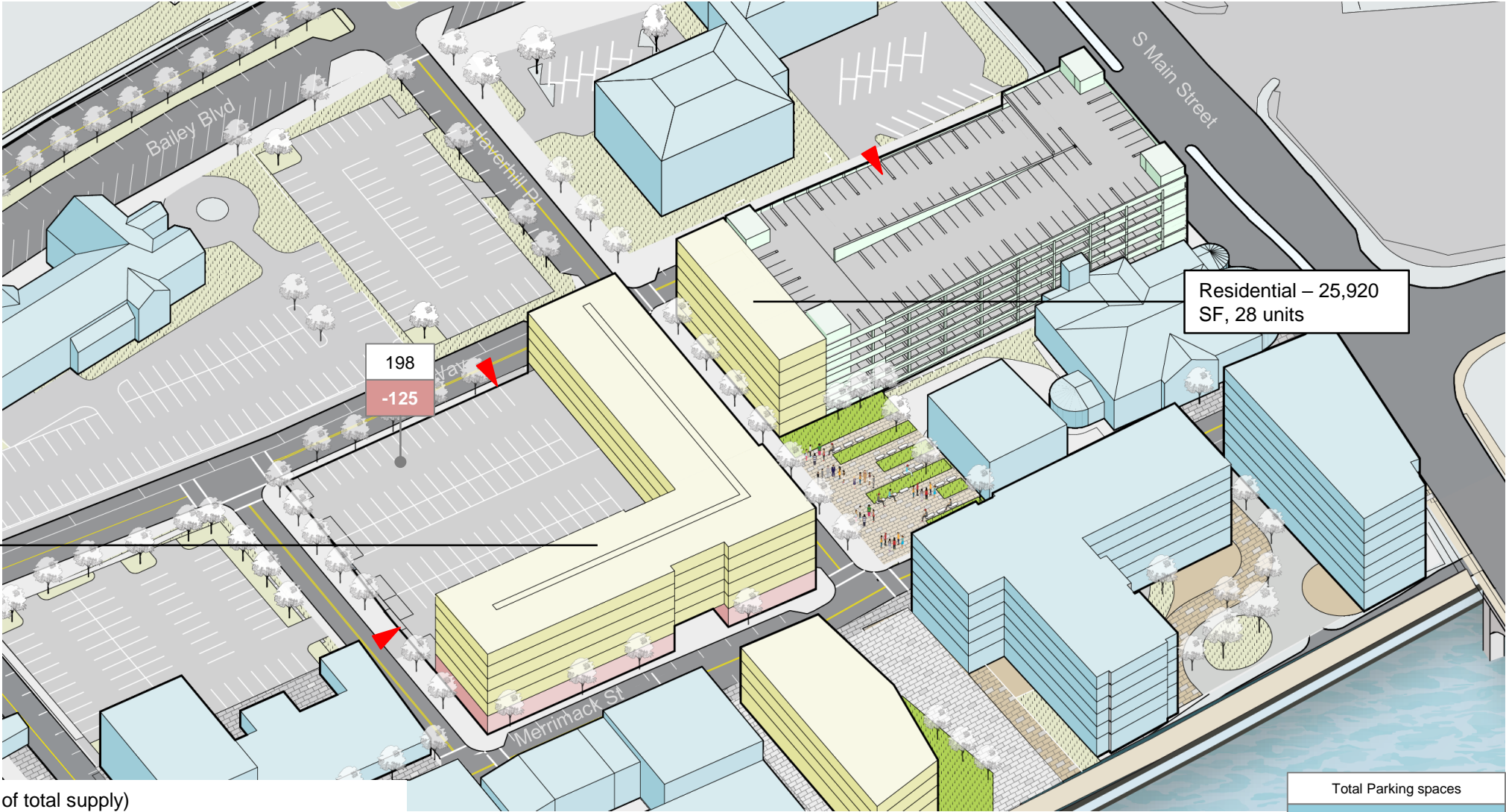
Redevelopment Zone III: Phase 2b Residential, Option 03

Complete demolition of Goecke Deck, new development along Merrimack Street.
Development of Harbor Place phase 2.
Haverhill Place extended down to Merrimack Street

1-A
6-story mixed-use
Residential –150,000 SF167 units
Retail – 15,850 SF

Parking Inventory
Total Supply – 1,111 spaces
Total Demand – 670 spaces**
330 Surplus* Parking spaces

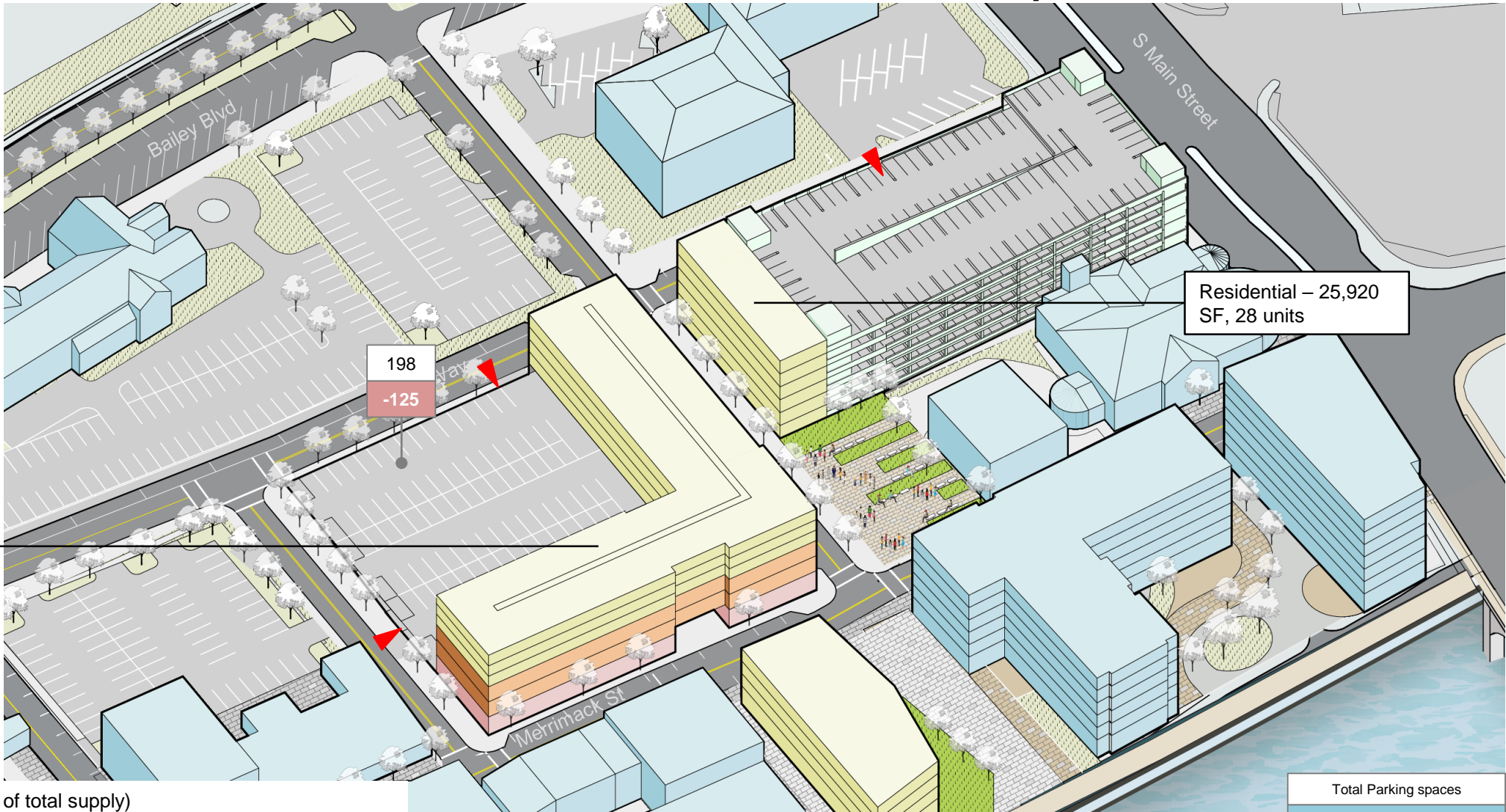
* Surplus to reserve capacity (90% of total supply)
** Includes 100 spaces for Harbor Place
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF



Total Parking spaces
Addition to Existing spaces
Less than Existing spaces

Redevelopment Zone III: Phase 2b Commercial, Option 03

Complete demolition of Goecke Deck, new development along Merrimack Street. Haverhill Place extended down to Merrimack Street.



1-A
6-story mixed-use
Residential – 94,700 SF, 105 units
Retail – 15,850 SF
Commercial – 55,282 SF

Parking Inventory
Total Supply – 1,111 spaces
Total Demand – 676 spaces**
324 Surplus* Parking spaces

* Surplus to reserve capacity (90% of total supply)
** Includes 100 spaces for Harbor Place
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF

Total Parking spaces
Addition to Existing spaces
Less than Existing spaces

Redevelopment Zone III: Phase 3, Option 03

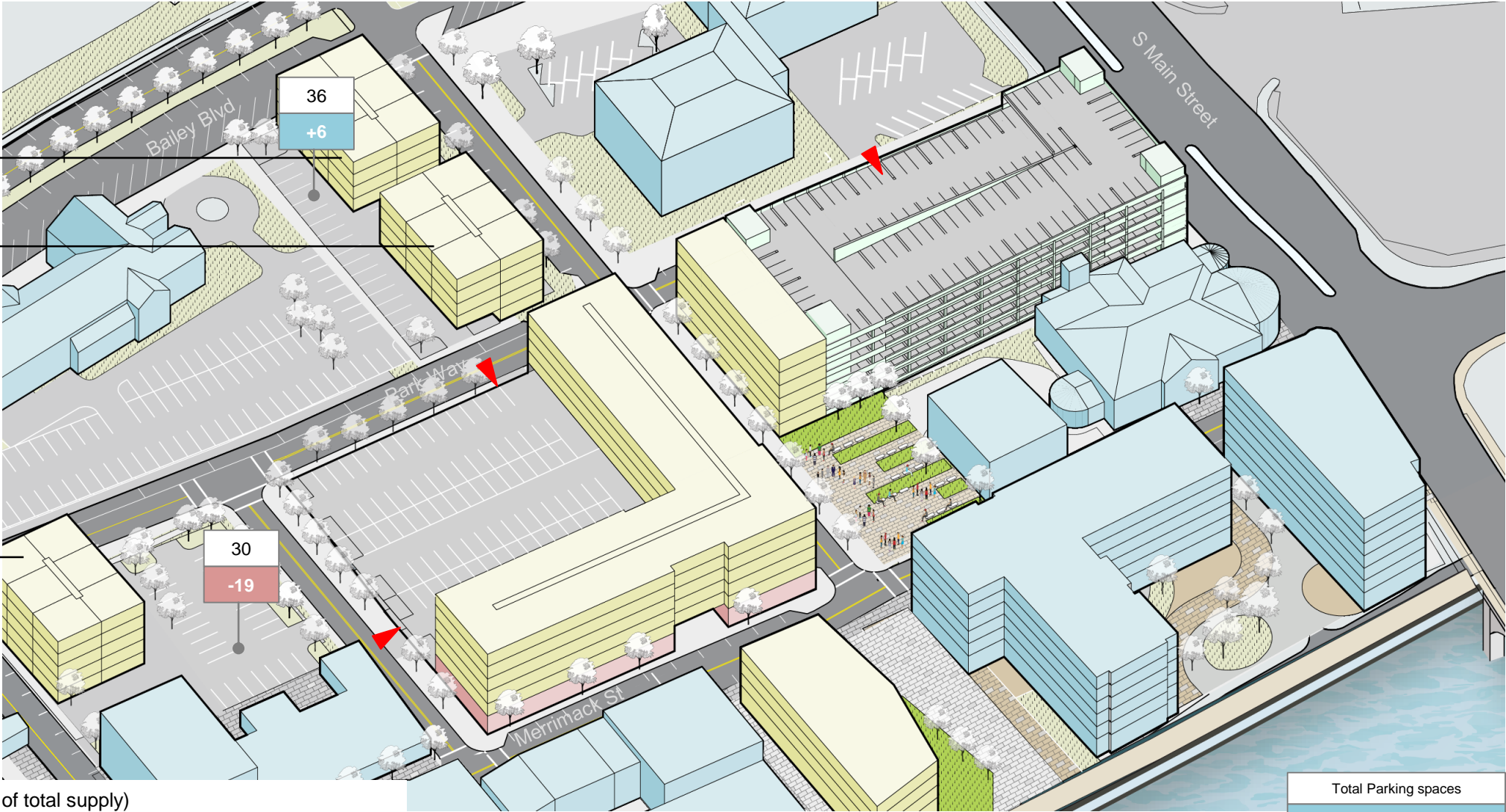
Additional longer-range development.

