FAIRMOUNT INDIGO PLANNING INITIATIVE

# FOUR CORNERS/ GENEVA AVENUE STATION AREA PLAN













Boston Redevelopment Authority

STATION AREA PLAN
OCTOBER 2015

FAIRMOUNT INDIGO PLANNING INITIATIVE WWW.FAIRMOUNTINDIGOPLANNING.ORG

#### Four Corners/Geneva Avenue

Working Advisory Group (WAG) Members

Dynell Andrews-Blake, Four Corners Main Streets
Davida Andelman, Greater Bowdoin/Geneva Neighborhood Association
Katherine Bergeron, Resident
Marilyn Foreman, Erie/Ellington Civic Association
Hermitão (Beto) Rosa, Bowdoin Geneva Main Streets
Antonio Hobbs, Business owner
Caltor McLean, Business owner
Danah Tench, Resident
Theresa Latson, Resident
Gary Webster, Four Corners Merchants Association
Bill Perkins, Business Owner, Boston ReStore, Inc.

Prepared for City of Boston, Martin J. Walsh Mayor Boston Redevelopment Authority

With support The Boston Foundation
From The Garfield Foundation

**Metropolitan Area Planning Council (MAPC)** 



CITY OF BOSTON Martin J. Walsh *Mayor* 



Boston Redevelopment Authority *Prepared by* The Cecil Group, Inc.

HDR, Inc.

McMahon Associates, Inc.

Shook Kelley, Inc.

Byrne McKinney & Associates, Inc.

Bioengineering Group

SAS Design, Inc.

#### FAIRMOUNT INDIGO PLANNING INITIATIVE

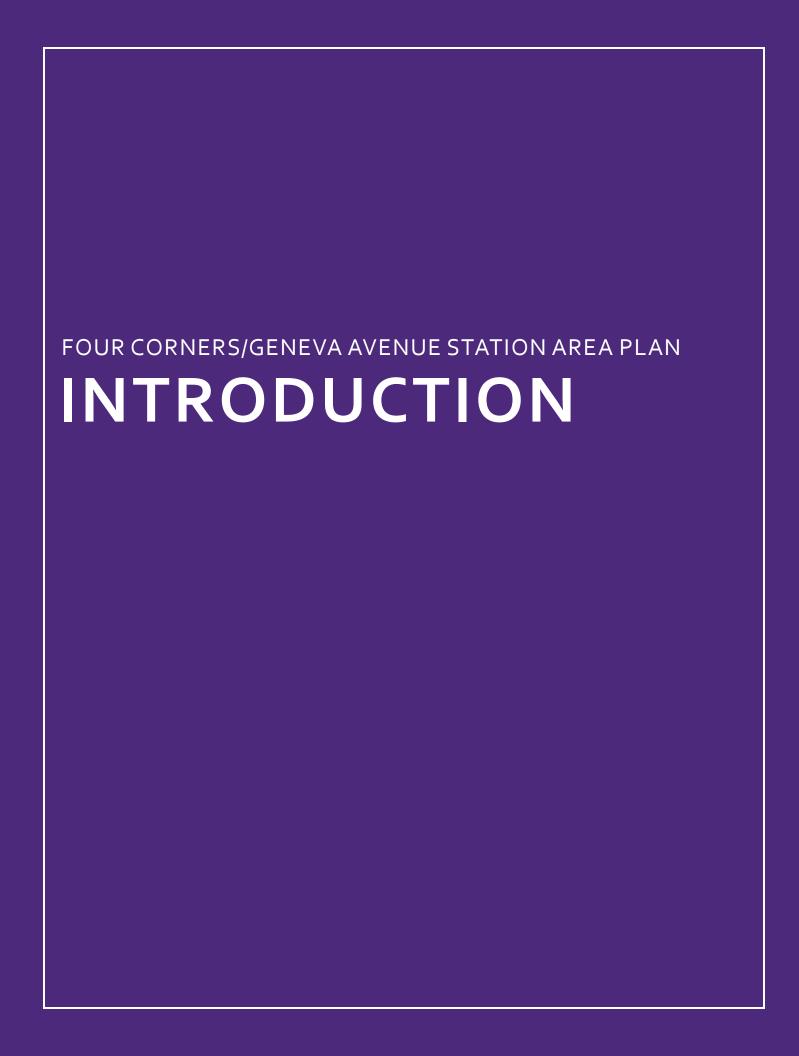
# FOUR CORNERS/ GENEVA AVENUE STATION AREA PLAN

#### Final Report Contents

- 1 Introduction
- 2 Community Vision
- 3 Strategies and Recommendations
- 4 Implementation and Actions
- 5 Appendices

An **Executive Summary** of the Station Area Plan is also available at: www.FairmountIndigoPlanning.org





# Fairmount Indigo Corridor

#### The Fairmount Indigo Corridor in the context of the City of Boston's neighborhoods



#### Fairmount Indigo Planning Initiative

In February 2012, the City of Boston launched the Fairmount Indigo Planning Initiative at the historic Strand Theatre in Upham's Corner, Dorchester. The Fairmount Indigo Planning Initiative is a comprehensive community based, corridor-wide planning process that the City of Boston has undertaken with the involvement of community participants and partners.

Boston has a unique opportunity to address the critical need for economic growth and physical improvement along the Fairmount Indigo Corridor, a 9.2 mile transit corridor that runs through some of Boston's most disadvantaged neighborhoods. The communities along the Corridor have experienced poor access to public rail transit - creating significant barriers to economic opportunity for both residents and businesses.

Now with new rail stations operational, residents and local businesses have improved access to economic opportunity both within and beyond the Corridor. The City recognizes the significant potential for growth in the area and looks to capitalize on this momentum.

The Fairmount Indigo Corridor includes rail stations at South Station, Newmarket, Upham's Corner, Four Corners/Geneva Avenue, Talbot Avenue, Morton Street, Fairmount and Readville. A rail station is under design at Blue Hill Avenue/Cummins Highway and potential stations have been discussed at Columbia Road and River Street.

The Fairmount Indigo Planning Initiative is the City's largest planning initiative to date. The City Team, led by the Boston Redevelopment Authority, along with its consultants and the community, have developed a long term strategy for business growth, employment opportunities, housing development, and Corridor branding.

The purpose of the Fairmount Indigo Planning Initiative is to create a shared vision and coordinated set of strategies to unlock greater potential for each of the Station Areas and neighborhoods than would exist for each area acting in isolation. The planning effort focuses upon the following:

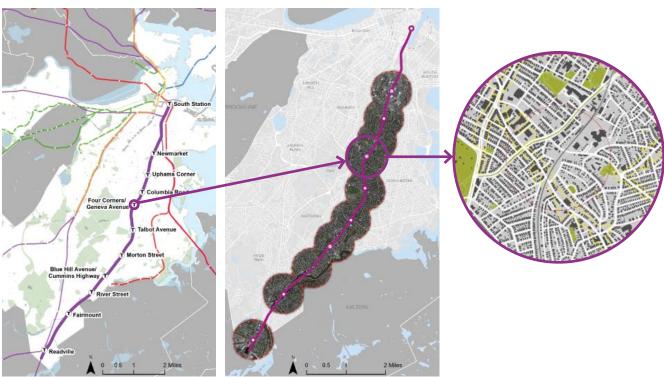
- Guiding physical and economic development
- Encouraging sustainable growth and transit-oriented development (TOD)
- Prioritizing economic prosperity for existing residents and businesses
- Incorporating existing planning initiatives (City-led and Community-based) into one vision for the future

The Planning Initiative encompasses two major planning approaches: Corridor-wide Planning and Station Area Planning. The Corridor Plan documents the Fairmount Indigo Corridor process and recommendations for improving the Corridor in the context of the City of

Boston. The Station Area Plans document the Station Area planning at each Station Area. The initial phase of planning will result in Station Area plans at three stations. The Four Corners/Geneva Avenue Station Area was the third plan to be undertaken.

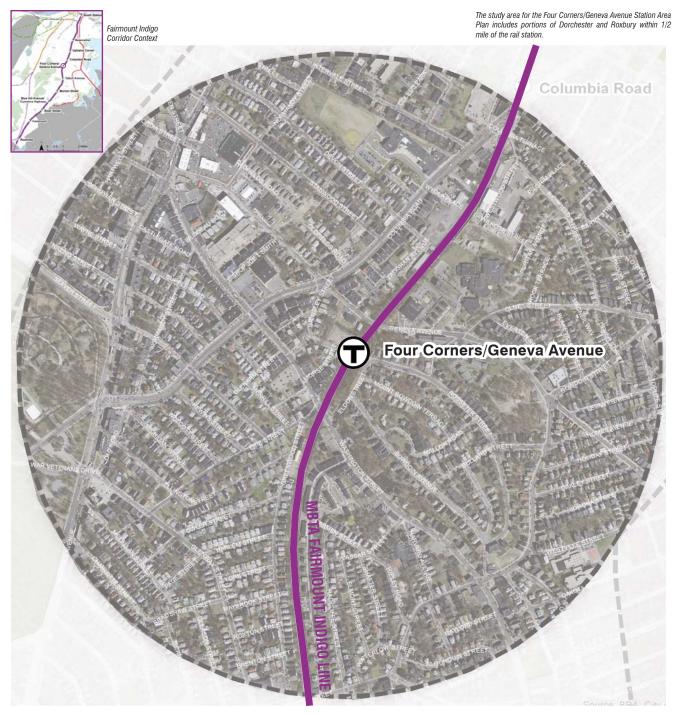
Additionally, a Fairmount Indigo Corridor Profile was created in November of 2012 to provide baseline information for a variety of interested parties in the community, elected officials, planners, investors, researchers, and others. Key areas of focus include demographics, business, real estate, infrastructure and quality of life. The profile represents a collaborative effort between City agencies, foundations, and other planning entities. It provides current data and some trends that give a useful framework to inform the planning process.

All reports, profiles and presentations as part of the planning initiative can be found at: www.fairmountindigoplanning.org.



Complementary scales of planning - City-wide (left), Corridor-wide (center) and Station Area (right)

# Four Corners/Geneva Ave Context



#### Station Area Geography

The Station Area planning for Four Corners/Geneva Avenue focuses on an area within a 1/2 mile radius of the station rail platform located between Washington Street and Geneva Avenue. The 1/2 mile radius encompasses the area within which people would most likely walk to transit service at the station. This type of planning boundary is hypothetical and groups together neighborhoods that are adjacent to the transit resource and that will equally benefit from the mobility and access that it provides.

#### **City Context**

The Station Area is located near the heart of Boston's largest neighborhood, Dorchester. The intersection of Washington Street, Harvard Street and Bowdoin street is the namesake of Four Corners and the associated Main Street district. The Station Area includes two other distinct Main Street districts, Bowdoin Geneva and Grove Hall. Each Main Street district provides a community anchor for commerce, services and community. These

active districts have developed over time as a result of their position as crossroads between destinations such as Roxbury, Milton, Grove Hall, Lower Mills, Kane Square and Meeting House Hill and area supported by the surrounding residential neighborhoods. The Station Area population is approximately 16,000 people. In addition to the major cross connections of Washington Street and Geneva Avenue, the Station Area is bisected by Columbia Road, a main arterial through Dorchester. The western portion of the Station Area includes a corner of Franklin Park and connections to Boston's Emerald Necklace. In addition to the Fairmount Indigo rail connection, the Station Area is served by several major bus routes, including routes 19 and 23.

#### **Historic Context**

Originally, the Station Area was a rocky countryside, with rural farmland, few residents and superb views. The area was sparsely populated, but included notable estates, such as that of Massachusetts Governor, James Bowdoin. Following the Civil War and annexation of Dorchester into Boston, the density of residential development





began to increase. By 1900 construction boomed and the form of the present neighborhoods began to take shape.

The Station Area's most recent past has seen the community come together in advocacy, action and activism. In response to violence in the area, the Four Corners Public Safety Action Project (FCSAP) was founded in 1991. Local churches, non-profits and community organizations worked together to create a safer community. In 1999, the Greater Four Corners Action Coalition (GFCAC) began to promote neighborhood stabilization, revitalization, and economic development and became a strong advocate for enhancing rail service and transit equity on the Fairmount Indigo line.

This is a very brief synopsis of an interesting and multilayered history that can be more deeply understood with historic resources such as the Dorchester Atheneum. (www.dorchesteratheneum.org)

#### **Past Planning Efforts**

As a part of this process, previous planning studies have been reviewed and evaluated to carry forward critical recommendations and directions. The following studies were included in this effort:

- Greater Four Corners Action Coalition Community Planning (2013)
- Business District Conditions and Market Assessment, Bowdoin Geneva Business District (2009)
- Mid Dorchester Action Plan (2008)
- Four Corners Main Street Urban Village Concept (2004)

#### **Key Characteristics**

As part of the Station Area planning an analysis of the existing conditions and context of the Station Area was prepared for land use, housing characteristics,

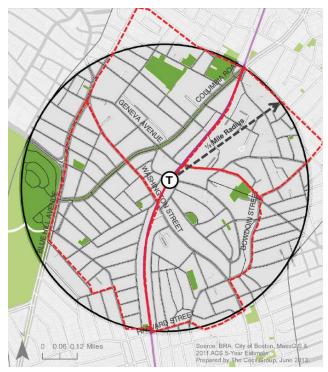


A historic view of past rail service in the Station Area

demographics, transportation, and public space. A comprehensive catalog of this analysis is located in the appendix. The most relevant observations regarding the Four Corners/Geneva Avenue Station Area are included here. The analysis was completed using data sources from the Boston Redevelopment Authority, the City of Boston, MassGIS and the U.S. Census 2011 American Community Survey (5-year Estimate).

