

REVERE COASTAL DISTRICT | **BOOK OF IDEAS**



HARVARD UNIVERSITY GRADUATE SCHOOL OF DESIGN | **URBAN PLANNING STUDIO** | SPRING 2015

Second Semester Core Urban Planning Studio

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INTRODUCTION TO THE STUDIO

From Wonderland to Beachmont, the City of Revere has tremendous potential to define its future. Revere's Coastal District has spectacular beachfront and transit access, but also must contend with climate change, storm risks, vacant and underutilized properties, and low lying marshes. This part of the City has long been home to diverse, immigrant communities, but these neighborhoods tend to be separated by linear road and rail systems, as well as the now vacant properties.

With the partnership of the City of Revere, the Harvard Graduate School of Design launched a planning studio focused on Revere's Coastal District in Spring 2015, serving as a precursor to the City's multi-year initiative "Plan Revere." This book of ideas presents development concepts for the areas in and around Beachmont Station, Bell Circle, Necco, Ocean Avenue South, a proposed Commuter Rail Station, Wonderland, and Wonderland Marketplace.

Over an eight-week period, 45 graduate planning students were responsible for creating development plans for these seven different sites. Part of this process

involved engaging the community to deepen the students' understanding of local issues and to help give voice to community ideas and perspectives. The students' prior research on coastal resiliency techniques also helped inform their proposals. In an iterative and overlapping process, the students advanced design ideas while engaging the community, continuously learning from the feedback and their multiple visits to the site, before finalizing their plans.

The students designed a variety of strategies to engage different segments of the community. A highly visible, informal means of soliciting input is the use of short surveys and mapping activities, positioned to intercept people at the local MBTA stations, grocery stores, and community events. Some students visited small shops and restaurants to hear the business owners' perspectives. Focus group discussions, one-on-one meetings, and telephone interviews allowed for more in-depth or targeted conversations. To reach the online community, students designed a website www.enagerevere.com where they blogged on studio activities, conducted opinion surveys, and linked into the City's social media sites.

Overall, the studio reached hundreds of people, including residents, small business owners, youth and immigrant groups, City and State officials, and real estate professionals. The Beachmont Improvement Committee, Revere Chamber of Commerce, Revere on the Move, Revere Youth in Action, The Neighborhood Developers, Women Encouraging Empowerment, and many others generously gave their time in this effort. A Community Open House on April 23, 2015, at Revere City Hall provided a forum for showcasing the draft ideas and gaining further input.

From this engagement, the students have generated a range of development programs, street configurations, parks, and community facilities. Working as individuals and in pairs, they tested concepts for the various sites, in many cases employing creative strategies to withstand storms and the potential for sea level rise. The students imagined different ways of connecting through and across this part of Revere and beyond, whether by bicycle, transit, vehicles, or on foot. Renderings, three-dimensional models, and other graphics convey how Revere's Coastal District could look in the future.

BEACHMONT STATION



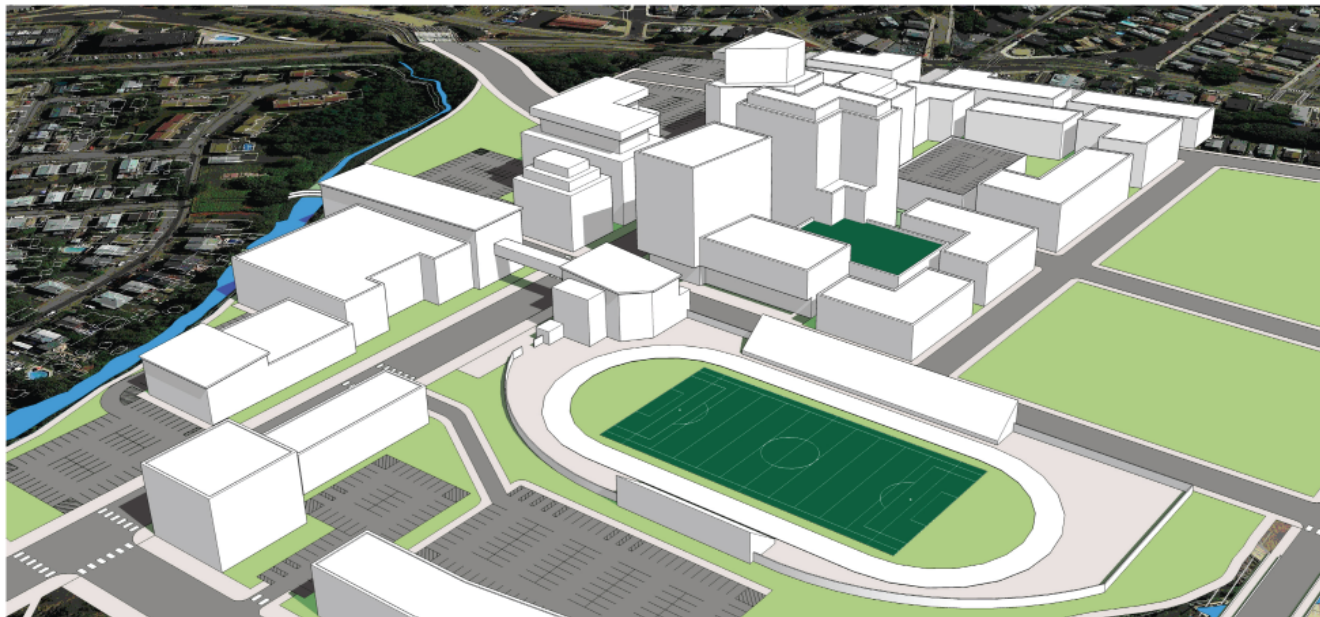
BEACHMONT DOWNS



- Commercial Office w/ Ground Floor Retail
- Residential Mixed Use w/ Ground Floor Retail
- Transit-Oriented Single Use Residential
- Beachmont High School



100 200 400 Feet



PROGRAM

Office:	900,000 gsf
Retail:	200,000 gsf
Residential:	700,000 gsf
Institutional:	450,000 gsf
TOTAL:	2,250,000 gsf

SITE PHASING

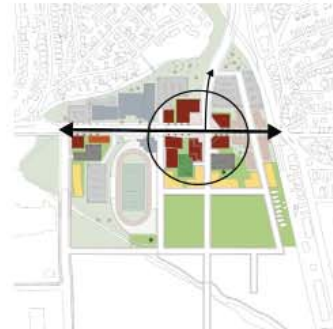
Phase 1: Establish retail hub to extend Beachmont under Blue Line



Phase 2: Develop along Winthrop Ave with Beachmont High as an anchor



Phase 3: Fill in commercial activity on Winthrop Ave and Revere Beach Pkwy



Phase 4: Extend neighborhood, stitch together surrounding communities



The redevelopment of Suffolk Downs and the surrounding areas near the Beachmont station on the MBTA Blue Line represent one of the best opportunities for Revere to compose a bold move for its future. With large open areas and flexible zoning and land use regulations, the area is ripe for development, and with such convenient access to the T, it is a prime location to both live and work.

As the city considers the development in the area, it is important to keep in mind some of the other challenges facing Revere. Of particular interest is the school system, regarded as one of the state's finest. With such an excellent system in place, many young families seek to move to Revere and, in coming years, the high school will see ever-greater strain on its capacity. A need identified by many in the community, a new high school in Beachmont could become a cornerstone of the community and could be made feasible by leveraging the increased revenues due to the accompanying development in the area.

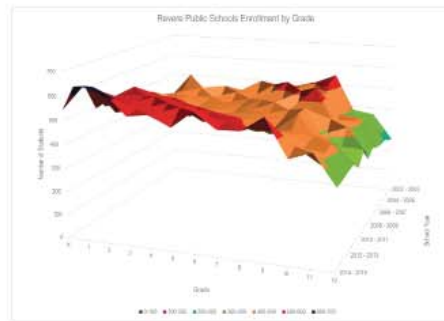
As development occurs, a thoughtful approach to balancing space to live, work, learn, and play can create a bright, healthy community at the new Beachmont Downs.

REVERE PUBLIC SCHOOLS



Revere High School was recognized in 2014 by the National Center for Urban School Transformation as one of America's best urban schools

U.S. News & World Report also recognized Revere High School with a silver medal as one of America's top public high schools



This year's senior class had 447 students in first grade
This year's first grade class has 643 students

Potential for \$10 to 20 million in incremental yearly tax revenue vto finance construction of new high school

PRECEDENTS

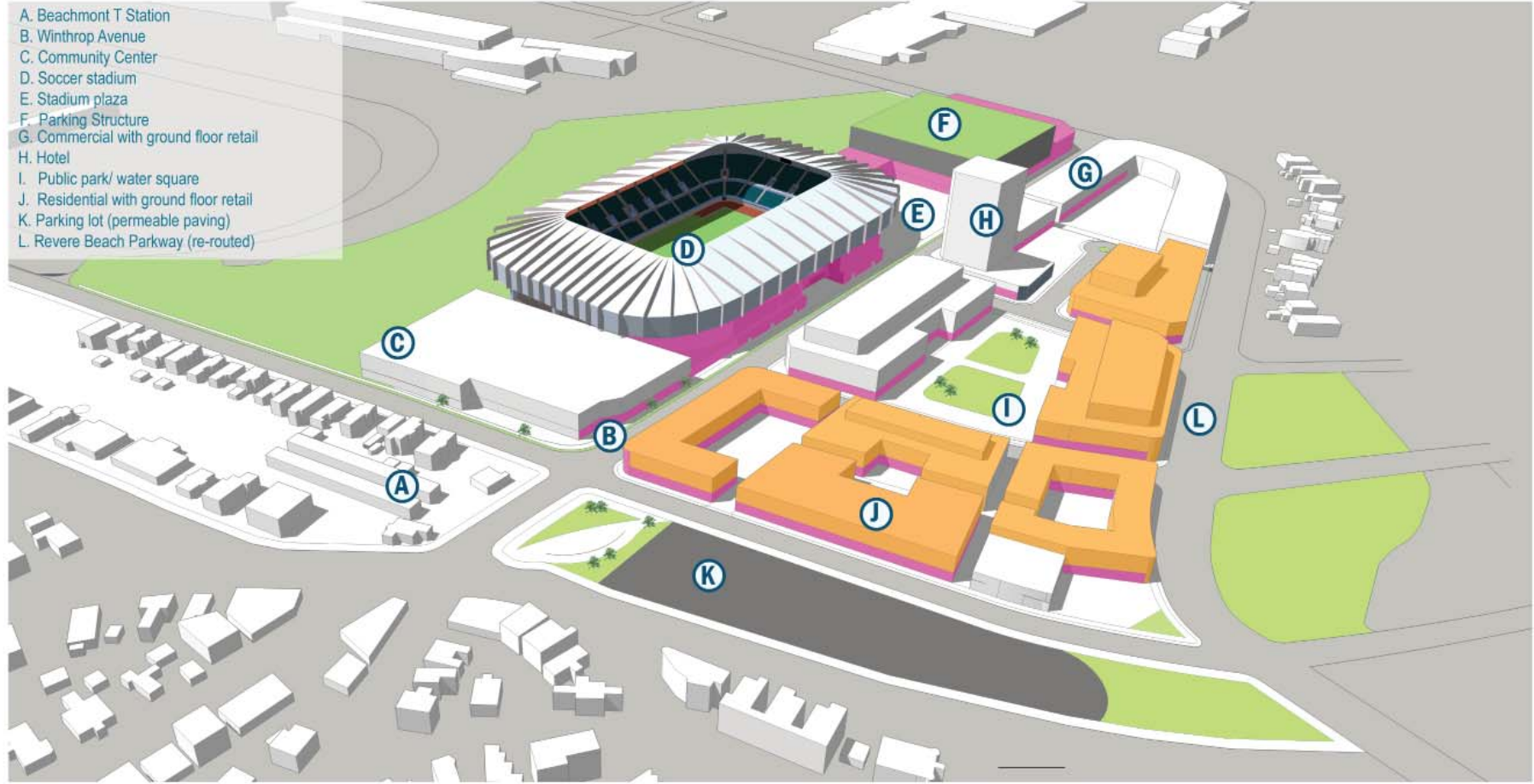


Cambridge Rindge and Latin School in Cambridge, MA is an example of a large high school that is successfully integrated into the surrounding urban fabric. It connects well with surrounding institutions and is a vibrant part of the neighborhood



Passaic County Technical Institute in Wayne, NJ is an example of a high school that takes advantage of its natural surroundings, including a brook running beside the campus, something Beachmont High could leverage in its design

BEACHMONT KICKS OFF



Looking west down Winthrop Avenue past the community center

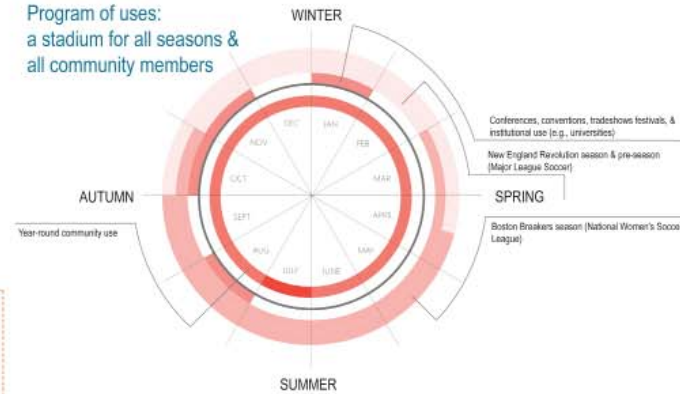


Stadium plaza on a game night



Proposed Site Plan

Program of uses:
a stadium for all seasons &
all community members



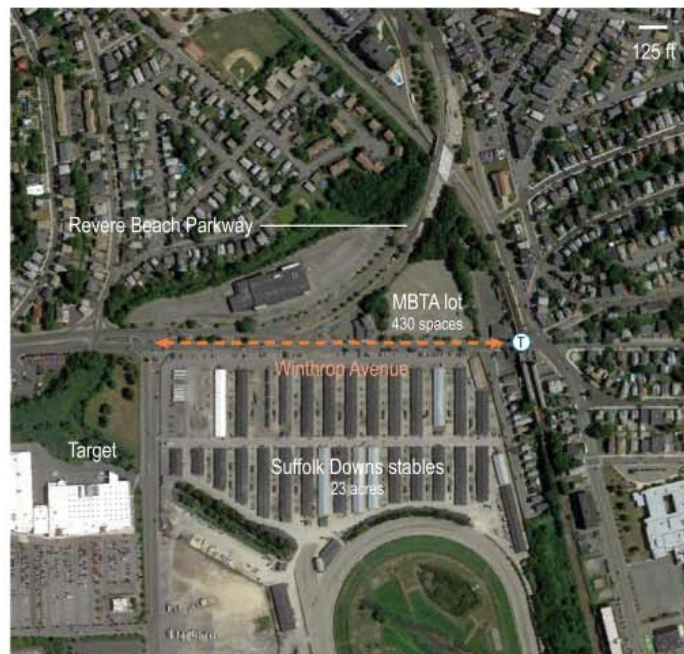
Public spaces & storm water management

- (A) Water square within retail court yard
- (B) Permeable pavement surface parking lot (100 spaces)
- (C) 1,100 space parking structure, flood proof 1st level
- (D) 15+ acres of restored marsh land

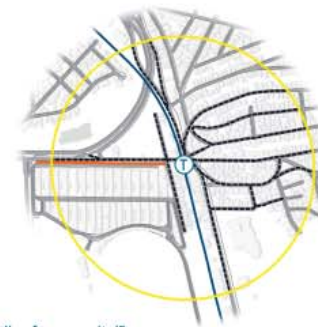


Creating a shared experience in Beachmont:
new places of public assembly & development

The Suffolk Downs property represents 160 acres of land in east Boston and Revere that has an uncertain future as a thoroughbred race track. Opened for operation in 1935, the 23 acres at the north end of the property has served as the track's stables and employed approximately 1500 part-time and full-time workers up until a year ago. This proposal envisions a new future for the north end of the property as the home stadium site for the New England Revolution (male) and the Boston Breakers (female) professional soccer clubs. The 440,000 sq ft multi-use sports complex will capitalize on close proximity to the MBTA Beachmont T Station and a re-configured street grid that will open up adjacent parcels for hotel and mixed-use development. Adequate parking facilities will be provided so as to capture vehicular event traffic coming from the highway to the west of the stadium, with pedestrian traffic entering Winthrop Avenue from the east. The stadium project will rely on an innovative financing scheme whereby any public funding contributed to the project is treated as an investment, with immediate community benefits provided around the site and a share of yearly proceeds going to fund local parks and recreation in Revere. These community benefits include the redevelopment of a consolidated stable facility closer to the track grandstand, a regional YWCA center, streetscape improvements along Winthrop Avenue, and approximately 30 affordable housing units (60% AMI) in an adjacent mixed use development. Recent urban MLS stadium developments in the United States have shown that a stadium has the greatest positive impact when built as part of a larger neighborhood strategy. The Revere Revolution Stadium is a timely opportunity to use a community benefits agreement to catalyze the regeneration of the urban fabric, stimulate year-round business activity, and to create a diversity of places for shared experience.



Current Conditions



Pedestrian routes within
a 0.25 mile walk of the
Beachmont T station

"I call it a 'walk of necessity'"



Winthrop Avenue is a highly travelled route by pedestrians who walk from Beachmont neighborhood to the Stop & Shop/Target stores (photo courtesy of Cara Michell)



Poor or incomplete sidewalks and a lack of destinations along this stretch of Winthrop Avenue were cited as challenges by residents

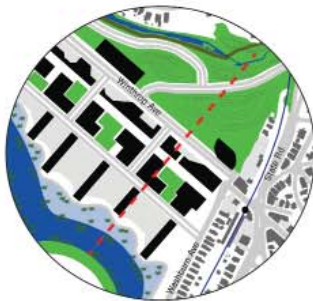
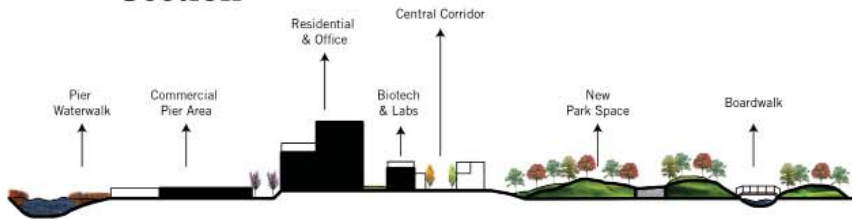
Site Plan



Aerial View



Section

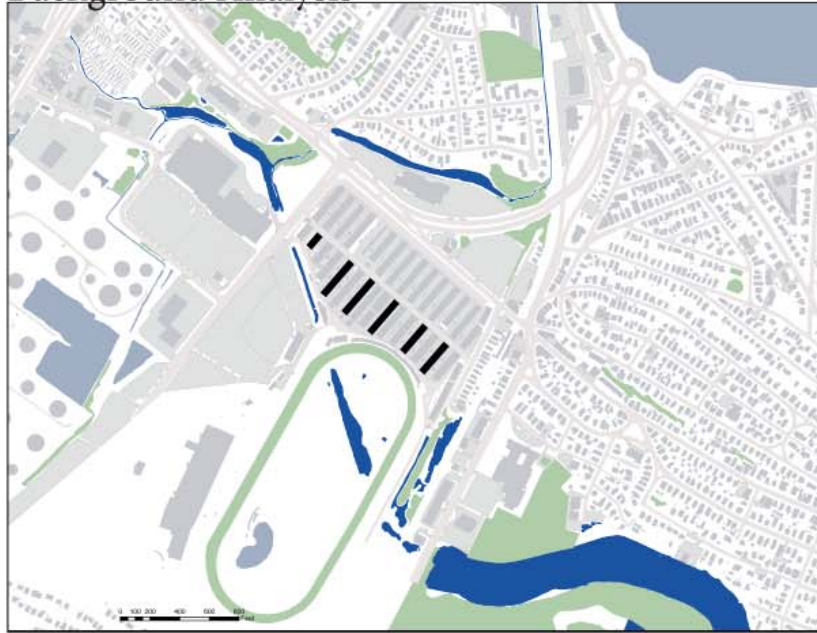


Section Cut Through Site

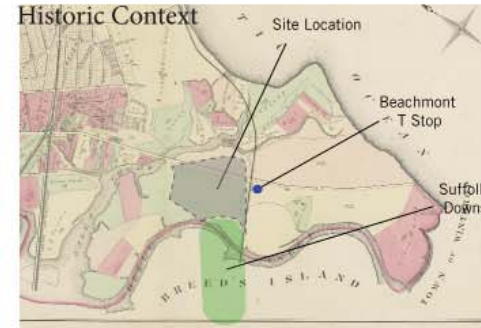
Place Making



Background Analysis

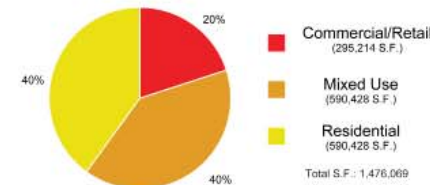


Historic Context



Square Footage

Breakdown By Use



The original impetus behind this project came from looking at existing bodies of water along Revere Beach Parkway. My plan was to connect these bodies of water, creating a loop that would surround my development and serve as the main feature, while also creating more marsh land and serving as a possible precursor for future water elements in the area.

In analyzing the area I wanted to have a central corridor that went along Winthrop Ave, and have development on each side of the street. The ultimate goal is a mixed use area to attract residents, retail, and an industry to support the area. Having Biotech & Lab as the main industry in the district would provide that support, helping to create a 24/7 area, and serve as a link to similar industries in Boston with the potential for more to follow.

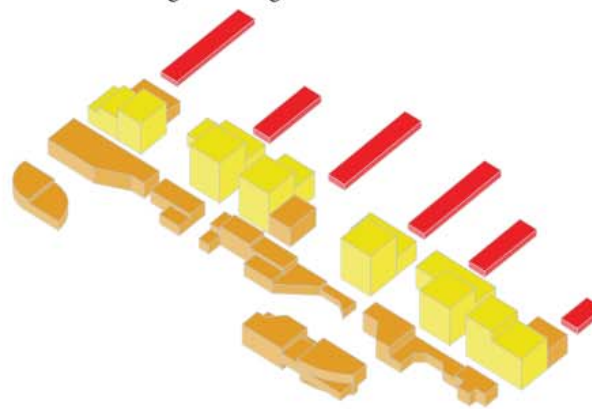
In terms of layout, the southern part of the district would serve as the residential and commercial area, with a pier that would run along the newly created marshland. The northern part would consist of park space with more mixed use buildings, featuring a boardwalk that would be the continuation of the water loop.

Flood Analysis

1' Rise & 6' Surge



Programming



Precedents



Proposal by Leeser Architects/ SDS.

Brooklyn Bridge Park



Proposal by WASA/ Studio A/Two Trees

Brooklyn Bridge Park



Proposal by FXFOWLE/ htv

Brooklyn Bridge Park



Strategies for Placemaking:

1. Implement infill development and increase density of housing
2. Widen/improve sidewalks around the train station
3. Reduce road size and remove Unity Ave
4. Calm traffic with trees, medians, and increased number of visible crosswalks
5. Develop a park that's distinct to the neighborhood
6. Improve existing commercial and place commercial structures under elevated train line
7. Introduce public art

Precedents



Shops Under Elevated Train Line
SevnignyPlatz, Germany



LED Art Installation
Birmingham, AL



Improved Sidewalks With
District Character



Commercial and Medium
Density Residential Buildings



Existing Site Context



Narrow, damaged sidewalks

Inactive Underpass

Aged wall bordering train

Storefront additions to homes



Parcels for Residential Expansion



Parcels for Commercial Expansion



The Beachmont Neighborhood is considered by some as the "Capital of Revere," and although it has much of the charm of many New England neighborhoods, Beachmont does not have a true "heart" of the neighborhood or a square.