10-A, 10-B
Two Developments
5-story residential –
29,300 SF, 27 units
each
Potential expansion
space for adjacent uses

8
5-story residential –
29,250 SF, 30 units

Parking Inventory
Total Supply – 1,060 spaces
Total Demand – 708 spaces**
246 Surplus* Parking spaces

* Surplus to reserve capacity (90% of total supply)
** Includes 100 spaces for Harbor Place
Residential Parking ratio – 0.75, Commercial Parking ratio – 3 spaces/1,000 SF



Total Parking spaces
Addition to Existing spaces
Less than Existing spaces

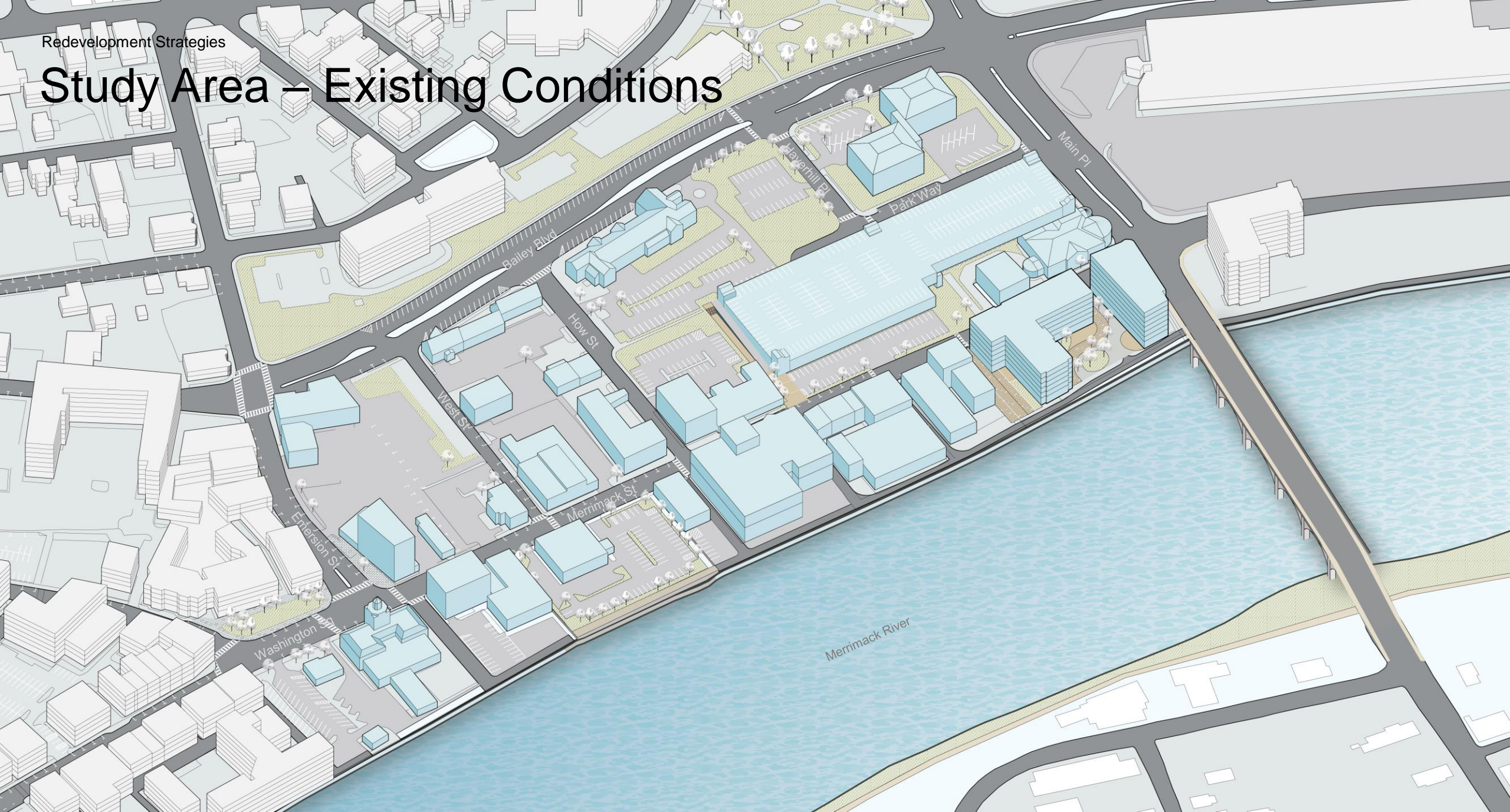
Merrimack Street - Existing



Merrimack Street - Proposed

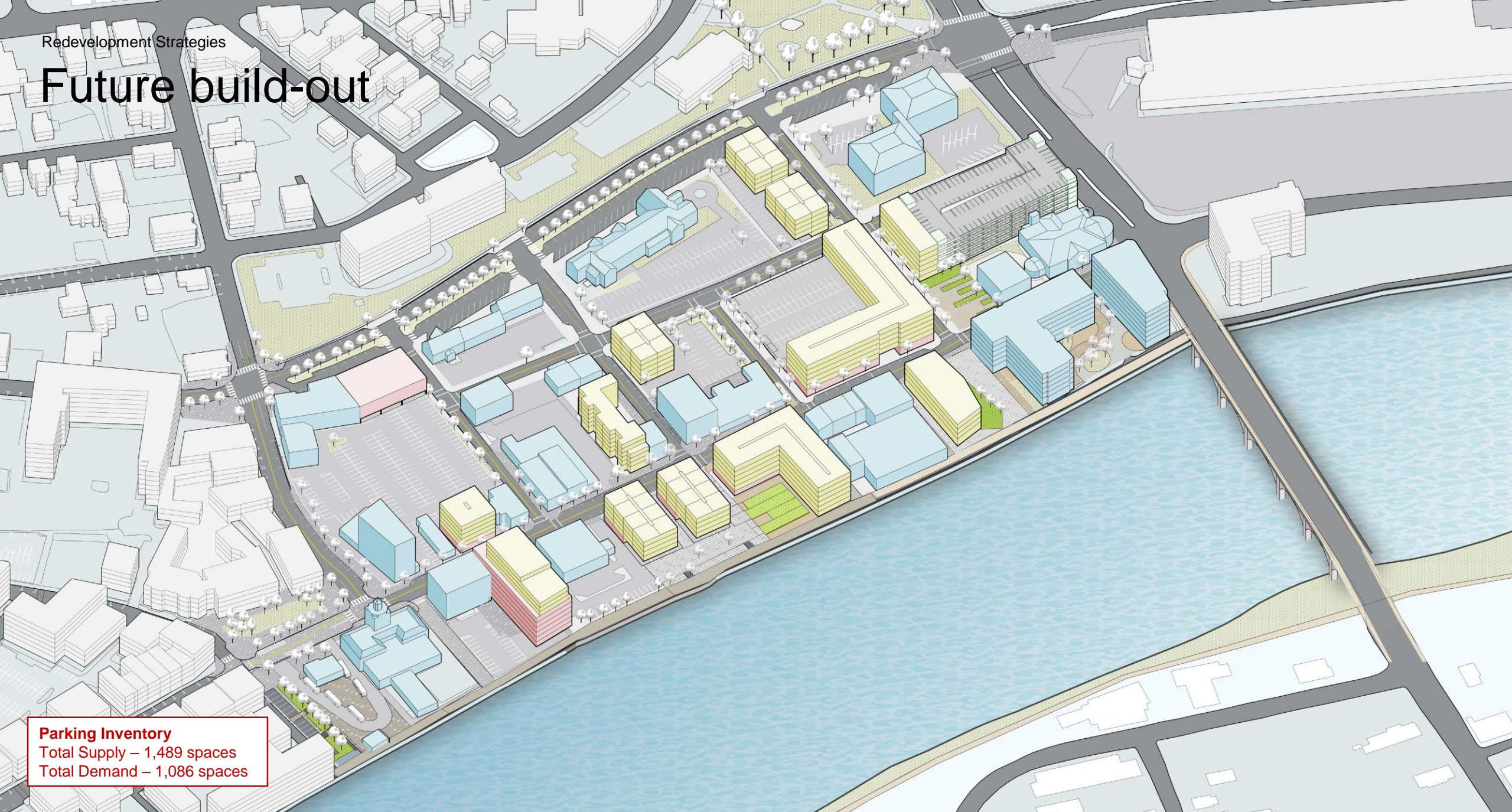


Study Area – Existing Conditions



Future build-out

Parking Inventory
Total Supply – 1,489 spaces
Total Demand – 1,086 spaces




Next Steps

- Determining the cost of the recommended infrastructure and public realm improvements
- Developing strategy for financing of infrastructure improvements, including state sources
- Determining if the study area should be a DIF District
- Creating surplus additional public land, as recommended by the plan, to meet evolving market demand
- Issuing developer RFPs for public sites
- Working with property owners and potential developers on privately-owned sites

Appendix

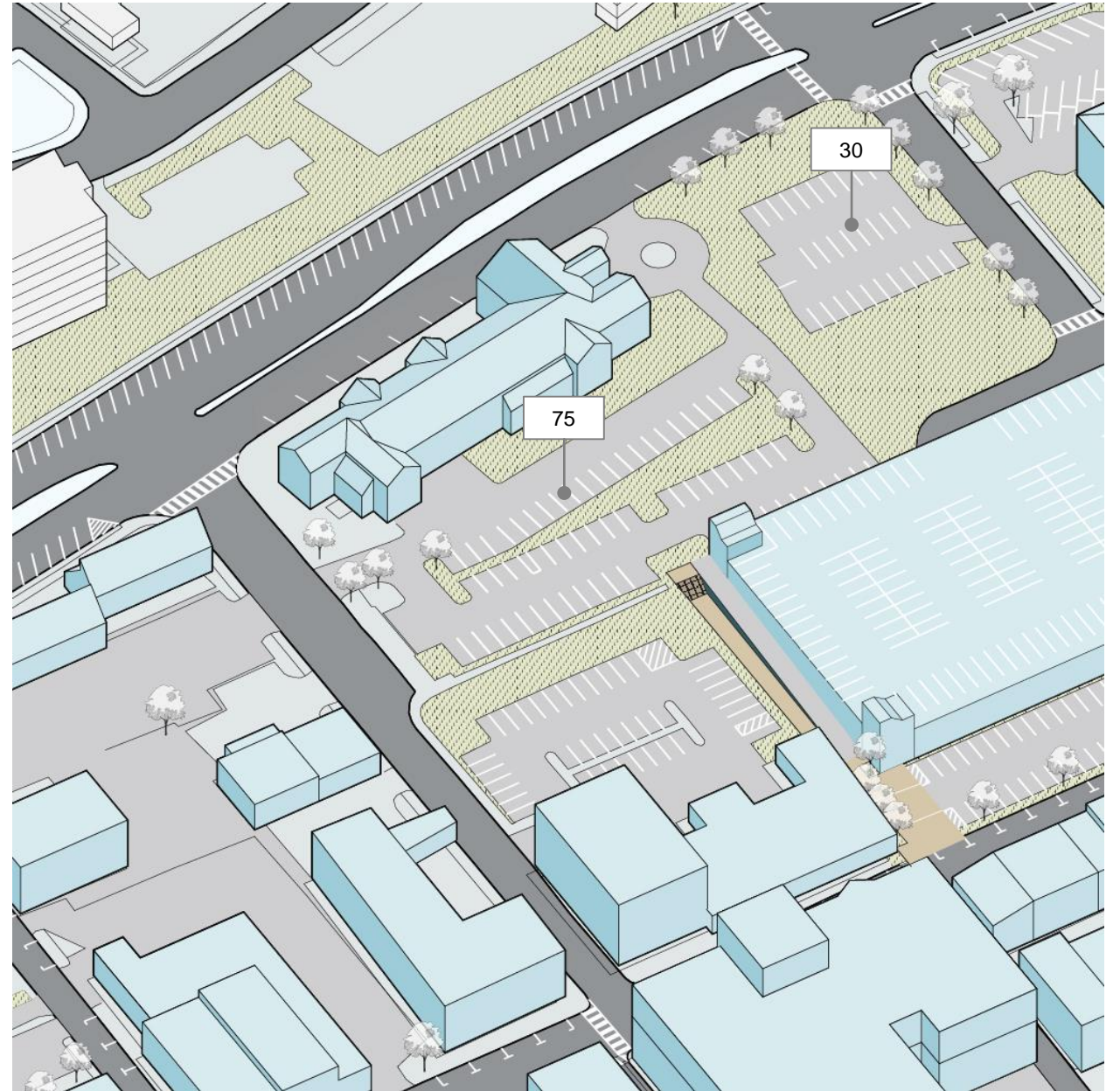
1. Public Realm Project Construction Estimate
2. Police Station Parking layout option and Construction Estimate
3. Parking Deck Project Construction Estimate
4. Project Concept Schedule
5. Feasibility Study and Pro formas

Public Realm Project Concept Construction Estimate

	Project:	HAVERHILL TDI CONCEPT CONST ESTIMATE	Computed:	DAS	Date:	12/29/16
	Project ID:		Checked:	TNU	Date:	1/13/17
	HDR Job #:	10046626				
OPINION OF PROBABLE CONSTRUCTION COST						
Item No.	Item Description	Unit	Quantity	Unit Price	Total Cost	
102.51	INDIVIDUAL TREE PROTECTION	EA	69	\$375.00	\$25,875.00	
120.1	UNCLASSIFIED EXCAVATION	CY	8,775	\$50.00	\$438,750.00	
141.1	TEST PIT FOR EXPLORATION	CY	15	\$100.00	\$1,500.00	
151.01	GRAVEL BORROW - TYPE C	CY	5,400	\$35.50	\$191,700.00	
156.12	CRUSHED STONE FOR CURB FOUNDATION	TON	740	\$42.00	\$31,080.00	
170.	FINE GRADING AND COMPACTING	SY	21,210	\$5.00	\$106,050.00	
180.1	HEALTH AND SAFETY PLAN	LS	1	\$4,000.00	\$4,000.00	
180.2	IMPLEMENTATION OF HEALTH AND SAFETY PLAN	HR	20	\$95.00	\$1,900.00	
220.	DRAINAGE STRUCTURE ADJUSTED	EA	81	\$350.00	\$28,350.00	
220.7	SANITARY STRUCTURE ADJUSTED	EA	11	\$339.00	\$3,729.00	
358.	GATE BOX ADJUSTED	EA	20	\$225.00	\$4,500.00	
415.	PAVEMENT MICROMILLING	SY	36,120	\$12.00	\$433,440.00	
431.	HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE	SY	2,680	\$75.00	\$201,000.00	
451.	HMA FOR PATCHING	TON	605	\$200.00	\$121,000.00	
452.	ASPHALT EMULSION FOR TACK COAT	GAL	3,120	\$12.00	\$37,440.00	
455.23	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)	TON	5,100	\$170.00	\$867,000.00	
455.32	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)	TON	3,250	\$170.00	\$552,500.00	
456.	WARM-MIX ASPHALT PAVEMENT	TON	9,405	\$6.25	\$58,781.25	
472.	HOT MIX ASPHALT FOR MISCELLANEOUS WORK	TON	945	\$250.00	\$236,250.00	
504.	GRANITE CURB TYPE VA4 - STRAIGHT	FT	3,760	\$60.00	\$225,600.00	
504.1	GRANITE CURB TYPE VA4 - CURVED	FT	1,485	\$65.00	\$96,525.00	
580.	CURB REMOVED AND RESET	FT	4,990	\$30.00	\$149,700.00	
581.	CURB INLET REMOVED AND RESET	EA	2	\$125.00	\$250.00	
594.	CURB REMOVED AND DISCARDED	FT	1,250	\$5.00	\$6,250.00	
701.	CEMENT CONCRETE SIDEWALK	SY	10,105	\$100.00	\$1,010,500.00	
701.1	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS	SY	210	\$125.00	\$26,250.00	
701.2	CEMENT CONCRETE WHEELCHAIR RAMP	SY	440	\$120.00	\$52,800.00	
706.	BRICK WALK	SY	3,810	\$120.00	\$457,200.00	
748.	MOBILIZATION	LS	1	\$146,000.00	\$146,000.00	
823.1	HIGHWAY LIGHTING LUMINAIRE 175 WATT	EA	60	\$15,000.00	\$900,000.00	
866.104	4 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FT	2,860	\$1.00	\$2,860.00	
866.112	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FT	0	\$2.25	\$0.00	
867.104	4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	FT	7,245	\$1.00	\$7,245.00	
999.5	TIMBER BOARDWALK	LF	485	\$100.00	\$48,500.00	
Project Subtotal					\$6,426,025.25	
SAY					\$6,430,000	