The census tracts used in the analysis are shown to the right and include four primary tracts: 901, 902, 918 and 919. The study area includes a total of 2,818 parcels. Currently, the Station Area as represented by these census tracts is 64% Black, 25% Hispanic, 2% White and 1.5% Asian. The median age of the population is 27.9, which is slightly younger than Boston's citywide population median age of 30.9.

The majority of land use in the Station Area is residential with 66% of the total parcels used for a variety of housing of types. Tax exempt uses are the second largest land use with 24% of the total parcels used for religious institutions, schools, transit facilities or other tax exempt uses. Commercial land use represents 8% of the total parcels and is concentrated along Washington Street, Bowdoin Street, Blue Hill Avenue and Columbia Road. Some mixed-use (1%) and industrial (1%) is interspersed with the commercial land uses. Given the majority residential uses, the average parcel size within the Station Area is relatively modest at 5,718 square



U.S. Census Tracts in the Study Area

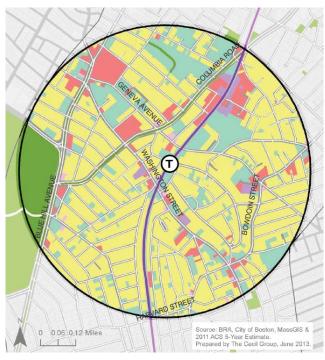
feet. The largest parcels are concentrated along Geneva Avenue, Washington Street and Columbia Road.

A period of disinvestment, home foreclosures and difficult economic conditions have left a pattern of vacant parcels within the Station Area. Approximately, 450 parcels (13% of the total land area) is vacant in the Station Area and disrupts the continuity of land uses and sense of community. The vacancies are relatively evenly distributed throughout the Station Area. The vacant parcels vary in size from 3,000 to 30,000 square feet, but are generally small residential lots where a previous blighted home or triple-decker has been removed.

The majority residential land uses in the Station Area are mostly comprised of two and three family homes. Many in the form of Boston's prototypical neighborhood triple-decker. Multi-family residential and single family homes are about equally proportioned and comprise the remainder of the Station Area housing stock. Single family homes are biased to the east of the Station Area and are a reflection of the historical development patterns

there. All of the housing types combined yield an average of 12.9 units per acre across the study area. A block of triple-deckers with few vacant lots results in about 13 units per acre in the Station Area. Some blocks with multi-family housing provide units at a density as high as 40-50 units per acre.

While high quality public open spaces do exist in the Station Area, it is generally an area deficient in open space resources. Public open space in the Station Area accounts for about 7% of the total land area within the 1/2 mile radius. This is about half as much as the City of Boston overall, which includes about 15.7% open space as a portion of overall land area. This open space takes the form of parks, playgrounds, athletic fields and urban wilds and natural areas. The urban wilds are the result of converting vacant and blighted properties resulting from the period of disinvestment into open space resources. The Station Area includes several significant and well-used open spaces including a portion of Franklin Park, the Geneva Cliffs, Ceylon Park, Mount Bowdoin Green and nearby Mother's Rest Park.



Station Area Land Use with the Main Streets district at the center of residential neighborhoods

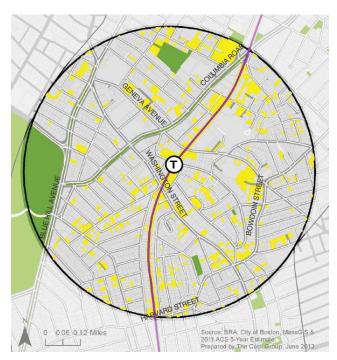
Household income in the Station Area is \$29,720 which is significantly lower than the Boston city-wide average of \$50,684. The lower average income in the Station Area is likely connected to a disparity in educational attainment between the Station Area and the City average. The Station Area population (25 years or older) with no more than a high school education is 60.7% as compared to Boston at 49%.

The relationship between income and rent is important to test in the Station Area. One such measure, is referred to as severely rent burdened, an occurrence of a household spending over 50% of the household income or more on rent. This occurs in the Station Area for approximately 38.5% of the renter households, as compared to 27% in the entire City of Boston. The lower average income, combined with the burden of rent has likely contributed to a pattern of foreclosure, vacancy and property disinvestment. The illustration below show the pattern of vacant parcels in the Station Area highlighted in yellow.

However, a pattern of reinvestment in the Four Corners/ Geneva Station Area is emerging and has been exemplified by several high profile redevelopment efforts, including the 157 Washington Street Redevelopment with ground floor space for the Dorchester Arts Collaborative and the VietAID redevelopment in the heart of Four Corners. These two redevelopment projects are shown below.



Recently completed redevelopment at 157 Washington Street adjacent to the Washington Street station entrance



Vacant Parcels in the Station Area



Investment underway on Washington Street near the intersection of Harvard and Bowdoin in the heart of Four Corners.



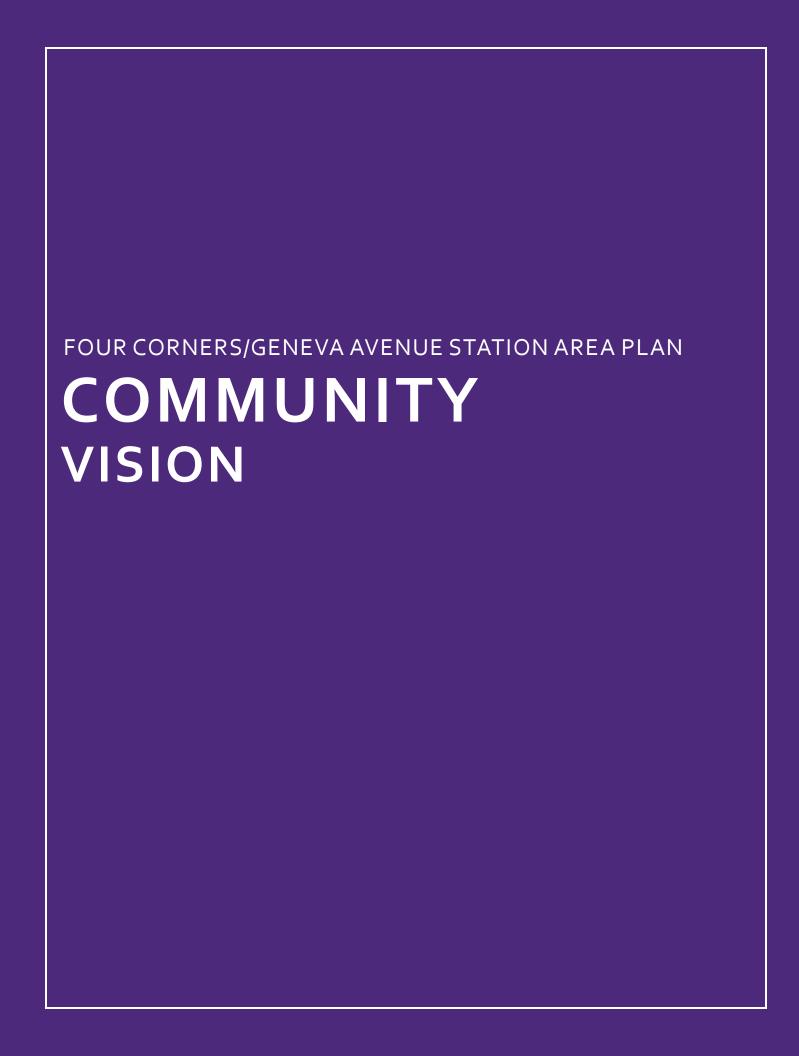


A common residential building types in the Station Area



Current building and development patterns in the Station Area within 1/2 Mile of the Four Corners/Geneva Station with the nearby main street district boundaries highlighted in yellow





# **Community Process**

At the beginning of the Four Corners/Geneva Avenue planning process, the City of Boston assembled a Working Advisory Group (WAG) comprised of Station Area residents, business owners, advocates and stakeholders. As part of this process, the WAG met with members of the Boston Redevelopment Authority (BRA) and the planning consultant team through a series of meetings over the course of about twelve months. Each of the WAG Meetings was open to the public discussion of each of the topic areas, strategies and recommendations that area reflected in this plan.

The broader community of the Station Area was engaged during two community workshops held in January of 2015. The two community workshops were attended by over 80 participants representing the diversity of the Station Area and included discussion of issues and opportunities and a shared vision for the surrounding neighborhoods. This community input is the foundation for the Station Area Plan. A community wide open house was held during September of 2015 to review the Station Area Plan. The process owes much to the dedicated effort and involvement of the WAG as they helped to craft the community vision for the Station Area and shape recommendations that are relevant to and representative of the voice of the community.

Community participation and break-out sessions at one of the Community Workshops



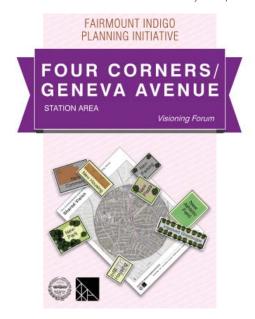
# **Community Vision**

The Community Vision is embodied in the entire Station Area Plan. Each recommendation and strategy is intended to be consistent with the overall vision that was articulated and shared by the community. The Community Vision Statement and Goals that follow are a direct and simple description of the vision for the Station Area and are intended to provide a direction for the community that can be supported by many actions and entities working toward a shared purpose. As implementation of the community vision continues into the future, returning to this statement to consider the continuity of efforts with this shared direction would be an appropriate way to measure progress.

The vision builds on the rich history of Four Corners, Bowdoin Geneva and Grove Hall to provide neighborhood-oriented commerce and services that anchor high quality residential communities.

The strategies and recommendations for the Four Corners/Geneva Avenue Station Area Plan are organized into six categories: prosperity, home, place, getting

Community workshop visioning materials



Icons used throughout the report to organize recommendations













around, parks and public space and quality of life. The Station Area Plan balances recommendations in each topic area to reinforce a collection of high quality livable neighborhoods. The community vision and Station Area Plan are represented by the complete and complementary collection of these categories and recommendations. All of these elements are intended to improve the Station Area as a vital and thriving place to live, work, shop and visit.

During the community planning process, each category was used to organize conversations, feedback, presentations and discussion. Each of the categories facilitates organizing a focused set of priorities to address specific opportunities or deficiencies in the Station Area. The categories were used to frame break-out group discussions with the community at the forum and to organize Working Advisory Group meeting agendas.

The recommendations and strategies of the Station Area Plan build from the foundation of the Community vision. In the visioning forum, community members used an aerial map and scaled "game pieces" showing street improvements, new parks, and different types of new development to create a shared vision for the future of the Four Corners/Geneva Avenue area. The results of this exercise inform the key findings of the plan.

The community was also asked to write down three to four words that they associate with Four Corners/Geneva Avenue. The community responses were organized into the image below. It is called a word cloud. The size of each of the words relates to the frequency of that word as a community response.

Word cloud results from the community workshop



# **Community Vision**

The community vision was created through a community planning and visioning process that included a community workshop, community open house, and a series of eight meetings with a Mayoral appointed Working Advisory Group (WAG), many in-person visits to each Station Area neighborhood, stakeholder, resident and advocate interviews and an analysis of the existing conditions of the Station Area. The Vision Statement sets a direction for future efforts in the Four Corners/Geneva Avenue Station Area. The Community Goals add more detail to the statement.



our Corners Main Street District



Pop-up Community Park in the Bowdoin Geneva Main Street Distri

#### **Vision Statement**

# The Four Corners/Geneva Avenue Station Area is a safe and walkable community with active and thriving Main Street districts that are supported by diverse residential neighborhoods, excellent transit access, and high quality open spaces.

#### **Community Goals**

The goals of the community vision are to:

- Minimize displacement and expand choices and opportunities for current residents and businesses to prosper and preserve community diversity
- Strengthen neighborhood-serving commercial and cultural activity in the Station Area Main Street districts - Four Corners, Bowdoin Geneva and Grove Hall - and enhance district gateways
- Provide new affordable, workforce and senior housing opportunities near the station and Main Street districts to support vitality
- Reinforce the residential community with safe and walkable streets and high quality parks
- Activate and reinforce direct pedestrian connections between the centers of activity and the rail station entries

The Station Area Plan seeks to leverage transit for new economic prosperity and to reinforce the Station Area as an important hub of commercial and cultural activity in the Fairmount Indigo Corridor.

Key recommendations of the community vision have been outlined by topic areas including Prosperity, Home, Place, Getting Around, Quality of Life and Public Space. The Station Area Plan balances recommendations in each topic area to reinforce a high quality livable district and a complete neighborhood.