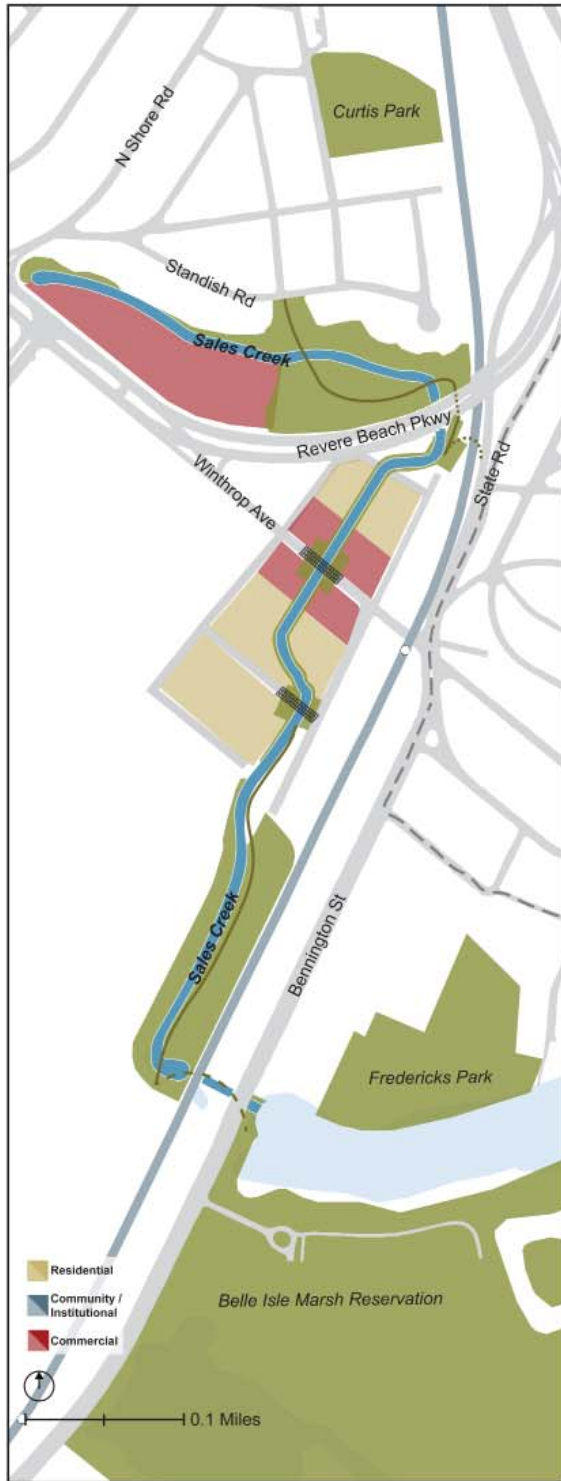
This proposal implements urban design techniques, parcel redevelopment, and the creation of a park at Unity Avenue at the intersection of five roads in the Beachmont neighborhood-State Road, Bennington Road, Winthrop Avenue, Unity Avenue with close proximity to the Beachmont T station. This nearness to the T station makes the proposed "Capital Square" an ideal area to encourage pedestrian activity within the neighborhood and to the beach. Pedestrian activity is encouraged through densification of parcels, traffic slowing techniques-medians, trees, increased crosswalks, expanded sidewalks, and creating new outdoor spaces that link to pre-existing outdoor spaces.

Street Section- State Rd



Street Elevation- State Rd





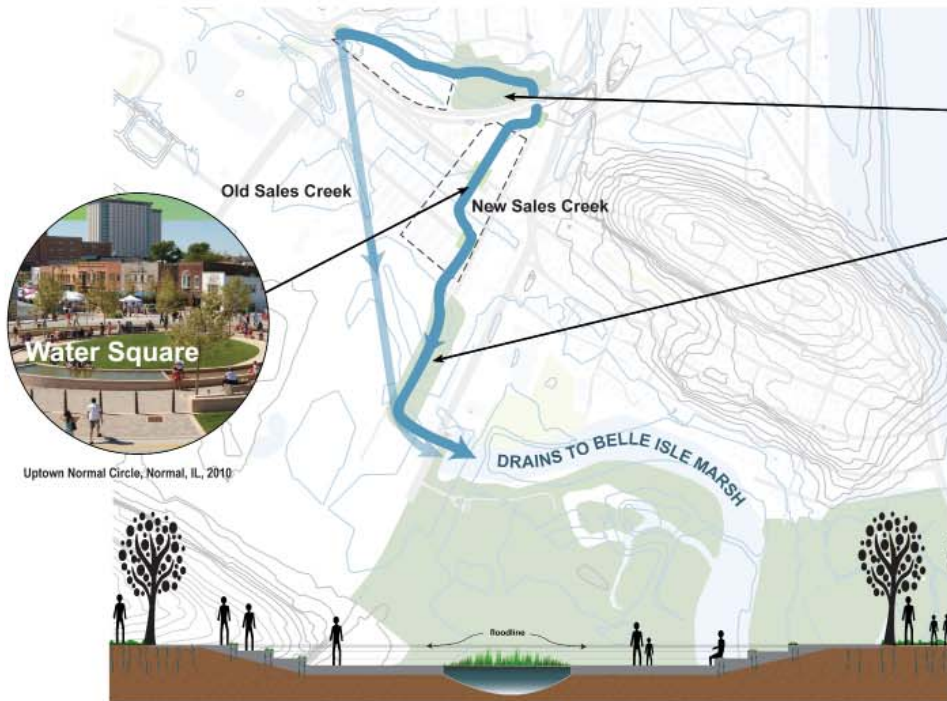
WINTHROP WATER SQUARE



BEACHMONT STATION



RESILIENCE



The New Sales Creek is an environmental engineering and transit-oriented development vision for the Beachmont Station area of Revere. Historically, the Sales Creek drained much of southern Revere and East Boston into the Chelsea River. Years of marsh in-fill rerouted the creek into Belle Isle Marsh, the last remaining salt marsh in Boston. In the late 1970's, the creek was rerouted into a channel traveling through Suffolk Downs to the marsh. The New Sales Creek is a proposal to reroute the creek once again and turn it into a unique public amenity, ringing the Beachmont community in new public spaces and creating resilient infrastructure in the face of stronger storms brought on by climate change.

COMMUNITY & ECONOMIC DEVELOPMENT



OFFICE/RETAIL

- Improvement and expansion of Beachmont Station retail core
- Over 100,000 square feet of additional office and retail space
- Over \$3 million in new tax revenue for the city



COMMUNITY SPACE

- Community center with special programming for local teens
- Exhibition space for local artists
- Seasonal housing for migrant workers and artists in residence
- Weekend farmers market



RESIDENTIAL

- 150 housing units along the New Sales Creek enjoy unique public space and easy access to public transit
- Up to 400 new residents support increased retail and create activity throughout the development

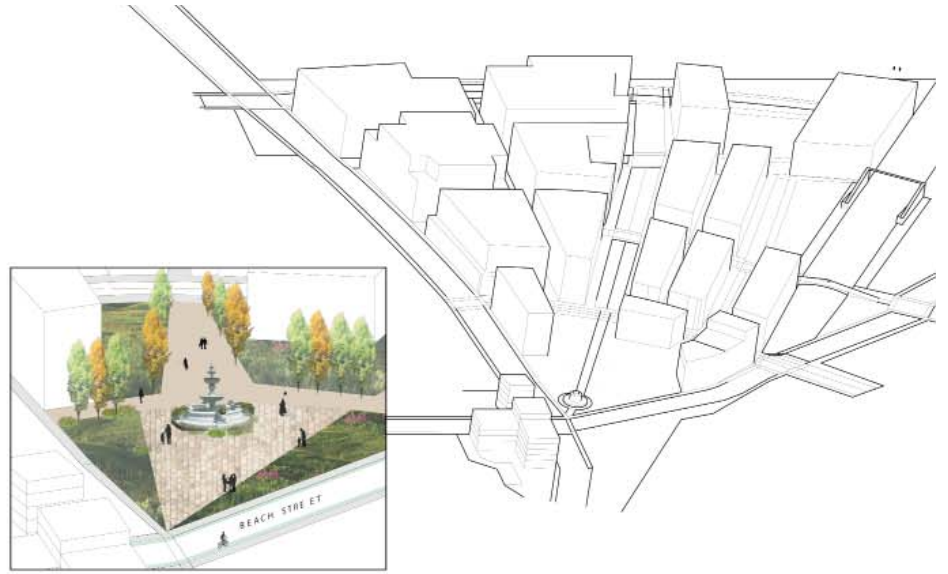


The rerouted creek will be anchored by reconstructed wetlands at the old Shaw's site and along the eastern edge of the Suffolk Downs racetrack. The wetland areas act as a sponge to absorb runoff caused by excessive rainfall while also providing new recreational trails. Just west of Beachmont Station, the creek is channeled into a series of water squares -- a resilient design technique that provides plaza-like public spaces in dry times but can hold substantial levels of water during flooding. These water squares serve as the anchors for a substantial new transit-oriented development.

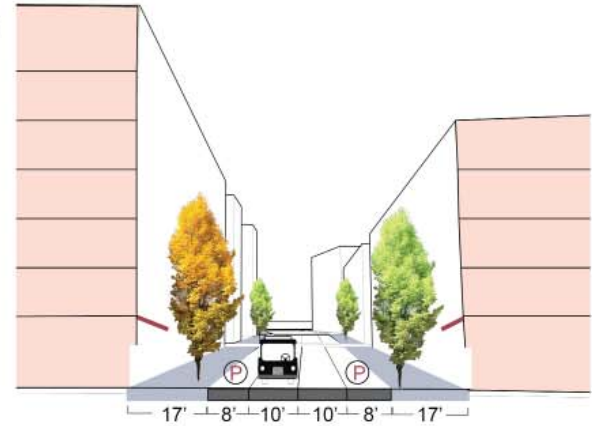
The new development will create 150 new housing units and over 100,000 square feet of new office and retail space, providing a boost to the local tax base and dramatically increasing activity in the Beachmont Station area. In addition, the New Sales Creek plan provides space for a youth and community center that offers programming enhanced by the water squares. This new development anchored by the creek will enhance Beachmont Station's already tight-knit community.

BELL CIRCLE

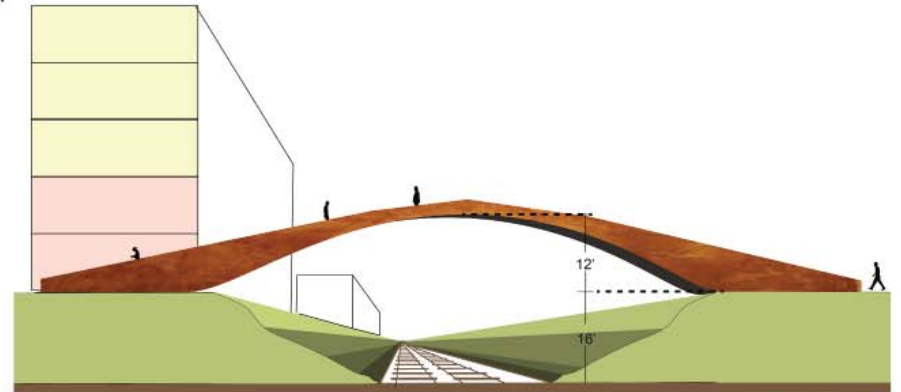




3 NECCO STREET
45' Right of way



4 BEACH ST. PEDESTRIAN BRIDGE



Goals for Bell Center

- 1 *Improve connections and access to the site*
- 2 *Mix uses to create a gateway and a destination*
- 3 *Concentrate growth in higher elevations*



Building connections

barriers to access



intersection of major portals to the city



flood risk



The site currently hosts Necco's headquarters, the RMV, Comfort Inn and Suites, as well as several smaller food sellers and retailers. Located at the intersection of three major routes, this strategic site also lies between Broadway and the beach. A poor surrounding streetscape means the site is difficult to access for pedestrians, although many cross through heavy congestion from Bell Circle or Shirley Avenue. Additionally, many structures – including the Necco factory – lie within the 100 year flood plain.

The project envisions creating an accessible, vibrant commercial and residential center that is inviting to residents and visitors alike. The plan opens the site to pedestrians by improving sidewalks, creating more crossroads, and calming surrounding traffic. Retail, residential, and recreational spaces welcome mingling and placemaking, rather than simply shopping. Threatened buildings would move to higher elevations, while protective lowland natural buffers would be restored.

Precedents



Assembly Row, Somerville



Salem Commuter Rail Station



Pedestrian Bridge, Greenville, SC

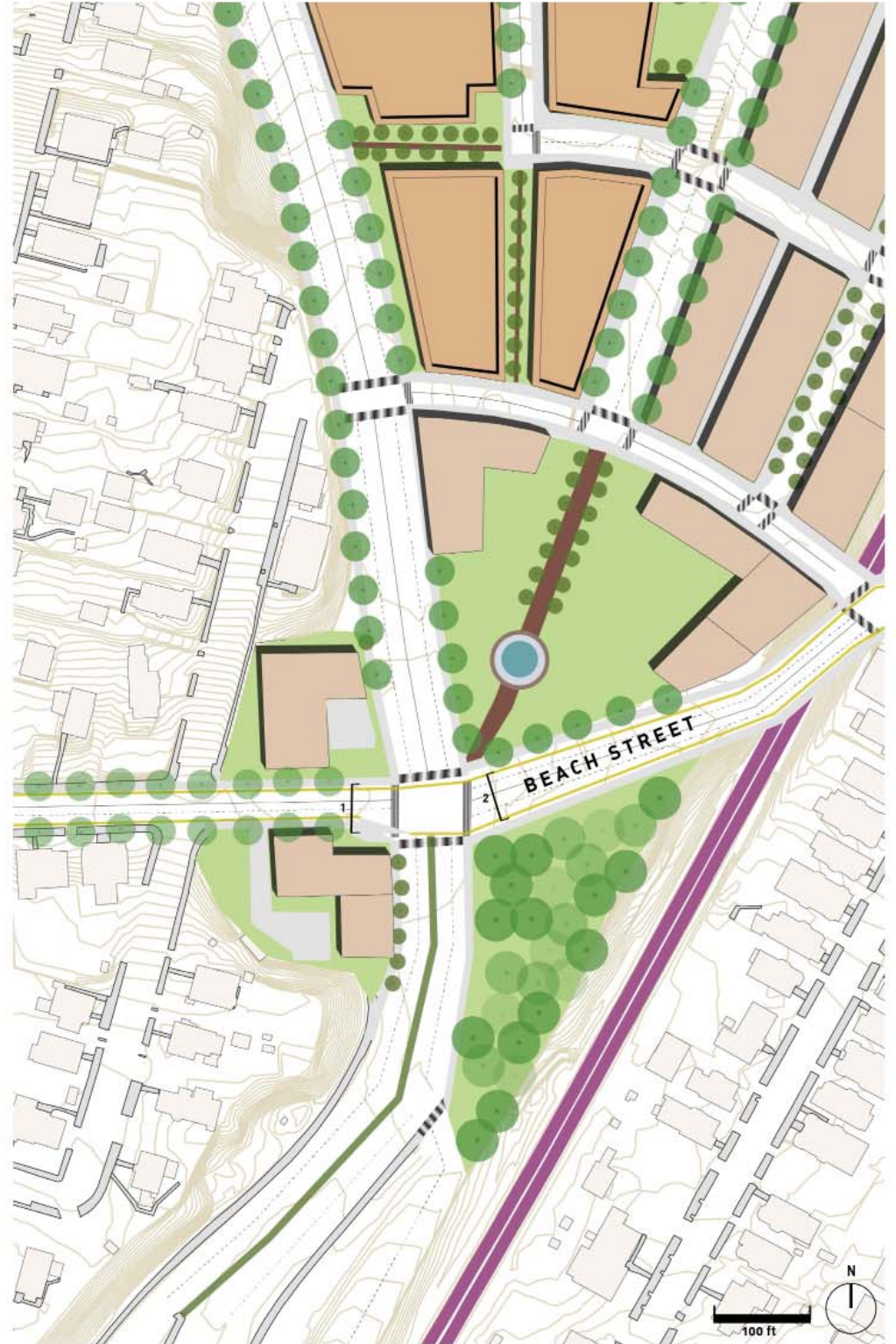
Finally, as development densifies here and in Wonderland, the site could host Revere's future commuter rail station, with strategic access for North Shore commuter parking, a destination for beachgoers and shoppers alike, and easy access to Boston jobs for Revere residents.



1 BEACH STREET (WEST)
64' right of way



2 BEACH STREET (EAST)
74' right of way



Goals for Bell Square

1. Improve safety and walkability
2. Enhance bike and pedestrian connections
3. Create better access to a re-imagined gateway



existing



proposed



creating a safer connection to and from the beach

Bell Circle has long been a major site of concern for Revere's residents and visitors. This plan strives to improve safety throughout the site for both pedestrians and vehicles. By transforming the site's traffic roundabout into a four-way intersection, this plan aims to minimize the number of accidents at the site, create pedestrian connections to-and-from the coastal district, and re-imagine the site as a gateway into Revere.

This plan's proposed signal-controlled, four-way intersection serves to regulate traffic with coordinated timing and to enhance the pedestrian experience through the site. The re-designed intersection would create opportunities to extend all three parcels and widen pedestrian paths throughout the site. Streetscape improvements along Beach Street and the four-way intersection serve to reinforce pedestrian connections across the site; these connections include a new two-way bike lane, a green buffer that separates pedestrians from bike and vehicle traffic, and general improvements towards a traffic-calming landscape.

Finally, this site aspires to create safe, efficient, and aesthetic connections to a new gateway imagined at the existing Necco site. Engaging with the Revere community in past weeks has led us to believe that Revere is excited about re-designing walks to and from the beach, and its adjacent parcels, in an effort towards creating and connecting welcoming, safe, and vibrant neighborhoods throughout the city.

1. Where do you like to bike or walk in Revere? (Please check all that apply)

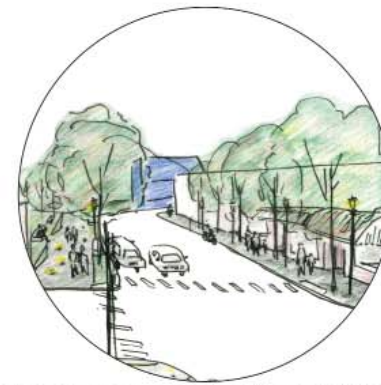
		Response Percent	Response Count
The beach	<div><div></div></div>	85.4%	35
My neighborhood park	<div><div></div></div>	53.7%	22
To School	<div><div></div></div>	41.5%	17
To Work	<div><div></div></div>	9.8%	4
The bus stop/ train station	<div><div></div></div>	34.1%	14
Running errands	<div><div></div></div>	24.4%	10
Dining out	<div><div></div></div>	7.3%	3
Shopping	<div><div></div></div>	14.6%	6
Visiting with friends	<div><div></div></div>	26.8%	11
The movies	<div><div></div></div>	4.9%	2

An online survey conducted by the City of Revere found that most residents enjoy walking and biking to the beach.
(Source: City of Revere/ MAPC)



A survey of Revere's youth reveals that Bell Circle is perceived as a very unsafe area.
(Survey conducted by Cara Michell, Stephany Lin, Tamara Jafar, and Andres Mendoza.)

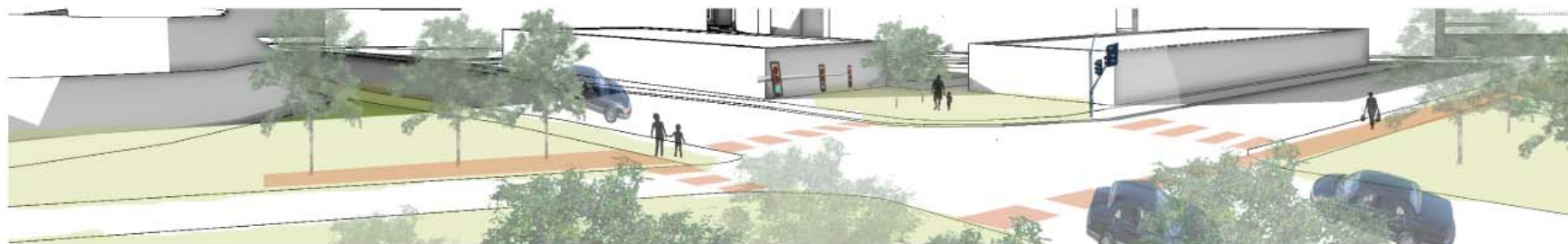
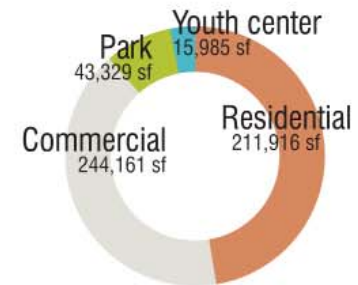
AN INVITATION TO BELL CIRCLE



Shirley Avenue extension leading to the new Youth Center

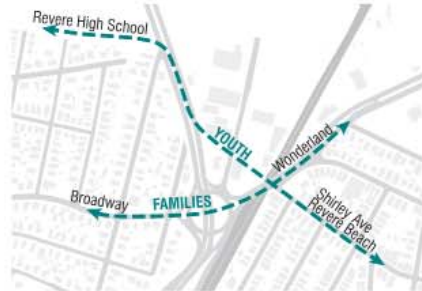


Bell Circle Plaza and community park



Design Concept

1. Connect neighborhoods



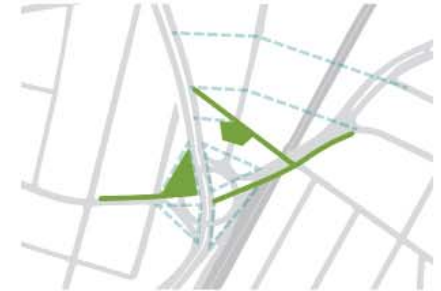
2. Reclaim land from Bell Circle



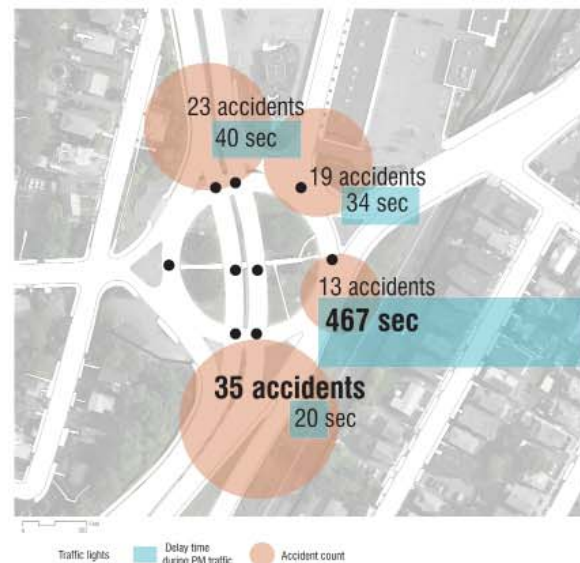
3. Extend the street grid



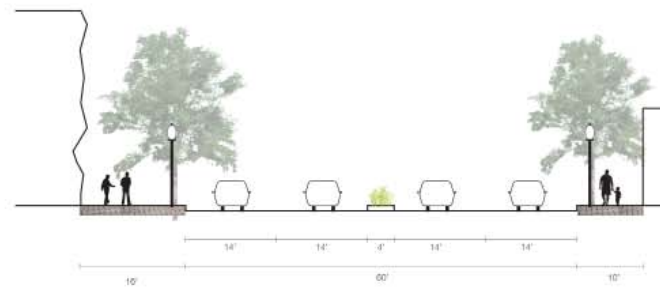
4. Invite pedestrians



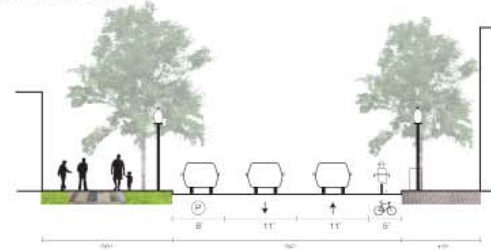
Traffic Data, 2004-2006 Source: CTPS.org



American Legion Highway Re-Design



Shirley Ave Extension



We invite you to re-imagine Bell Circle recovered for the Revere community: a safe passageway, a destination site, a community asset. We isolated four key intervention strategies to address the congestion and safety issues highlighted in Central Transportation Planning Staff (CTPS) traffic analyses. These four imperatives include: 1. Connecting neighborhoods; 2. Reclaiming land for Bell Circle; 3. Extending the street grid; 4. Inviting pedestrians. The simplicity of a four-way intersection and extension of neighborhood streets would help to cut down on accidents, congestion, and introduce safe and intuitive cross-walks.

In addition to the above, a desire to establish community pride in the center of Revere led us to orient our solutions around two guiding voices, namely, Revere youth and families. Our proposed program creates a corridor for youth, with safe pedestrian crossings, that extends from Revere High School all the way to Revere Beach.