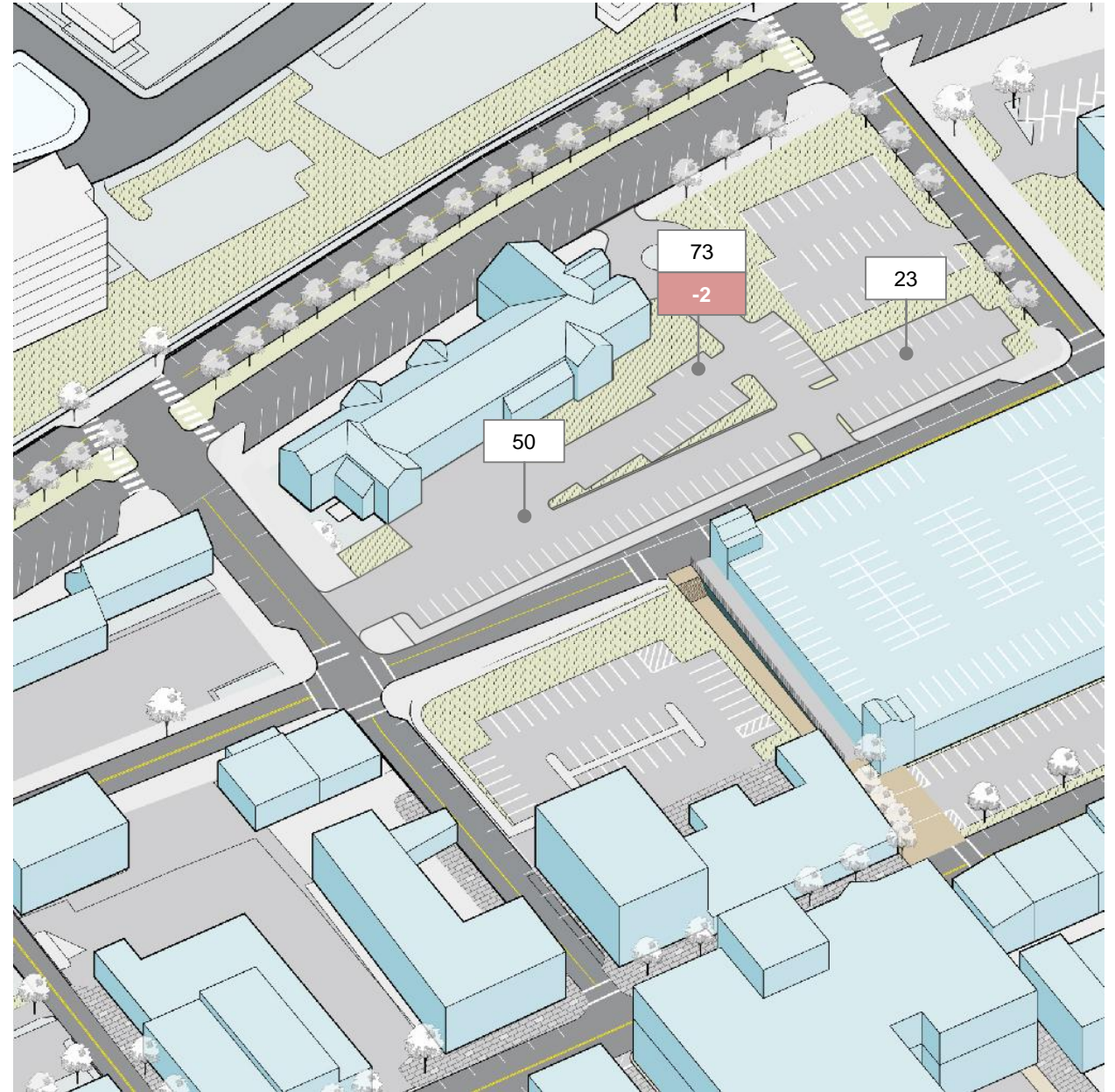
Police Station Parking lot redesign

The existing police station parking lot includes 75 parking spaces.



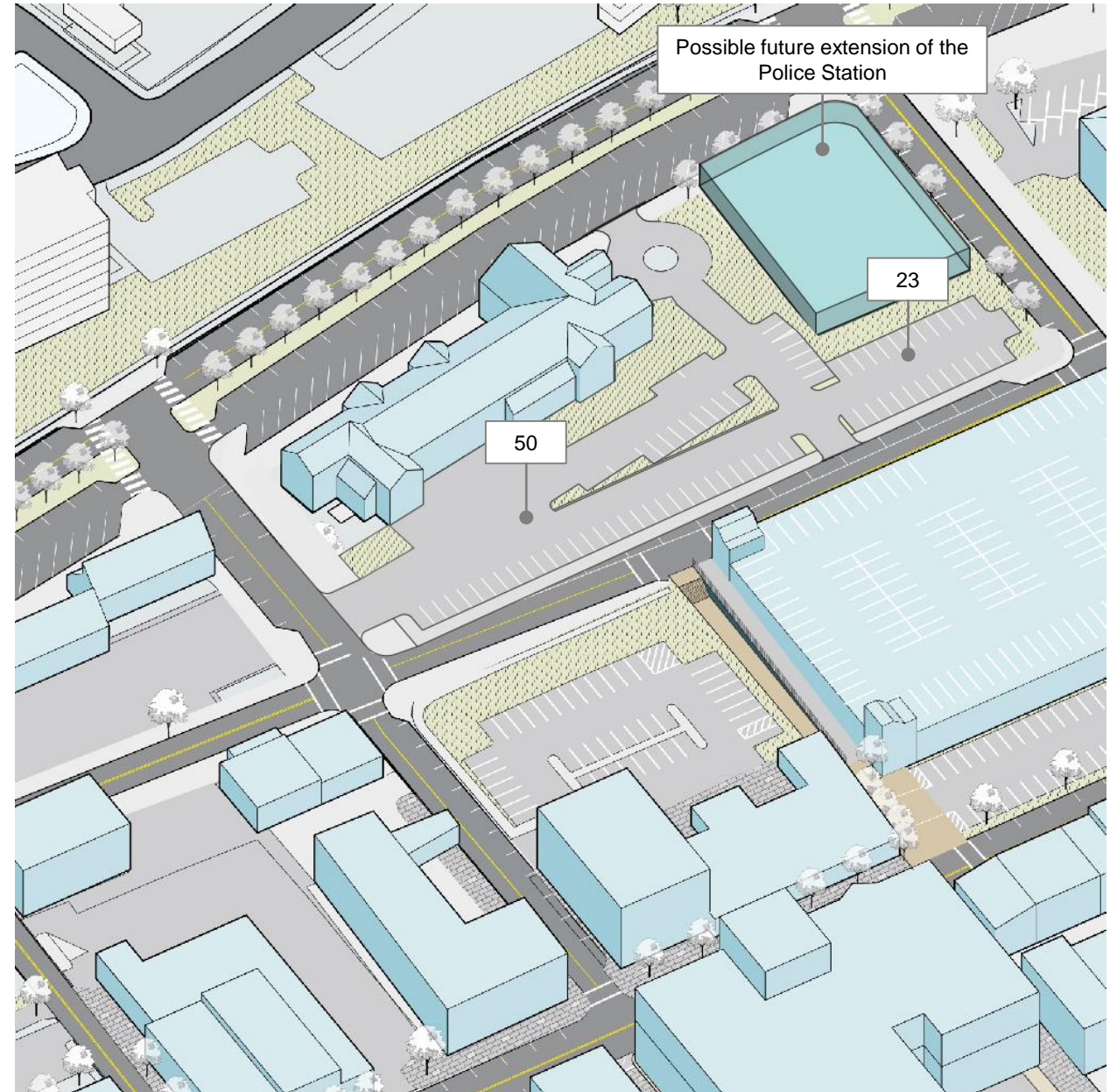
Police Station Parking lot redesign

The proposed parking layout which allows for Parkway extension, includes 50 spaces on the police station site and 23 spaces on the adjacent city owned parcel.



Police Station Parking lot redesign

The city lot on the corner of Bailey Blvd and Haverhill Pl is a possible location for future expansion of the Police Station





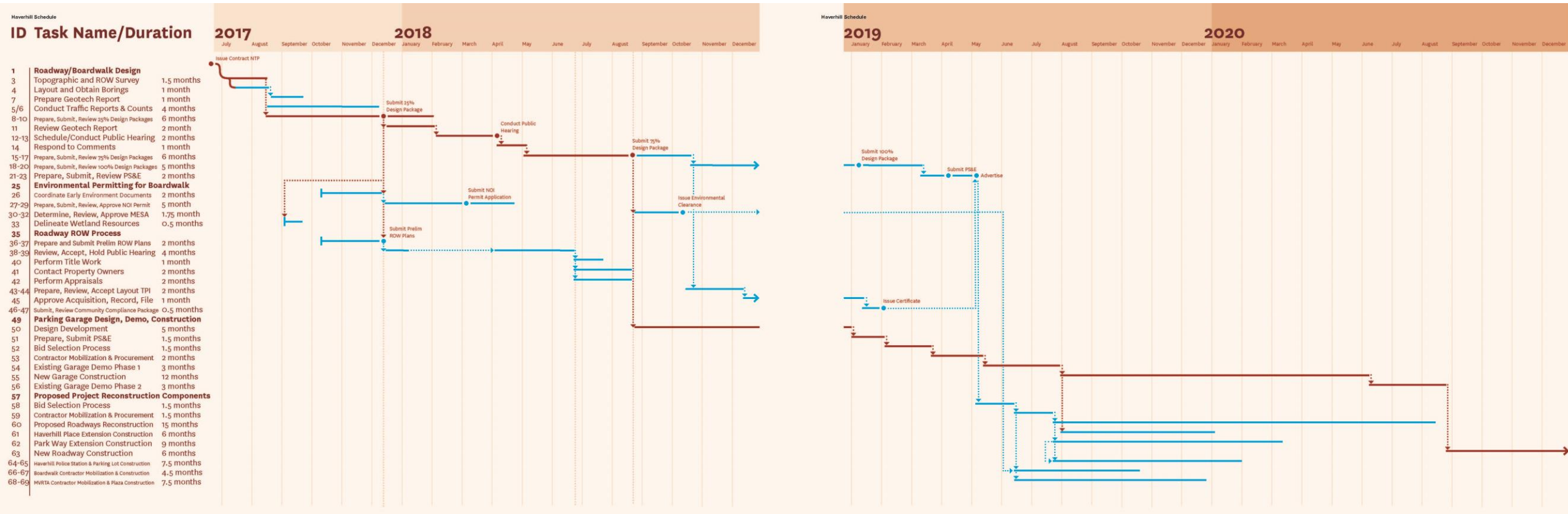
Police Station Construction Estimate

			Project:	HAVERHILL POLICE STATION CONCEPT CONST ESTIMATE						Computed	:	DAS	Date:	12/29/16
			Project ID:							Checked:		TNU	Date:	1/13/17
			HDR Job #:	10046626										
OPINION OF PROBABLE CONSTRUCTION COST														
Item No.	Item Description									Unit	Quantity	Unit Price		Total Cost
120.1	UNCLASSIFIED EXCAVATION									CY	570	\$50.00		\$28,500.00
141.1	TEST PIT FOR EXPLORATION									CY	3	\$100.00		\$300.00
151.01	GRAVEL BORROW - TYPE C									CY	775	\$35.50		\$27,512.50
156.12	CRUSHED STONE FOR CURB FOUNDATION									TON	120	\$42.00		\$5,040.00
170.	FINE GRADING AND COMPACTING									SY	1,910	\$5.00		\$9,550.00
415.	PAVEMENT MICROMILLING									SY	3,625	\$12.00		\$43,500.00
431.	HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE									SY	215	\$75.00		\$16,125.00
451.	HMA FOR PATCHING									TON	50	\$200.00		\$10,000.00
452.	ASPHALT EMULSION FOR TACK COAT									GAL	460	\$10.00		\$4,600.00
455.23	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)									TON	640	\$170.00		\$108,800.00
455.32	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)									TON	720	\$170.00		\$122,400.00
456.	WARM-MIX ASPHALT PAVEMENT									TON	1,485	\$6.25		\$9,281.25
472.	HOT MIX ASPHALT FOR MISCELLANEOUS WORK									TON	150	\$250.00		\$37,500.00
504.	GRANITE CURB TYPE VA4 - STRAIGHT									FT	1,790	\$60.00		\$107,400.00
504.1	GRANITE CURB TYPE VA4 - CURVED									FT	1,485	\$65.00		\$96,525.00
580.	CURB REMOVED AND RESET									FT	920	\$30.00		\$27,600.00
594.	CURB REMOVED AND DISCARDED									FT	250	\$5.00		\$1,250.00
866.104	4 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)									FT	1,925	\$1.00		\$1,925.00
867.104	4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)									FT	110	\$1.00		\$110.00
996.	CAST IN PLACE CONCRETE WALL									SF	350	\$75.00		\$26,250.00
												Project Subtotal	\$657,918.75	
												SAY	\$660,000	