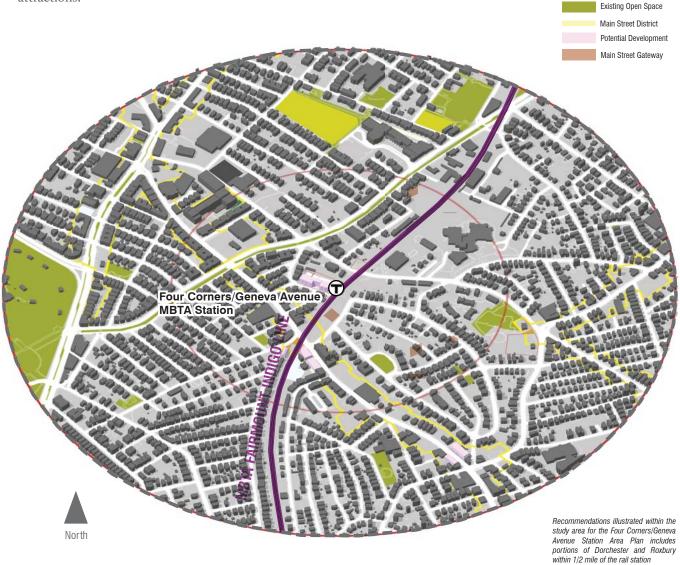






# **Illustrative Vision Plan**

An illustrative plan of the community vision is shown below. The illustration reflects the physical strategies that are part of the Station Area Plan including new transitoriented development near the rail station, new mixeduse development within the Main Street districts, new infill residential development to stabilize surrounding neighborhoods, streetscape improvements to define gateways to the Main Street districts and to enhance critical connections to the rail station and surrounding attractions.



Legend

Existing Blocks

Existing Buildings

# **Key Findings**



# **Prosperity**

- 1 Leverage New Investment and Target Assistance
- 2 Consider Main Street Districts Holistically
- 3 Concentrate and Add Destinations
- 4 Reinforce Local-serving Businesses
- 5 Leverage Vacant and Underused Lots



#### Home

- 6 Encourage Multifamily Near Station
- 7 Focus New Housing in the Main Street Districts
- 8 Leverage Vacant Lots for Infill Housing
- 9 Retain Diversity and Affordability
- 10 Improve Housing Quality and Sustainability



#### **Place**

- 11 Target Public Realm Improvements Near Gateways
- Connect Consistent Sense of Place
- 13 Enhance Vibrancy of Main Streets as a Destination
- 14 Reinforce Continuity of Ground Floor Use



# **Getting Around**

- 15 Increase Neighborhood Walkability and Bikeability
- 16 Reinforce Public Realm to Station
- 17 Enhance Station Entries
- 18 Manage Main Street and Neighborhood Parking



# Parks/Public Space

- 19 Expand Geneva Cliffs as a Focal Open Space
- 20 Leverage Underused Spaces
- 21 Improve Use of Existing Open Spaces
- 22 Strategically Add Open Space at Vacant Parcels



# Quality of Life

- 23 Enhance Public Safety
- 24 Connect Network of Arts and Culture
- **25** Building Opportunity and Success
- **26** Engage Youth Directly









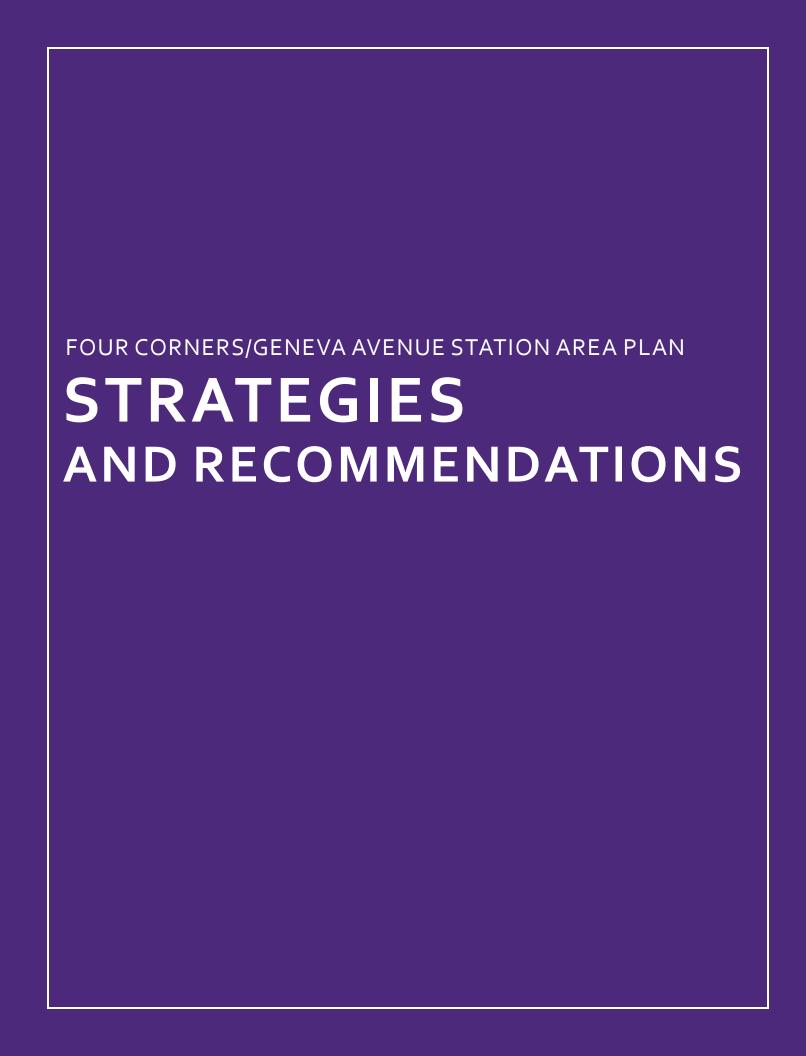














# PROSPERITY

The *Prosperity* section focuses on issues and opportunities related to economic development in the Four Corners/Geneva Avenue Station Area. Strategies and recommendations emphasize improving opportunities for the shops and businesses in the Station Area Main Streets district, attracting new economic activity, and connecting residents and businesses to new opportunities on the Fairmount Indigo Corridor.



# Prosperity

Strengthen local wealth creation in the Station Area through business, training and entrepreneurial support. The following approaches are intended to build prosperity for current residents and small businesses:

- Reinforce Local-serving Businesses Promote local shops and restaurants, expand variety and directly connect local businesses to local spending residents.
- B Leverage Vacant Lots Reinforce redevelopment and opens space on vacant and underused property in key locations.
- C Leverage New Investment and Target **Assistance** - Improvements to existing properties should be focused in nodes where redevelopment and new construction is occurring. Facade improvement and design assistance focused in these areas of private investment.
- D Concentrate and Add Destinations Retail, small business, entrepreneurial, cultural, and training activity should be directed to occur within the ground floor of Main Street districts.
- Consider Main Street Districts Holistically -Existing commercial nodes should be reinforced with new active ground floor uses, residential infill can occur within Main Street districts outside of the commercial nodes.





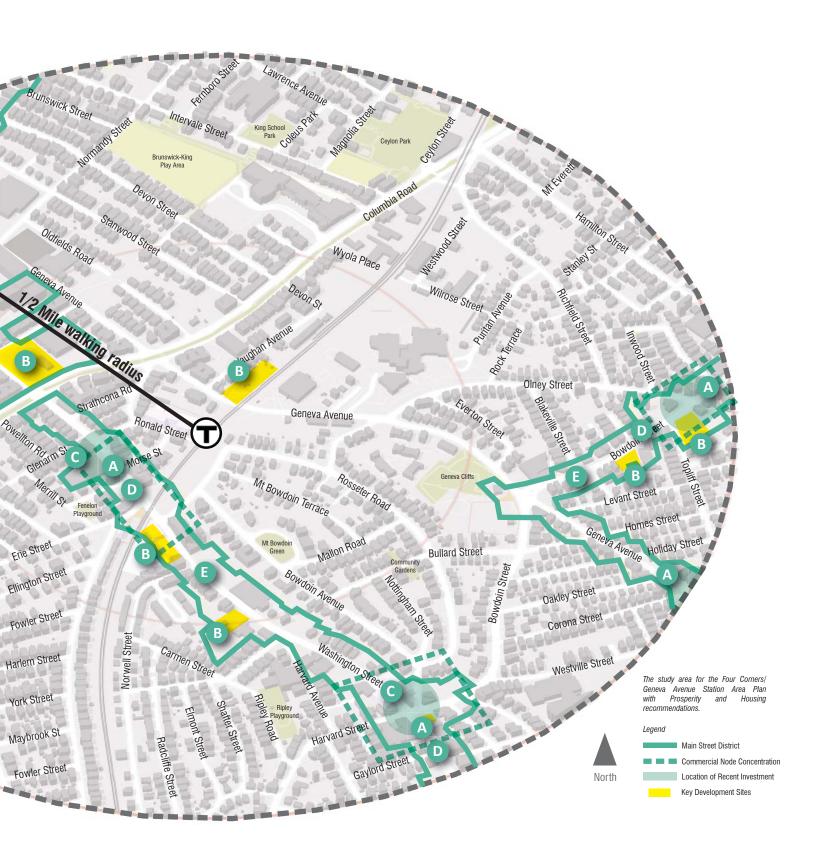












# 🔀 Prosperity

This section of recommendations is focused on prosperity for the residents and businesses of the Four Corners/Geneva Station Area with a focus on economic development. From the perspective of the real estate market, the Station Area is at a critical point in its revitalization. A long history of disinvestment in this portion of Dorchester is turning toward stability and a growing collection of successful enterprises, neighborhood amenities, and substantial infill redevelopment is beginning to emerge.

In general, however, unlike some other neighborhoods in Boston, market forces alone have not yet been sufficient to support revitalization in the Station Area. Much of the recent economic activity has been made possible through a combination of public and private support including land write downs, private foundation grants, tax credits and low interest loans. The mixed-use redevelopment at 157 Washington Street is a great example of this type of partnered success and has added a significant cultural anchor to the Station Area in the Dorchester Arts Collaborative (DAC) storefronts and galleries. The recent and continued improvements of the rail service along the Fairmount Indigo Line further enhances the Four Corners/Geneva Station Area as a desirable location for new economic activity and a sustained pattern of revitalization in surrounding neighborhoods.

The addition of market rate housing and an expanded population base within walking distance to the Station Area Main Streets Districts provides additional proposed activity and strategic economic resources to support the retention and renewal of retail uses. By leveraging City-owned real estate assets and continuing to focus on strategic infrastructure investments, redevelopment near the rail station can help to activate the neighborhood core and catalyze other revitalization efforts nearby.

The market for commercial office space is not a primary target for redevelopment given the distance from

downtown and highway access considerations. If new commercial space is to be feasible as a development component, then a commercial tenant for that space must be identified and committed to the location and space, prior to development. A build-to-suit situation, as opposed to a speculative office development, is not likely to be successful in the current market context.

The existing population base supports several mixeduse Main Streets districts - Four Corners, Bowdoin Geneva and Grove Hall - each of the districts could be strengthened. The types of goods and services provide local services and restaurants that serve the surrounding neighborhoods. Expansion of retail activity and growth is dependent upon new residential redevelopment. Ideally, this redevelopment would occur in the Main Streets districts to reinforce current concentrations of retail activity and near the rail station entries.

#### Strategic Growth in the Station Area

The following 10-year growth capacities were identified for the Station Area through a build-out analysis that examined the potential for new growth in relation to existing patterns of use, development and susceptibility to change. The following targets represent an average of a range that has been established for each metric based upon an analysis of existing land use patterns.

| Population Capacity           | Percent Increase |
|-------------------------------|------------------|
| 1,689                         | 9.0%             |
| <b>Employment Capacity</b>    | Percent Increase |
| 205                           | 2.7%             |
| <b>Building Area Capacity</b> | Percent Increase |
| 1.37M SF                      | 8.9%             |

This potential capacity will only be redeveloped if the Station Area can attract reinvestment. Several opportunities exist in the real estate market. The market for new transit-oriented housing is a strength of the area. New commuter and resident serving retail that complements the vitality of the retail that already exists













in the Main Streets districts is another opportunity. These two opportunities combined in a mixed-use redevelopment has already proven to be a successful approach in several area projects recently completed. Lastly, increasing the strength of existing social services and labor force training is an opportunity for the Station Area to reinforce a cluster of services focused on serving local residents in existing neighborhood centers.

Building upon these potential opportunities, the Station Area Plan includes the following approaches to reinforce the prosperity in the Station Area:



Neighborhood convenience and services must cater to the surrounding residents

Reinforce Local-serving Businesses - As mentioned, the creation of new space in the center of Main Street district nodes of activity is important to reinforcing the continuity of the districts. However, creation or consistency of building space is not the end goal if those spaces are vacant or underused. It is important to use every space and property that is available productively in the Station Area and to support local entrepreneurship and wealth creation. In each Main Street district this suggests a targeted approach to creating a strong match between building space, type of business, service or restaurant and a strong connection to the needs of the community that the enterprise will be serving.

In each Main Street district it is critical to have a match between the local population of residents and locally focused businesses that will serve them. Even across the Station Area's three Main Street districts, the needs of residents are different and diverse, as is reflected in the local business that occupy space in each of the districts.

A similar approach to targeting vacancies for specific uses should be used throughout the Station Area. Vacant properties represent an underutilized asset in the Station Area. It is important to use every space and property productively in the Station Area to reinforce stability and economic activity. For vacant properties, this suggests a targeted approach to filling residential uses in existing neighborhood streets. It may require the creation of incentive programs, funding and resources specifically designed to attract local contractors and developers to build multiple contextually-sensitive homes on multiple lots in a particular area.

This type of opportunity may not occur by market forces alone, but should be seen as an opportunity for targeted economic development in the Station Area that can build local stability and prosperity.