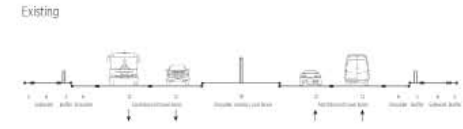
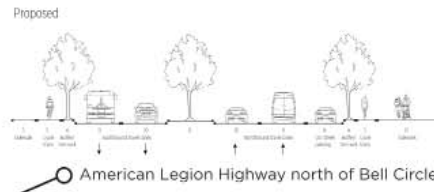
Recreational highlights along the new, well-lit corridor include a Revere Youth Center and a new community park geared towards youth. In our efforts to connect neighborhoods, we saw an opportunity to soften the site directly surrounding the former roundabout. To do so, we develop a forest buffer to the south and create a community café and garden to welcome families and residents from the west.

Designing with Youth



REVERE YOUTH IN ACTION (RYiA)

Three years ago, youth from the Revere community formed Revere Youth in Action (RYiA) with the aim of creating more youth friendly spaces where they can convene and have a sense of ownership. From several conversations with RYiA, we learned of the daily risk that Bell Circle's hazardous cross-walks posed to youth and all pedestrians. The ideas and interests of Revere's youth are a central part of our re-imagining of Bell Circle.



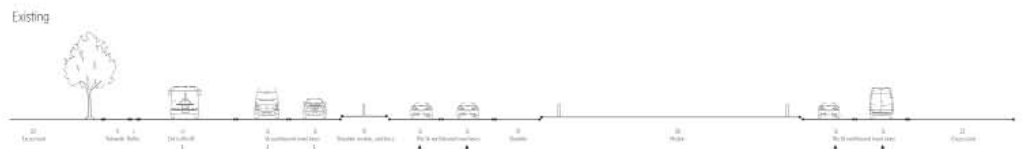
Bell Circle Redesigned to Four Way Intersection



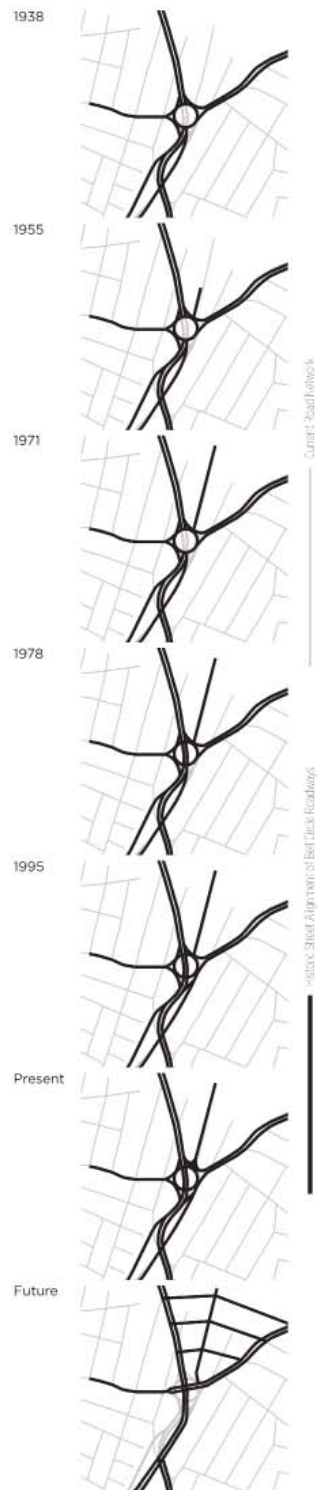
Shared Use Path Between Bell Circle and Cronin Arena



Local Networks of Connectivity



Historic Evolution



Existing and Desired Connections



Traffic Analysis and Precedents

American Legion Highway north of Bell Circle, Revere



37,000
vehicles
per day

Octavia Boulevard, San Francisco

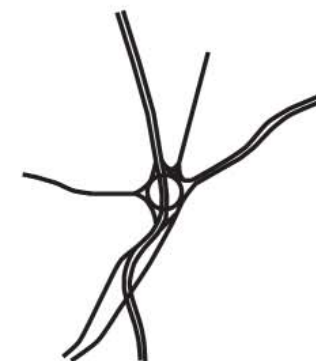


45,000
vehicles
per day

Atlantic Avenue / Purchase Street, Boston



48,000
vehicles
per day



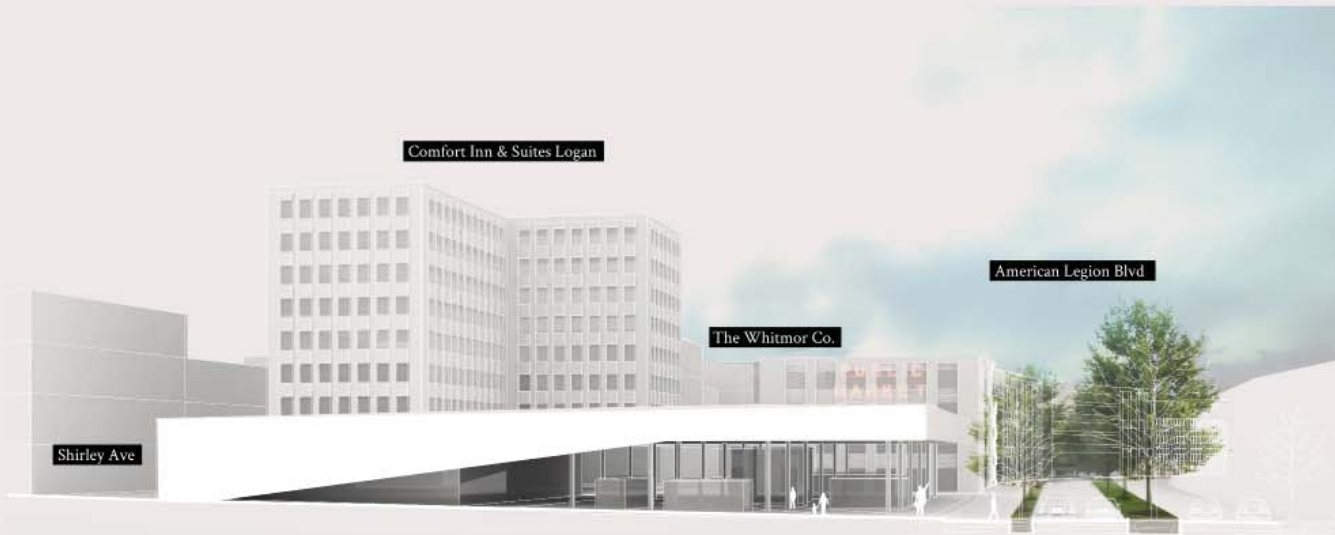
Re-Envision Bell Circle seeks to reallocate space from cars to people. Currently, far too much space is dedicated to roadway. Even though there are numerous traffic lanes through, around, and near the roundabouts, the complexity of the intersection does little to improve traffic flow. This proposal will reconfigure the roadway create a space that is safe for pedestrians at the same time as having potential improvements traffic flow.

A major component of the project relies on replacing the rotary with a regular four-way intersection. Northbound on 1A until VFR Parkway would be three lanes, then reducing to the two lanes north of the existing Bell Circle as current. The three lanes south of existing Bell Circle is needed for the number of turning movements, and consequently the right-most northbound lane would be reserved for turning traffic only. A preliminary traffic model in Vissim demonstrated that traffic flow did not worsen and potentially could improve traffic flow due to less number of confusing merges, turning movements, and better signal coordination.

Upon completion of this project, residents of Revere would be able to enjoy quicker access to schools, shops, and recreation facilities. The addition of pedestrian and cycle paths along the American Legion Highway as well as Route 1A to Wonderland will form a network of safe routes to Revere High School, Rumney Marsh Academy, and after-school recreational activities at Erricola Park and the Cronin Arena.

A new transfer center will also open in Bell Circle for key corridor bus service on Route 116, as well as for many the regional express service on Routes 424, 426, 434, 450, 455, and 459. In future phases, a commuter rail platform could be accommodated. Although Revere intends on locating the station farther north near Wonderland, a station closer to the existing Bell Circle would expand service to new areas as opposed to replicating the coverage already provided by the Blue Line.

With space that was previously occupied by the roadway's rights of way, new development can allow for a continuous and interesting walking environment, including ground-floor retail and residential units on the top levels. With all of these changes, Bell Circle will no longer be dominated by transportation but rather focus on active and productive uses.



Revere Connected envisions a new walkable neighborhood in the existing Bell Circle and adjacent commercial sites, reconciling the traffic and pedestrian conflicts but above all, connecting the Shirley Neighborhood to key Revere institutions located on the other side of the highway.

The main strategy is to separate the key intersections and shift the focus from an auto-centric approach to a multi-modal framework. This transformation would allow for more frontage along the newly created boulevard and increase pedestrian activity.

In addition, a separate system of alleys that encourage all modes of transportation connects a series of proposed open spaces with a variety of programs. Two key facilities, the market and the community recreation center anchor the corners of the new neighborhood, which supports a variety of scales of businesses and urban manufacturing.



NECCO SITE





SCENARIO 1 | NECCO OPERATIONS RELOCATE



Revere Residents



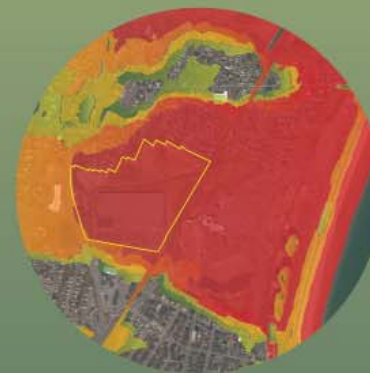
Young Revere Residents



FUTURE | Regional Recreation Destination



WATER | Sea Level Rise + Hurricane Threat



The beach provides great fun in the summer but there are limited opportunities for family friendly recreation in the city. Residents of Revere from varied walks of life have united in expressing the desire for a safe places to have fun all year round.

Enter **Necco Park**, the region's premier location for sports and recreation. Named after the factory and New England company that once occupied the site, it boasts a village of buildings to support the needs of every community member.

Its primary focus upon arrival unto the property is a community center that boasts performance and recreation space. In addition there is a Court + Field House that includes dance and gymnastic studio space in addition to a recreational gym. Also situated in the front is a collection of restaurants, a spa and movie theater. The property also includes facilities for rink sports and carnival games.

One of the primary amenities of Necco Park is the beautiful restoration of the land itself. It boasts hills and ponds complete with paths for leisure and sport to enable visitors to enjoy nature.

Over the next 100 years, Revere will become increasingly more vulnerable to both sea level rise and high intensity storms. Necco Park is situated in a low-lying wetland. It is possible that flood patterns may threaten much of the property. Rather than building against nature, Necco Park abides by the inspiration of **Mill Race Park** in Columbus, Indiana, to create recreational space with flooding in mind.

PRECEDENT | Mill Race Park





NECCO FACTORY



A

The Necco site reimagined: an atrium running through the core of the building and leading directly to the wetland boardwalks and viewing platforms.

C

COMMUTER RAIL

The commuter rail station will further connect the Necco site to the greater city and attract visitors from near and far. To ensure that the rail stays in service for years to come, an elevated rail is recommended.

E

MIXED-USE

Valuable real estate will be made available in this newly created residential area in Revere. With ground floor retail and amenities for an everyday lifestyle, residents will be connected to many shopping and exploration opportunities.

G

PARKS

The boulevard will lead to a beautiful park equipped with a flexibly programmed soccer field and picnic tables for events and parties. The park will also have an adjacent dog park for Revere's four-legged friends.

WETLAND RESTORATION



B

Wetlands absorb water and act as a treatment plant to filter pollutants. They are often filled for further construction; however, this site proposes to use them to mitigate the effects of sea level rise and serve as a resource to educate and motivate people to preserve this vital ecosystem.

D

NECCO VISITOR CENTER

Although Necco has partnered with the city of Revere and a few community groups in the past, a visitor center offering tours and entertainment will solidify Necco's relationship to the community, especially with Revere's youth who will continue to support the brand through the years.

F

NECCO CROSSING

The 'T' shape created by the connection to the east and west will provide an iconic crossing, providing an important network of links to Revere's residents. Additionally, the crossing will be a drive down a tree-lined boulevard with access to the anticipated commuter rail station.

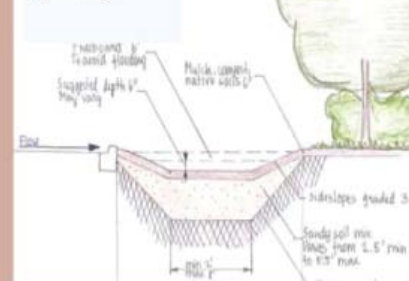
H

PEDESTRIAN BRIDGE

Revere's youth attending the Rumney Marsh Academy or Revere High School will have a pedestrian bridge connecting them to the exciting development in a part of the city they probably have not had the opportunity to explore.

PRECEDENT FOR USE OF BIOSWALES IN STORMWATER MANAGEMENT

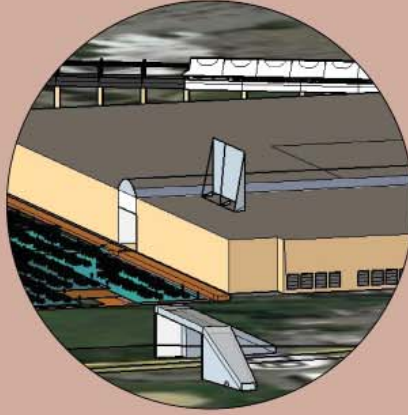
Seattle Streets, Final Report for Seattle Public Utilities, November 2007
-looking at slopes in streets to effectively carry stormwater runoff.

SECTION OF A BIOSWALE
1/4" = 1'-0"

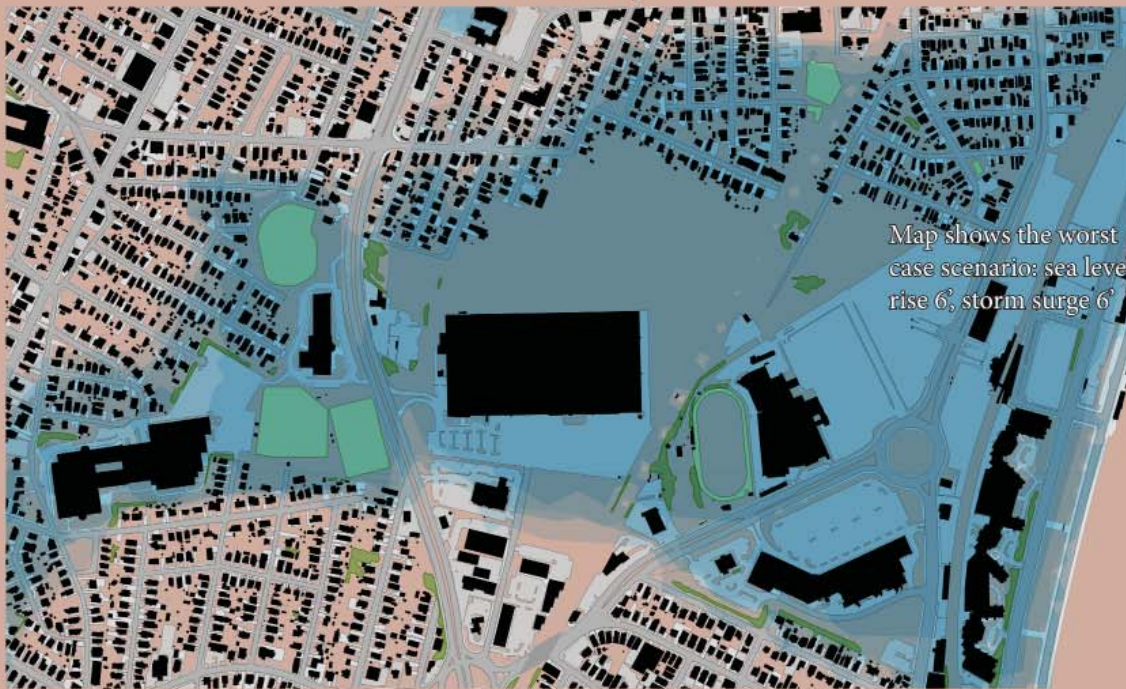
AT NECCO

Necco Crossing's residential sections are located on the higher end of the slope, an ideal situation for an interconnected storm water management system to feed into the bioswales and out to the wetlands.





Necco: An impacted site



Necco moved to Revere in 2002 and began production in 2003. At a little more than 800,000 square feet (not including the wetlands), Necco's site presents many opportunities to make new and unexplored connections with the city of Revere and its residents. This plan proposes to open up the block to the greater community, creating access to the east and west of Revere-a true crossing.

Critically, this plan imagines a tree-lined boulevard, walkable streets with exciting shopping and recreational experiences as well as another opportunity to own prime real estate in a city bound for growth.

Major considerations for sea level rise and stormwater management were made. In addition to utilizing the existing wetlands behind the Necco site as a first line of defense in mitigating sea level rise, the entire block will be outfitted with a system of interconnected bioswales.

SITE PLAN



STREET VIEWS



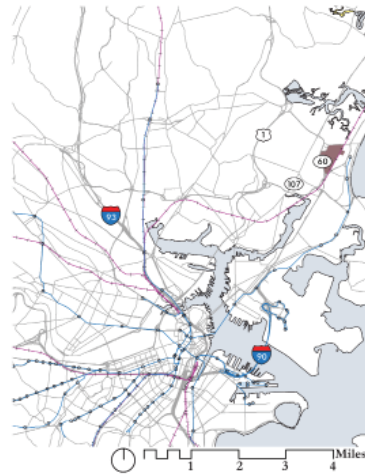
METROPOLITAN NEED

"The availability of warehouse space around Boston hit a 12-year low last year amid growing demand for top-tier industrial space... Rents have risen, which [real estate broker] Transwestern said reflects high demand for the 'dwindling' supply of premium warehouse space... Still, no new warehouse or manufacturing space was being built or planned in Greater Boston last quarter, according to the broker."

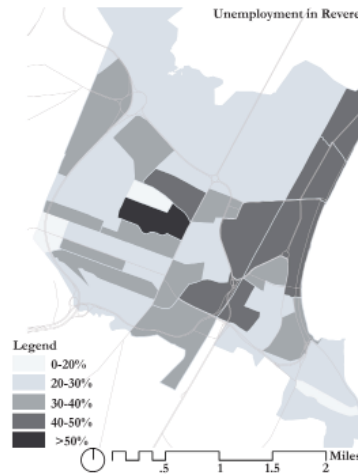
The Boston Globe

2/17/2015

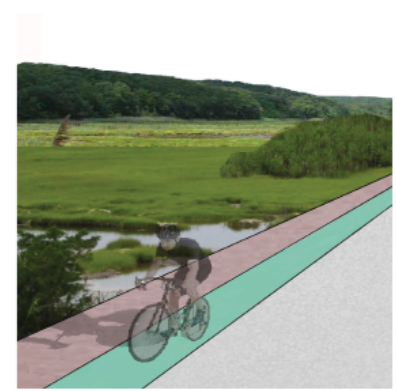
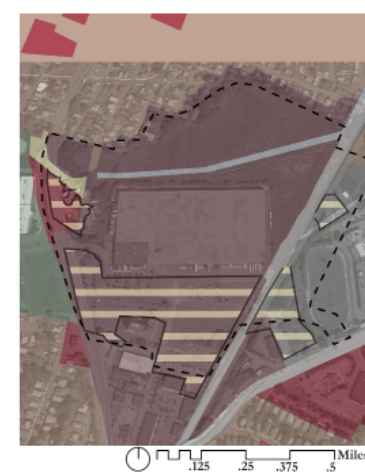
ACCESS TO BOSTON



EMPLOYABLE WORKFORCE



AVAILABLE INDUSTRIAL LAND



USES

TOTAL SQUARE FOOTAGE



POTENTIAL TENANTS

Large Warehouses	Incubators	Commercial corridor
<ul style="list-style-type: none"> Factories Warehouses (Fulfillment Centers) Storage facilities 	<ul style="list-style-type: none"> Small industrial startups: Manufacturers Labs Food producers 	<ul style="list-style-type: none"> Retail Restaurants Theatre/arts centers Community centers Job assistance centers

PRECEDENTS

amazon.com

Amazon.com, Stoughton and Fall River MA
 • Headline: "Amazon offers dozens of jobs on the spot for new Stoughton facility"
 The Patriot Ledger
 11/13/2014

AMERICAN SUPPLY COMPANY

American Supply Company, Philadelphia PA
 • Public art, engagement with the community



Pine Innovation Center

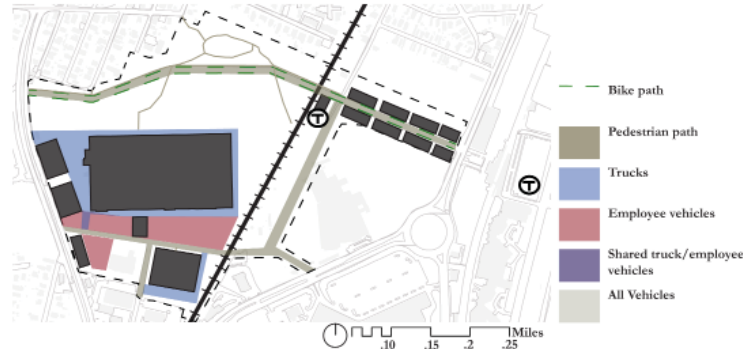
Pine Innovation Center, Pine MN
 • Local companies provide free and reduced technical services
 • Partnerships with nearby youth educational



Industrial Council of Nearwest Chicago, Chicago IL
 • 110 small businesses, 550 jobs in 416,000 square foot facility
 • On-site workshops and business training

BENEFITS

IMPROVED CONNECTIVITY



ECONOMIC

1.62 million square feet of new commercial and industrial space

≈\$48.2 million total yearly tax benefits to Revere

425 jobs in warehouses
 1,280 jobs in commercial corridor
 + 250 jobs in incubator

≈1,955 new jobs total

RECOMMENDED RESILIENCE TECHNIQUES

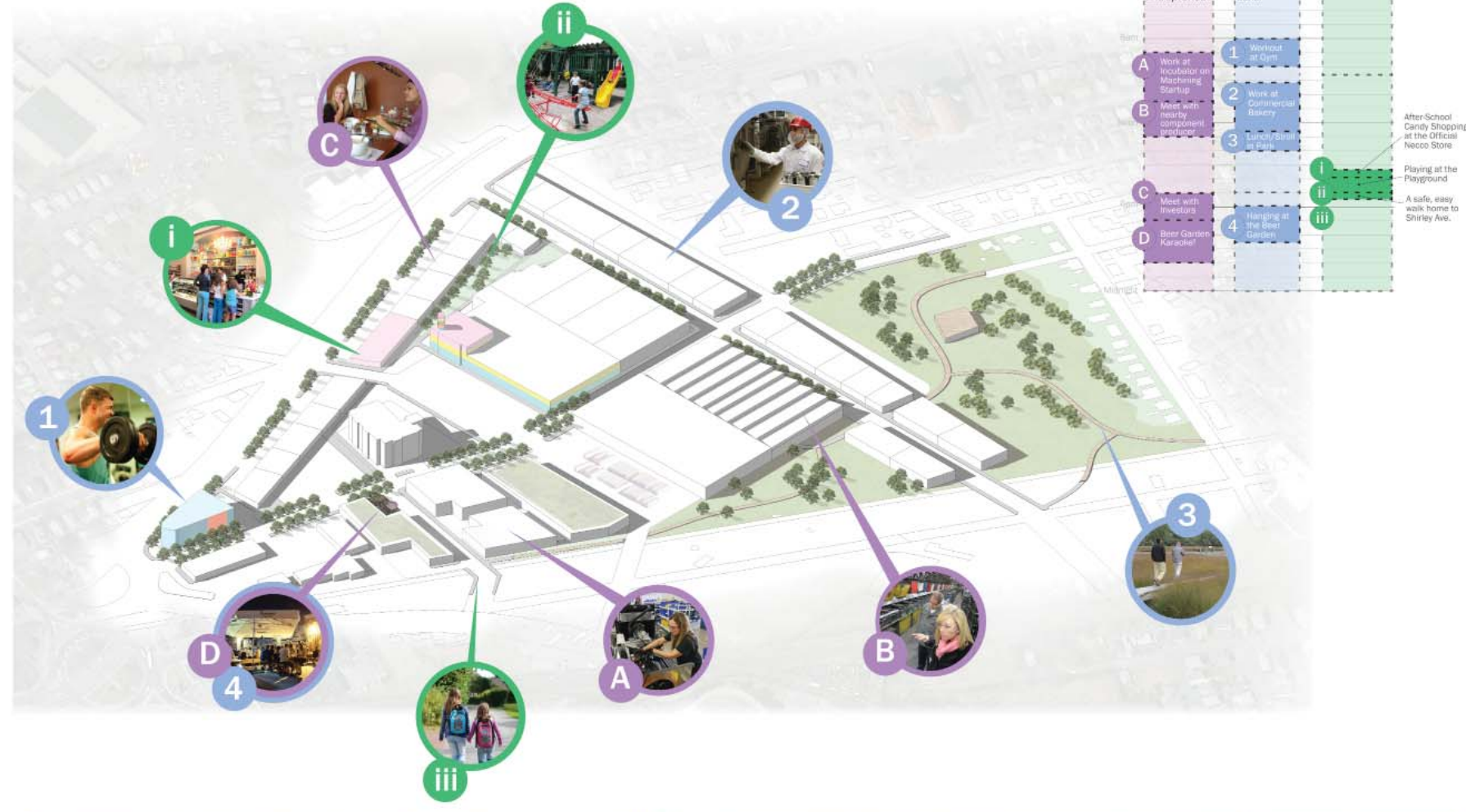
- Elevation of road
- Rainwater harvesting
- Elevation of building
- Light industry
- Bioswales
- Detention/retention ditches and ponds
- Permeable paving
- Stream maintenance
- Marsh restoration