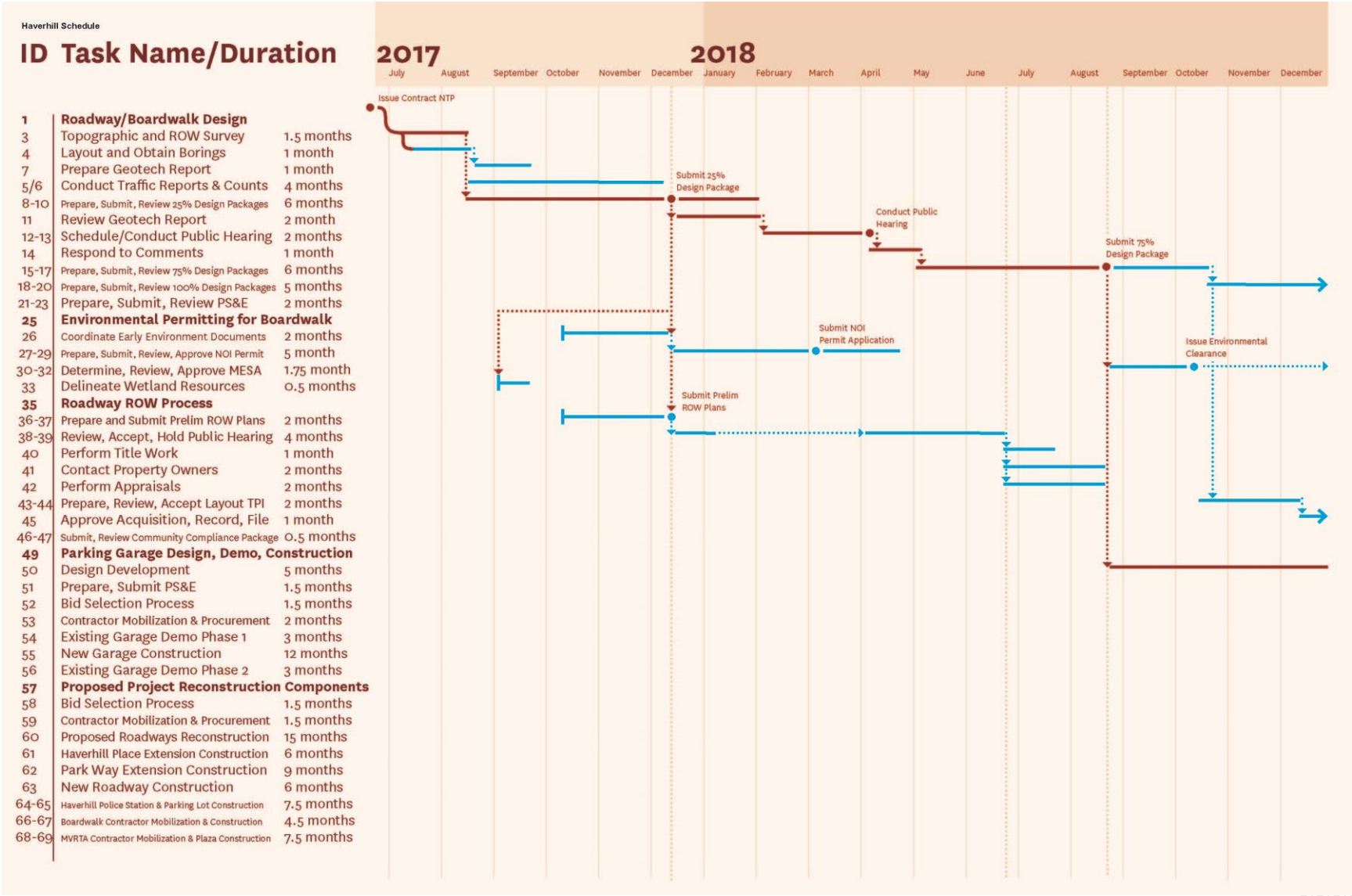
Parking Deck Project Construction Estimate

WEST RIDGE CONSTRUCTION SERVICES, LLC		
N Wagner		
Project: Harbor Place Phase 2, Parking Structure		13-Dec-16
Location: Haverhill, MA		
	Parking RampSF	186,000
		<u>Total</u>
Sitework		\$1,161,862
Lower Level		\$3,086,691
Second Level		\$2,181,755
Third Level		\$2,181,755
Fourth Level		\$2,181,755
Fifth Level		\$2,181,755
Roof Level		\$2,345,234
TOTAL PROJECT COST		82.37 \$15,320,808