A vacant lot on a Station Area residential street



Leverage Vacant Lots - In the Station Area a consistent pattern of vacant lots is distributed across many of the neighborhood streets. In most instances, the vacant lot consists of a single parcel that was likely once occupied by a one-, two- or three-family residential structure. Through eras

of disinvestment some of the Station Area homes have been lost to blight, arson or neglect. Many of these vacant lots are now owned by the City of Boston and under the control of the Department of Neighborhood Development (DND).

The impact of these vacancies is noticeable in some locations, a vacant lot may be an eyesore or a location requiring constant surveillance. More critically, the collection of vacant lots across the Station Area reduce the overall vitality, activity and economic strength of the neighborhoods. If the vacant lots were leveraged in a strategic manner to provide primarily residential infill development opportunities, it would result in strengthened neighborhood streets and additional Station Area residents to support transit ridership and Main Street businesses. Individually the vacant lots do not result in a dramatic development potential, but collectively the impact could be transformative for the stability and economic strength of the neighborhood.

The type of development that should occur on these parcels is straightforward. The parcels should be redeveloped for residential use based on a building type that is found on the neighboring lots on that street. For example, if the vacant lot is on a block with all two-family homes, the infill development should be for a two-family home. If the street is a combination or two-family homes and triple-deckers, the infill development should be either of those existing building types that are part of the existing context on that neighborhood street.

Not all of the vacant lots are under the control of the City of Boston, some are privately owned. Privately owned lots should also be a part of the infill redevelopment strategy. Several approaches to encouraging private lot owners to act on redevelopment include leading by example, communication, modifying zoning where appropriate and exploring temporary uses.

Leading by example is showing through the use of public disposition of vacant lots the expected results of infill development and encouraging similar redevelopment of private property.

Communication includes sharing information about the potential for redevelopment on vacant lots and the intention that redevelopment should be similar to the context of the existing street. This will align potential redevelopment ambitions of private land owners with the reality of the redevelopment potential.

In certain locations close to the rail station, such as the Ronald Street lot, a modification of zoning may be appropriate to allow for multi-family housing of a larger scale. This type of zoning modification should be pursued and communicated to privately-owned parcels that would be affected.

Lastly, if owners of private vacant land cannot be motivated to action, discussion for potential temporary use of the property as a community garden, open space or performance space would be another option. In such circumstances, it is potential liability and insurance considerations that are often the biggest obstacle to productive reuse of vacant space.

New development in the Station Area should be associated with community benefits packages with Memoranda of Agreements signed by officials and any entities funding development. Community benefits that would enhance prosperity in the community should be included such as workforce requirements for inclusion of local workers in development (proportions per trade, per man hour, per apprenticeship and inclusion of minority and women owned business enterprises - MWBE)

In addition to residential infill development, a strategic network of vacant parcels should be used to add to and enhance the open space network in the Station Area. Specific parcels and strategies for adding open space are outlined in the Parks and Public Space section of this report.



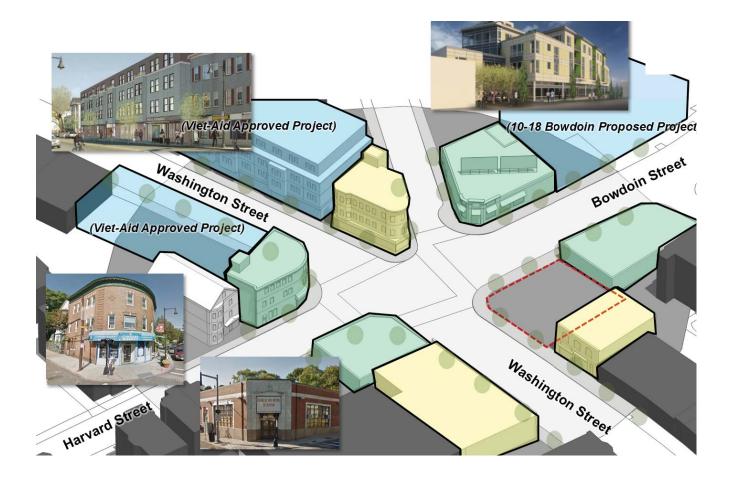












Leverage New Investment and Target Assistance supported Community investment in key properties, such as mixed-use redevelopment at the VietAID parcels in Four Corners, creates a positive momentum for future redevelopment. The market studies and feasibility testing of redevelopment on key sites has shown that redevelopment in the Station Area is difficult under current market conditions. Generally, the potential revenue that would be possible from the investment is not enough to sufficiently cover the cost of redevelopment and not sufficient to fund other community benefits or improvements.

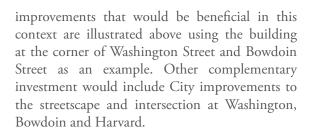
In this economic context, it is important to focus redevelopment efforts at a few key locations and leverage those investments with other forms of targeted assistance and public investment that will result in broad transformation of a district. For example, the VietAID redevelopment is providing a substantial reinvestment in Four Corners and providing new active use of vacant or underutilized parcels in a critical node of activity. Combined with other potential investment at 10-18 Bowdoin Street the positive impact on the district will be significant. See the diagram above.

However, other existing buildings that abut the redevelopment projects are not a part of this reinvestment and may require assistance to improve the facade, storefront or signage of the building. Improvements to the existing buildings adjacent to new investment should be a focus of Main Street efforts and targeted City of Boston resources, such as the Restore facade improvement program. An example of the type of facade

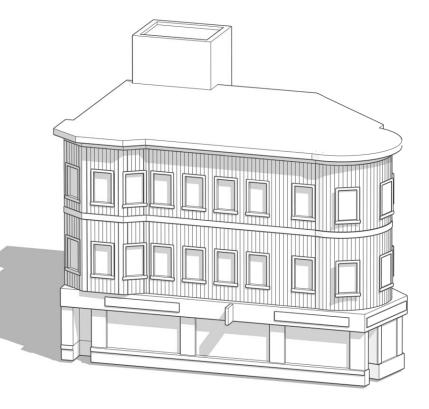


#### POTENTIAL GUIDANCE FOR REINVESTMENT:

- Reinforce façade division of base, middle and top
- Add window trim, remove shutters, reorient all siding to be vertical, add trim between floors
- Reinforce consistent sign band and encourage similar signs for multiple tenants
- Evenly space storefront bays as much as possible
- Strengthen building base with new materials and storefront systems



This type of coordinated effort of targeted assistance and investment in the public realm would leverage the impact of the redevelopment and further enhance a central node in the Four Corners Main Street district.



Concentrate and Add Destinations - One strategy for building community anchors, amenity and activities is already successfully underway and should be continued. The addition of excellent destination attractions and activities is a method to bring focused investment to the Station Area and provide shared community benefits. These assets include the Dorchester Arts Collaborative, the Holland School and its surrounding campus with the Dorchester Head Start Center.

These types of community assets involve many years of advocacy, coalition building, partnerships and public funding, but result in a shared community amenity that anchors private investment in the Station Area. Future attractions and investments should be planned and become part of focused community advocacy. Active ground floor or storefront uses in Main Streets districts should include community based programs, training, business or entrepreneurship development resources. An expanded focus on













new opportunities on the Fairmount Indigo line should be created with direct connections to jobs in Newmarket and near South Station. Connect residents and businesses to new opportunities for training and education to expand economic prosperity in the Station Area.

The success of local businesses is important to the health of the Main Street district and critical to local jobs and wealth creation. The entrepreneurial spirit of local immigrant communities should be leveraged into new local businesses and then given assistance to keep the enterprise successful.

The City of Boston Department of Neighborhood Development supports non-profit organizations that are invested in neighborhoods through the Partners with Non-Profits (PNP) program to provide matching grants to improve facilities located in Boston. This could be used to expand youth organization, senior center, or educational facilities in the Station Area. Retail, small business, entrepreneurial, cultural, and training activity should be directed to occur within the ground floor of Main Street districts.



#### Consider Main Street Districts Holistically -

The three existing Main Street districts are excellent for focusing attention in a specific geography and bringing together community goals and visions. However, the geography of the districts is large and extends through a substantial portion of the Station Area. This substantial length of significant street frontage in the Station Area requires a nuanced and coordinated approach to encourage the districts and the uses within them to flourish.

Within the Main Streets districts existing commercial nodes should be reinforced with new active ground floor uses. Where commercial nodes do not exist within the Main Streets districts, residential infill development should occur to both add positive investment and to reinforce the local resident population that will support local Main Street businesses.

# **Key Opportunity Sites**

The following key sites were selected with the Working Advisory Group (WAG) and analyzed for potential and hypothetical redevelopment to explore implications relating to land use, urban design, zoning and community benefits. Each of the redevelopment scenarios are consistent with the Community Vision and inform strategic and implementation recommendations.















#### **Key Opportunity Sites**

In testing this market context, four key sites were selected to examine the development potential and feasibility of redevelopment in the Four Corners/Geneva Station Area. Key sites were selected based upon the following criteria — sites contributing to and consistent with the community vision, high impact sites that can leverage Station Area investment, and underutilized sites that are potentially susceptible to change. Most of the sites selected are currently completely or partially under public control. The four key sites were tested with hypothetical redevelopment programs that examined the physical fit on the site and the economic feasibility of each concept.

Every potential opportunity cannot be tested in the Station Area, so the four sites tested here are used as prototypes to derive lessons for other similar properties in the area. As highlighted in the implementation section of the plan, the testing of development scenarios on the key sites has been informative in terms of the scale and characteristics of potential development that is seen as desirable in the community. Many important community goals have been formulated and articulated through this planning process and have been explored through this exploration of key sites. The illustrations of each concept do not represent final designs, but were part of an analytical process used to understand and establish community priorities and visioning. Redevelopment would require public and private actions and approvals.

## Ronald Street



Four sites were selected by the Working Advisory Group to explore the feasibility and implications of hypothetical redevelopment scenarios in the Station Area

### 2 160 Geneva Avenue



# Washington/Bowdoin

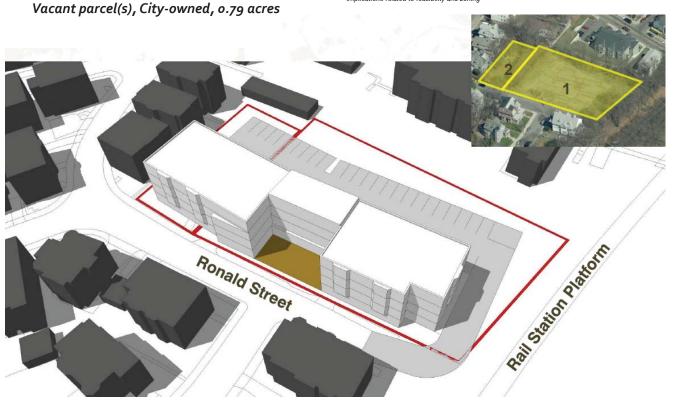


# Washington/Erie



# Ronald Street

A hypothetical residential redevelopment scenario for Ronald Street parcels that explores potential implications related to feasibility and zoning



Directly adjacent to the rail station platform is a relatively large vacant parcel that is owned by the City of Boston under the control of the Department of Neighborhood Development (DND). The lot is about 0.79 acres in area and has frontage on Ronald Street. Adjacent to the City-owned lot is a privately owned parcel that is also vacant. The pattern of development on Ronald Street and nearby Morse and Brinsley Streets includes a pattern of generally 3-story residential buildings with pitched roofs, front porches and an orientation to the streets. The City-owned lot was used as a staging area during the construction of the rail station.

While the lot is immediately adjacent to the rail station platform, the lot is located internal to a residential block and station access would be from Morse Street to Washington Street or Brinsley Street to Geneva Avenue. The property is not visible from the primary streets of

Geneva Avenue, Washington Street, or Columbia Road, but is highly visible from the rail station platform.

#### Significance to Four/Corners Station Area

In terms of access to transit and neighborhood amenities, the redevelopment site is very well located. The property offers an attractive residential redevelopment opportunity. Given its proximity to the station, it should be a residential opportunity of a multi-family scale that is consistent with the surrounding context. Diversity within the residential unit types (workforce housing, senior housing) would be consistent with the community vision. The redevelopment program should be focused on residential uses and should not include retail or commercial components which are better aligned with the surrounding Main Street districts. Increased residential uses in this location would help support Main Street district businesses and local services.













| Proposed Redevelopment Characteristics |               |                           |                                    |                 |                 |                        |   |                                  |        |                     |    | 100                |      | 100                            |
|--|---------------|---------------------------|------------------------------------|-----------------|-----------------|------------------------|---|----------------------------------|--------|---------------------|----|--------------------|------|--------------------------------|
| Bldg                                   | Bldg<br>Level | Area by<br>Floor<br>(GSF) | Total<br>Building<br>Area<br>(GSF) | Retail<br>(NSF) | Office<br>(NSF) | Light<br>Ind.<br>(NSF) | Res.<br>Units<br>(83% eff.<br>800<br>sf/unit) | Resident<br>Parking<br>'Required | Retail | Parking<br>Provided |    | Parking<br>Balance | FAR  | Total<br>Open<br>Space<br>(SF) |
| 1                                      | 1             | 13,438                    | 53,752                             | 0               | 0               | 0                      | 14  | 14                               | 0      | 0                   | 52 | -4                 | 1.25 | 1,884                          |
|  | 2             | 13,438                    |                                    | 0               | 0               | 0                      | 14  | 14                               | 0      |                     |    |                    |      |                                |
|  | 3             | 13,438                    |                                    | 0               | 0               | 0                      | 14  | 14                               | 0      |                     |    |                    |      |                                |
|  | 4             | 13,438                    |                                    | 0               | 0               | 0                      | 14  | 14                               | 0      |                     |    |                    |      |                                |
| TO                                     | OTAL          | 53,752                    | 53,752                             | 0               | 0               | 0                      | 56  | 56                               | 0      | 0                   | 52 | -4                 | 1.25 | 1,884                          |

The hypothetical residential redevelopment program that would be associated with the scale and size of development depicted to the left

#### Potential Redevelopment Program

The potential redevelopment should include residential uses that are appropriately scaled to the surrounding context. The hypothetical redevelopment illustration depicts a 4-story building massing that is broken into several distinct building volumes that relate to the scale of the surrounding triple-deckers. The hypothetical redevelopment diagram yields over 50 residential units.