PROJECT DESCRIPTION

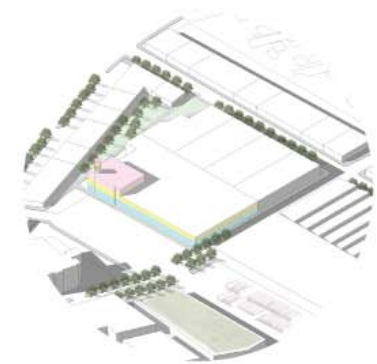
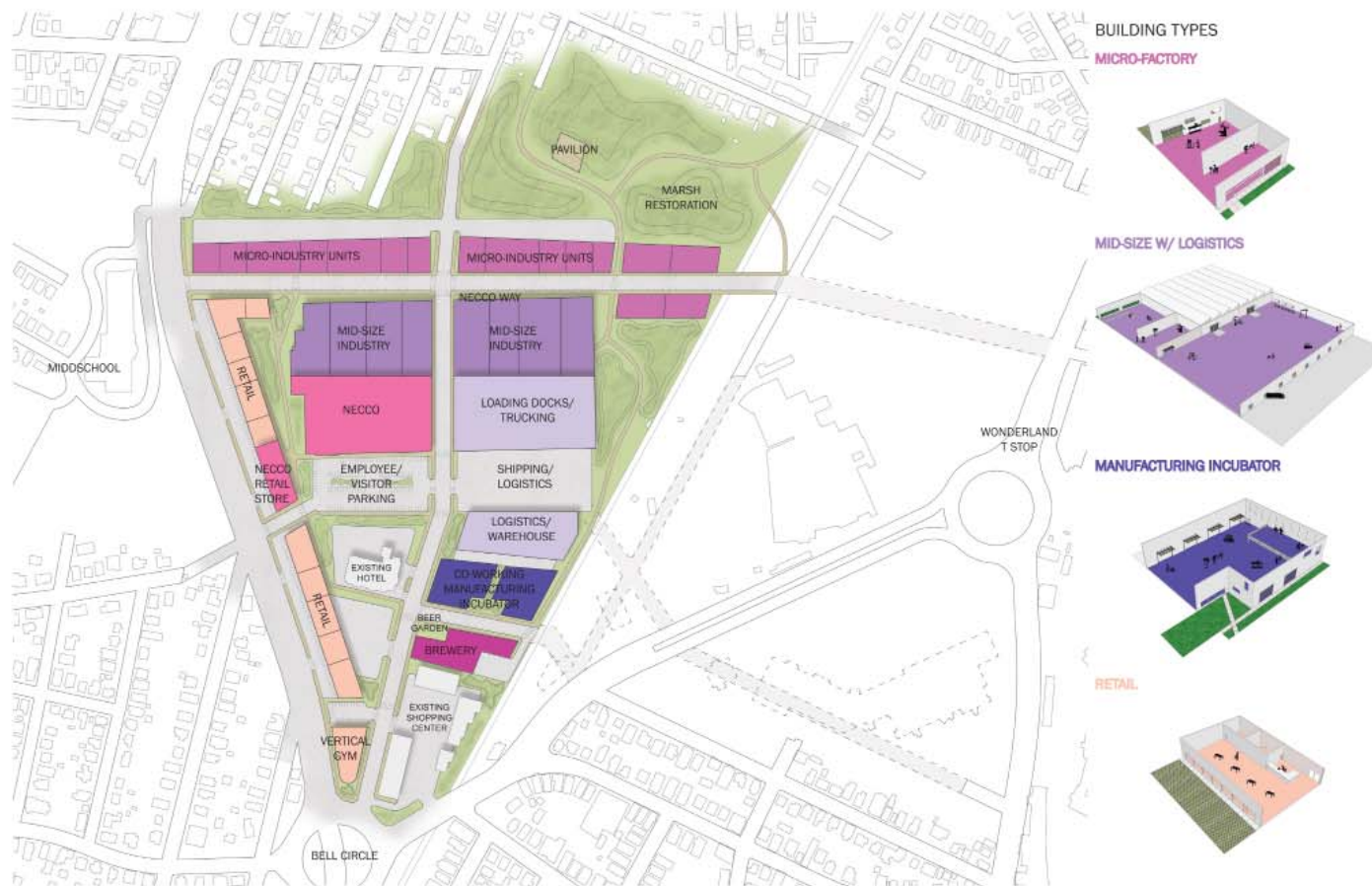
The City of Revere would greatly benefit from a new and improved New England Confectionery Company (NECCO) site. We envision the area in and around the site with warehouses, incubator space for start-up manufacturing businesses, a lively commercial corridor, and protected marshland. Currently, the site, comprised of an 810,000-square-foot headquarters of NECCO (a candy manufacturer), is an underutilized parcel that hinders east-west connectivity. These developments will spur local job creation and help boost city tax revenues. And with new east-west streets, bike lanes and paths throughout the marsh, the city's residents and workers will more easily be able to navigate the area by car, bike and foot. Next to this site, we propose creating a commercial strip of offices and ground-floor retail that could potentially connect the Blue Line's Wonderland stop with a new commuter rail station.

WORK IT! REVERE:

Good Jobs, Thriving Businesses,
Healthy Communities



Site Plan



Revere has transformed a lot over the years, but some things will never change—the desire for good jobs, economic opportunities for everyone, and a safe, healthy environment for families. Work It! Revere aims to fulfill those desires by breathing life into Revere's manufacturing economy. It provides a new model for the industrial infrastructure for the 21st Century, an industrial district that's a part of its community. We began by breaking down the monolithic Necco site. This allows for more connections to surrounding neighborhoods, and provides more manageable spaces for small businesses, who can capitalize on Necco's existing infrastructure. By offering four new typologies of manufacturing space (micro-units for start-ups, mid-size spaces for growing businesses, coworking incubators, and ancillary retail), Work It! Revere creates a symbiotic manufacturing community catering to the smaller-scale, craft manufacturing processes that drive today's economy.

Why Light Industry?



Industry as a Bad Neighbor

- Releases pollutants into the environment
- Unfriendly, inward-facing architecture
- Poor working conditions
- Everything appears cold and grey



Work It! Industry as a Good Neighbor

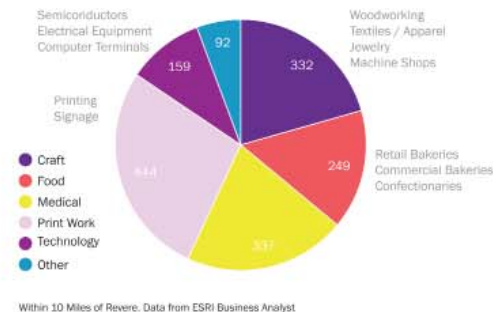
- Green technology and clean energy greatly reduces toxin emissions
- Exciting, outward-facing architecture that is inviting to the surrounding community
- Amenities such as the Marsh Pavilion, gym, and brewery allow for a healthy and social working environment
- Plenty of greenspace provides respite for employees and natural water management

9% of Revere residents are employed in the manufacturing industry

31% of jobs created in 2012 were in manufacturing

40% of Massachusetts's manufacturing employees will retire in the next decade, opening opportunities for younger workers

Number of Local Manufacturers By Sector



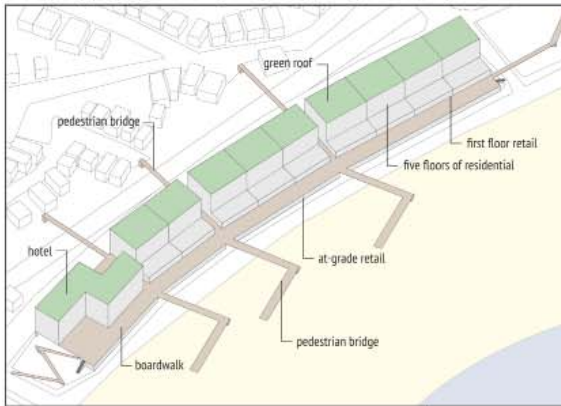
Today's industry can also be a good neighbor. Breaking up the site creates connections between the surrounding neighborhoods, a new gym sustains the health of the community and serves as a district gateway building, and the conservation of the marsh provides an escape to nature and natural protection from flooding. Let's get to work!

OCEAN AVENUE SOUTH





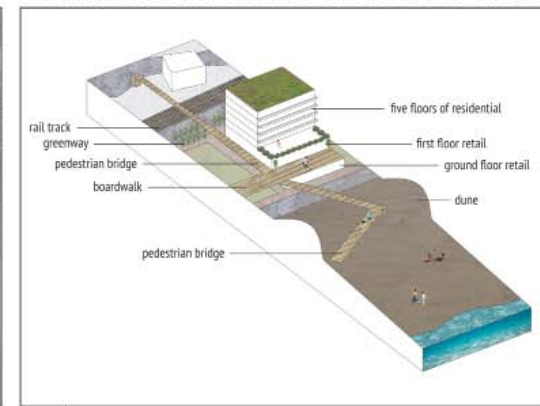
A NEW SCALE OF DEVELOPMENT



THE SITE

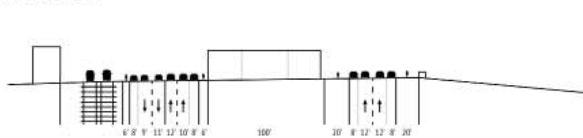


CONNECTING THROUGH RESILIENCY

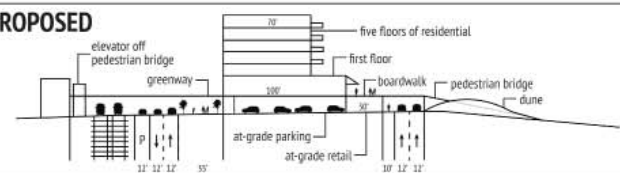


ROAD NETWORK IMPROVEMENTS

EXISTING



PROPOSED



Connecting Revere with its legacy as a hub of tourism and civic pride by:

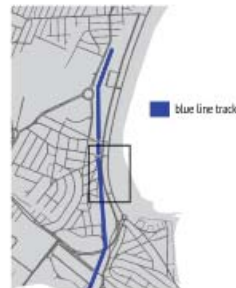
1 Catalyzing commercial development along Revere Beach Boulevard



2 Encouraging resilient design



3 Improving connections to the beach



Unlike former industrial towns in Massachusetts, Revere's historic economy has always been rooted in its tourist offerings. Between its proximity to rail and miles of public beachfront, Revere Beach and its accompanying amusements attracted millions of visitors each summer. However, after the Blizzard of 1978 that destroyed most of the buildings and attractions that lined Revere Beach Boulevard and the overall economic downturn that occurred during the 1960s and 1970s, the area along the beach lost its spark as a commercial engine and crown of Revere.

In order to rekindle Revere Beach's legacy as a center of commerce and amusement, this proposal aims to "bring back the boardwalk" by concentrating retail, residential, and hotel development at an appropriate scale along Revere Beach Boulevard, just south of the Revere Beach T stop. By integrating sand dunes and elevated buildings into the design, this plan aims to utilize resilient construction to protect the boardwalk and beachfront development from extreme weather events like hurricanes and floods. Further, by incorporating new connections to the neighborhood on the other side of the train tracks, this proposal will make the beach and its new amenities more accessible for the residents that call Revere home.



CURRENT CONDITIONS



Mainly one- and two-story buildings line the southern half of Revere Beach Blvd.



Few shopping and restaurant options exist within steps of Revere Beach and T stop

PRECEDENTS



Active beachfront commercial district along Venice Beach Boardwalk, California



Boardwalk doubling as flood barrier in Scheveningen, Netherlands



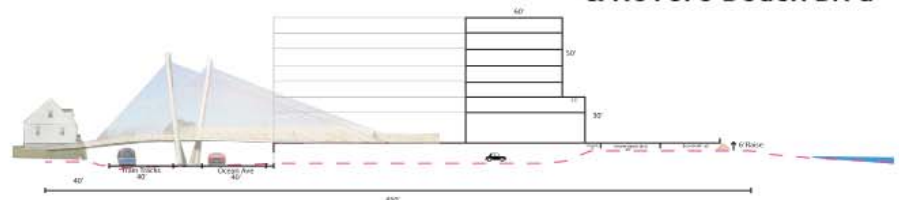
Existing Context



Site Plan



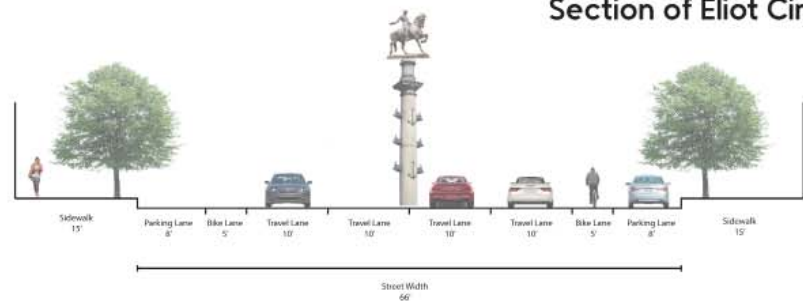
Section of Ocean Ave & Revere Beach Blvd



View from Revere Pier



Section of Eliot Circle



Russell Koff, Harvard University

The Ocean Avenue South neighborhood holds great potential for the City of Revere. Overlooking America's first public beach, the area benefits from enviable natural beauty and access to a pristine recreational amenity.

However, the neighborhood also has plenty of opportunities for improvement and development.

Despite the proximity of the beach, the neighborhood is pocket marked with vacant or under-utilized parcels. Surface roads predominate the area surrounding Eliot Circle, making walkability a significant challenge. In addition, pedestrian access from the Shirley Avenue neighborhood to the beach is limited.

I propose to address these

challenges through the creation of a new ocean-front district with a re-imagined Revere Pier as its centerpiece. Small changes to the street network near Eliot Circle can create a revitalized retail corridor that would serve as the gateway to Revere Beach and provide additional development opportunities and amenities to area residents.

Sea Level rise is also a concern for Revere's residents, particularly along the seafront. This proposal calls for the elevation of Revere Beach Blvd and the creation of beach sand dunes that would sit underneath the proposed boardwalk and provide additional defenses against sea level rise and storm surges.



Analysis

Potential Development Sites



Ocean Avenue South and Revere Beach Blvd have a number of prime development sites that have the potential to energize the neighborhood and offer amenities to residents.

Pedestrian Access



Pedestrian access to Revere Beach from the Shirley Avenue neighborhood is limited to a few narrow points.

Road Network



The area is dominated by roads and pavement which limit walkability and neighborhood vitality.

Vulnerability to Sea Level Rise



Projected sea level rise poses a significant threat to the community.

Precedents



Seaside Street in Rockland, Maine



Pier in Nags Head, North Carolina

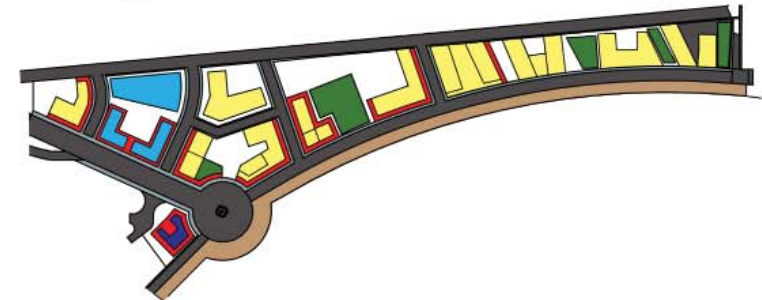


Boardwalk in Rehoboth Beach, Delaware



Beach dune construction

Program



- Residential - 4.5M Square Feet
- Retail - 100K Square Feet
- Hotel - 25K Square Feet
- Office - 30K Square Feet
- Public Parks - 2 Acres
- Boardwalk and Pier - 1 Mile from Shirley Ave to the end of Revere Pier

THE REVERE BELVEDERE

Sarah Winston





Revere Belvedere

Sarah M. Winston

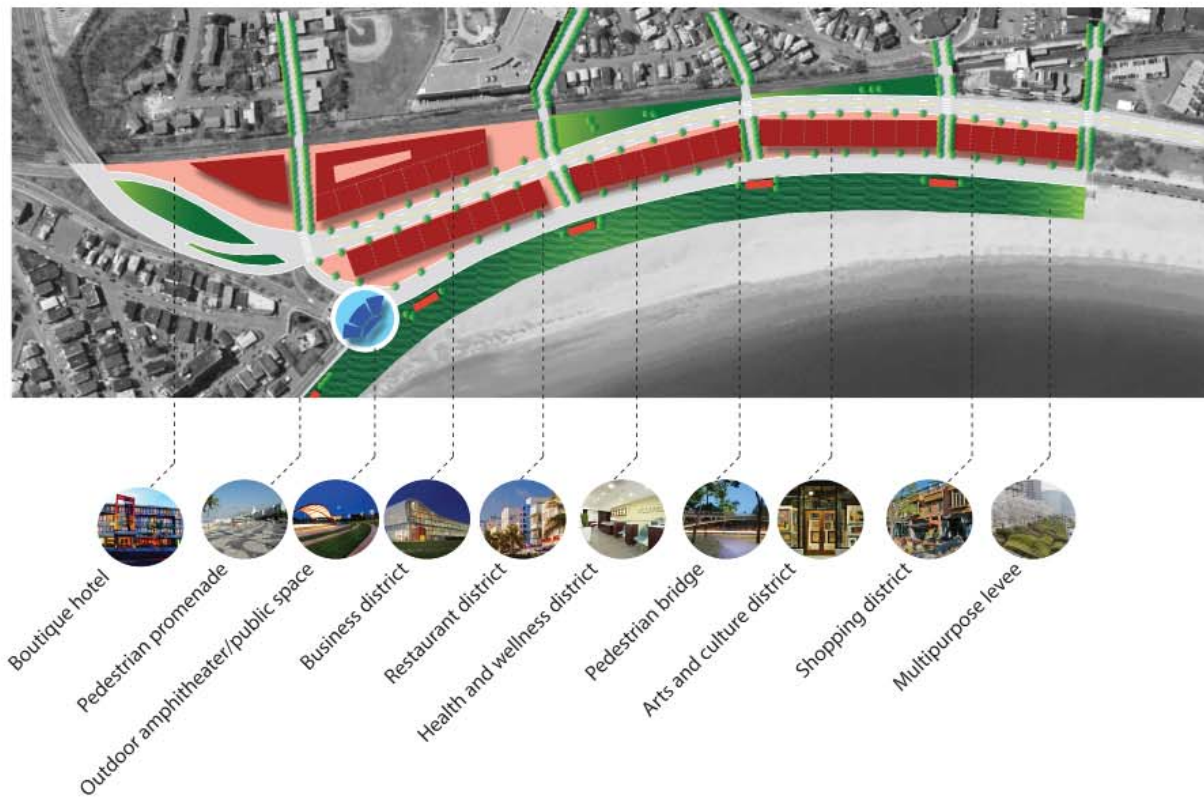
Bridging the past, present, and future of Revere Beach through a new urban framework.

For more than 100 years, Revere Beach has been the face of the City of Revere. Revere Beach, America's first public beach, was once a bustling center of activity, fun, and fantasy that animated the City. Today, however, the once prominent center of activity is underdeveloped and underutilized. Obsolete buildings along with acres of paved parking lots and vacant parcels make up most of the beach front between Shirley Avenue and Revere Beach Parkway. This desolate landscape is a far cry from the vibrancy of the early 20th century and does not reflect the energy and excitement of Revere's community today.

Revere Belvedere creates a new image of Revere Beach by bridging its past, present, and future through fanciful, forward thinking, and flexible urban design. Revere Belvedere features a new boardwalk that spans both sides of Revere Beach Boulevard, that provides the framework for new mixed-use development, including a renewed concentration of retail, hospitality, and commercial development, new community facilities and recreation spaces, and residential development.

Increased access is essential to the success of the new beach front development. Therefore, the project includes significant changes to the road and pedestrian infrastructure. Ocean Avenue and Revere Beach Parkway are rerouted on the southern end of the site to simplify confusing intersections and create safer, more direct pedestrian access to the beach. New pedestrian infrastructure, including sidewalks and crossings, is implemented across the site to improve accessibility. Additionally, two new pedestrian bridges crossing the Blue Line tracks will bring people directly to the new boardwalk.





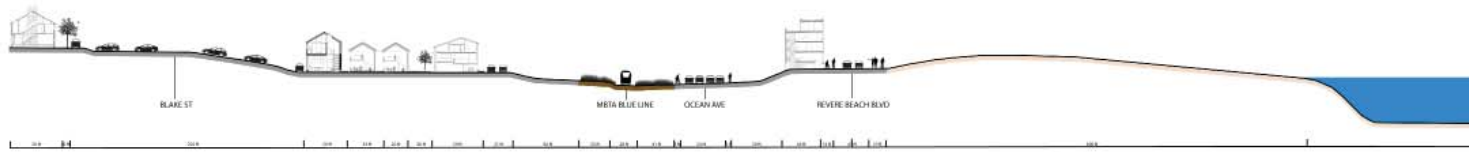
Restoring Revere Beach as a national historic landmark that seeks to promote long-term protection of coastal assets making it a valuable, desirable and livable place to be

DEVELOPMENT GOALS

1. Protect coastal assets through long-term upland and shoreline adaptive strategies
2. Leverage existing community assets and resources through local business development to stimulate job creation and robust commercial activity
3. Integrate neighborhood culture and diversity into policies, plans and programs
4. Promote connectivity and accessibility to Revere Beach



EXISTING



PROPOSED



"See the Sea" was the first slogan to be used by the City of Revere to showcase its 2.5-mile crescent shaped beach. However, many changes have taken place in the last century that significantly altered how Revere is perceived today. By promoting neighborhood culture and diversity as well as long-term protection of coastal assets, Revere is poised to be a top tourism and hospitality destination in Massachusetts that will gather locals and tourists alike for its fine food, recreational and shopping amenities, accessibility and favorable business environment.

The vision for Revere Beach Village is to provide a space for the community to gather, collaborate and share ideas and insights with one another. Major areas for development include:

1. Resiliency and climate change adaptation. Considering that much of Revere Beach is in a low-lying area, the beach faces risks related to sea level rise and increased inland flooding from extreme weather. This plan proposes site elevation and construction of a multipurpose levee and waterfront park. This will have a widespread positive impact on flood insurance and local tax base, improve subsurface utilities and infrastructure, and make the area resistant to overflow, seepage and earthquakes while providing a new recreational amenity for the City.

2. Local economic development. The maps here suggest that if the City is anticipating an increase in population, then there needs to be a sufficient number of amenities and facilities that cater to new and existing residents. This plan speculates potential areas for business development in food, health and wellness, and arts and culture.

3. Neighborhood culture and diversity. There is merit in leveraging the City's local assets and resources. The circular diagram above highlights these.