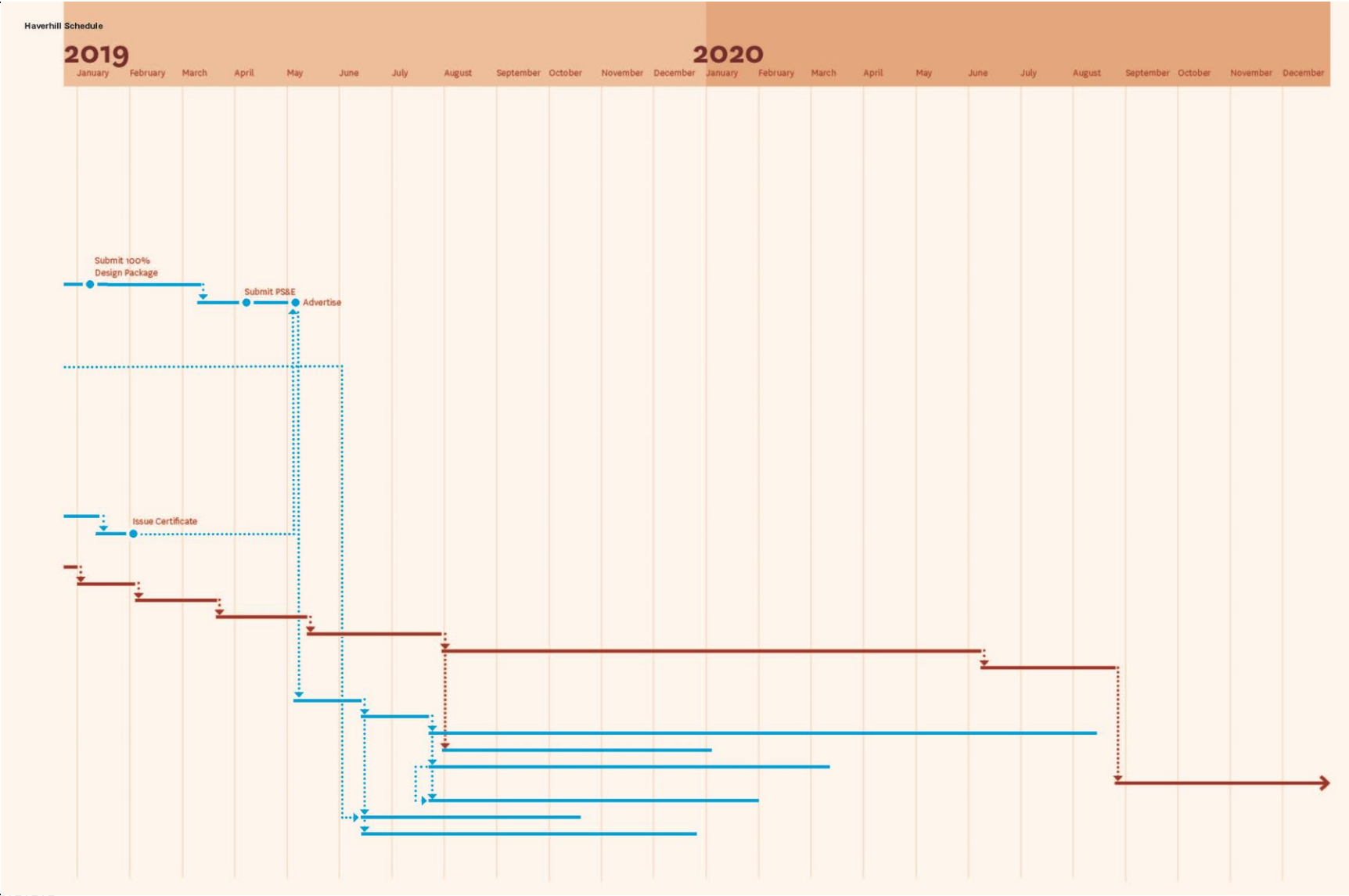
Project Concept Schedule



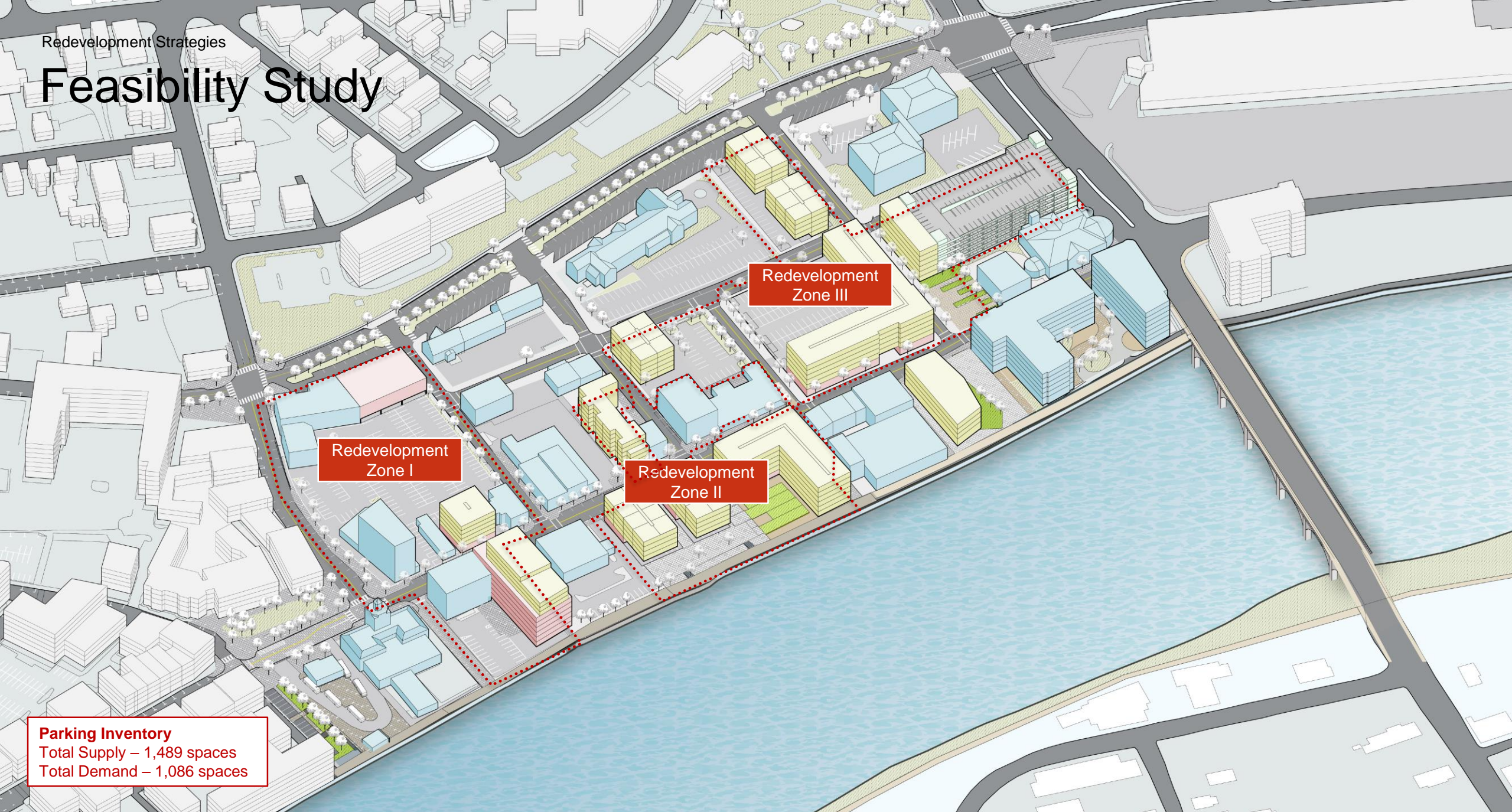
Project Concept Schedule – Part 01



Project Concept Schedule – Part 02

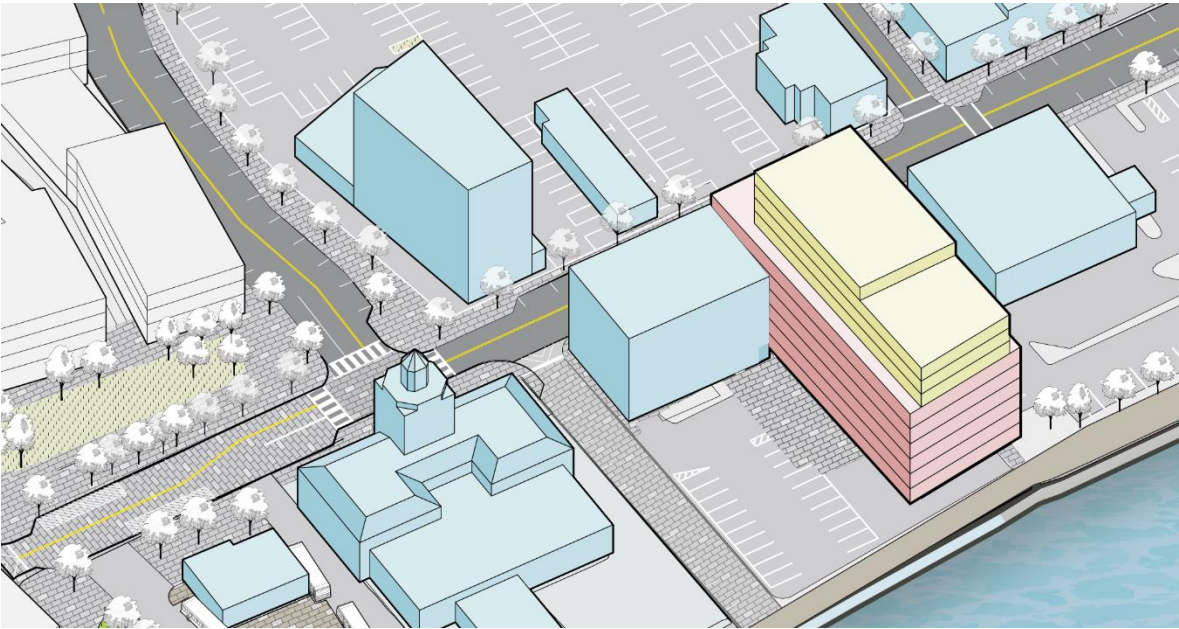


Feasibility Study



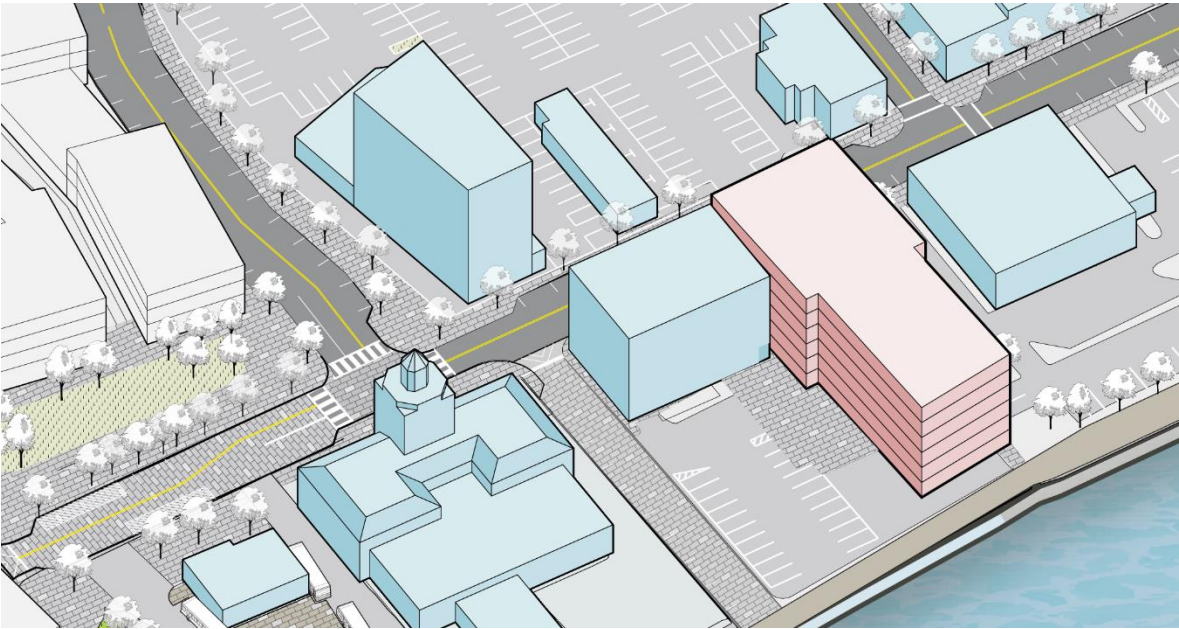
Parking Inventory
Total Supply - 1,489 spaces
Total Demand - 1,086 spaces

Redevelopment Zone I



194 Merrimack High Rise Feasibility Study Large Dev. Program	Program	Use:	Residential Above 6 stories of Commercial		4-stories	
		Units (SF per)	41		907	
		Type & GSF	10-Story High Rise (Steel-Concrete)		37,168	
		Parking Ratio	Per Unit		1.00	
	Test Results	Return on Cost Threshold	5%-7%	Results	4.0%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	10%	Results	-32.9%	
		Feasibility Gap	39.6%	of Cost or	\$6,020,000	
		Required Rent for Feasibility	Residential	\$3.75 per SF/Mo		
Gross Potential Income						
Revenues - Private						
		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	41	771	\$1,734	\$2.25	\$853,006
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	0	\$2.08	\$25.00	\$0
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Garage (Shared)	41			\$50	\$24,600
Total Rentable		41	31,593		\$2.31	\$877,606
Residential Efficiency & GSF		85%	31,593			
Commercial Efficiency & GSF		90%	0			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$42,650)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	\$0
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						
Effective Gross Income						
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.86) Per NSF		(\$153,541)
	RE Taxes	5% of PGI		(1.39) Per NSF		(\$43,880)
	Management	2.0% of EGI		(0.53) Per NSF		(\$16,699)
	Reserves	1.0% of EGI		(0.28) Per NSF		(\$8,776.06)
Retail	Mgt & Reserves	2.5% of EGI		0.00 Per NSF		\$0
Subtotal		27% of EGI		(7.06) Per NSF		(\$222,896)
Net Operating Income						
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate			New Construction	6.00% Overall Rate		\$10,200,981
					Rounded	\$10,200,000
					Per GSF	\$274
					Per RSF	\$323
					Per Unit	\$248,780
Development Cost						
Acquisition Cost (If Private)		19,954 Land SF		\$20.00 Per Land SF		\$631,856
Pubic Realm Contribution		19,954 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$0.00 per GSF		\$0
Mixed Use (Residential & Commercial)		High Rise Cost		\$300.00 per GSF		\$11,150,400
Parking	Garage (Shared)	41 Spaces		\$25,000 per space		\$1,025,000
Soft Costs (includes financing, fee etc.)				20% of Hard Cost		\$2,400,000
					Rounded	\$15,200,000
					Per GSF	\$409
					Per NSF	\$481
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	4.0%	Margin (Value-Cost)		(\$5,000,000)

Redevelopment Zone I



194 Merrimack-High Rise Feasibility Study Large Dev. Program	Program	Use:	Commercial wth 4 stories of Resi Above	6-stories		
		Units (SF per)	0	0		
		Type & GSF	10-Story High Rise (Steel-Concrete)	74,616		
		Parking Ratio	Per 1,000 SF	0.50		
		Test Results	Return on Cost Threshold	5%-7%	Results	6.2%
			Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%
			Profit Margin	10%	Results	2.8%
			Feasibility Gap	7.5%	of Cost or	\$1,850,000
			Required Rent for Feasibility	Commercial	\$26.25 per SF/Mo	
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	0	0	\$0	\$2.25	\$0
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	11,192	\$2.08	\$25.00	\$279,810
	Market Rate Office (NNN)	0	55,962	\$2.00	\$24.00	\$1,343,088
Parking Spaces	Garage (Shared)	37			\$0	\$0
Total Rentable		0	67,154		\$2.01	\$1,622,898
Residential Efficiency & GSF		85%	0			
Commercial Efficiency & GSF		90%	67,154			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	\$0
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$27,981)
	Market Rate Office (NNN)				5.0%	(\$67,154)
Total Vacancy Loss						(\$95,135)
Effective Gross Income						\$1,527,763
Non-Reimbursable Expenses						
Residential & Office	Operating	0% of PGI		0.00	Per NSF	\$0
	RE Taxes	0% of PGI		0.00	Per NSF	\$0
	Management	0.0% of EGI		0.00	Per NSF	\$0
	Reserves	0.0% of EGI		0.00	Per NSF	\$0.00
	Mgt & Reserves	0.0% of EGI		0.00	Per NSF	\$0
Subtotal		0% of EGI		0.00	Per NSF	\$0
Net Operating Income		100% of EGI		\$22.75	Per NSF	\$1,527,763
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate			New Construction	6.00% Overall Rate		\$25,462,710
					Rounded	\$25,500,000
					Per GSF	\$342
					Per RSF	\$380
					Per Unit	N/A
Development Cost						
Acquisition Cost (If Private)		15,720 Land SF		\$20.00	Per Land SF	\$1,343,088
Pubic Realm Contribution		15,720 Land SF		\$0.00	Per Land SF	\$0
Residential Only				\$0.00	per GSF	\$0
Mixed Use (Residential & Commercial)				\$250.00	per GSF	\$18,654,000
Parking	Garage (Shared)	Shell Condition		\$25,000	per space	\$932,700
Soft Costs (includes financing, fee etc.)		37 Spaces		20% of Hard Cost		\$3,900,000
					Rounded	\$24,800,000
					Per GSF	\$332
					Per NSF	\$369
Entrepreneurial Return		Unlevered Return on Cost (NOI/Cost)	6.2%	Margin (Value-Cost)		\$700,000

Redevelopment Zone I



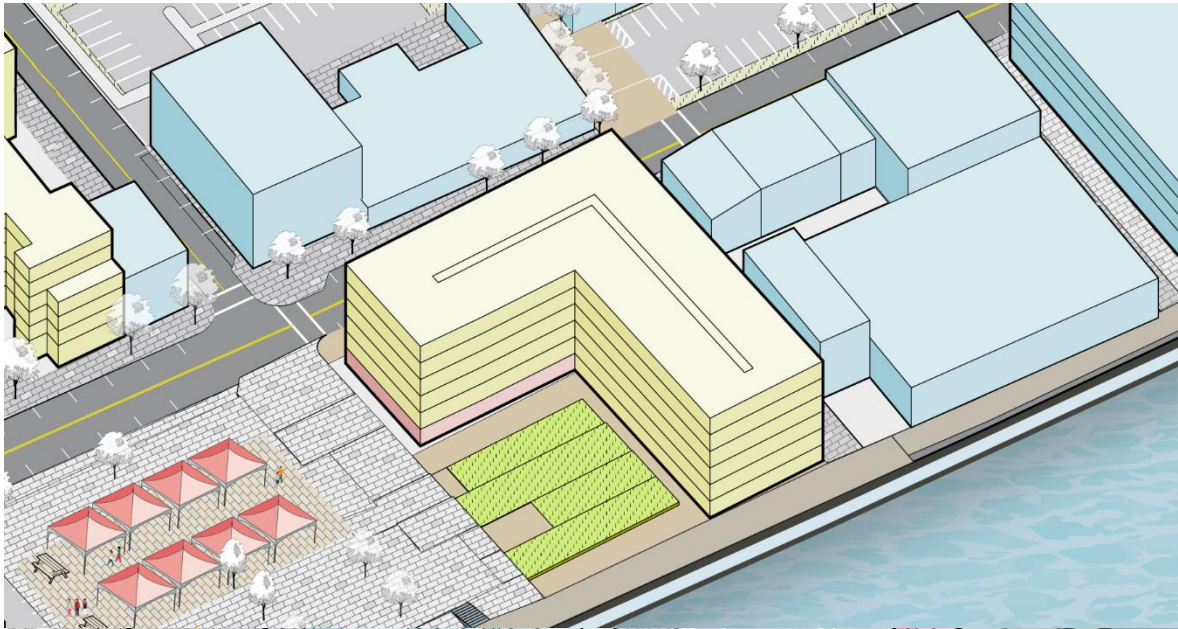
161 Merrimack Feasibility Study Small In-Fill Program	Program	Use:	Residential (with retail)		4-stories	
		Units (SF per)	16		829	
		Type & GSF	Low Rise (Stick Over Podium)		19,500	
		Parking Ratio	Per Unit		1.00	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.0%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	Positive	Results	0.0%	
		Required Rent for Feasibility	Residential	\$2.25 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	16	829	\$1,865	\$2.25	\$358,020
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	3,901	\$2.08	\$25.00	\$97,523
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Garage (Shared)	16			\$50	\$9,600
Total Rentable		16	17,161		\$2.26	\$465,143
Residential Efficiency & GSF		85%	13,260			
Commercial Efficiency & GSF		90%	3,901			
Vacancy & Collection Losses		Market Rate Apts			5.0%	(\$17,901)
		Affordable Apts			0.0%	\$0
		Market Rate Retail (NNN)			10.0%	(\$9,752)
		Market Rate Office (NNN)			5.0%	\$0
Total Vacancy Loss						(\$27,653)
Effective Gross Income						\$437,489
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(3.76) Per NSF		(\$64,444)
	RE Taxes	5% of PGI		(1.36) Per NSF		(\$23,257)
	Management	2.0% of EGI		(0.51) Per NSF		(\$8,750)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$4,651.43)
	Mgt & Reserves	2.5% of EGI		(0.16) Per NSF		(\$2,682)
Retail						
Subtotal		24% of EGI		(6.05) Per NSF		(\$103,784)
Net Operating Income		76% of EGI		\$19.45 Per NSF		\$333,705
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$5,561,757
				Rounded		\$5,600,000
				Per GSF		\$287
				Per RSF		\$326
				Per Unit		\$350,000
Development Cost						
Acquisition Cost (If Private)		19,954 Land SF	\$20.00 Per Land SF			\$343,218
Pubic Realm Contribution		19,954 Land SF	\$0.00 Per Land SF			\$0
Residential Only			\$0.00 per GSF			\$0
Mixed Use (Residential & Commercial)			\$225.00 per GSF			\$4,387,500
Parking	Garage (Shared)	16 Spaces	\$25,000 per space			\$400,000
Soft Costs (includes financing, fee etc.)			10% of Hard Cost			\$500,000
				Rounded		\$5,600,000
				Per GSF		\$287
				Per NSF		\$326
Entrepreneurial Return		Unlevered Return on Cost (NOI/Cost)	6.0%	Margin (Value-Cost)		\$0