Even with the transit-oriented context, off-street parking will likely be required and accommodated on the site. The parking should be oriented to the rear of the building and concealed from view from the public right-of-way and the rail station platform. The hypothetical redevelopment illustration depicts parking of about 1 space per unit.

A small amount of open space is depicted in the illustration at the Ronald Street frontage to provide an open entry plaza for the residential redevelopment.

#### Feasibility of Redevelopment

The feasibility of this redevelopment scenario was negative. The advantages of this property for redevelopment include its ownership by the City and ability undertake a public disposition process. No demolition cost burden is placed on the redevelopment of the vacant lots and if both vacant lots were combined it would only require assembly of two parcels. The disadvantages include the straight residential development program showing that mixed-use projects benefit from the retail space for

feasibility in this context. The cost of parking also adds a cost burden to the redevelopment. In this scenario, each unit built represents a loss of money, so the scale of the project, counter intuitively, also works against the overall feasibility.

#### Use and Design Guidelines

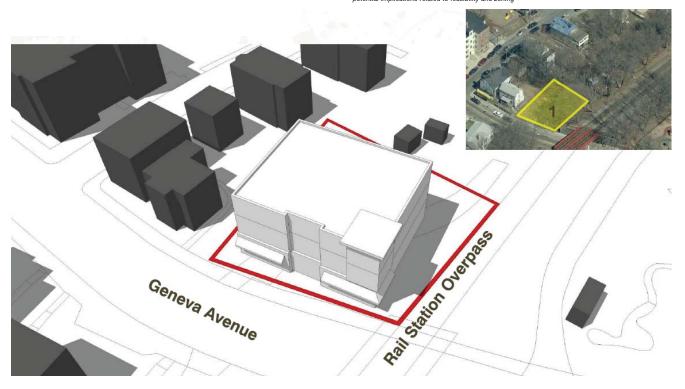
The use and design guidelines for this site include the recommendation to allow multi-family development at this site with a maximum FAR that increases to 1.0 (currently 0.8) and a building height that increases to 4-stories (currently 3-stories). A required stepback at the third-story may reinforce the overall scale of the building massing and consistency with the surrounding context. Building massing should be oriented to frame the street frontage and respect neighboring structures.

Relative to potential feasibility, the off-street parking requirement should be reduced or eliminated, to allow the redevelopment to propose the number of parking spaces that are required within the context of the current market. Parking that is provided should be oriented to the rear of the building, buffered with landscape at property edges and concealed from view from the public right-of-way and the rail station platform.

## 2 160 Geneva Avenue

Vacant parcel, Privately owned, 0.13 acres

A hypothetical mixed-use redevelopment scenario for a gateway Geneva Avenue parcel that explores potential implications related to feasibility and zoning



Immediately adjacent to the rail station entry on Geneva Avenue is a vacant parcel on the north side of the street. This parcel is a small area (0.13 acre), but it is in a critical location. The parcel is privately owned. One future use for the site that was explored, was mixed-use redevelopment including an active ground floor retail space and two floors of residential uses above. This type of redevelopment program would take advantage of the direct proximity to the rail station entry and enhance this gateway location for the Bowdoin Geneva portion of the Station Area.

Relative to the development scenario discussed on the preceding pages for Ronald Street, the scenario for 160 Geneva Avenue is a considerably smaller development program. Potentially, a larger redevelopment opportunity at this critical location could be unlocked if a number of private parcels leading to the corner of Vaughan Avenue

were assembled and redeveloped. However, this would create a larger redevelopment program in which the balance of each unit built has a negative implication on the feasibility.

The immediate context of the site on Geneva Avenue is generally of larger scale residential buildings between three- and five-stories in height. The building massing increases in scale as Geneva Avenue approaches Columbia Road, the next major intersection west of Vaughan Avenue.

#### Significance to Four Corners/Geneva Station Area

Similar to many other station area entries for new stations along the Fairmount Indigo line, the Geneva Avenue station entry is located in an area that was not previously a center of activity. As such, it is in a location that would benefit from an enhanced building presence,













| Proposed Redevelopment Characte |               |                           |                                    |                 |                 |                        |   |          |  |  |         |                    |      |                                |
|---------------------------------|---------------|---------------------------|------------------------------------|-----------------|-----------------|------------------------|---|----------|--|--|---------|--------------------|------|--------------------------------|
| Bldg                            | Bldg<br>Level | Area by<br>Floor<br>(GSF) | Total<br>Building<br>Area<br>(GSF) | Retail<br>(NSF) | Office<br>(NSF) | Light<br>Ind.<br>(NSF) | Res.<br>Units<br>(83% eff.<br>800<br>sf/unit) | Required | Retail<br>Parking<br>Required<br>(2/1000 sf) | Structured<br>Parking<br>Provided<br>(rough<br>layout) | Parking | Parking<br>Balance | FAR  | Total<br>Open<br>Space<br>(SF) |
|                                 | 1             | 4,200                     |                                    | 3,570           | 0               | 0                      | 0   | 0        | 7  |  |         |                    |      |                                |
| 1                               | 2             | 4,200                     | 12,600                             | 0               | 0               | 0                      | 4   | 4        | 0  | 0  | 0       | -15                | 2.19 | 0                              |
|                                 | 3             | 4,200                     |                                    | 0               | 0               | 0                      | 4   | 4        | 0  |  |         |                    |      |                                |
| TO                              | DTAL          | 12,600                    | 12,600                             | 0               | 0               | 0                      | 8   | 8        | 7  | 0  | 0       | -15                | 2.19 | 0                              |

The hypothetical mixed-use redevelopment program that would be associated with the scale and size of development depicted to the left

increased activity and new sense of arrival and gateway. New investment to improve the properties directly adjacent to the rail station entry would align with the significant transit resource and investment represented by the rail station.

#### Potential Redevelopment Program

Geneva Avenue is one of the cross connecting corridors through the Station Area providing a direct link between the Geneva Avenue Station Entry to the Bowdoin/ Geneva Main Streets District to the east. Geneva Avenue near the station is primarily residential and includes a community center and school. While not a location of current retail activity, a modest ground floor and active use would complement and activate the station entry area. A small number of residential units above the active ground floor could take advantage of the excellent transit access and convenient location.

Due to the small size of the parcel, providing parking on the site is very difficult. Even with the modest redevelopment program tested of a small ground floor retail space and eight residential units above, enough parking to support the redevelopment cannot be provided. Given the modest scale of redevelopment, no off-street parking was included in the redevelopment scenario. The community reaction to the redevelopment program was that it was very modest and would not dramatically improve this portion of Geneva Avenue. Under the current conditions, the general thought was that this parcel would be better to reconsider in the future for a more impactful redevelopment.

#### Feasibility of Redevelopment

Interestingly, the modest scale of this hypothetical redevelopment benefits its financial feasibility. Several factors contribute to the positive outcome for this redevelopment scenario. Although the retail use is modest it represents a substantial proportion of the development program and enhances the revenue potential of the redevelopment. The vacant site has the advantage of no demolition cost burdens and no assembly as its layout is on one parcel. Not providing parking is also a major cost advantage and contributes to feasibility. The small scale project does make it sensitive to variations in achievable rents or other cost and revenue assumptions.

#### Use and Design Guidelines

The property is currently within a Multifamily Residential Subdistrict in the Roxbury Neighborhood Zoning District. The hypothetical scenario does not meet the offstreet parking requirement (1 space per residential unit) and also exceeds the maximum floor area ratio (1.0).

The overall use and design guidelines for the site should encourage an active ground floor use that defines the street edge and contributes to a gateway presence near the Geneva Avenue Station entrance. Upper floor uses should be residential or commercial that are designed and marketed to encourage car-free living to enhance the ability to reduce off-street parking associated with the project.



One of the primary nodes of the Four Corners Main Street District is the historic intersection for which the area is named. The intersection of Washington Street, Bowdoin Street and Harvard Street is at the heart of this district and has been the location of significant recent and ongoing investment. In this context, one significant and prominent corner remains vacant and underutilized, the southeast corner of the intersection between Washington and Bowdoin streets. It should be noted that the corner lot is currently being used as a pocket park for the neighborhood and has been improved by the community and owner. The property is privately owned.

The issue with the vacant corner lot is its overall scale (0.1 acre) that may create difficulty in achieving a meaningful development program. One potential opportunity would

be to combine this vacant lot with an adjacent parcel for a larger redevelopment opportunity, however the abutting property are home to existing establishments and would require demolition. As discussed in previous scenarios, the small scale may be an advantage in terms of financial feasibility, but may not provide a large scale opportunity to attract investment.

#### Significance to Four Corners/Geneva Station Area

The significance of this primary intersection is evident in both the history of the area and reflected in the current investment patterns. Pursuing an active and viable use for this vacant parcel is critical to completing the coordinated series of investments in the immediate area that will transform the center of the Four Corners Main Street District.













#### Proposed Redevelopment Characteristics Structured Surface Total Resident Retail Total Area by Parking Parking Light Units Building Blda Retail Office Parking Parking **Parking** Open (83% eff., Required Required **Provided** Provided Floor Ind. Area (NSF) (NSF) Balance Space (GSF) (NSF) (rough (rough (1/unit) (2/1000 sf) (SF) sf/unit) layout) layout) 1 4,741 4,030 0 0 0 0 8 5 2 4,741 14,223 0 0 0 5 0 0 0 -18 0.54 3 0 0 0 5 0 4,741 5 14,223 14,223 4,030 0 0 10 10 0 0.54

The hypothetical mixed-use redevelopment program that would be associated with the scale and size of development depicted to the left

#### Potential Redevelopment Program

This critical corner in the Four Corners Main Street district must provide an active ground floor use that will contribute to the continuity of this commercial and retail node in the Main Street district. Additional uses should be provided above the active ground floor within a building height that respects the general height of the surrounding context of about 3-stories. The development scenario tested 2-stories of residential development above the active ground floor uses.

Due to the small size of the parcel, providing parking on the site is very difficult. Even with the modest redevelopment program tested of a small ground floor retail space and ten residential units above, enough parking to support the redevelopment cannot be provided. Given the modest scale of redevelopment, no off-street parking was included in the redevelopment scenario.

#### Feasibility of Redevelopment

Similar to the financial testing of 160 Geneva Avenue, the smaller scale redevelopment seems to work in favor of financial feasibility, particularly when combined with a high proportion of retail space and a removal of the burden of parking costs. Several factors contribute to the positive financial outcome for this hypothetical redevelopment scenario. Although the retail use is modest it represents a substantial proportion of the development

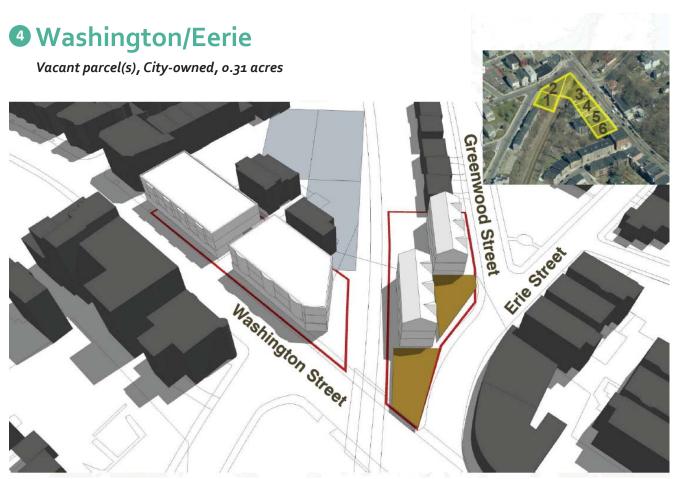
program and enhances the revenue potential of the redevelopment. The vacant site has the advantage of no demolition cost burdens and no assembly of land as its layout is on one parcel. Not providing parking is also a major cost advantage and contributes to feasibility. The small scale project does make it sensitive to variations in achievable rents or other cost and revenue assumptions, but the redevelopment opportunity while modest calculates through a positive return on investment.

#### Use and Design Guidelines

The property is currently within a Local Convenience Subdistrict in the Dorchester Neighborhood Zoning District. The hypothetical scenario does not meet the off-street parking requirement (1.5 spaces per residential unit), but generally complies with other dimensional limitations (except for rear yard setback distance).

The overall use and design guidelines for the site should encourage an active ground floor use that defines the street edge and contributes to an active primary node in the Four Corners Main Street district. Upper floor uses should be residential or commercial that are designed and marketed to encourage car-free living to enhance the ability to reduce off-street parking associated with the project.