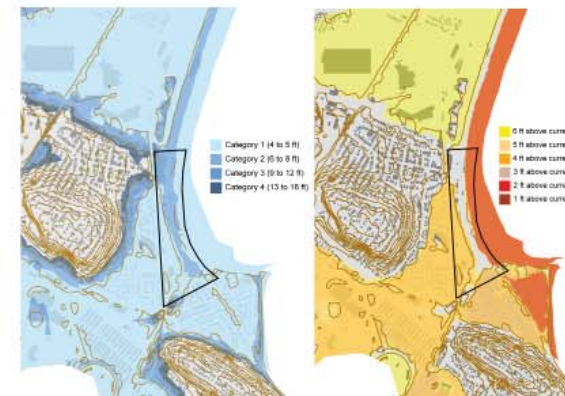
Implementation Strategies

1. Work closely with leaders of stakeholder groups to identify existing skills and investment and social needs and develop a strategic actions, business and marketing plan
2. Develop areawide civic forums for local business owners on networking, skills development and financial literacy and support
3. Address water and sewerage infrastructure improvements
4. Organize regular programmatic activities that strengthen neighborhood culture and identity
5. Negotiate with current property owners along Revere Beach

Identifying opportunities for local economic development through food, health and wellness, arts and culture



Vulnerability to hurricane storm surges and sea level rise

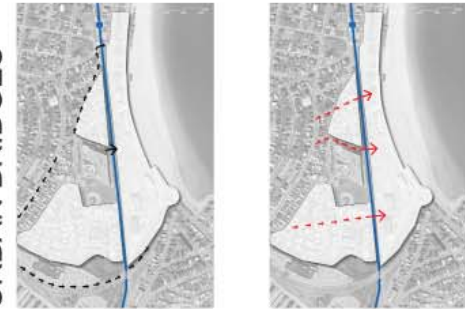


TOWARDS A RELILIENT FUTURE: OCEAN AVENUE



- T Station
- Residential/Retail
- Outdoor Eateries
- Urban bridge
- Residential/Retail
- Urban Bridge
- Residential
Retail
Outdoor Eateries
- Residential
- Urban Bridge
- Park/Open Space
- New Ocean Avenue

URBAN BRIDGES



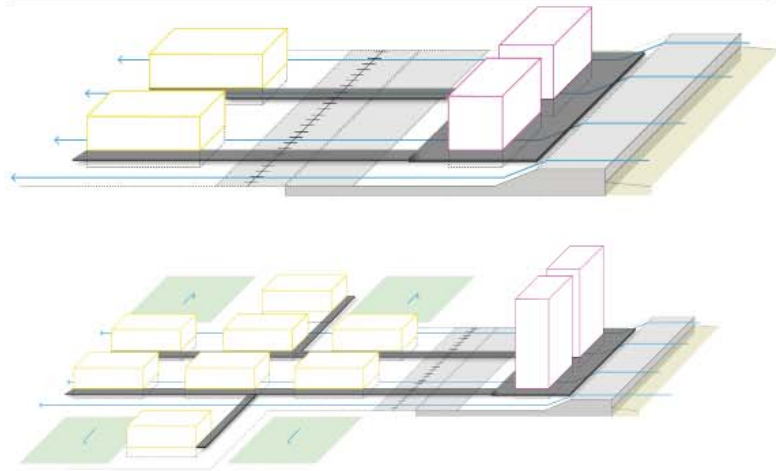
SEA LEVEL RISE 2050



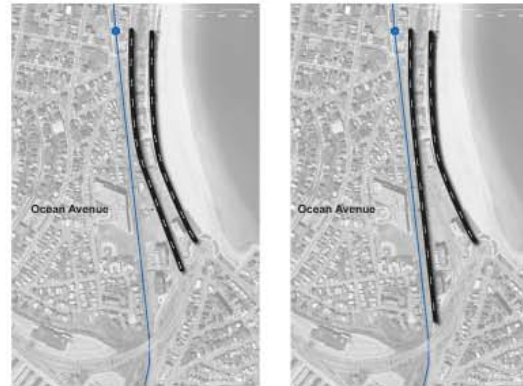
BUILDING ON DECKS: A RESILIENT STRATEGY



ELEVATED INFRASTRUCTURE: SEA LEVEL RISE



OCEAN AVENUE SHIFT



How can we live with water in the coming decades? According to the Federal Emergency Management Agency, sea level rise scenarios will present significant challenges for the city of Revere by the year 2050. This proposal intends to start a conversation about new ways of living with water. Ocean Avenue South and adjacent neighborhoods are in low-lying areas in high risk of flooding that require thinking about resilient strategies to manage potential floods. Creating an elevated infrastructure network would allow water to follow its natural path while keeping the site active and safe. By leaving the floodable levels for parking and creating an elevated system of bridges, the neighborhood would have direct access to the beach and the new mixed-used developments along Ocean Avenue. New residential buildings with retail on the ground level, as well as new public spaces and plazas for outdoor eateries and various other activities would increase the vibrancy of the place. Through an incremental approach, and by adopting resilient strategies over time, Ocean Avenue South could develop into a lively, fun and safe place.

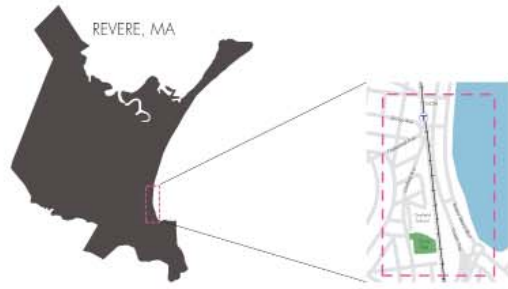
SEA LEVEL RISE 2050: A NEED FOR RESILIENT HOUSING



PRECEDENTS



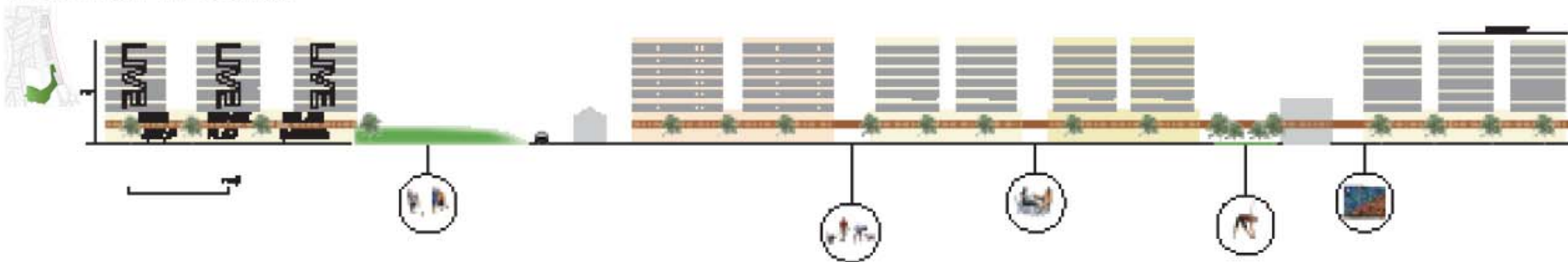
A WALK ON THE BEACH: OCEAN AVENUE SOUTH



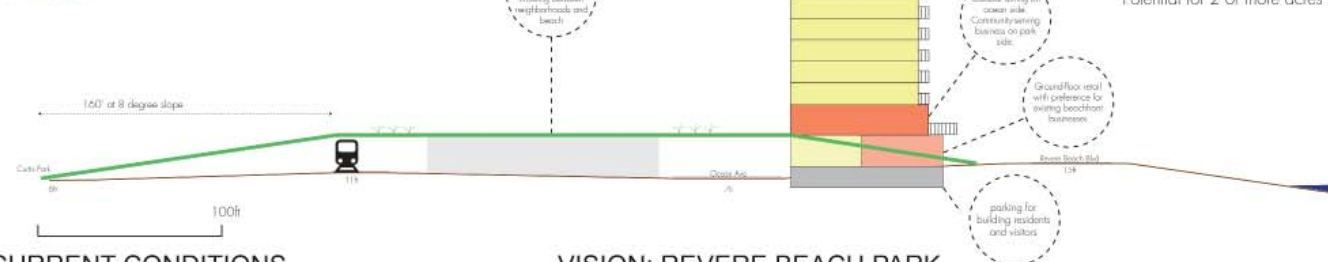
WELCOME TO REVERE BEACH!



VIEW FROM THE OCEAN



LOWER PARCEL IN SECTION



DEVELOPMENT PROFILE

250 residential units (studios, 1s and 2s)
200 underground parking spots
100,000 square ft commercial uses
Two towers of hotel nearest to T stop
Potential for 2 or more acres new green space



CURRENT CONDITIONS



Ocean Ave looking southeast

VISION: REVERE BEACH PARK

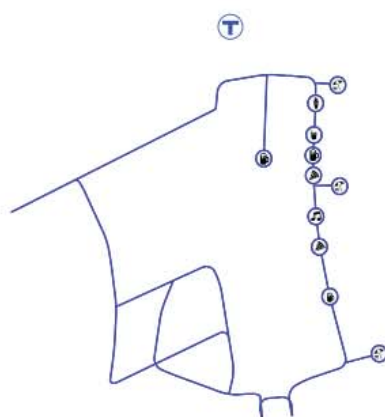


PEDESTRIAN FLOWS

Proposed



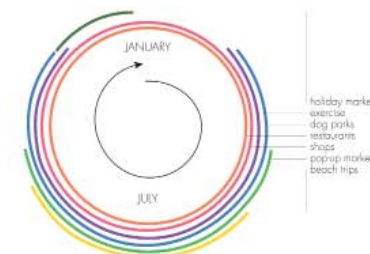
Existing



AMENITIES: NOW AND FUTURE



YEAR-ROUND ACTIVITIES



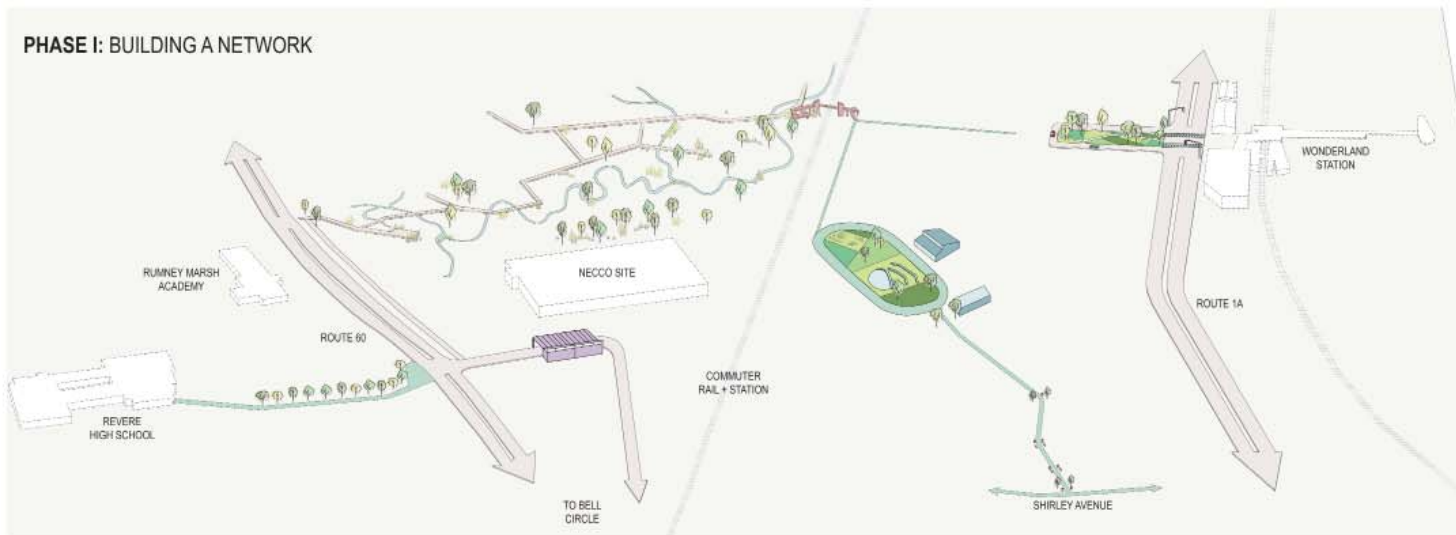
Revere Beach is an incredible asset to the community. In particular, the southern portion of Revere Beach Boulevard is a strategic location as the gateway to the city for visitors traveling to America's first public beach. This proposal envisions a dramatic visual experience upon entering Revere Beach. A vibrant elevated park, suitable for anything from casual outdoor games to pop-up markets, will connect inland neighborhoods to new activities along the beach and give visitors an inspiring welcome to the city. This is the kind of "big move" that can create a chain reaction of development down the entire stretch of Revere Beach in future years. There is currently some commercial activity along the boulevard, but there are also great opportunities for development and enhancement of the beach's atmosphere. This proposal would create a destination of mixed-use commercial and residential activity that is welcoming to both residents and visitors and is a hub of activity in all seasons of the year. Specific amenities include ground-floor shopping, second-floor dining with ocean views, indoor and outdoor space for the community to gather, 1- and 2- bedroom apartments available to all income levels, public spaces that encourage social interaction and physical activity, and an enhanced pedestrian and bicycle network. These interventions could dramatically enhance the experience for both residents and visitors as they explore all the views and excitement Revere Beach has to offer.

An aerial photograph of a coastal city. The city is densely packed with buildings and streets, situated along a curved coastline. To the right of the city is a large body of water. A dashed black circle is drawn on the city, indicating a specific location. The text "PROPOSED COMMUTER STATION" is overlaid on the image in white capital letters.

PROPOSED COMMUTER STATION



PHASE I: BUILDING A NETWORK



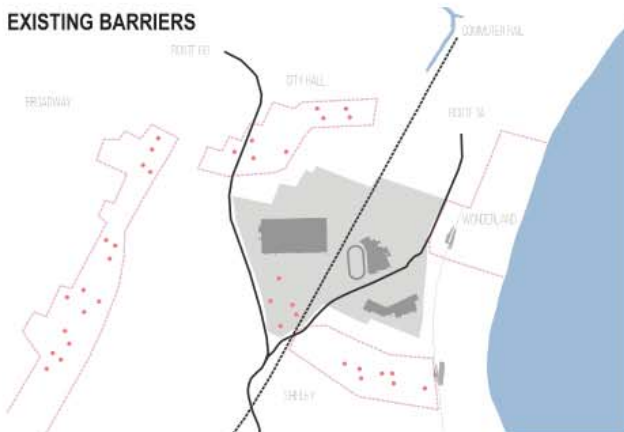
Our project aims to create a mobility framework that would improve connectivity across a set of underutilized parcels and potential development sites. We are proposing not only a set of infrastructure upgrades, but a series of interventions that would improve the daily experience of current residents by connecting across several existing barriers in a manner that builds on existing nodes of urban vitality in Revere. Among the proposals are: a series of streetscape improvements; the creation of a marshland educational center and park; the rehabilitation of the Wonderland racetrack as a community center and recreational amenity.

PHASE II: FRAMING DEVELOPMENT

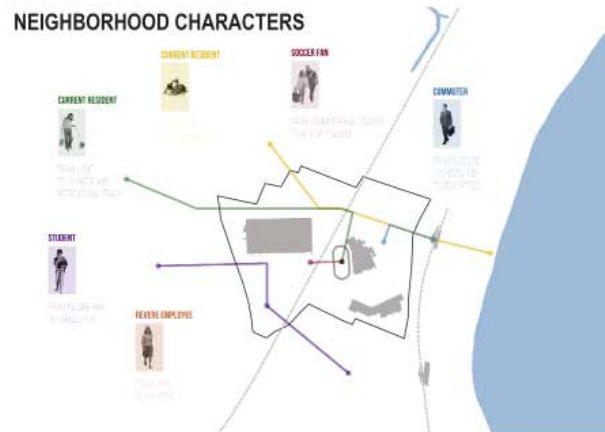


The projects we are suggesting each have their own spatial and programmatic logic and could be implemented individually, but executed in conjunction would have the capacity to build on each other's successes. Our plan identifies projects that range in feasibility. The series of proposed small-scale interventions do not preclude the ability for the city to pursue more ambitious large-scale projects. Instead, we are suggesting that creating an urban framework that prioritizes mobility, public spaces and recreational amenities increases the desirability of Revere as a destination in ways that improve the city for existing residents while simultaneously increasing the likelihood of developing into an important regional node regardless of whether a commuter rail station is built.

EXISTING BARRIERS



NEIGHBORHOOD CHARACTERS



REGIONAL CONTEXT



Site Plan

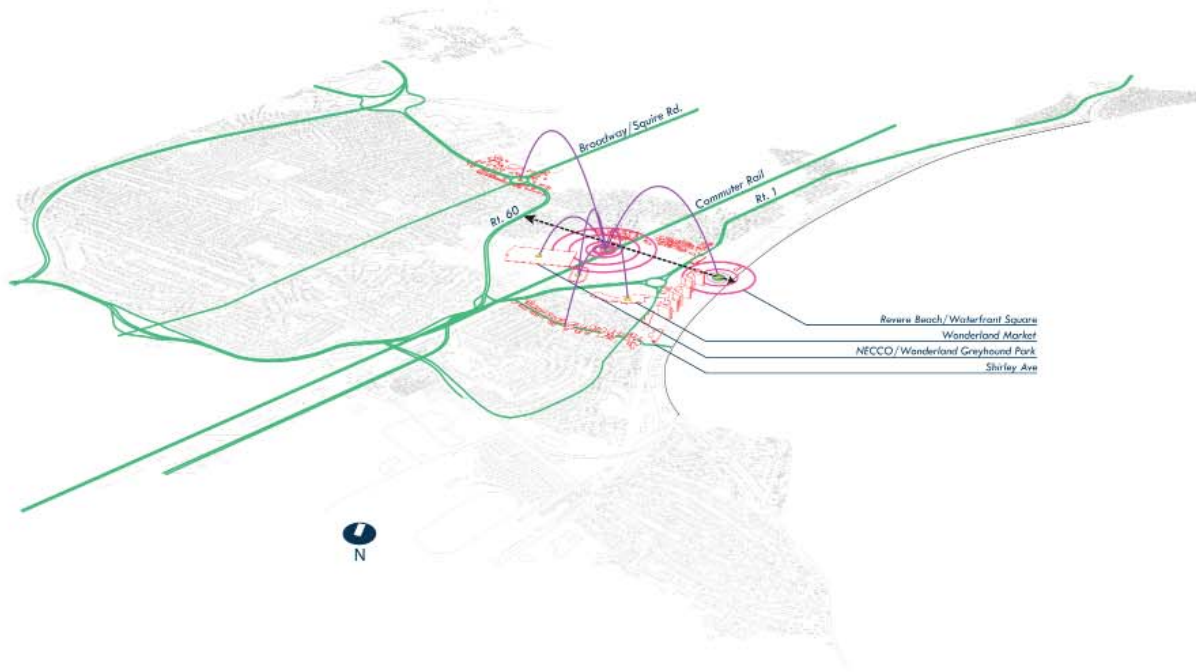


- Station
- Housing
- Retail
- Commercial
- Hotel/Conference Center
- Open Space
- Parking

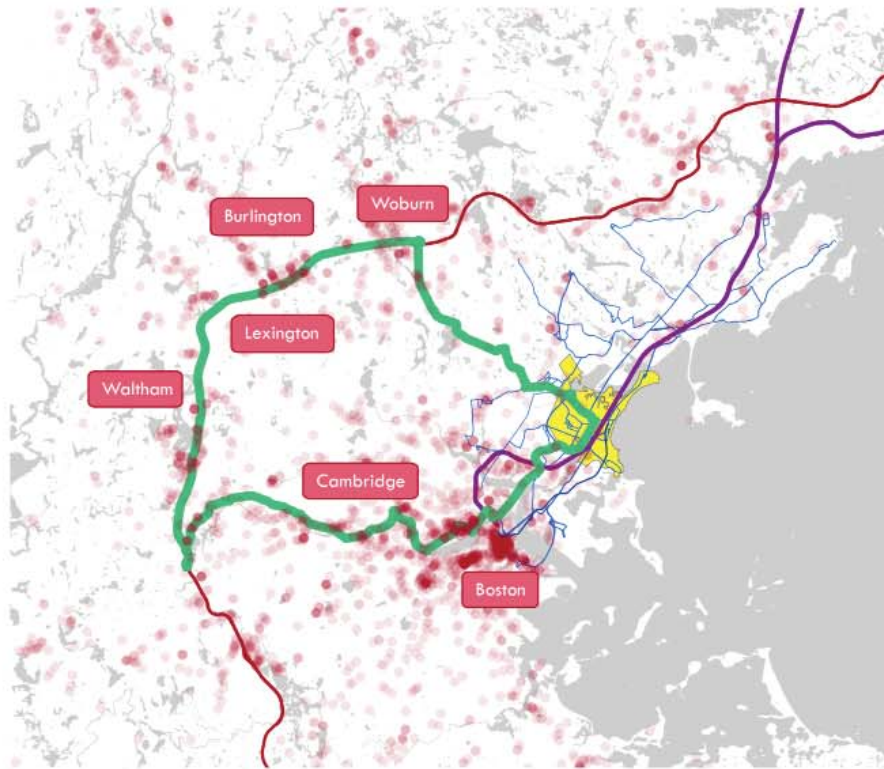
Features

- Bridges gap between existing residential neighborhoods
- Two-tiered promenade connecting transit stations provides a variety of experiences
- Provides ample Hotel, Conference, and Co-working/Incubator space in order to attract business travelers and support commuters
- Improved connections to the beach and Wonderland T station
- Improved bus connections for East-West commutes
- Housing to round out a vibrant community
- Job and skills training programs for residents
- Facilitates connections at local, regional, and economic scales

Local Connections

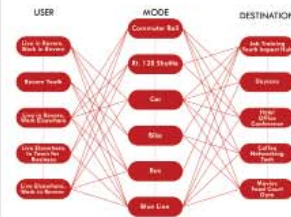


Regional Connections

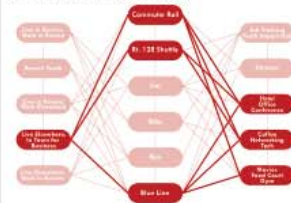


Analysis

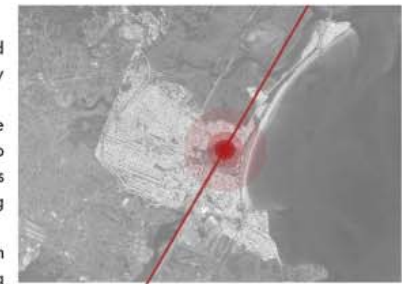
- Revere is currently well-situated for residents who work nearby or commute to Boston.
- There are currently few reverse commute opportunities, and no one seat ride transit connections to job centers located along Route 128
- These currently out of reach sectors include higher-earning firms and firms more likely to succeed
- An East-West bus route that leaves from the new station could bridge these gaps
- Multi-modal transit options for a variety of users and destinations



CASE 1: Live Elsewhere, In Town for Business



CASE 2: Live in Revere, Work in Revere & Elsewhere



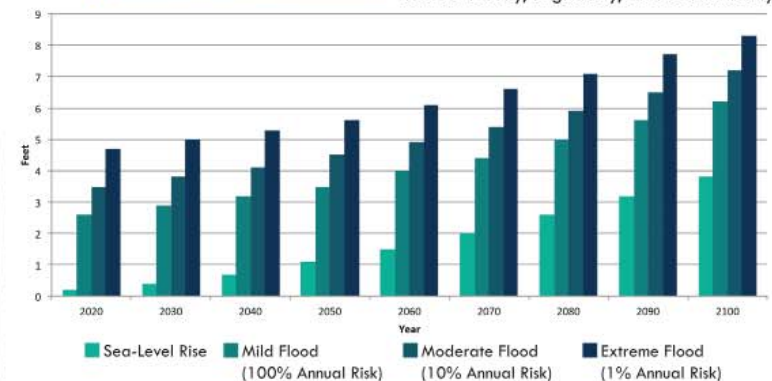
Adding a commuter rail station to Revere could increase connectivity both to and within the city dramatically. Currently, the commuter rail tracks bisect two residential neighborhoods. Once built, the commuter rail station will bridge these neighborhoods, allowing residents to safely cross the tracks. The new station will also connect to the existing Wonderland T station via an elegant and flexible promenade. This will be bordered by new commercial and residential development, creating a vibrant mixed-use neighborhood. This TOD will connect Revere with 19 stations along the existing commuter rail, and will position the city to develop more affordable commercial spaces that can attract North Shore commuters and alleviate pressure on Boston's markets. Partnerships will be forged with businesses to provide job training. In conjunction with new North-South connections, we are proposing the implementation of a new East-West bus loop that will connect Revere to high-paying job sectors along Route 128 and the Charles River. With seawalls protecting the site, this new development will take storm surge into consideration by including permeable paving, bioswales, and the doubling of the promenade as a water square in order to protect the existing neighborhood from dangerous runoff. Ultimately, this development will connect Revere locally, regionally, and economically.