Redevelopment Zone II



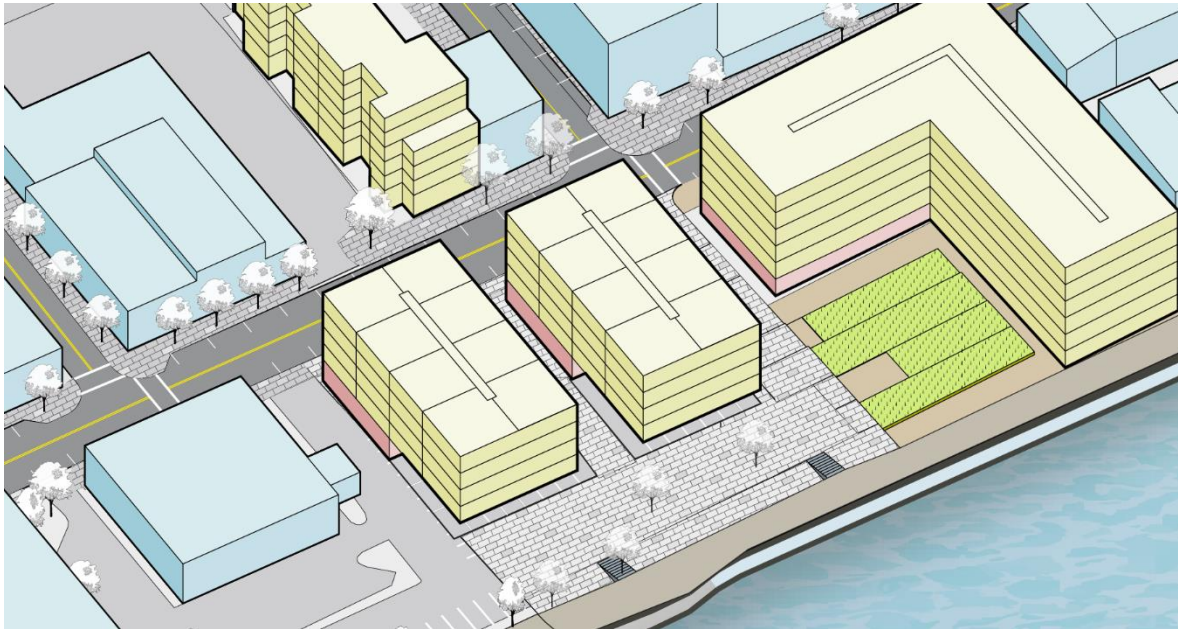
127 Merrimack Feasibility Study Small In-Fill Program	Program	Use:	Residential (with retail)		4-stories	
		Units (SF per)	35		803	
		Type & GSF	Low Rise (Stick Over Podium)		39,562	
		Parking Ratio	Per Unit		0.77	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.1%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	Positive	Results	1.9%	
		Required Rent for Feasibility	Residential	\$2.20 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	35	803	\$1,807	\$2.25	\$758,773
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	5,850	\$2.08	\$25.00	\$146,250
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	27			\$0	\$0
Total Rentable		35	33,953		\$2.22	\$905,023
Residential Efficiency & GSF		85%	28,103			
Commercial Efficiency & GSF		90%	5,850			
Vacancy & Collection Losses						
	Market Rate Apts			5.0%		(\$37,939)
	Affordable Apts			0.0%		\$0
	Market Rate Retail (NNN)			10.0%		(\$14,625)
	Market Rate Office (NNN)			5.0%		\$0
Total Vacancy Loss						(\$52,564)
Effective Gross Income						\$852,459
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.02) Per NSF		(\$136,579)
	RE Taxes	5% of PGI		(1.33) Per NSF		(\$45,251)
	Management	2.0% of EGI		(0.50) Per NSF		(\$17,049)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$9,050.23)
Retail	Mgt & Reserves	2.5% of EGI		(0.12) Per NSF		(\$4,022)
Subtotal		25% of EGI		(6.24) Per NSF		(\$211,952)
Net Operating Income						\$640,508
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$10,675,128
				Rounded		\$10,700,000
				Per GSF		\$270
				Per RSF		\$315
				Per Unit		\$305,714
Development Cost						
Acquisition Cost (If Private)		7,050 Land SF	\$20.00 Per Land SF			\$679,054
Public Realm Contribution		7,050 Land SF	\$0.00 Per Land SF			\$0
Residential Only			\$0.00 per GSF			\$0
Mixed Use (Residential & Commercial)			\$225.00 per GSF			\$8,901,450
Parking	Surface	27 Spaces	\$2,500 per space			\$67,500
Soft Costs (includes financing, fee etc.)			10% of Hard Cost			\$900,000
				Rounded		\$10,500,000
				Per GSF		\$265
				Per NSF		\$309
Entrepreneurial Return						
	Unlevered Return on Cost (NOI/Cost)		6.1%	Margin (Value-Cost)		\$200,000

Redevelopment Zone II



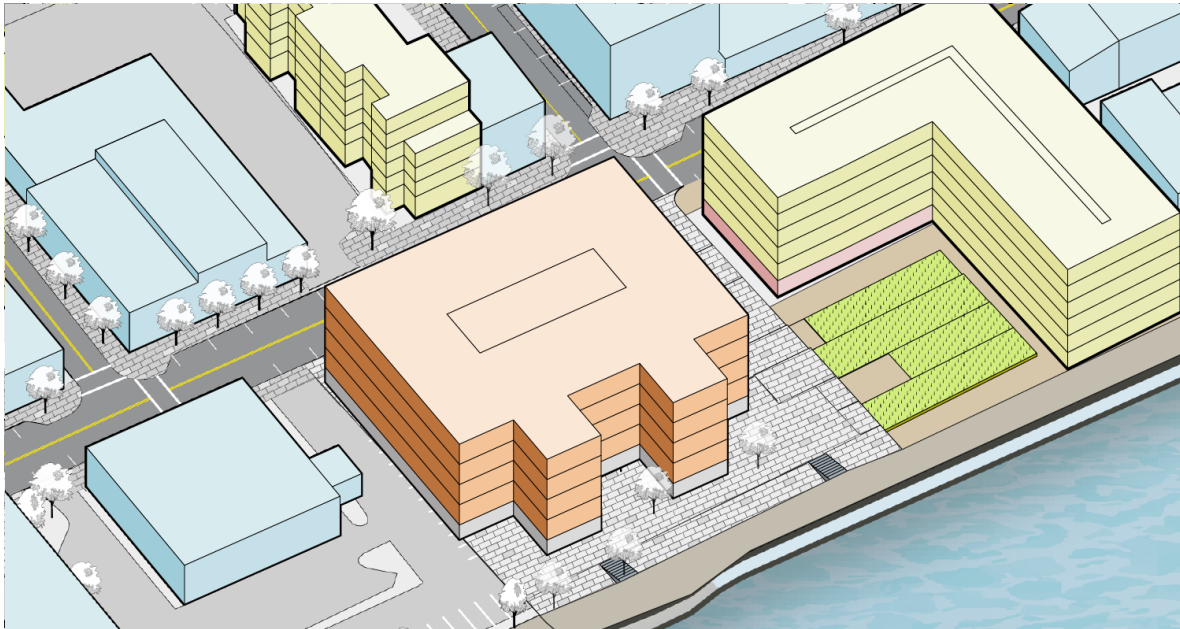
120 Merrimack Feasibility Study Large Dev. Program	Program	Use:	Residential (with retail)		6-stories	
		Units (SF per)	105		907	
		Type & GSF	Low Rise (Stick Over Podium)		104,400	
		Parking Ratio	Per Unit		0.61	
	Test Results	Return on Cost Threshold	5%-7%	Results	5.3%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.1%	
		Profit Margin	10%	Results	-12.5%	
		Feasibility Gap	21.3%	of Cost or	\$6,790,000	
		Required Rent for Feasibility	Residential	\$3.00 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	105	765	\$1,721	\$2.25	\$2,167,880
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	8,945	\$2.08	\$25.00	\$223,628
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	64			\$0	\$0
Total Rentable		105	89,237		\$2.23	\$2,391,507
Residential Efficiency & GSF		85%	80,292			
Commercial Efficiency & GSF		90%	8,945			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$108,394)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$22,363)
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						(\$130,757)
Effective Gross Income						\$2,260,751
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.37) Per NSF		(\$390,218)
	RE Taxes	5% of PGI		(1.34) Per NSF		(\$119,575)
	Management	2.0% of EGI		(0.51) Per NSF		(\$45,215)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$23,915.07)
Retail	Mgt & Reserves	2.5% of EGI		(0.07) Per NSF		(\$6,150)
Subtotal		26% of EGI		(6.56) Per NSF		(\$585,074)
Net Operating Income						\$1,675,677
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$27,927,952
				Rounded		\$27,900,000
				Per GSF		\$267
				Per RSF		\$313
				Per Unit		\$265,824
Development Cost						
Acquisition Cost (If Private)		19,954 Land SF	\$20.00 Per Land SF			\$1,784,739
Public Realm Contribution		19,954 Land SF	\$0.00 Per Land SF			\$0
Residential Only			\$0.00 per GSF			\$0
Mixed Use (Residential & Commercial)		High Rise Cost	\$225.00 per GSF			\$23,490,000
Parking	Surface	64 Spaces	\$25,000 per space			\$1,600,000
Soft Costs (includes financing, fee etc.)			20% of Hard Cost			\$5,000,000
				Rounded		\$31,900,000
				Per GSF		\$306
				Per NSF		\$357
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	5.3%	Margin (Value-Cost)		(\$4,000,000)

Redevelopment Zone II



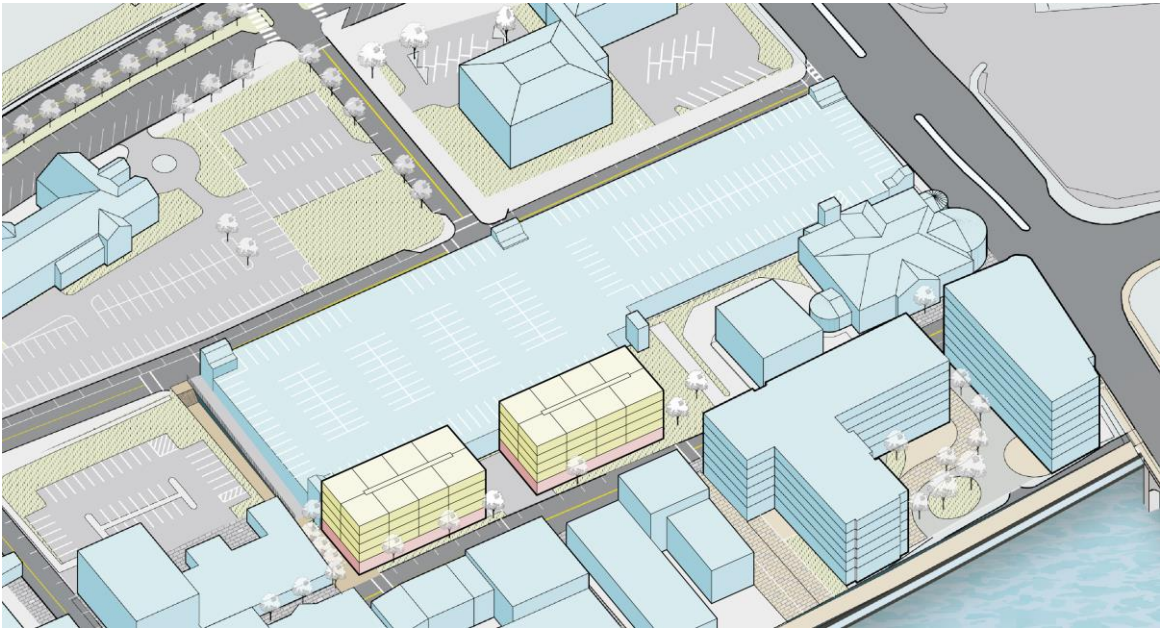
Merrimack St. Public Parking Lots Feasibility Study Small In-Fill Program	Program	Use:	2 Residential Buildings (with retail)		4-stories	
		Units (SF per)	32		859	
		Type & GSF	Low Rise (Stick Over Podium)		36,230	
		Parking Ratio	Per Unit		0.38	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.5%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.1%	
		Profit Margin	Positive	Results	7.7%	
		Required Rent for Feasibility	Residential	\$2.05 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	32	859	\$1,932	\$2.25	\$741,974
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	3,510	\$2.08	\$25.00	\$87,750
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Under Building	12			\$50	\$7,200
Total Rentable		32	30,991		\$2.25	\$836,924
Residential Efficiency & GSF		85%	27,481			
Commercial Efficiency & GSF		90%	3,510			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$37,099)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$8,775)
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						(\$45,874)
Effective Gross Income						
						\$791,050
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.31) Per NSF		(\$133,555)
	RE Taxes	5% of PGI		(1.35) Per NSF		(\$41,846)
	Management	2.0% of EGI		(0.51) Per NSF		(\$15,821)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$8,369.24)
Retail	Mgt & Reserves	2.5% of EGI		(0.08) Per NSF		(\$2,413)
Subtotal		26% of EGI		(6.52) Per NSF		(\$202,005)
Net Operating Income						
		74% of EGI		\$19.01 Per NSF		\$589,045
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate			New Construction	6.00% Overall Rate		\$9,817,418
					Rounded	\$9,800,000
					Per GSF	\$270
					Per RSF	\$316
					Per Unit	\$306,250
Development Cost						
Acquisition Cost (If Private)		12,040 Land SF		\$0.00 Per Land SF		\$0
Public Realm Contribution		12,040 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$225.00 per GSF		\$8,151,750
Mixed Use (Residential & Commercial)				\$0.00 per GSF		\$0
Parking	Under Building	12 Spaces		\$15,000 per space		\$180,000
Soft Costs (includes financing, fee etc.)				10% of Hard Cost		\$800,000
					Rounded	\$9,100,000
					Per GSF	\$251
					Per NSF	\$294
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	6.5%	Margin (Value-Cost)		\$700,000