In the short term, an active use of the property, such as the community park, positively contribute to the district.



A hypothetical mixed-use redevelopment scenario for Washington Street parcels that explores potential implications related to feasibility and zoning

One significant node in the Four Corners Main Street District is directly adjacent to the Washington Street Station Entry. At this critical segment of the district a collection of parcels with frontage on Washington Street, Erie and Greenwood Streets remains vacant. The number of vacant parcels in this critical location detract from the district overall and have a particularly negative impact as a major gateway into the Station Area from the rail platform. The vacancies are divided by the rail right-of-way and Washington Street overpass above the tracks. The vacancies on Washington Street are more prominent and are currently occupied by vacant and overgrown laws enclosed by fences. Ground floor retail activity occurs in this area of the Main Street district on either side of these properties.

#### Significance to Four Corners/Geneva Station Area

As recommended in the previous Four Corners Main Street Urban Village Concept Plan, concentration of the commercial and retail activity into two primary nodes is an important idea. The vacant parcels on Washington Street disrupt the continuity of the node at the Washington Street rail station entry and provide an opportunity to establish identifiable entry points into the Main Street district. The vacant parcels on Erie and Greenwood Streets provide an opportunity to create new housing directly adjacent to the station entry and to provide a new landscaped public plaza directly across from the station entry that can serve as a gathering place and mobility hub to make transfers from the rail to other forms of transportation (bus, bike, Hubway or car).













#### Proposed Redevelopment Characteristics Structured Surface Res. Total Resident Retail Total Parking Area by Light Units **Parking** Building Parking Bldg Retail Office Parking Parking Open (83% eff., Required Required Bldg Floor Provided Provided Level Area (NSF) (NSF) Balance Space (GSF) (NSF) (rough (rough (1/unit) (2/1000 sf) (SF) sf/unit) layout) layout) 3 7,535 22,605 6,405 0 0 16 16 13 2 3 6.274 18,822 5.333 0 0 14 14 11 0 50 -17 4.040 0 6 6 3 3 7,200 0 0 0 2,400 0 0 4 3 7,200 0 6 6 2,400 55,827 14,223 11,738 0 TOTAL 44 0 2.60 4.040

The hypothetical mixed-use redevelopment program that would be associated with the scale and size of development depicted to the left

#### Potential Redevelopment Program

The potential redevelopment program is divided into two approaches, one for parcels with Washington Street frontage and one for parcels with Erie or Greenwood Street frontage. The Washington Street frontage should contribute to the active ground floor uses of the Main Street district. Ground floor retail spaces have been included in the potential redevelopment program. Based on the market context analysis, residential uses are placed above the active ground floor uses. The 3-story structures area appropriate to the surrounding context and allow for surface parking behind the existing buildings to support the development. Along Erie and Greenwood street frontages uses should be residential to continue the current pattern of use on that side of the street, add residents near the station and concentrate retail activity on Washington Street.

#### Feasibility of Redevelopment

The financial feasibility of the hypothetical redevelopment scenario was positive. The positive outcome was bolstered by the retail uses enhancing revenue potential, the potential for a cost write-down on publicly-owned land, no cost burden for demolition and a low acquisition and assembly cost reflected by a relatively limited number of parcels and land owners.

#### Use and Design Guidelines

The property is currently within a Three-Family Residential Subdistrict in the Greater Mattapan Neighborhood Zoning District. The hypothetical scenario does not comply with many use and dimensional characteristics of this underlying zone. An increase in the allowable floor area ratio and building height and reduction in required yard setbacks and off-street parking required would better align the parcels with the potential opportunity and reinforce financial feasibility.

The overall use and design guidelines for the site should encourage an active ground floor use that defines the street edge and contributes to an active primary node in the Four Corners Main Street district. Upper floor uses should be residential or commercial that are designed and marketed to encourage car-free living to enhance the ability to reduce off-street parking associated with the project. Building massing and scale should respect and respond to the surrounding context and generally retain the 3 to 4-story height other buildings in the Main Street district. Parking should be oriented to the rear of the properties and screened from view from public right-of-ways.



# HOME

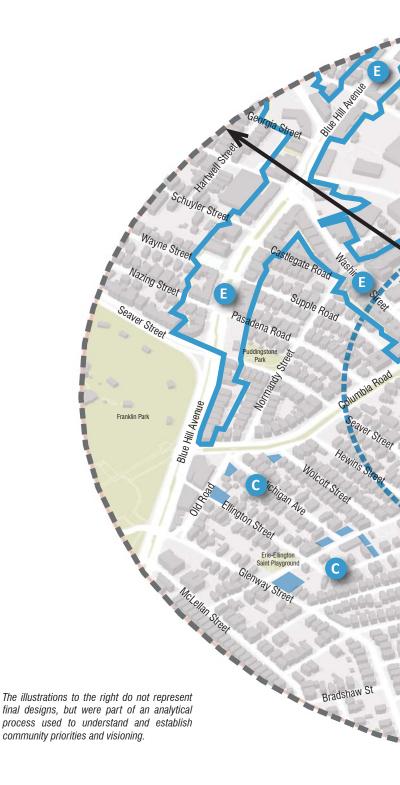
The *Home* section addresses the issues and opportunities associated with the supply of and demand for housing in the Four Corners/Geneva Station Area. Strategies and recommendations focus on reinforcing the neighborhoods of the Station Area as desirable places to live and aligning the characteristics of new housing opportunities with the Community Vision.



## Home

Provide new mixed-income housing opportunities near the station and stabilize existing neighborhood streets to support vitality and prosperity. The approach to housing in the Station Area focuses on the following:

- A Retain Diversity and Affordability Expand housing choice and opportunity for current residents to maintain community diversity and relative affordability with new housing and rental and homeownership assistance.
- B Improve Housing Quality and Sustainability Encourage residents and owners in the Station Area to improve existing homes through sustainability, energy efficiency and renovation assistance programs.
- C Leverage Vacant Lots for Infill Housing Add new housing to match the existing neighborhood street targeted for middle income and senior residents.
- D Encourage Multifamily Near Station Larger vacant sites within 1/4 mile of the station should be encouraged through zoning to redevelop at density beyond triple-deckers, but at a scale appropriate to the neighborhood.
- Focus New Housing in Main Street Districts New housing in the Main Street districts should be encouraged above active ground floor uses to support district vitality and local businesses.





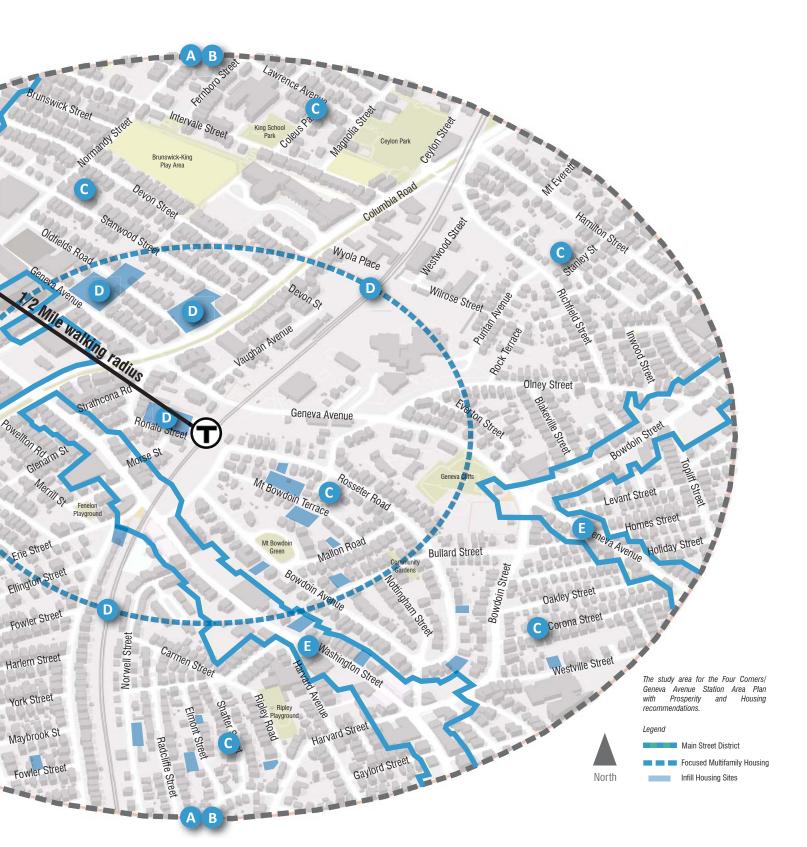












## Home

The majority of the land use within the Station Area is residential and the Station Area will remain primarily a residential community into the future. Therefore reinforcing the Station Area as a safe and attractive place to live is critical to supporting many of the other goals and ambitions of the Community Vision.

The historic housing stock in the Station Area has been retained and reasonably well-maintained, creating attractive tree-lined blocks of homes. The Station Area Main Street districts provide convenience for goods and services within walking distance of many of the homes. The addition of new housing is critical to adding supply to the housing needs in this area, but also to stabilize the neighborhoods and to add new residents and activity to support the Main Street districts. More housing is necessary to add demand to meet the community vision of new and varied retail uses. Many of the blocks within the Station Area neighborhoods are interrupted with vacant lots and would be an ideal location to add new residential units that are in the scale and context of surrounding neighborhoods.

Other potential housing sites are located adjacent to the rail station or Main Streets districts. These locations should be considered for mixed-use residential development that also brings an active ground floor to a critical location. All new housing in the Station Area should have certain characteristics to be consistent with the vision for the Station Area. New housing units should be mixed-income and should provide workforce housing units to retain income diversity in the neighborhoods. The approach to housing in the Four Corners/Geneva Station Area focuses on the following characteristics to provide new mixed-income housing opportunities near the station and stabilize existing neighborhood streets to support vitality and prosperity:



**Retain Diversity and Affordability** - Expand housing choice and opportunity for current residents to maintain community diversity and relative affordability with new housing and rental and homeownership assistance.

One of the unique characteristics of the Station Area is the diversity of the community that calls it home. As the Station Area is improved over time, it is critical to the health of the community that the current community is retained and that affordability for a diverse population is maintained. Affordable housing units should be integrated with market-rate units in new development that maintains and embraces income diversity as a characteristic of the neighborhood.

The creation of new housing should expand opportunity for mixed-income diversity, homeownership, senior housing and housing for artists. New units should add quality housing choices that add supply as part of a strategy to retain area affordability. Workforce housing units consistent with the City's Inclusionary Development Program (IDP) should be included on-site in new development in the Station Area, of any scale, including 3-unit infill projects.

Newhousing should include a range of units (studio, 1-bedroom, 2-bedroom and 3-bedroom) that are provided for income diversity. New development opportunities in the Station Area should not be composed either entirely of affordable housing units or composed entirely of market-rate housing units. Instead, a mix of incomes (low, middle and high) should be integrated into each development opportunity to reinforce and retain the diversity of the Station Area.

Larger redevelopment projects should include workforce housing units at a percentage that is higher than currently required by the City. Consistent with the IDP Program, half of the on-site units should be affordable to households earning 80% of the Area Median Income (AMI)







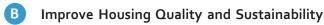






and half of the units should be affordable to households earning between 80% and 100% of the AMI. Additional senior housing opportunities should be provided as part of neighborhood revitalization.

As a part of all housing types, local homeownership should be reinforced, including condominiums and two-family homes. A portion of first-time home buyer and rental assistance programs in the City should be developed into a program targeted for households within the Station Area that may face future upward pressure on housing costs.



- Encourage residents and owners in the Station Area to improve existing homes through sustainability, energy efficiency and renovation assistance programs.

This strategy of the housing component of the Station Area Plan is to reinforce the quality, energy efficiency and sustainability of the existing housing stock in the Station Area. This strategy could include the creation of neighborhood incentive programs for upgrading housing quality, utility infrastructure, and sustainability with energy and building envelope modifications or facade improvements. This type of program could be available to resident homeowners or landlords to improve the quality of housing for owners and renters.

Several such programs already exist at the State and City level to assist in home improvement such as Rebuilding Together and a variety of financial assistance programs offered by the Department of Neighborhood Development (DND). DND programs are designed for assistance to owner occupied single to four-family homes like HomeWorks HELP, Senior Home Repair, and Renovation Assistance for Triple Decker Owners. The programs offer interest free loans for specific home improvements, facade repairs or energy retrofits and could be geographically targeted



A common example of the existing housing stock in the Station Area

to improve the housing quality on specific residential streets in the Station Area. Existing resources should be promoted to area residents and landlords to improve quality of the existing housing stock to reinforce uniformity of high quality neighborhoods as new investments are made.

Leverage Vacant Lots for Infill Housing - Add new housing to match the existing neighborhood street targeted for middle income and senior residents.

An inventory of currently vacant properties in the Station Area has been created, refer to the figure on the following page. The majority of vacant parcels are privately owned and evenly distributed throughout the residential streets in the Station Area. The vacant parcels are not contributing positively to a stable neighborhood and not supporting the Main Streets district. Vacant neighborhood properties should be systematically redeveloped and utilized as new housing to stabilize residential streets.

Vacant parcels may also be used to increase the network of publicly accessible open space, as highlighted in the following "Parks and Public Space" section, to supplement the existing public space. Adding new residential units to these properties would provide additional residential activity and in some cases remove blighted properties from neighborhoods.