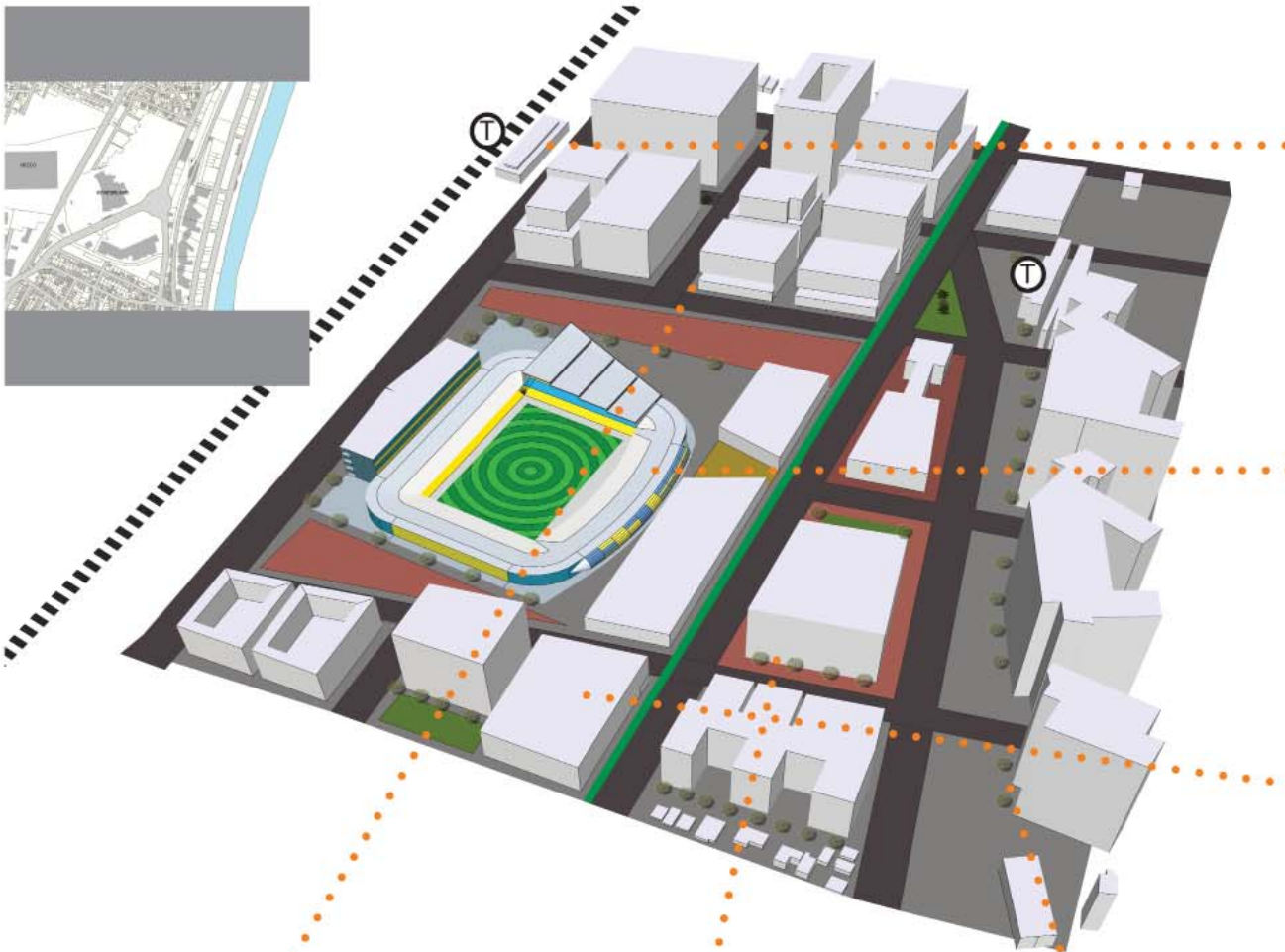
Resiliency



Protections

- New development will be protected from sea level rise by Revere's strong seawall infrastructure
- Central promenade will double as a water square, capturing water from heavy storms, protecting the surround neighborhoods, & adapting as necessary
- Use of bioswales, permeable paving and constructed wetlands as open space
- Flood plane buy-out plans for affected residents

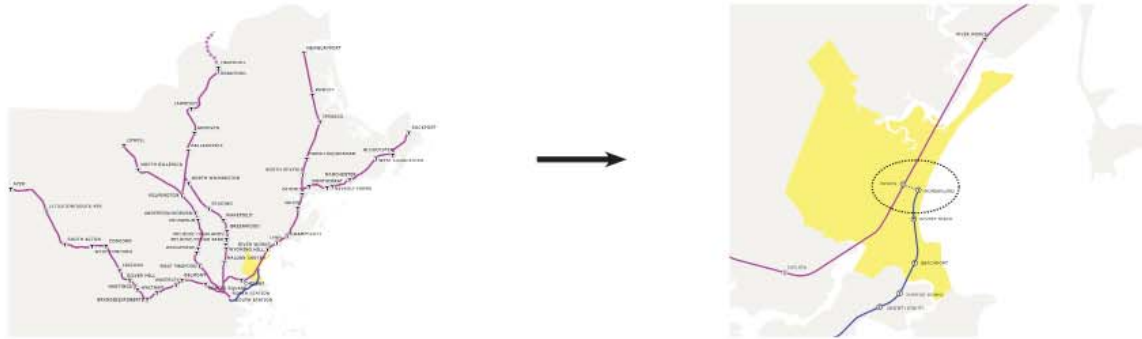




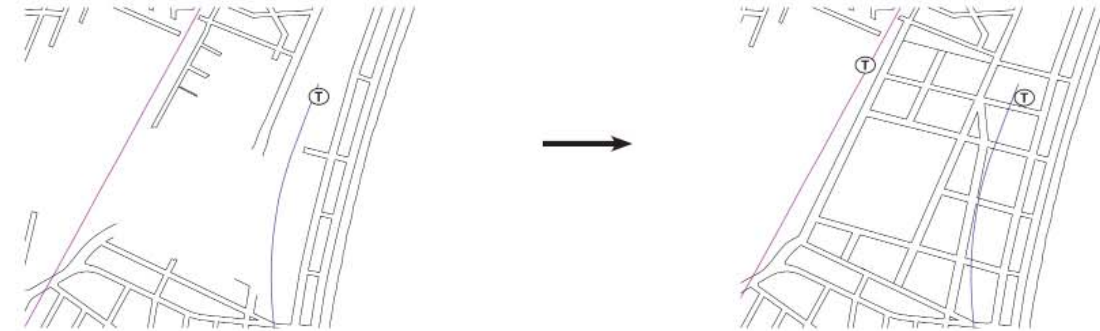
Key Developments

1. New Commuter Rail Station
2. New Multipurpose Stadium
3. YMCA
4. Diversified Retail
5. Commercial Office Space
6. Museum and Open Space
7. Walkable Street Network

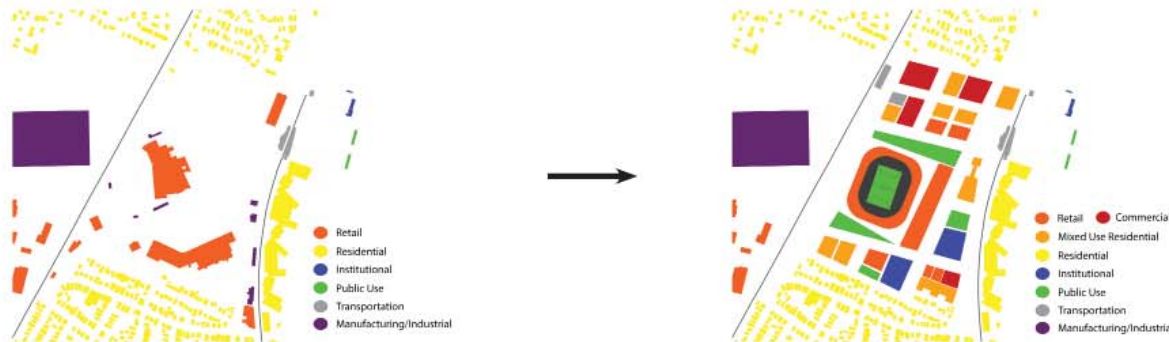
Connecting Opportunities:
Commuter Rail



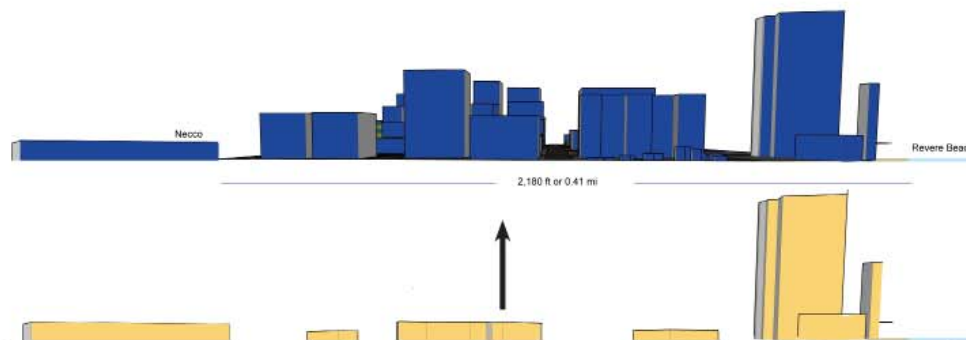
Attracting Investment:
Functional Network



Diversifying Uses:
New Industry and Services



Transforming the Landscape:
Proposed Development



Revere Revolution is a master plan that aims to catalyze economic development opportunities in Revere, MA, by utilizing a prime location between the existing Blue line and proposed commuter rail transit hubs.

Transit-oriented development is not a new concept, but when implemented correctly has proven critical to establishing walkable, urban centers that are attractive places to live, work, and play.

By the same token, Revere residents expressed a strong desire to promote a city that is attractive for families and young professionals. The exciting additions to city life and infrastructure outlined in this proposal ambitiously set out to achieve that goal.

- Currently, Revere's only rapid transit connection runs south to Boston. The new MBTA regional rail stop will not only bring additional visitors and economic opportunities to Revere, but will allow Revere residents to expand their realm of accessibility for personal and professional development.
- Hosting a professional soccer stadium in Revere will establish an attraction for visitors other than the beach and will preclude the arrival of additional retail and commercial development.
- Drawing a more formal street grid creates a walkable environment and greater opportunities for developing smaller parcels and integrating a more diverse mix of uses.
- Building the community center, library, and museum highlights the investment required in the growing population of youth in Revere if they are to lead safe, supportive, and active lives.



WONDERLAND

RECLAIMING WONDERLAND

Gradual transition in the urban grain



Natural elements integrated in plan



Re-routing streets to manage congestion



Breaking down large parcels



AMUSEMENT DISTRICT COMPONENTS



AMUSEMENT
PARK
1,447,500 SF

RECREATION
1,294,200 SF
(1300 Hotel Rooms)

RETAIL
270,000 SF

HOUSING
727,000 SF
(1000 Units)

PUBLIC FACILITIES
108,600 SF



SITE SECTION



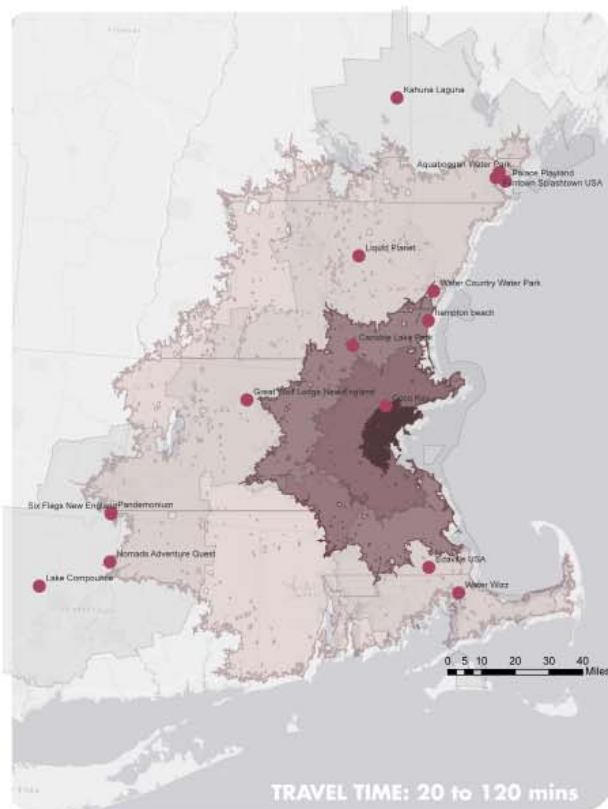
SECTION KEY



INTEGRATION OF WETLAND INTO PARK LANDSCAPE



ENTRANCE ACROSS WONDERLAND SUBWAY STATION



0-20 min Travel time



1.7 Million total population
673,000 attends local theme parks
- 299,000 visit local competitors
=374,000 potential visitors

20-40 min Travel time



1.7 Million total population
170,000 attends local theme parks
- 22,000 visit local competitors
=148,000 potential visitors

40-60 min Travel time



1.7 Million total population
67,000 attends local theme parks
- 18,000 visit local competitors
=49,000 potential visitors

60-120 min Travel time



1.7 Million total population
43,000 attends local theme parks
- 10,000 visit local competitors
=32,000 potential visitors

Up to 656,000 potential visitors

PHASE 1



Development Cost: \$35 million

Projected Attendance: 200,000
Per capita spending: \$30
Total Revenue: \$6 million

Property Taxes: \$4 million
State Tax Revenue: \$1.9 million
Local Tax Revenue: \$1.2 million

Jobs generated: 42

PHASE 2



Development Cost: \$300 million

Projected Attendance: 600,000
Per capita spending: \$100
Total Revenue: \$60 million

Property Taxes: \$7 million
State Tax Revenue: \$1.8 million
Local Tax Revenue: \$1.2 million

Jobs generated: 423

PHASE 3

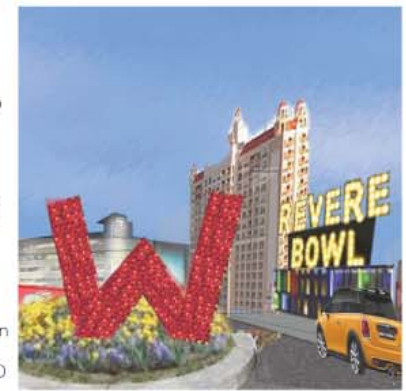


Development Cost: \$650 million

Projected Attendance: 700,000
Per capita spending: \$150
Total Revenue: \$105 million

Property Taxes: \$8.6 million
State Tax Revenue: \$3.3 million
Local Tax Revenue: \$2.1 million

Jobs generated: 739



Revere is a city built on its connection to the beach from its early history as a oceanside getaway to today with the hundreds of thousands of annual visitors that keep alive the tradition of the country's first public beach. Yet while the beach is overwhelmingly what people love about Revere, residents are hungry for more to do near the beach, and particularly hungry for more youth oriented recreation and entertainment activities. So too we heard a strong desire for accessible jobs, and for a strong anchor that brings activity and vitality back to the area.

Bringing amusements back to the beach can support both existing residents desire for more to do, and bring newcomers into the area, which will bring money into the city, support job growth in amusements and complementary tourism industries, and local business like beachside dining.

Building on Revere's strong connection to water, we propose a Water Park - but unlike an ordinary water park which wastes water, we propose to support the existing wetland by using our water park to retain and expand existing drainage infrastructure. In colder months, our park relies on dry and indoor uses, and our signature water square is convertible to dry use as a concert venue. And by focusing on permeability and outward facing uses, we support the creation of an entertainment district surrounding the Wonderland site.

VALUE ADDITION TO THE NEIGHBORHOOD







① Revere Community College



② Diamond Creek Park



③ Park-Facing Office Buildings



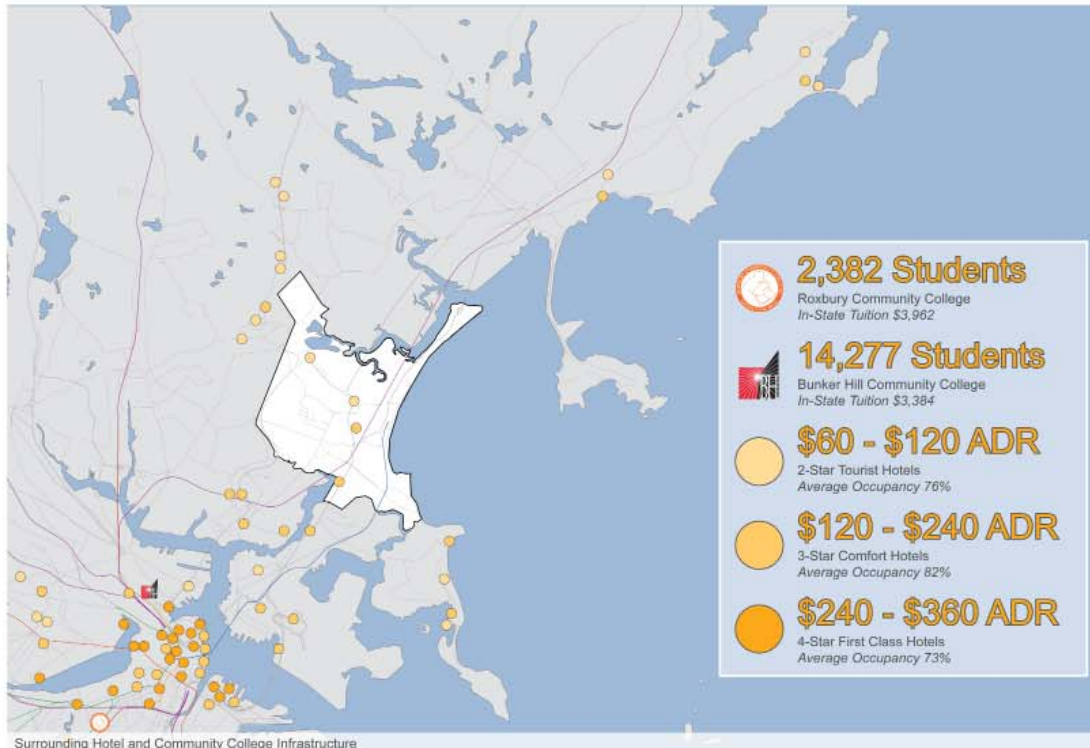
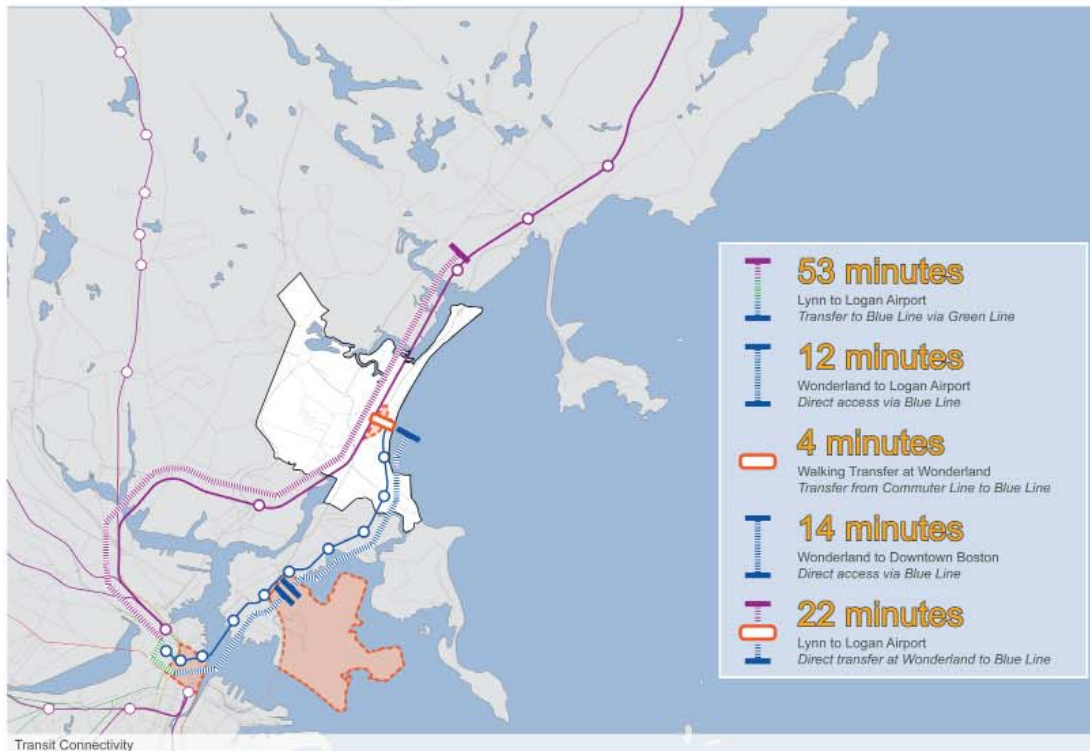
④ Multi Family Apartments / Student Housing



⑤ Town Homes



⑥ Single Family Homes



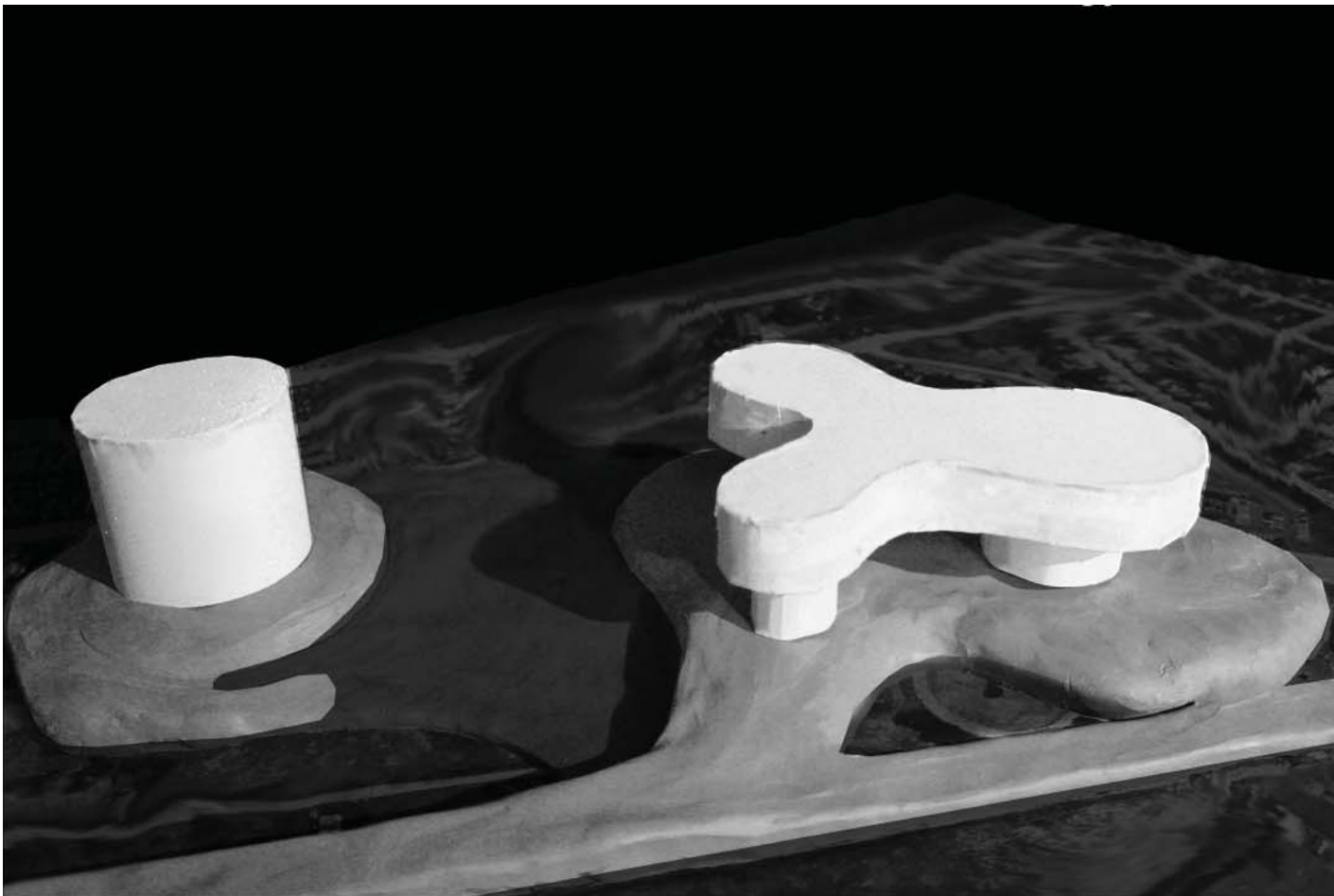
Situated on the former Wonderland racetrack, Revere Community College will provide a long-term economic driver for the City of Revere, ensuring a resilient future for its population. Given the lack of suitable higher education options for residents living north of Boston, the Revere Community College, with its excellent connections to regional and local transit will serve the residents of the city at large. Also, RCC will ease the enrollment burden on the two other Boston area community colleges in Bunker Hill and Roxbury.