Redevelopment Zone II Commercial Option



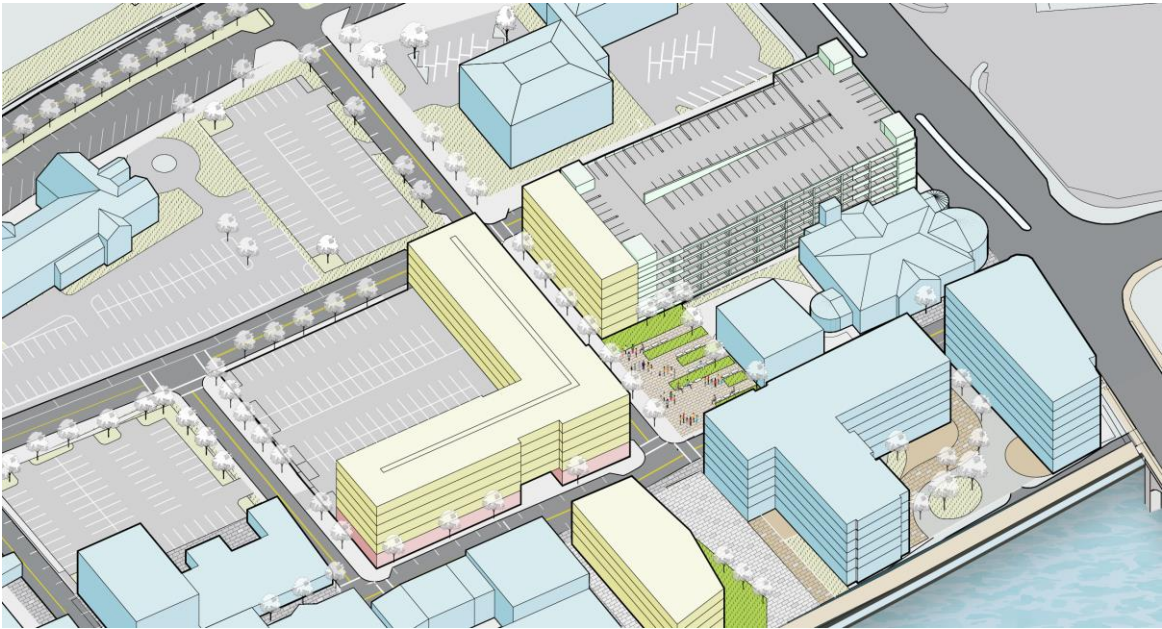
Merrimack St. Public Parking Lots Feasibility Study Small In-Fill Program	Program	Use:	2 Residential Buildings (with retail)	4-stories
		Units (SF per)	32	859
		Type & GSF	Low Rise (Stick Over Podium)	36,230
		Parking Ratio	Per Unit	0.38
		Test Results	Return on Cost Threshold	5%-7%
			Yr. 1 Cash-On-Cash	3% to 5%
			Profit Margin	Positive
			Required Rent for Feasibility	Residential \$2.05 per SF/Mo
			Results	6.5%
			Results	3.1%
			Results	7.7%
Gross Potential Income				
Revenues - Private				
		Units	Avg. Unit Size	Monthly Rent
Apartment	Market Rate Apts	32	859	\$1,932
	Affordable Apts	0	0	\$0
Commercial	Market Rate Retail (NNN)	0	3,510	\$2.08
	Market Rate Office (NNN)	0	0	\$2.00
Parking Spaces	Under Building	12		\$50
Total Rentable		32	30,991	\$2.25
Residential Efficiency & GSF		85%	27,481	
Commercial Efficiency & GSF		90%	3,510	
Vacancy & Collection Losses				
	Market Rate Apts			5.0%
	Affordable Apts			0.0%
	Market Rate Retail (NNN)			10.0%
	Market Rate Office (NNN)			5.0%
Effective Gross Income				
Non-Reimbursable Expenses				
Residential & Office	Operating	18% of PGI	(4.31) Per NSF	(\$133,555)
	RE Taxes	5% of PGI	(1.35) Per NSF	(\$41,846)
	Management	2.0% of EGI	(0.51) Per NSF	(\$15,821)
	Reserves	1.0% of EGI	(0.27) Per NSF	(\$8,369.24)
Retail	Mgt & Reserves	2.5% of EGI	(0.08) Per NSF	(\$2,413)
Subtotal		26% of EGI	(6.52) Per NSF	(\$202,005)
Net Operating Income				
Capitalized Value of Residential On Completion-At Stabilization				
Capitalization Rate	New Construction	6.00% Overall Rate		\$9,817,418
			Rounded	\$9,800,000
			Per GSF	\$270
			Per NSF	\$316
			Per Unit	\$306,250
Development Cost				
Acquisition Cost (If Private)	12,040 Land SF	\$0.00 Per Land SF		\$0
Public Realm Contribution	12,040 Land SF	\$0.00 Per Land SF		\$0
Residential Only		\$225.00 per GSF		\$8,151,750
Mixed Use (Residential & Commercial)		\$0.00 per GSF		\$0
Parking	Under Building	\$15,000 per space		\$180,000
Soft Costs (includes financing, fee etc.)		10% of Hard Cost		\$800,000
Entrepreneurial Return				
	Unlevered Return on Cost (NOI/Cost)	6.5%	Margin (Value-Cost)	\$700,000

Redevelopment Zone III Option 02



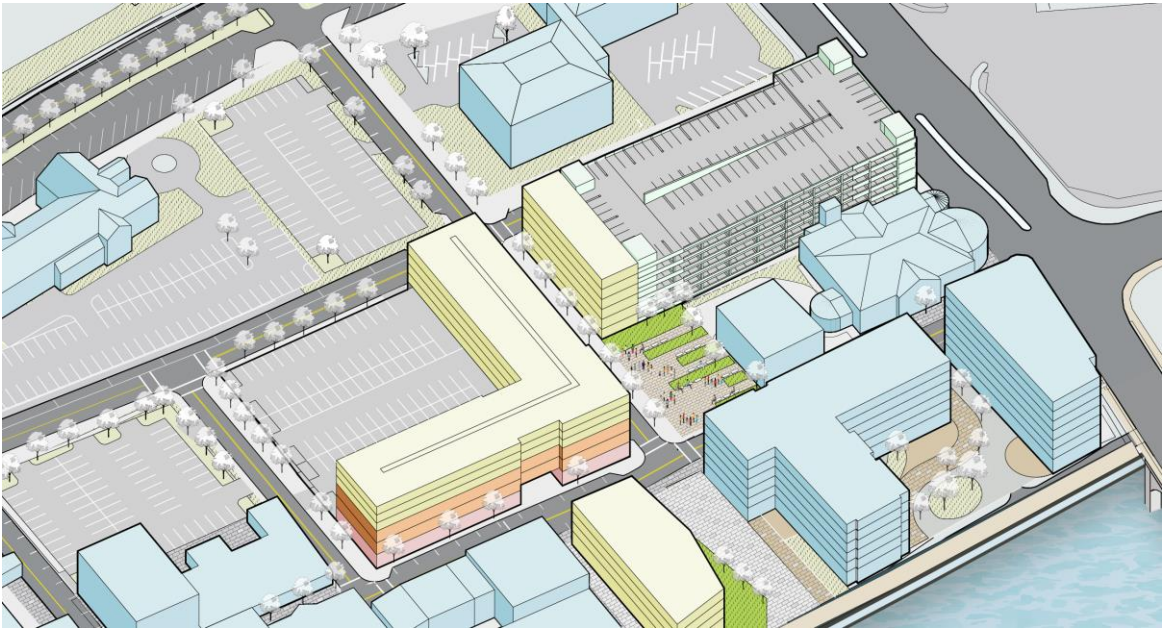
Goecke Deck Feasibility Study Large Dev. Program	Program	Use:	2 Residential Buildings (with retail)		6-stories	
		Units (SF per)	167		765	
		Type & GSF	Low Rise (Stick Over Podium)		165,834	
		Parking Ratio	Per Unit		1.19	
	Test Results	Return on Cost Threshold	5%-7%	Results	5.0%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	10%	Results	-17.2%	
		Feasibility Gap	25.4%	of Cost or	\$13,640,000	
		Required Rent for Feasibility	Residential	\$3.00 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	167	765	\$1,721	\$2.25	\$3,442,133
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	14,265	\$2.08	\$25.00	\$356,625
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	198			\$0	\$0
Total Rentable					\$2.23	\$3,798,758
Residential Efficiency & GSF		Update per forma				
Commercial Efficiency & GSF						
Vacancy & Collection Losses		Market Rate Apts		5.0%		(\$172,107)
		Affordable Apts		0.0%		\$0
		Market Rate Retail (NNN)		10.0%		(\$35,663)
		Market Rate Office (NNN)		5.0%		\$0
Total Vacancy Loss						(\$207,769)
Effective Gross Income						\$3,590,989
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.37) Per NSF		(\$619,584)
	RE Taxes	5% of PGI		(1.34) Per NSF		(\$189,938)
	Management	2.0% of EGI		(0.51) Per NSF		(\$71,820)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$37,987.58)
	Mgt & Reserves	2.5% of EGI		(0.07) Per NSF		(\$9,807)
Retail						
Subtotal		26% of EGI		(6.55) Per NSF		(\$929,136)
Net Operating Income		74% of EGI		\$18.78 Per NSF		\$2,661,852
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$44,364,205
					Rounded	\$44,400,000
					Per GSF	\$268
					Per RSF	\$313
					Per Unit	\$266,428
Development Cost						
Acquisition Cost (If Private)		60,196 Land SF		\$20.00 Per Land SF		\$2,835,028
Public Realm Contribution		60,196 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$0.00 per GSF		\$0
Mixed Use (Residential & Commercial)		High Rise Cost		\$225.00 per GSF		\$37,312,650
Parking	Surface	198 Spaces		\$25,000 per space		\$4,950,000
Soft Costs (includes financing, fee etc.)			20% of Hard Cost			\$8,500,000
					Rounded	\$53,600,000
					Per GSF	\$323
					Per NSF	\$378
Entrepreneurial Return						
			Unlevered Return on Cost (NOI/Cost)	5.0%	Margin (Value-Cost)	(\$9,200,000)

Redevelopment Zone III Option 03



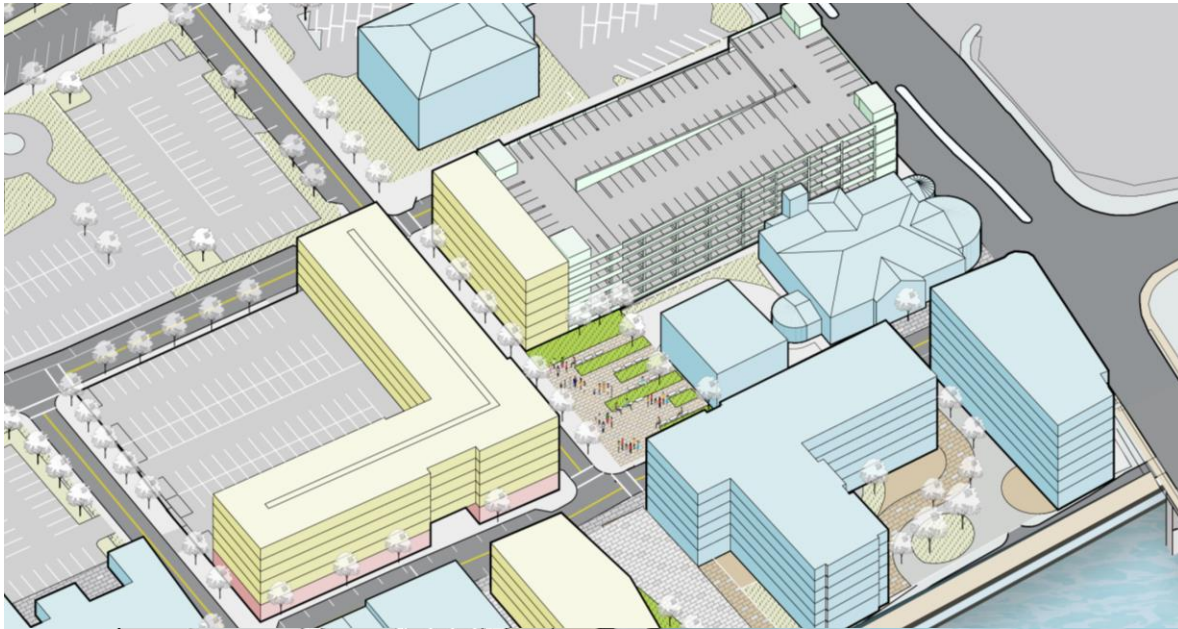
Goecke Deck Feasibility Study Large Dev. Program	Program	Use:	2 Residential Buildings (with retail)		6-stories	
		Units (SF per)	167		765	
		Type & GSF	Low Rise (Stick Over Podium)		165,834	
		Parking Ratio	Per Unit		1.19	
	Test Results	Return on Cost Threshold	5%-7%	Results	5.0%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	10%	Results	-17.2%	
		Feasibility Gap	25.4%	of Cost or	\$13,640,000	
		Required Rent for Feasibility	Residential	\$3.00 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	167	765	\$1,721	\$2.25	\$3,442,133
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	14,265	\$2.08	\$25.00	\$356,625
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	198			\$0	\$0
Total Rentable		167	141,751		\$2.23	\$3,798,758
Residential Efficiency & GSF		85%	127,486			
Commercial Efficiency & GSF		90%	14,265			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$172,107)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$35,663)
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						(\$207,769)
Effective Gross Income						\$3,590,989
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.37) Per NSF		(\$619,584)
	RE Taxes	5% of PGI		(1.34) Per NSF		(\$189,938)
	Management	2.0% of EGI		(0.51) Per NSF		(\$71,820)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$37,987.58)
	Mgt & Reserves	2.5% of EGI		(0.07) Per NSF		(\$9,807)
Subtotal		26% of EGI		(6.55) Per NSF		(\$929,136)
Net Operating Income		74% of EGI		\$18.78 Per NSF		\$2,661,852
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate			New Construction	6.00% Overall Rate		\$44,364,205
					Rounded	\$44,400,000
					Per GSF	\$268
					Per RSF	\$313
					Per Unit	\$266,428
Development Cost						
Acquisition Cost (If Private)		60,196 Land SF		\$20.00 Per Land SF		\$2,835,028
Pubic Realm Contribution		60,196 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$0.00 per GSF		\$0
Mixed Use (Residential & Commercial)		High Rise Cost		\$225.00 per GSF		\$37,312,650
Parking	Surface	198 Spaces		\$25,000 per space		\$4,950,000
Soft Costs (includes financing, fee etc.)				20% of Hard Cost		\$8,500,000
					Rounded	\$53,600,000
					Per GSF	\$323
					Per NSF	\$378
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	5.0%	Margin (Value-Cost)		(\$9,200,000)