New units should contribute to the overall strategy of retaining diversity and affordability in the Station Area. At least one housing unit per infill property should be made available as workforce housing and homeownership programs should encourage local ownership. Ownership options should also include programs to create local ownership of two and three family homes to build opportunities for local homeower/landlords.

Encourage Multifamily Near Station - Larger vacant sites within 1/4 mile of the station should be encouraged through zoning to redevelop at density beyond that of a triple-decker, but at a scale that remains appropriate to the surrounding neighborhood.

New transit-oriented housing of a density higher than the surrounding context would help the Station Area to support new amenities, vital retail and transit services that are desired by the community. This type of development and investment may not yet be feasible from a real estate market perspective, but it should be consistently located in the future. New transit-oriented housing units should be focused on properties adjacent to the transit station and Main Streets district to reinforce activity and walkability.

This type of redevelopment should be carefully considered in the context of the surrounding neighborhoods to maintain the character of the Four Corners/Geneva community while adding investment to support the amenities desired by the community. Transit-oriented housing should be designed to fit into the context with architectural treatment and building disposition on the site that reinforces primary streets with active ground floor uses. All parking provided must be concealed within the development site. Site plan and amenities should reinforce walkability. Redevelopment projects of a transit-oriented scale should also provide community benefits for improvements to public and community gathering space.



New mixed-use development under construction in the Four Corners Main Street district Image: Utile

### Focus New Housing in Main Street Districts

- New housing in the Main Street districts should be encouraged above active ground floor uses to support district vitality and local businesses and to fill upper level vacancies that may exist and that are difficult to lease for other uses.

The major activity corridors of the three Main Street districts in the Station Area should be reinforced with mixed-use activity to reinforce continuity in ground floor use and walkable commercial districts. This focus of creating a continuity of active ground floors should occur on Washington Street, Bowdoin Street and Blue Hill Avenue. The use above the active ground floor should be residential to bring new activity to support the retail activity.

This type of mixed-use activity should be added to the Main Streets district. Many of vacancies in the Main Streets district are upper level commercial spaces that are difficult to lease. One solution would be to provide a program that would assist in the conversion of this space to code compliant residential units. This type of upper level residential unit should be added to the Main Street district to add vitality and economic activity.





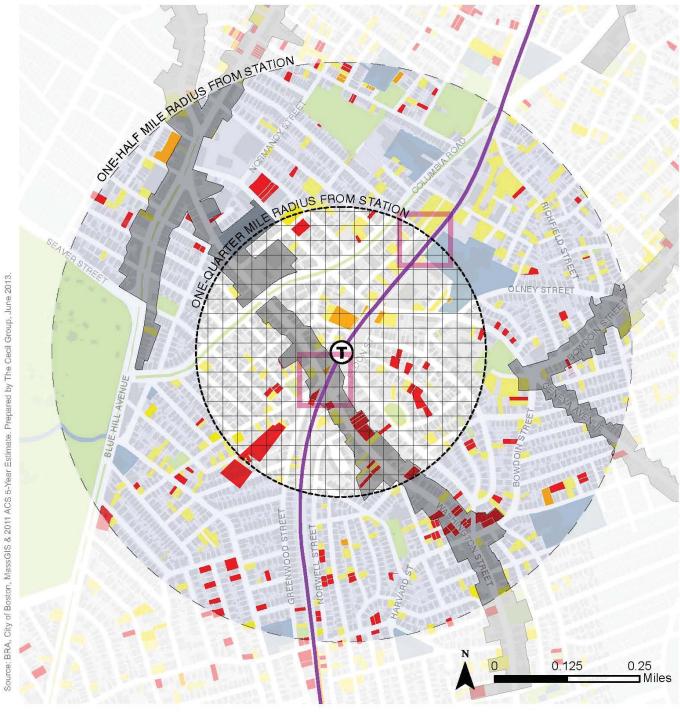


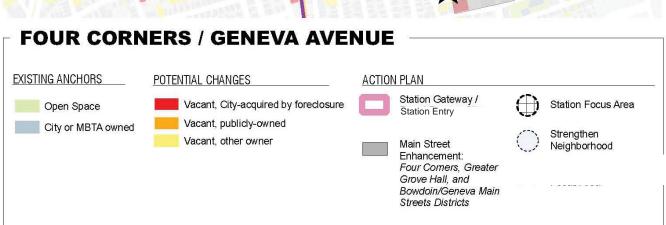






A diagram showing the location of vacant parcels in the Station Area, the Main Street district and the locations where transit-oriented development should be focused







# PLACE

The *Place* section deals with the physical environment of the Four Corners/Geneva Station Area and how the elements of the environment contribute to a positive sense of place. Strategies and recommendations deal with the characteristics and qualities of neighborhoods and places that create desirable places to live, work, and shop.



## Place

The Station Area's character and physical environment should reflect the longevity of the location as an important City node and crossroads:

- A Preserve and Maintain History and Character
   Improve existing buildings, facades and open space character as part of new investment and redevelopment to maintain historic heritage in the Station Area.
- B Reinforce Continuity of Ground Floor Use Expand continuous ground floor uses and storefront activity in Main Streets commercial nodes to avoid gaps in vitality.
- C Target Public Realm Improvement Near Investments and Gateways Focus public realm improvement near recent investment to reinforce nodes near the rail station and in the Main Street district gateways
- D Enhance Vibrancy of Main Streets as a Destination for a Variety of Activities Use the Main Streets and rail station for event programming and community activities to reinforce them as destinations.
- **E** Connect Consistent Sense of Place Connect a sense of place directly and continuously from Station entry gateways to Main Street districts with streetscape, signage and art installations.





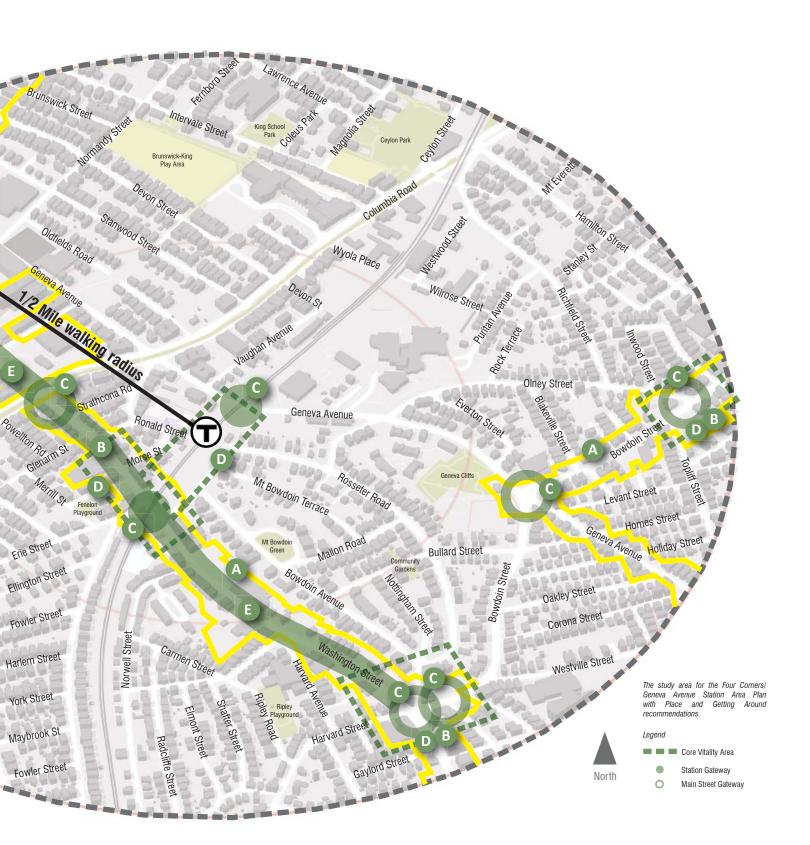














## Place

Place is a category of recommendations that is concerned with the character and quality of the physical environment. The physical environment is the composition of the buildings, streets, and landscape that define the look and feel of the Four Corners/Geneva Station Area. The configuration of these components can help to contribute to a positive sense of the place or can communicate negative signals about the community.

Cultivating a positive sense of place in the Station Area is very important to the vitality of the Main Street Districts and to reinforcing the safety and walkability of the surrounding neighborhoods. A positive sense of place also benefits the use of the rail station and attracts residents and visitors alike.

In terms of a positive, strong and memorable sense of place, the Station Area has several assets that should be highlighted. Washington Street offers the strongest sense of place at the Station entry with the entry located within the Main Street district. The active ground floor uses within the Four Corners Main Street district and regular pattern of two and three-story buildings that frame the street form a consistent character for the street. The active pedestrian-oriented district extends from the station entry to the east and west on Washington Street. The station entry has recently been enhanced with a pedestrian amenity in the new bench at the bus stop on the bridge that is also a placemaking and art feature.

The Bowdoin Geneva Main Street district also has a strong sense of character with a cluster of active ground floor uses on Bowdoin Street. The Bowdoin Geneva Main Street district is not located at the Geneva Avenue Station Entry and the sense of place at the station could be strengthened. Lastly, the Grove Hall Main Street district has a strong sense of place with the ground floor activity focused on Blue Hill Avenue and Washington Street.

For a rail passenger, the experience of place begins on the platform, and up or down the ramps and onto

Washington Street or Geneva Avenue. The critical moments in creating a memorable and positive experience is at the gateway moments of entry into the main center of activity. The physical environment should provide visual cues for attractive and stable neighborhoods with well-maintained streetscape, inviting and generous places to walk, and active and attractive storefronts and shops.

The Station Area's character and physical environment should reflect the longevity of the location as an important City node and crossroads:



Significant and iconic buildings in the Station Area should be preserved and improved as landmarks



#### Preserve and Maintain History and Character

- Improve existing buildings, facades and open space character as part of new investment and redevelopment to maintain historic heritage in the Station Area. While redevelopment of vacant lots and underutilized parcels is good for the vibrancy of the Station Area, the loss of historic structures or historically significant sites should be avoided to maintain a direct connection to the history of the area. Community pride must be reflected in the preservation, maintenance, appearance and general attractiveness of the physical environment and character of the new and existing buildings, structures and open spaces.

Building a shared community pride in a place is significant in bringing people together. It is important that with every improvement and investment the community can continue to recognize itself and build its shared sense of pride.













A strengthening sense of the significance of past events, residents and narratives that occurred within the Station Area builds community pride and connection. This requires a balance of preservation, maintenance, investment and creation to bring forward the history and character of the Station Area that resonates with the community.

In addition to the preservation of physical structures to maintain a diversity and variety of building types and styles, it is important to highlight the historic narratives that have occurred in the Station Area through public art, signage and other memorials or monuments. Narratives to highlight in the Station Area include that of Massachusetts Governor James Bowdoin (1785-1787) and his estate in the historic countryside of the station area. Bowdoin's name is found on contemporary streets and open spaces in the area and connecting to his story could be provide many narratives that are relevant today.

Other relevant historic narratives may include that of Robert Paine, a philanthropist and social reformer, that was involved in the development of housing in the station area around the year 1900. He built more than 50 residences to provide housing that would be affordable to working and middle class residents.

Another asset of the overall character of the Station Area is the residential streets with two and three family homes, on-street parking and sidewalks punctuated by older trees. This predominant station area environment is a major contributor to the visual character of the community as a residential and family-oriented place. Just as it is important not to displace the residents, businesses and culture that form the heart of the current community, it is equally important to be considerate of the existing built environment, patterns of use, and the landmarks that contribute to a sense of place.

## B Reinforce Continuity of Ground Floor Use

- Expand continuous ground floor uses and storefront activity in Main Streets commercial nodes to avoid gaps in vitality. The three Main



Active ground-floor storefronts and a pedestrian-friendly environment enhance the vibrancy of the station's Main Street districts

Streets districts in the Station Area are extensive and include a significant amount of street frontage. Pedestrians are most likely to experience portions of the districts at either a specific segment or node within the overall Main Street district boundary. Active ground floor uses should be encouraged within specific nodes of activity within each Main Street district. Blank and inactive facades should be removed and discouraged in these critical nodes of activity.

In the Four Corners Main Street district, two ground floor activity nodes exist in the Station Area. The first is directly at the Station Entry on Washington Street and includes active ground floor storefronts to either side of the station entry. The second activity node exists at the historic intersection of Washington Street, Bowdoin Street and Harvard Street. The ground floor activity is centered on this intersection, but includes ground floor uses down each of the streets in each direction. This should be an area of active ground floor uses, transparent storefronts and expanded pedestrian-oriented sidewalks, open spaces and amenities.

In the Bowdoin Geneva Main Street district this ground floor activity node is on Bowdoin Street from approximately Olney Street to Draper Street. Active ground floor uses should be encouraged and reinforced within this portion of the district whenever possible. In the Grove Hall Main Street district this ground floor activity node is on Blue Hill Avenue and focused at the intersection with

Washington Street and Geneva Avenue. Inactive ground floors and large parking lots with frontage on primary streets are weakening this central node of the district.

The expanded ground floor activity should be complementary to the Main Street businesses that already exist and should likely target more resident and commuter-oriented convenience and services. It is most important to maintain the health and the strength of the core nodes of each of the Main Streets districts in terms of a sense of place.

C Target Public Realm Improvement Near Investments and Gateways - Focus public realm improvement near recent investment to reinforce nodes near the rail station and in the Main Street district gateways. The new rail station and recent development investments are strengthening the sense of place on Washington Street and Geneva Avenue. Public realm investments should be made in targeted locations to reinforce the sense of place and sense of arrival at these locations.