Two of Revere's strongest assets are its access to the beach and proximity to Logan Airport, which our master plan will leverage by including a hotel program at the eastern edge of the site, preserving views to the water. Additionally, this hotel will be integrated into the community college, forming the centerpiece of a new hospitality education program, further enhancing the economic prosperity of the area

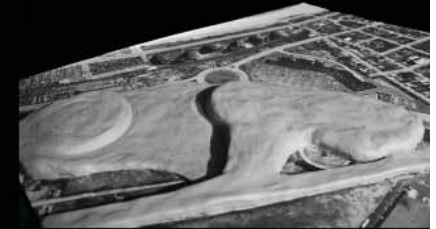
The development of these two programs will be accompanied by a landscaped park, which will directly connect the Wonderland commuter stop to the terminus of the blue line. This east-west corridor will re-envision Diamond Creek as the focal point of a green spine, which will eventually form the nexus of the site.

The full build-out of the community college, hotel, parking lot and landscaped spine will conclude phase I of the development. Phase II will include office program along the northern edge of the spine that will have views of the new park and Revere beach. In the third and final phase, development will consist primarily of additional residential development, including multifamily apartments and student housing, townhomes and single-family homes.





2015



2020



2025

Wonderland Park closes after suffering financial difficulty. 1911

Wonderland Greyhound Park opens. 1935



Disneyland opens and becomes one of America's greatest amusement parks. 1955



Construction starts on Wonder Island Lab and Playground. 2016

Superstorm threatens Revere waterfront. 2018

Immediate Revere beachfront population heads to higher grounds. 2030

1900

2000

2100



Wonderland Park opens and becomes one of Revere's greatest attractions. 1906

Wonderland Greyhound Park closes. 2010

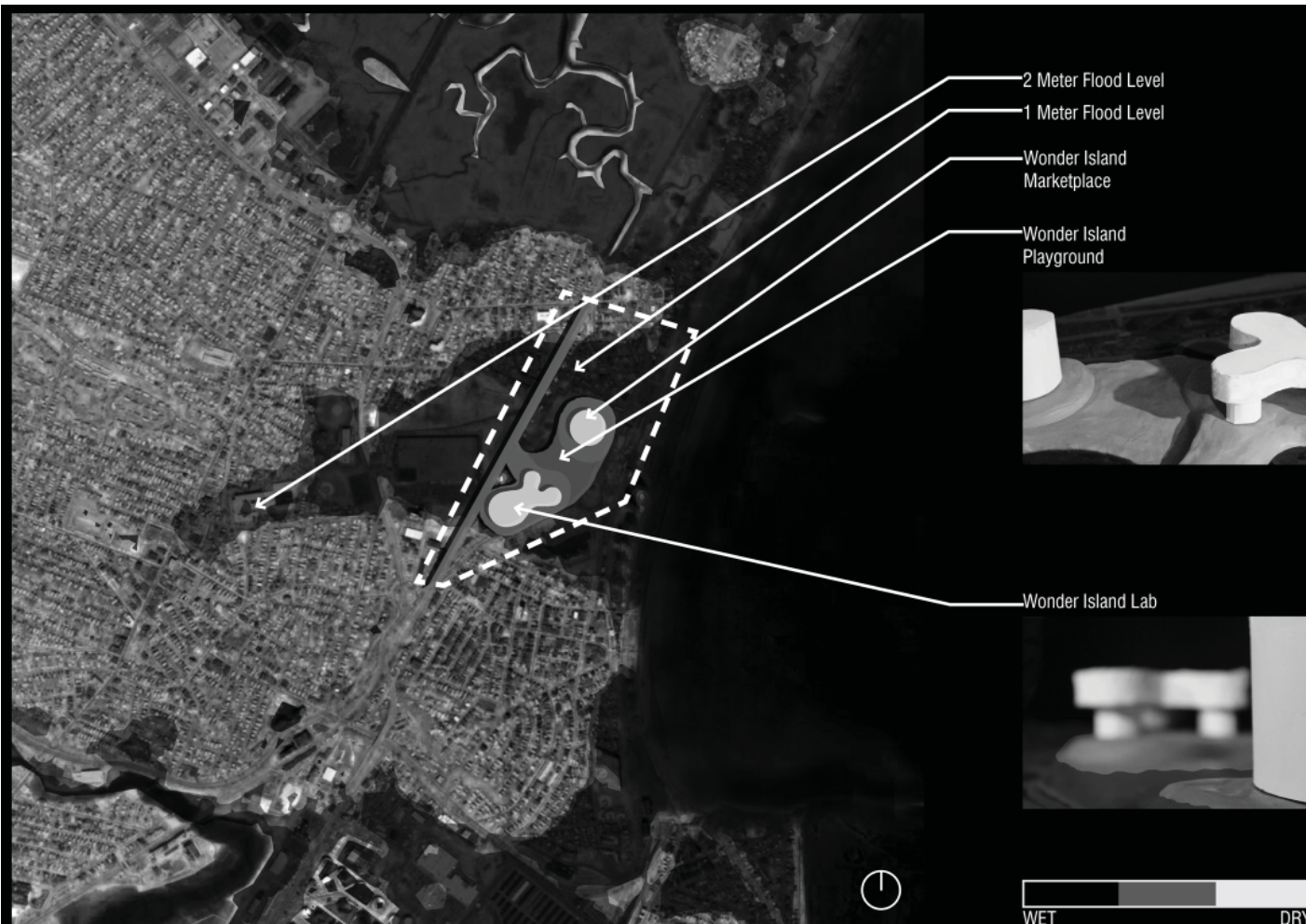


Begin filling area Northwest of North Shore Road, which includes the former Wonderland site. 2015

Construction starts on Wonder Island Marketplace. 2017

Continued threat of superstorms. 2019

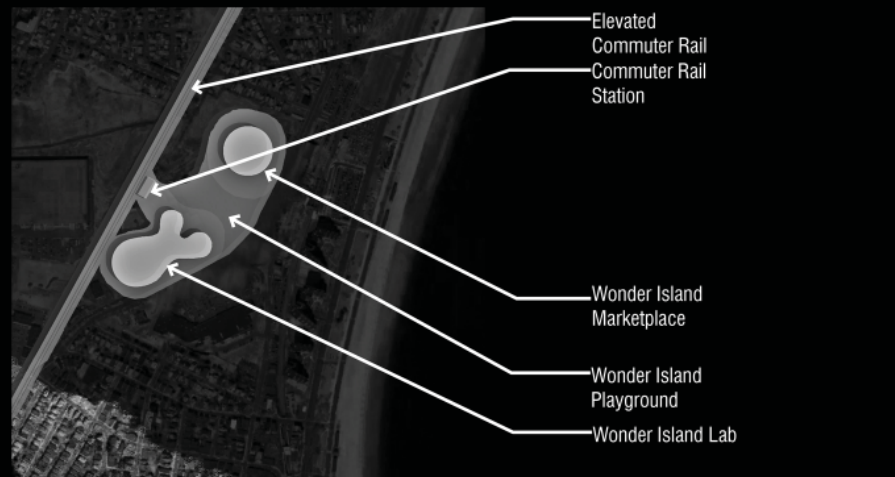
Superstorm Erebus overtakes Revere beachfront; the Wonderland T stop is closed due to submersion. 2045



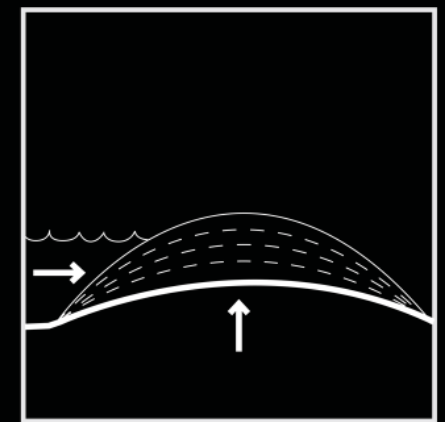
WONDER ISLAND SITE PLAN 1:15,000 METERS



BEFORE



AFTER



WONDER ISLAND: *Elevation as Survival Strategy*

In the wake of sea level rise and recent superstorms, the future of Revere, Massachusetts, hinges on a re-evaluation of the Wonderland Amusement Park (1906-1911) and Wonderland Greyhound Park (1935-2010) past and an altitudinal re-configuration of the existing Wonderland site.

Wonder Island explores the potential for elevation to serve as a survival strategy for Revere. Through the building up of the Wonderland site today, the city of Revere might avert submersion with what is estimated to be an impending 1-2 meter sea level rise in the near future.

In the age of ever-increasing connectivity, the existing Wonderland site offers a strategic crossroad of research and development based out of Revere. With current ongoing efforts to augment the experience of play and entertainment (Google Glass, Oculus Rift, etc.), Wonder Island offers researchers from Revere, as well as the surrounding metropolitan area, a laboratory site where they might collectively advance the development, testing, as well as marketing of new play technologies.

Wonder Island addresses the not immediately visible sea level rise and superstorms that threaten Revere's future, as well as a long history of entertainment at the Wonderland site. Through elevational strategies, as well as the re-focusing of interest around a Wonder Island Laboratory and Playground, Revere can both rise above an otherwise inundated future and generate interest and investment not only locally, but also regionally - attraction that will ensure an exuberant future for Revere.

SITE PLAN | 1:200



SITE SECTION PERSPECTIVE



VIEW FROM NEW TRAIN STATION



WONDERLAND BRANCH LIBRARY



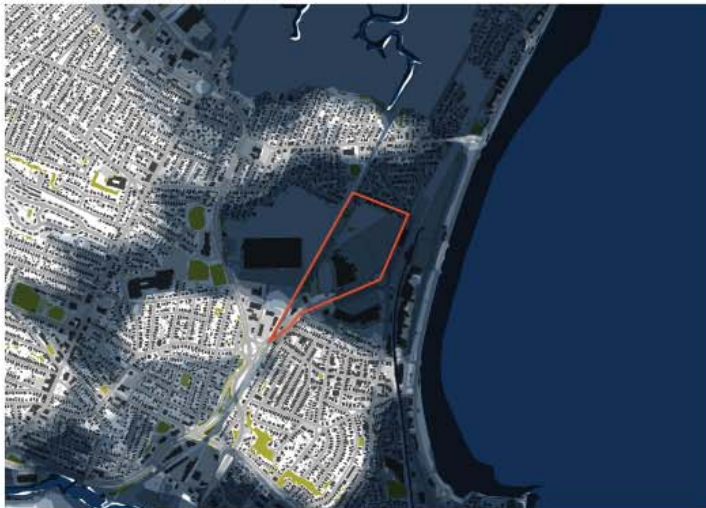
MAIN BOULEVARD



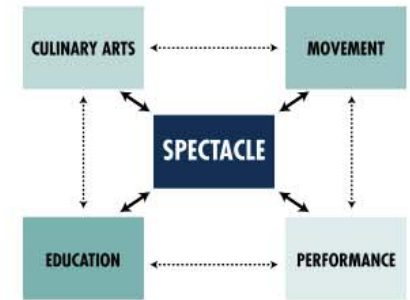
VIEWS + OPEN SPACE + LANDMARKS



FLOODING DURING HURRICANE

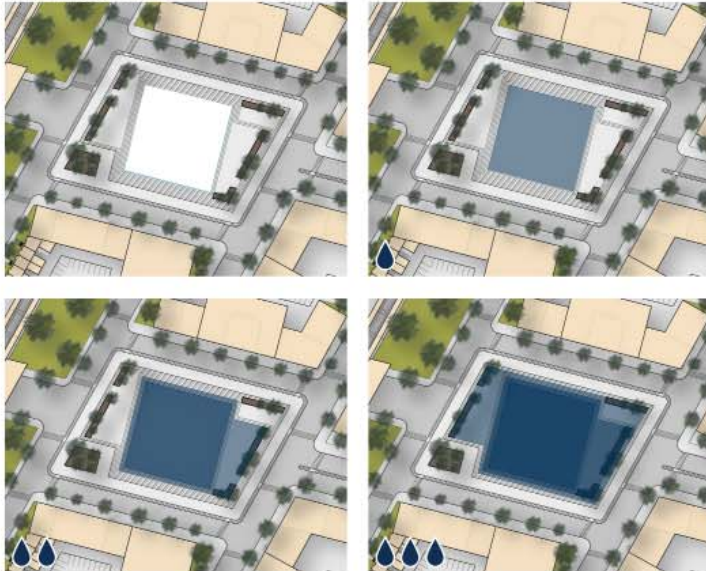


PROGRAMMING



Wonderland Park had a vibrant history of amusement, in which the site was in itself a form of spectacle. The park was filled with rides, performances, food, and other activities attracting visitors from all over the region. My project attempts to reinvision Wonderland through the reinterpretation of its prior spectacle. Instead of reconstructing the amusement park, this proposal emulates amusement and engagement through its urban form and programming. The commercial center of the site will offer an extensive array of activities, each promoting performance, movement, culinary arts, or education.

WATER SQUARE



	CULINARY ARTS	EDUCATION	MOVEMENT	PERFORMANCE
HISTORIC	Dance Hall Kitchen Turkish Restaurants Food Carts	Camel Barn Hale's Tour (Biograph)	Carousel Dancing Hall Scenic Railway Shoot the Chutes Air Ships	Theater Wild West Show Animal Show Side Shows "Beautiful Orient" "Hell's Gate" "Fight the Flames" "Fatal Wedding" "Love's Journey"
PROPOSED	Restaurants Brewery Distillery Chocolate Factory Bakery	Art Music Ceramics Photography Dance Culinary Arts Wine Tasting Sewing and Craft Glass Blowing Metal Art and Jewelry	Yoga Dance Candle Pin Bowling Rock Climbing Cross Fit Dog Park	Community Theater Comedy Club Dance Movie Theater

The redeveloped Wonderland will utilize a mixed-use and residential urban fabric. The central figure of the development proposal is a water square that will serve as a site for community events and will also collect stormwater runoff. Shops, restaurants, and activities will flank the sides of the water square and main boulevards. A linear park will serve as a buffer between the railroad and the new development, with dense strands of single and multi-family rowhouses. Wonderland will be a destination within the City of Revere, in which citizens and visitors alike will flock to the new development to participate, engage, and create in Revere's site of spectacle.

PRECEDENTS



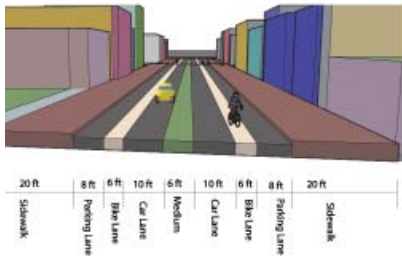


Development Goals

Walkability

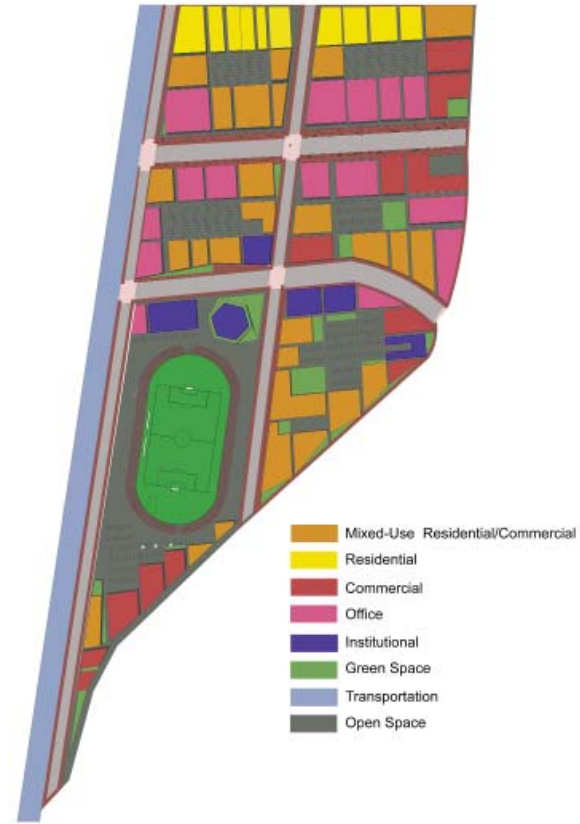
Improved Connections through Open Space

Neighborhood Enhancement and Diversification Land Use



PROMENADE KEY FEATURES

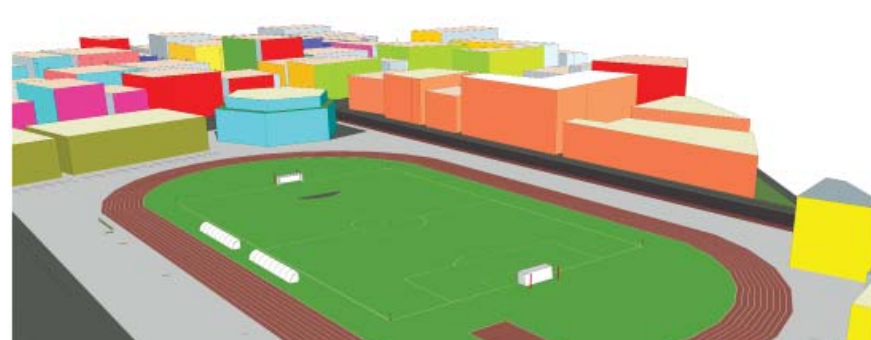
- 20 feet wide sidewalk
- Two bike lanes and car lanes
- Store fronts that extend onto sidewalk
- Restaurant space with patio seating
- Direct connection from commuter rail to the Wonderland T station, pedestrian bridge plaza, and the beach



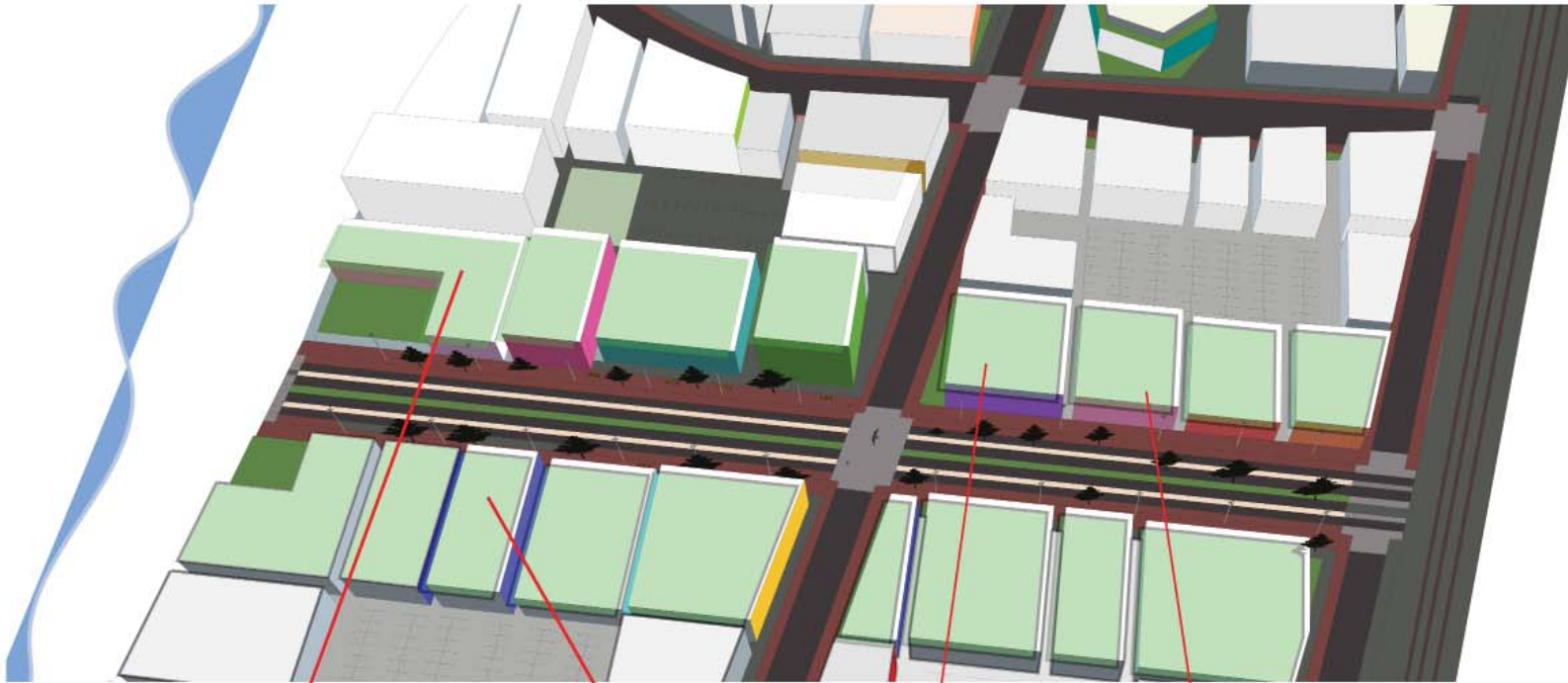
COMMUNITY SPACES



- Center with access to public pool, soccer and football fields, and a running track
- Public green space



PROMENADE DETAILS



Indoor/Outdoor Marketplace



Hotel



Residential/Retail



Office/Retail Ground Floor

The Wonderland Site was originally built to serve Revere as an amusement park during the early 20th century. From 1935 to 2007, the site was repurposed as a greyhound dog running track. The new development will uphold the site's history as an entertainment center for Revere. Future commercial, institutional, and office tenants should be selected based on their commitment to a walkable, vibrant, and secure environment.

The Wonderland Site has been reimagined as a city center where residents can work, shop, and meet for leisure. The site will hold mixed-use development including residences, offices, and a commercial corridor anchored by a marketplace on North Shore Road, a hotel, institutions, and sit down restaurants. The key feature of the new site is the Wonderland Promenade that will activate the space and connect the future commuter rail to the beach through an extension of the pedestrian bridge at the T stop. The Promenade will be accessible to pedestrians, bikers, and vehicles, with a possibility to block the promenade to thru traffic on Sundays for special programming.

In the future, the promenade can be expended to a pier on Revere Beach.

A portion of the site will be used to build a community center, a running track, and soccer field, which were high priority topics among Revere residents during our community engagement process.

PRECEDENT: SOUTH STREET SEAPORT, NYC



WONDERLAND MARKETPLACE



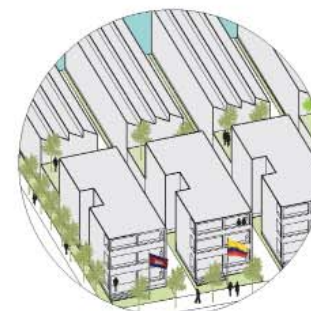


I. LEVERAGING REGIONAL GROWTH FOR GATEWAY CITIES

AS LOGAN AIRPORT EXPANDS, IT WILL MOVE ANCILLARY SERVICES TO SURROUNDING NEIGHBORHOODS.



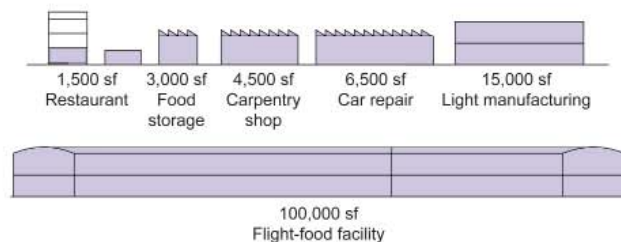
A LARGE WORKPLACE LIKE A FLIGHT-FOOD FACILITY OFFERS LOW-BARRIER ENTRY JOBS AS WELL AS A CAREER LADDER.



Revere's greatest asset is its diverse population—it truly acts as a Gateway City. Here, people from such distant places as Cambodia, Colombia, and Morocco connect with new cultures, start businesses, and raise families. This diverse immigrant population faces challenges finding jobs and entering the mainstream economy. Flight Industrial seeks to ease these challenges by tapping into regional growth while creating a framework that allows for local growth at a single-property scale.