Redevelopment Zone III Commercial Option 03



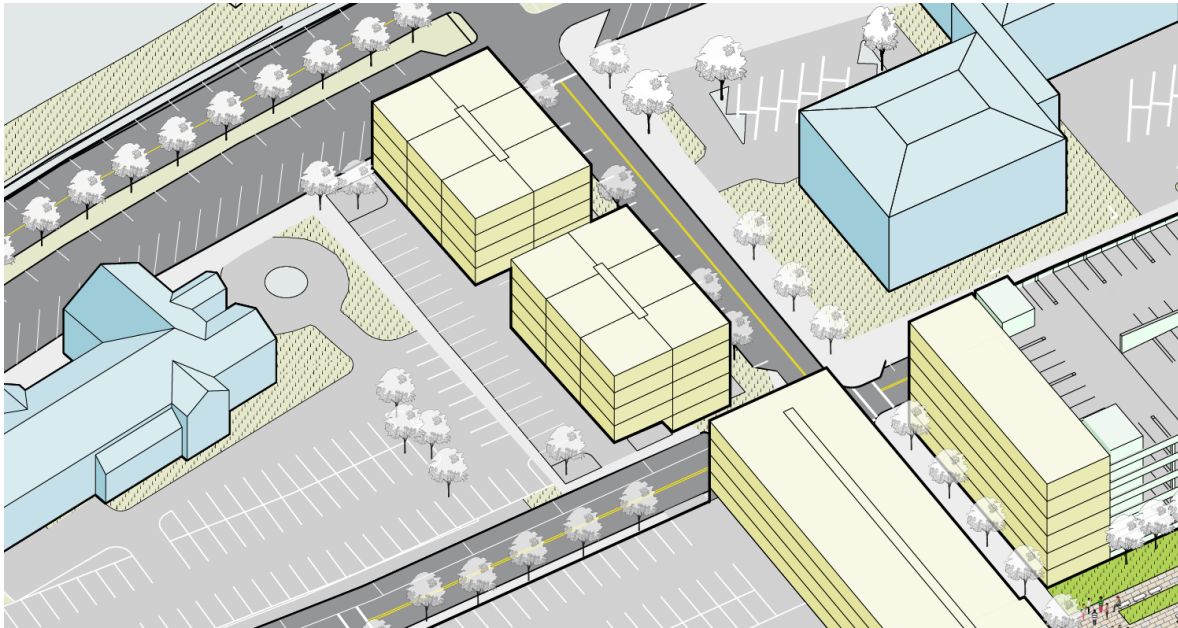
Goecke Deck Feasibility Study Large Dev. Program	Program	Use:	2 Residential Buildings (with retail)		6-stories	
		Units (SF per)		105	765	
		Type & GSF	Low Rise (Stick Over Podium)		165,834	
		Parking Ratio		Per Unit	1.88	
	Test Results	Return on Cost Threshold	5%-7%	Results	4.9%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	10%	Results	-19.0%	
		Feasibility Gap	27.1%	of Cost or	\$14,550,000	
		Required Rent for Feasibility	Residential	\$3.00 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	105	765	\$1,721	\$2.25	\$2,173,411
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	14,265	\$2.08	\$25.00	\$356,625
	Market Rate Office (NNN)	0	49,754	\$2.00	\$24.00	\$1,194,091
Parking Spaces	Surface	198			\$0	\$0
Total Rentable		105	144,516		\$2.15	\$3,724,127
Residential Efficiency & GSF		85%	80,497			
Commercial Efficiency & GSF		90%	64,019			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$108,671)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$35,663)
	Market Rate Office (NNN)				5.0%	(\$59,705)
Total Vacancy Loss						
						(\$204,038)
Effective Gross Income						
						\$3,520,089
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.19) Per NSF		(\$606,150.38)
	RE Taxes	5% of PGI		(1.29) Per NSF		(\$186,206)
	Management	2.0% of EGI		(0.49) Per NSF		(\$70,402)
	Reserves	1.0% of EGI		(0.26) Per NSF		(\$37,241.27)
	Mgt & Reserves	2.5% of EGI		(0.07) Per NSF		(\$9,807)
Subtotal		26% of EGI		(6.30) Per NSF		(\$909,807)
Net Operating Income						
		74% of EGI		\$18.06 Per NSF		\$2,610,283
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate			New Construction	6.00% Overall Rate		\$43,504,709
					Rounded	\$43,500,000
					Per GSF	\$262
					Per RSF	\$301
					Per Unit	\$413,402
Development Cost						
Acquisition Cost (If Private)		60,196 Land SF		\$20.00 Per Land SF		\$2,890,310
Pubic Realm Contribution		60,196 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$0.00 per GSF		\$0
Mixed Use (Residential & Commercial)		High Rise Cost		\$225.00 per GSF		\$37,312,650
Parking	Surface	198 Spaces		\$25,000 per space		\$4,950,000
Soft Costs (includes financing, fee etc.)				20% of Hard Cost		\$8,500,000
					Rounded	\$53,700,000
					Per GSF	\$324
					Per NSF	\$372
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	4.9%	Margin (Value-Cost)		(\$10,200,000)

Redevelopment Zone III Option 03



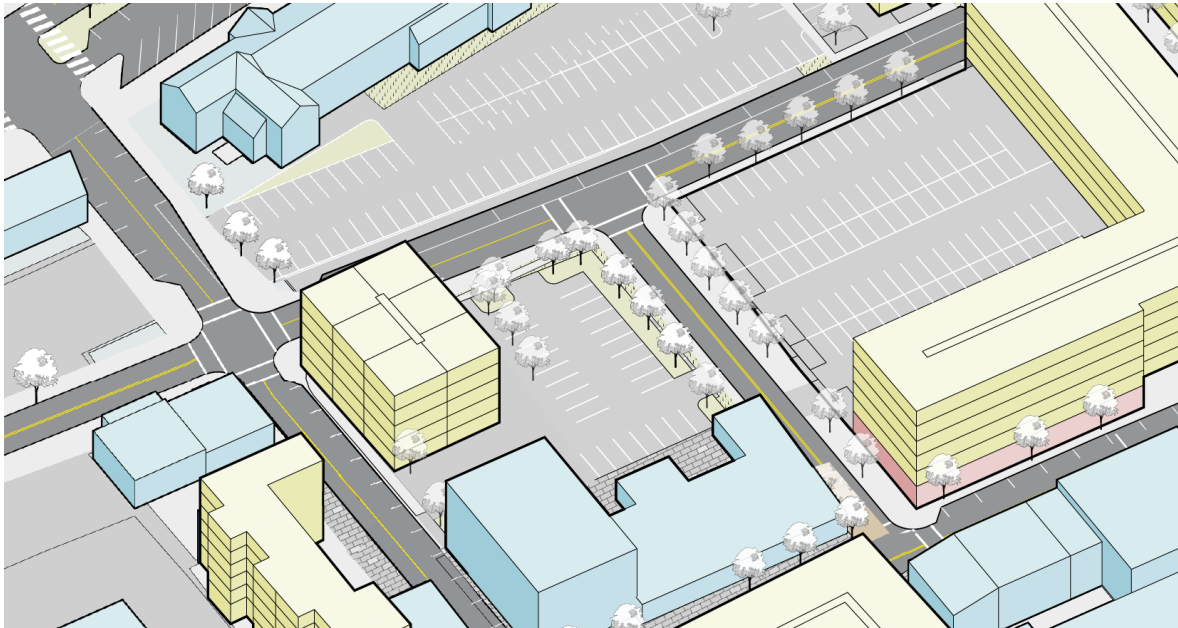
26 Merrimack Feasibility Study Small In-Fill Program	Program	Use:	Residential (with retail)		4-stories	
		Units (SF per)	29		765	
		Type & GSF	Low Rise (Stick Over Podium)		29,636	
		Parking Ratio	Per Unit		1.04	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.2%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.0%	
		Profit Margin	Positive	Results	3.8%	
		Required Rent for Feasibility	Residential	\$2.15 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	29	765	\$1,721	\$2.25	\$595,139
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	3,334	\$2.08	\$25.00	\$83,340
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Garage (Shared)	22			\$50	\$12,966
Total Rentable		29	25,376		\$2.27	\$691,445
Residential Efficiency & GSF		85%	22,042			
Commercial Efficiency & GSF		90%	3,334			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$29,757)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	(\$8,334)
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						
Effective Gross Income						
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.22) Per NSF		(\$107,125)
	RE Taxes	5% of PGI		(1.36) Per NSF		(\$34,572)
	Management	2.0% of EGI		(0.51) Per NSF		(\$13,067)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$6,914.45)
Retail	Mgt & Reserves	2.5% of EGI		(0.09) Per NSF		(\$2,292)
Subtotal		25% of EGI		(6.46) Per NSF		(\$163,971)
Net Operating Income						
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$8,156,395
				Rounded		\$8,200,000
				Per GSF		\$277
				Per RSF		\$323
				Per Unit		\$284,590
Development Cost						
Acquisition Cost (If Private)		38,591 Land SF		\$0.00 Per Land SF		\$0
Public Realm Contribution		38,591 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$0.00 per GSF		\$0
Mixed Use (Residential & Commercial)				\$225.00 per GSF		\$6,668,100
Parking	Garage (Shared)	22 Spaces		\$25,000 per space		\$540,250
Soft Costs (includes financing, fee etc.)				10% of Hard Cost		\$700,000
					Rounded	\$7,900,000
					Per GSF	\$267
					Per NSF	\$311
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	6.2%	Margin (Value-Cost)		\$300,000

Redevelopment Zone III Option 03



30 Parkway Feasibility Study Small In-Fill Program	Program	Use:	2 Residential Buildings (no retail)		4-stories	
		Units (SF per)	27		922	
		Type & GSF	Low Rise (Stick Over Podium)		29,300	
		Parking Ratio	Per Unit		0.67	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.4%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.1%	
		Profit Margin	Positive	Results	5.5%	
		Required Rent for Feasibility	Residential	\$2.15 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	27	922	\$2,075	\$2.25	\$672,435
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	0	\$2.08	\$25.00	\$0
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	18			\$0	\$0
Total Rentable		27	24,905		\$2.25	\$672,435
Residential Efficiency & GSF		85%	24,905			
Commercial Efficiency & GSF		90%	0			
Vacancy & Collection Losses						
	Market Rate Apts				5.0%	(\$33,622)
	Affordable Apts				0.0%	\$0
	Market Rate Retail (NNN)				10.0%	\$0
	Market Rate Office (NNN)				5.0%	\$0
Total Vacancy Loss						
(\$33,622)						
Effective Gross Income						
\$638,813						
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.86) Per NSF		(\$121,038)
	RE Taxes	5% of PGI		(1.35) Per NSF		(\$33,622)
	Management	2.0% of EGI		(0.51) Per NSF		(\$12,776)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$6,724.35)
	Mgt & Reserves	2.5% of EGI		0.00 Per NSF		\$0
Retail						
Subtotal		27% of EGI		(6.99) Per NSF		(\$174,161)
Net Operating Income						
73% of EGI						
\$18.66 Per NSF						
\$464,653						
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$7,744,210
					Rounded	\$7,700,000
					Per GSF	\$263
					Per RSF	\$309
					Per Unit	\$285,185
Development Cost						
Acquisition Cost (If Private)		12,040 Land SF		\$0.00 Per Land SF		\$0
Public Realm Contribution		12,040 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$225.00 per GSF		\$6,592,500
Mixed Use (Residential & Commercial)				\$0.00 per GSF		\$0
Parking	Surface	18 Spaces		\$2,500 per space		\$45,000
Soft Costs (includes financing, fee etc.)				10% of Hard Cost		\$700,000
					Rounded	\$7,300,000
					Per GSF	\$249
					Per NSF	\$293
Entrepreneurial Return						
		Unlevered Return on Cost (NOI/Cost)	6.4%	Margin (Value-Cost)		\$400,000

Redevelopment Zone III Option 03



25 Howe Street Feasibility Study Small In-Fill Program	Program	Use:	Residential (no retail)		4-stories	
		Units (SF per)	30		829	
		Type & GSF	Low Rise (Stick Over Podium)		29,250	
		Parking Ratio	Per Unit		1.00	
	Test Results	Return on Cost Threshold	5%-7%	Results	6.3%	
		Yr. 1 Cash-On-Cash	3% to 5%	Results	3.1%	
		Profit Margin	Positive	Results	4.1%	
		Required Rent for Feasibility	Residential	\$2.15 per SF/Mo		
Gross Potential Income						
Revenues - Private		Units	Avg. Unit Size	Monthly Rent	Rent/SF or /Space	Annual Rent
Apartments	Market Rate Apts	30	829	\$1,865	\$2.25	\$671,288
	Affordable Apts	0	0	\$0	\$0.00	\$0
Commercial	Market Rate Retail (NNN)	0	0	\$2.08	\$25.00	\$0
	Market Rate Office (NNN)	0	0	\$2.00	\$24.00	\$0
Parking Spaces	Surface	30			\$0	\$0
Total Rentable		30	24,863		\$2.25	\$671,288
Residential Efficiency & GSF		85%	24,863			
Commercial Efficiency & GSF		90%	0			
Vacancy & Collection Losses		Market Rate Apts			5.0%	(\$33,564)
		Affordable Apts			0.0%	\$0
		Market Rate Retail (NNN)			10.0%	\$0
		Market Rate Office (NNN)			5.0%	\$0
Total Vacancy Loss						(\$33,564)
Effective Gross Income						\$637,723
Non-Reimbursable Expenses						
Residential & Office	Operating	18% of PGI		(4.86) Per NSF		(\$120,832)
	RE Taxes	5% of PGI		(1.35) Per NSF		(\$33,564)
	Management	2.0% of EGI		(0.51) Per NSF		(\$12,754)
	Reserves	1.0% of EGI		(0.27) Per NSF		(\$6,712.88)
	Mgt & Reserves	2.5% of EGI		0.00 Per NSF		\$0
Subtotal		27% of EGI		(6.99) Per NSF		(\$173,863)
Net Operating Income		73% of EGI		\$18.66 Per NSF		\$463,860
Capitalized Value of Residential On Completion-At Stabilization						
Capitalization Rate		New Construction	6.00% Overall Rate			\$7,730,994
				Rounded		\$7,700,000
				Per GSF		\$263
				Per RSF		\$310
				Per Unit		\$256,667
Development Cost						
Acquisition Cost (If Private)		26,172 Land SF		\$0.00 Per Land SF		\$0
Public Realm Contribution		26,172 Land SF		\$0.00 Per Land SF		\$0
Residential Only				\$225.00 per GSF		\$6,581,250
Mixed Use (Residential & Commercial)				\$0.00 per GSF		\$0
Parking	Surface	30 Spaces		\$2,500 per space		\$75,000
Soft Costs (includes financing, fee etc.)				10% of Hard Cost		\$700,000
					Rounded	\$7,400,000
					Per GSF	\$253
					Per NSF	\$298
Entrepreneurial Return		Unlevered Return on Cost (NOI/Cost)	6.3%	Margin (Value-Cost)		\$300,000