II. A RANGE OF CUSTOMIZABLE SPACES

ACCOMMODATING UNIQUE AND CHANGING PROGRAMMATIC NEEDS ALLOWS FOR A MORE RESPONSIVE NEIGHBORHOOD



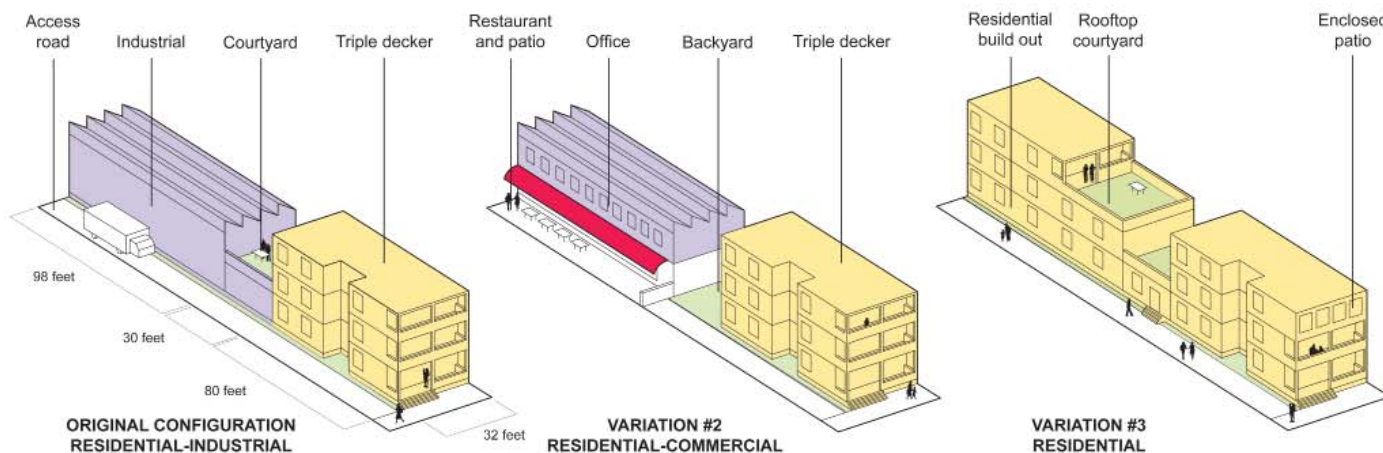
A home repurposed as a Buddhist temple and center on Thornton St



Housing additions provide flexibility to meet changing needs

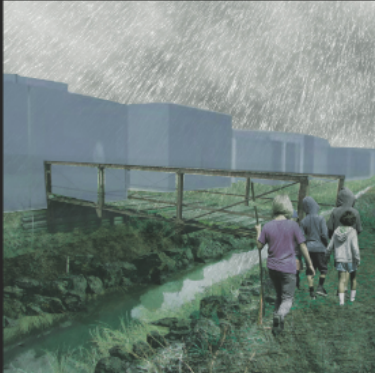
In the near future, Logan International Airport will expand in order to meet the needs of a growing region. With limited room for expansion, it will move ancillary services—such as flight-food facilities, air cargo, car rentals, and hotels—to nearby neighborhoods. Revere—just fifteen minutes from Logan along its main access route to the north, with land available for development—is in a strategic position to take on more of these services; it already hosts car-rental and air-cargo facilities serving the airport. In future conversations with Massport, Revere should seek economic activities that bring good jobs, a career ladder, and job training, and that help create the city that Revere wants to be in the future. A flight-food facility is just one example of this type of activity.

Allowing for flexibility in terms of use and architecture at the single-property scale can help accommodate changing needs: an industrial site can easily be transformed into commercial or residential space. The concept was inspired by Revere's unique housing, which has been creatively modified over time.





VIGNETTES

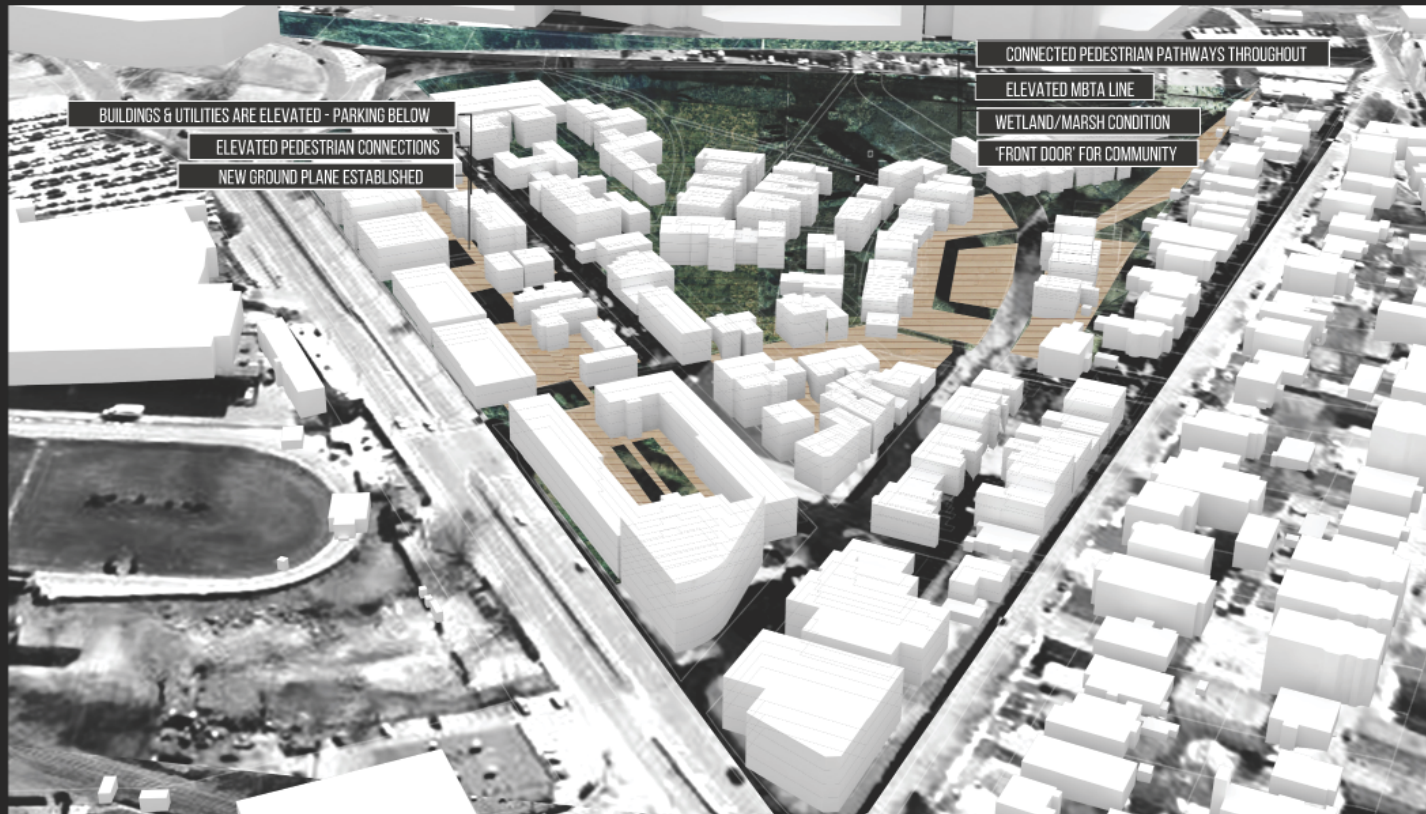
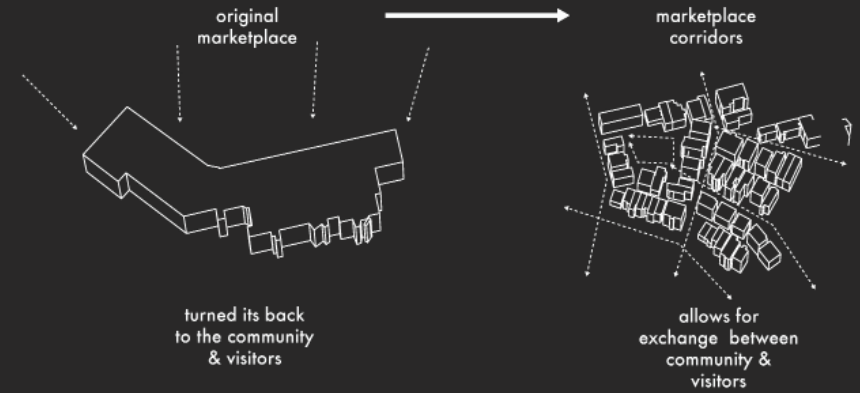


COMMUNITY



VISITORS

CONCEPT



Wonderland Marketplace is nestled between two major conditions: it emerges from the neighborhood fabric and brushes up against the coastal shoreline. Given these circumstances, this area of Revere has an unusual "double life" to its identity. Presently, the spatial configuration of the surrounding infrastructure and buildings is such that there are few points of overlap between residents and visitors - there is an interior neighborhood life that is distinct from that of its coastal identity. This project seeks to use the site's advantageous location to anchor the neighborhood fabric to the identity of Revere Beach.

Rather than have these dual lives play out such that they run in parallel, it seeks to find new ways to resolve the physical and mental separation of its users. Through the emergence of seasonal and night programming, the marketplace will become a center of gravity for exchange of goods and services between the two constituents.

REIMAGING A MARKETPLACE IN WONDERLAND

Paige Peltzer
Carlos Felipe Reyes



Area Type	Sq. Footage	%
Commercial	78,175	5%
Residential	359,374	25%
Office	674,255	47%
Public, green spaces	299,504	21%
Parking	32,448	2%
TOTAL	1,443,756	100%

Public Cost (Millions)	
Direct Costs	
Roads	\$6.2
Parks	\$7.7
Community Center	\$4.5
Indirect Costs	\$4.6
TOTAL COST	\$26.3

Private Cost (Millions)	
Residential	\$77
Commercial	\$23
Office	\$195
Indirect Costs	\$74
TOTAL COST	\$370

Tax Revenue (Millions)	
Residential	\$1.5
Commercial	\$1.1
TOTAL	\$2.6
Jobs Created: 1,505	



Gymnasium

Recreation for youth and adults, farmer's market in the winter

Public Meeting Rooms

Community organizing, events, fellowship

Classrooms

Workforce training, healthy cooking and lifestyle courses

"This city needs more civic spaces, new areas to bring people together."

-Jamie Farrell

Responding to Community Needs

1. Open Space



2. Walkable Streets



3. Affordable Housing



4. Retail



Farmer's Market

Encourage healthy eating and support local farmers



Year-Round Use

- Produce • Pumpkins • Christmas Trees •
- Flowers • Ice Sculptures

Pop-up Retail

Flexible Space for small business owners



Pedestrian-friendly Streets



Implementation Phase 1:



A temporal soccer field
Activate site and bring people together



The new plan for Wonderland Marketplace expands and enhances the Shirley Avenue commercial district by linking the existing commercial activity along Shirley Avenue to a new mixed-use development, connecting the neighborhood to the Wonderland transit stop and the beach front through walkable streets, open green space, and attractive retail storefronts along Shore Drive.

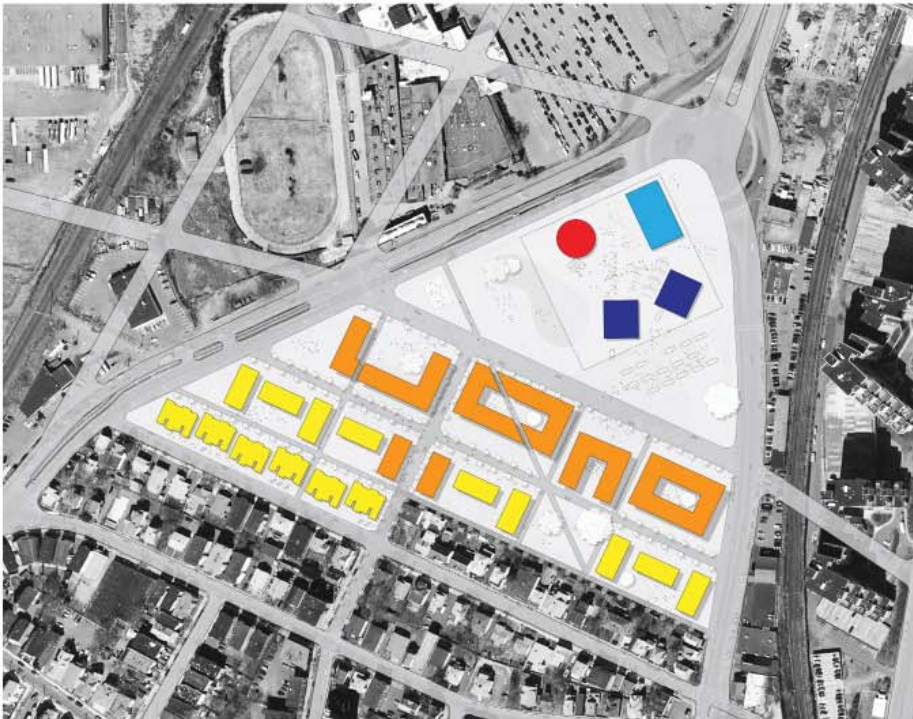
The plan not only adds retail, office, housing, and pop-up retail to the district, but carves out a much needed community space for residents to meet, learn, and play. A new community center surrounded by open space and an outdoor platform on the east side of Shore drive will serve as indoor and outdoor meeting places for community meetings, festivals, markets, and classes, all of which better encourage a more tight-knit Revere community. townhouses and apartment housing. New housing will consist of townhouses and apartments, of which 20 percent are designated for 40% AMI. This is to ensure low income residents are not squeezed out of the neighborhood by rising property values.

The new Wonderland Marketplace will be an inviting central shopping, work, and recreational destination for residents of the Shirley Avenue neighborhood, the beach front properties, and beyond.





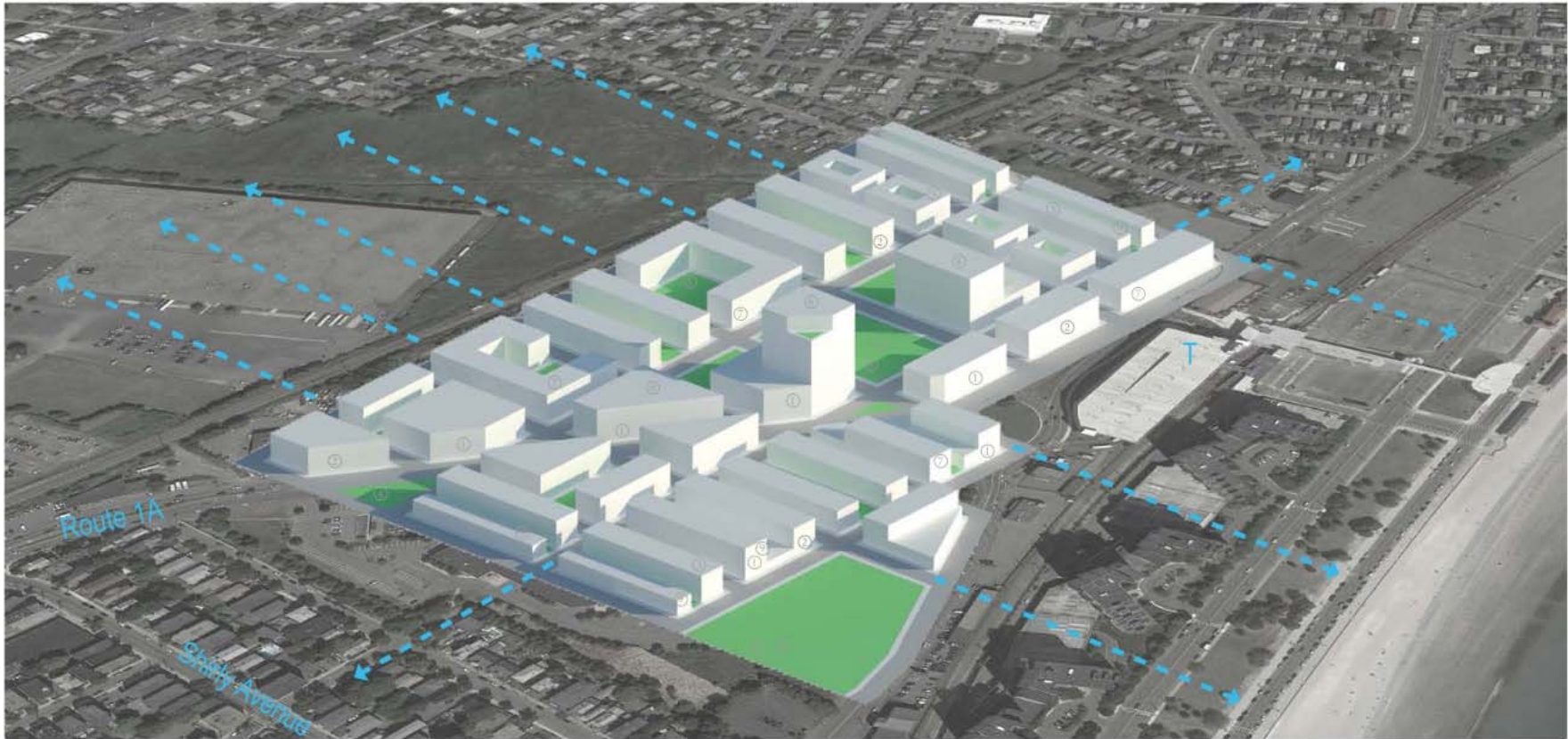
Revere's community assets of cultural diversity, local industry, and transport infrastructure could be leveraged through a new food incubator. This dynamic enterprise would enable the city to: develop local businesses that promote community pride; attract new businesses that increase the tax base; expand and retain businesses that employ local residents; and foster entrepreneurship and innovation that promotes the local economy.



The proposal would include many interdependent programs: a food incubator would provide shared services and co-working spaces; a workforce development program would equip local workers with a dynamic skill-set; a business development center would support local startups in their pursuit of becoming thriving businesses; and a community development finance institution would aid small businesses in search of capital.



Masterplan

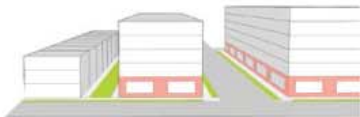


Zoning Considerations

Ground Floor Retail

Activates street and creates integrated neighborhoods

①



Street Frontage

Consistent setback engages the public realm

②



Transition to Existing Residential

Blends new development into existing context

③



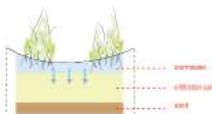
Resiliency Techniques

Water Absorption

Retains water during storm and flood events

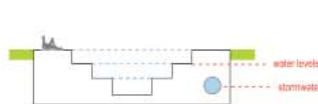
Bioswale

④



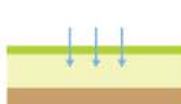
Watersquare

⑤



Green Space

⑥



Floodable Parking

⑦



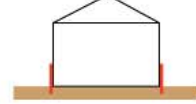
Protecting Infrastructure

⑧



Drying Proofing

⑨



Framework for Development

Physical barriers separate development site from existing neighborhoods

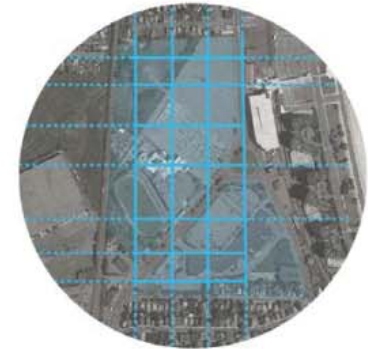
Route 1A



Rotary from North Shore Drive



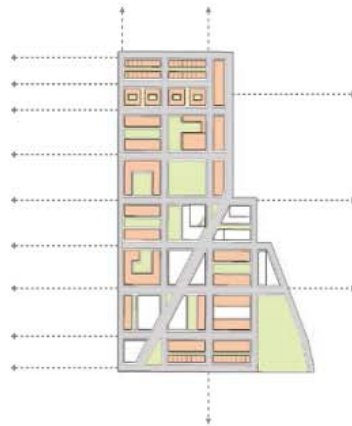
View on Marketplace from Kimball Ave.



Match program to stakeholder needs

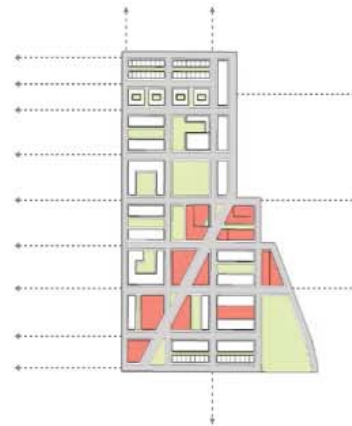
Region - Housing Needs

The Boston Metropolitan area needs housing. With excellent public transit access, residential development in Revere presents an opportunity to meet this need.



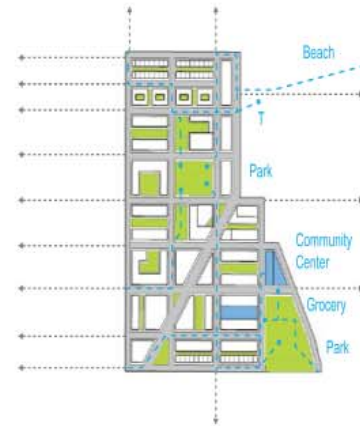
City - Commercial Tax Base

Commercial and retail development will expand Revere's tax base and create a complete district for current and new residents.



Neighborhood - Access to Amenities

Development will bring new amenities, including parks, a grocery store, and community center. The gridded street network creates vehicle and pedestrian access to these amenities.



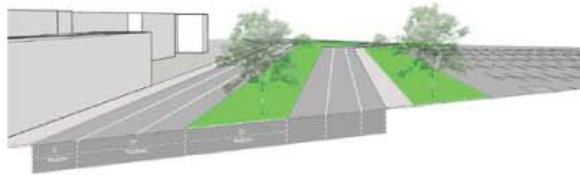
My project creates a master plan for two large development parcels: Wonderland Marketplace and the former Wonderland dog track. By establishing a gridded street network, the plan integrates development with existing residential neighborhoods, creating vehicle and pedestrian access to new amenities, including park space, a grocery store, and a community center. A grocery store and community center are amenities that community members expressed are needed in Revere today.

The program also takes into consideration regional and municipal needs. By incorporating residential development, the plan addresses the shortage of housing in the greater Boston area. Revere's excellent public transit access makes it an ideal location for this type of residential development. Retail and office uses will establish a commercial tax-base for the city while offering services for new and existing residents.

Together, the street framework and new land uses address existing infrastructure barriers in Revere that disconnect the city. For example, the plan completely transforms Route 1A from a four lane highway to a complete and walkable street. Route 1A in Salem serves as a precedent for this transformation.

Transformation of Route 1A

Before



After



Route 1A in Salem



Finally, the plan addresses climate change by including resiliency techniques that capture water and prepare infrastructure for flooding events.



Program



A commercial destination for residents and tourists alike.

- 300,000 sf of commercial space
- Turkish Bath
- Restaurants
- Bowling Alley
- Wonderland Ballroom
- Locally inspired & managed boutiques
- Climbing Wall

Youth-centered community space

- YMCA
- Parkour spot
- Playground
- Basketball and tennis courts

Green space and outdoor activities

- Outdoor education
- Walking paths
- Courtyards for recreation and art installations
- Community garden



This project transforms Wonderland Marketplace into a destination in its own right. The programming of the space is designed to interest summer visitors and keep them returning to Revere all year long. The anchor of the development is a Turkish Bath, occupying two floors along Vfw Parkway. Initially modeled after establishments such as Spa Castle in New York, the bath will serve as a unique recreational attraction and a stimulus for additional commercial development on the site in the form of restaurants, shops, and entertainment. Spa Castle has enjoyed great success and is seeking to expand to new locations across the country.

An important component of the site is that it remain a place for the current residents of Revere. With this in mind, the new businesses will serve retail and functional needs, in addition to providing spaces for socialization, such as a bowling alley, climbing wall, Y, and outdoor programming.

Situated at the intersection of Vfw Parkway and North Shore Road, and located just 300 feet from Wonderland T Stop, the development is easily accessible. Minimal parking will be offered onsite in order to accommodate significant green space. The T station garage sees 60% use during peak hours; visitors to Wonderland Square will be encouraged to use it.