The investments should include sidewalk improvements, enhanced pedestrian crossings, expanded pedestrian plazas, expanded streetscape including street trees and shrubs and improved and consistent lighting. Improved pedestrian crossings should include neck-downs at crossings where the curb and sidewalk are brought out into the street to align with on-street parking to expand the pedestrian realm and make pedestrians crossing the street more visible to drivers.

The expansion of pedestrian plazas should be created wherever possible. Vacant lots in these locations could be temporarily used as public spaces, such as the vacant lot at the corner of Washington Street and Bowdoin or the Bowdoin Street community space. This type of use of space can be temporary to strengthen the district in the short term and can then either be redeveloped, as the market improves, or made into a more permanent public space investment. Even a modest expansion of public space can be a well-used and needed amenity in



Placemaking and public realm enhancements at the center of the Grove Hall Main Street district

the right location. For example, a parking space in front of a popular restaurant could be converted into outdoor seating that is provided with a buffer and landscaping to the adjacent street.

Targeted improvements should also include existing buildings that are adjacent to redevelopment and new investment. The existing buildings may appear more in need of reinvestment as new investment occurs nearby. Simple facade improvements and investments can have a large impact on the visual character and quality of a district. Key corners, gateway sites, and locations of high visibility adjacent to new investments should be prioritized. Properties that are thought to have a negative impact on the sense of place should be addressed by working with the owners to make attainable improvements.

Storefront improvements can be subsidized by City of Boston programs such as Restore Boston offered through the Office of Business Development. The Four Corners and Bowdoin/Geneva Main Streets programs can help to facilitate the identification of improvements and connection to appropriate City assistance programs.

The Four Corners/Geneva rail platforms should be considered an extension of the Station Area public realm and used as a convenient pedestrian route connecting Washington Street and Geneva Avenue. The station platforms should be made to be more pedestrian-friendly and active to enhance this walking connection. The station platforms













and entry plazas may be considered for public art, retail carts, vendors or other temporary activities to reduce a sense of vacancy at the platforms and to enhance the vibrancy of this gateway and pedestrian connection.

D Enhance Vibrancy of Main Streets as a Destination for a Variety of Activities - Use the Main Streets and rail station for event programming and community activities to reinforce them as destinations. While the Main Streets districts have been traditionally a location of retail and commercial activity, they are also increasingly home to cultural, community and institutional activity as well. It is important to regard the Main Street districts as important collectors of vibrant and active uses that will both serve and elevate the community. All uses in active Main Street nodes should contribute to the sense of a vital, inviting and active place with transparent ground floor storefronts and pedestrian-friendly uses, lighting and signage.

In regard to a sense of place, a really strong center of activity can become the heart of a community. A strong place can provide a shared foundation and source of pride for the community to build other positive activity upon. Storefronts should not be reserved for retail or commercial use only, but should include community advocacy groups, arts and cultural spaces, neighborhood and resident training centers, entrepreneurship and innovation centers for the neighborhood or other uses that can positively contribute to the Station Area. All of these uses, when located in a Main Streets district, must be designed and programmed to provide activity at the front of the space, adjacent to the sidewalk, that is frequently used and that contributes to an active and vibrant pedestrian environment.

**E** Connect Consistent Sense of Place - Connect a sense of place directly and continuously from Station entry gateways to Main Street districts with streetscape, signage and art installations. The public realm investments that are made should be made consistently within the Main Streets

districts, but should also emphasize critical nodes of activity. A consistent sense of place helps to reinforce wayfinding and orientation, particularly on arrival to the Station Area on rail. This means applying a consistent treatment to Washington Street to reinforce the Four Corners Main Street district. The consistent treatment should then emphasized with more landscape, pedestrian spaces and amenities at important nodes - the Station Entry, 157 Washington Street, and the intersection of Washington, Bowdoin and Harvard.

A similar, but differentiated, treatment should occur on Washington Street to the west of the station entry to reinforce the Grove Hall Main Street district and its connection to the Fairmount Indigo line. Similarly, a consistent treatment should be applied to Geneva Avenue to reinforce the pedestrian environment and walkability from the station entry to the Bowdoin Geneva Main Streets district. This enhanced streetscape and pedestrian safety improvement street treatment could also be warranted on Olney Street to connect pedestrians more directly from the station entry to the center of Main Street activity on Bowdoin Street.

The consistent sense of place should be reinforced and complemented by a simple set of coordinated wayfinding signs that direct people to the nodes of activity in the Main Streets districts and significant activity centers or cultural landmarks, such as the Dorchester Arts Collaborative. One seemingly minor storefront modification that would have a major impact on the perception of place would be the removal of security gates and roll-down doors that get closed during off-hours. This type of storefront treatment gives a very negative impression when not open for business. A focused program to assess whether crimes such as vandalism, breakins or burglaries are an issue for storefronts in the Station Area and whether the security gates reduce the incidence of these crimes could be undertaken to work with owners on this issue. If owners cannot be convinced to remove the devices, a beautification program with public art interventions would be a productive short term solution.



## GETTING AROUND

The *Getting Around* section focuses on issues and opportunities related to transportation in the Four Corners/Geneva Station Area. Strategies and recommendations focus on improving all mobility options in and around the Station Area.



## **Getting Around**

The new rail station at Four Corners/Geneva Avenue enhances connections to downtown. The following approaches enhance connection and circulation within the Station Area for all modes of transportation and leverage the new transit investment:

- A Manage Main Street and Neighborhood Parking - Support small businesses, protect residents and enhance transit access.
- B Improve Main Street Gateways Intersection improvements for pedestrian and vehicular safety and enhanced landscape should be focused at Main Street gateways.
- C Increase Neighborhood Walkability and Bikeability Enhance safe routes from neighborhoods to Main Streets and station entries using the Boston Complete Street policies for safer pedestrian and bicycle circulation.
- Reinforce Public Realm to Station Washington Street and Geneva Avenue are key connecting streets to the station, enhance bike, pedestrian and bus amenities.
- Enhance Station Entries Add small plaza spaces and expanded mobility hubs for bike or bus connections including bus shelters and places to sit. Explore access to platforms from locations in adjacent neighborhoods (for example Ronald Street or the Holland School).





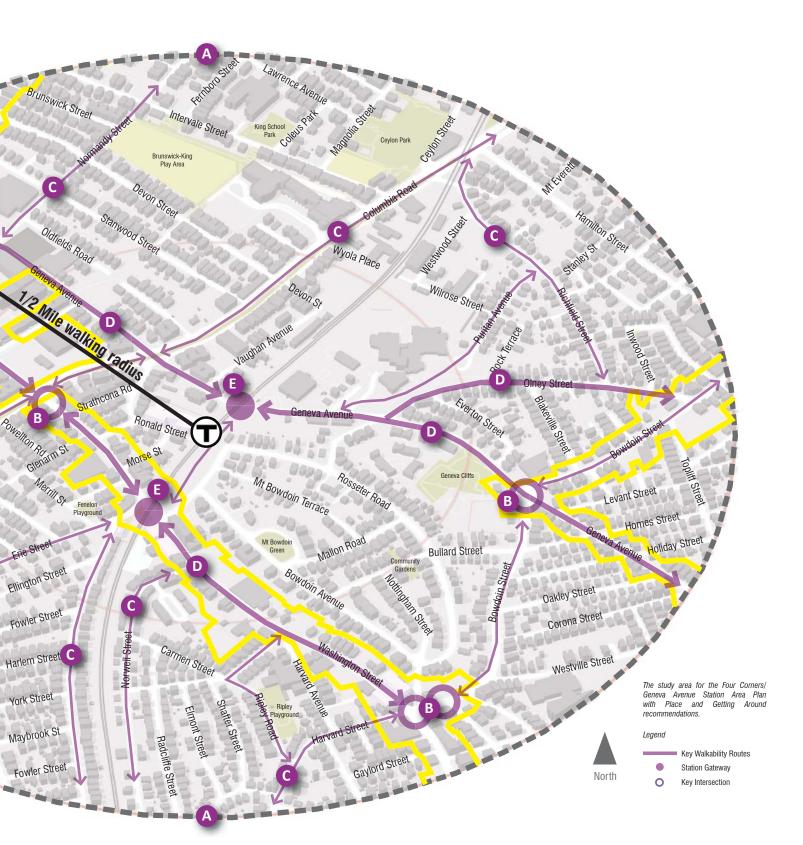














## 🙎 Getting Around

Getting Around is a category of recommendations focused on improving mobility and transportation options in the Four Corners/Geneva Station Area. This set of recommendations examines improvements across all modes of transportation (rail transit, walking, bus transit, bicycling and driving). It also examines the relationship of each form of travel to the rail station entries to improve access and connectivity to the Fairmount Indigo line. The Station Area Plan focuses on the transportation options and network of streets located in the study area within a 1/2 mile radius of the rail station.

The public street network can be improved for all modes of transportation to emphasize a sense of place, reinforce walkability, increase bike and vehicle safety and reduce congestion for buses and cars. A compact and walkable community supports transit. In 2009, the City of Boston launched a Complete Streets Initiative to provide both great public spaces and sustainable transportation networks (www.bostoncompletestreets.org). "Complete Street" is an approach to the allocation and use of the public realm to meet the needs of all users of the street. The considerations of this study, to optimize mobility within the Station Area for all, is consistent with Boston's Complete Streets Guidelines.

Across each mode of transportation, key recommendations are intended to be consistent with a Complete Streets approach to improve connectivity and mobility:

**Rail** – A key feature to better integrate rail connections is the concept of a "mobility hub" located adjacent to the station. A mobility hub enhances connectivity at the transit station by providing seamless access to the rail system, reinforcing the rail station as an important gateway into the Station Area and adding a convenient transfer point for other modes of travel. As rail service on the Fairmount Indigo line continues to improve, in frequency and integration with the subway system, the mobility hub and the

- emphasis it places on the Station Area will benefit residents, businesses and visitors. The City and neighborhoods continue to advocate for more train service - seven days per week including nights and weekends. One viable location for such a transit hub would be at vacant corner at the intersection of Washington Street and Erie Street across from the Washington Street rail station entrance.
- **Pedestrian** A safe and walkable environment for pedestrians is critical for connecting the rail station, the surrounding Main Street districts, and the Station Area neighborhoods. Pedestrian connections are particularly important to fulfill Four Corners, Bowdoin/Geneva and Grove Hall's ambitions as walkable commercial centers that are a destination for visitors and the surrounding neighborhoods. Walking is combined with nearly every other form of transportation and comprises at least a portion of any trip. The pedestrian environment should be safe, attractive, and accessible particularly for connections between transit and local destinations. These improvements support other aspects of the Station Area Plan for Prosperity, Place and Quality of Life.
- Bus Transit The Four Corners/Geneva Station provides connections to important bus transit cross connections in the City. Route 19 operates on Geneva Avenue through the Station Area with access to Fields Corner and Ruggles Station and a daily ridership of approximately 3,400. Route 23 operates on Washington Street through the Station Area with access to Ashmont and Ruggles and a ridership of approximately 11,100 passengers per day. The connection to Fields Corner offers access to the Red Line in about 5 minutes. The connection to Dudley Square offers access to the Silver Line in about 14 minutes. While not directly connecting to the Fairmount Indigo Line Station, there are several other MBTA bus routes that serve the Station Area. These include Routes 15 and 17 on Bowdoin Street providing connections between Upham's Corner and Fields Corner (MBTA Red Line); and the Route 16 on Columbia Road.













The Route 19 and 23 bus stop locations nearest to the station entries should be integrated with a mobility hub. The mobility hub would provide a plaza and streetscape treatment to create a physical environment that reinforces easy and convenient transfers between rail and bus. Additionally, bus service and schedules should be optimized to allow for conveniently timed transfers and coordination between modes of transportation.

- Vehicular Many of the issues highlighted for vehicles include congestion, issues with the crossroad streets (Washington Street and Geneva Avenue) and primary intersections at Four Corners and Bowdoin Geneva. Roadway improvements can improve congestion and traffic flow. Vehicular patterns must balance city-wide travel routes with local safety and walkability. The walkable activity nodes of Main Streets districts should be marked with recognizable gateways to assist in managing vehicular speeds while enhancing access to parking. Vehicular pickup and drop-off areas should be integrated with the Mobility Hub near the rail station.
- Bicycle Bicycle accommodations that link the station to the existing City-wide bicycle network should be added consistent with the Boston Bikes Network with a focus on Washington Street, Columbia Road, Blue Hill Avenue, Geneva Avenue and the Fairmount Greenway. However, given the limited right-of-way (ROW), reallocation of vehicular travel lanes should be balanced with other neighborhood goals. It may be prudent to explore shared lanes between vehicles and bicycles (as called for in the short-term in the Bicycle Network Plan) and revisit the potential for dedicated bicycle facilities in the future. Bicycle amenities should be provided at the rail station including bicycle racks and Hubway stations. In addition, bicycle amenities should provide adequate short- and long-term bicycle parking facilities at the station.

Across improvements to each of the modes of travel, a few areas of emphasis emerged with the community to improve mobility for the Station Area. The new rail station at Four Corners/Geneva enhances connections

to downtown. The following approaches enhance connection and circulation within the Station Area for all modes of transportation and leverage the new transit investment:

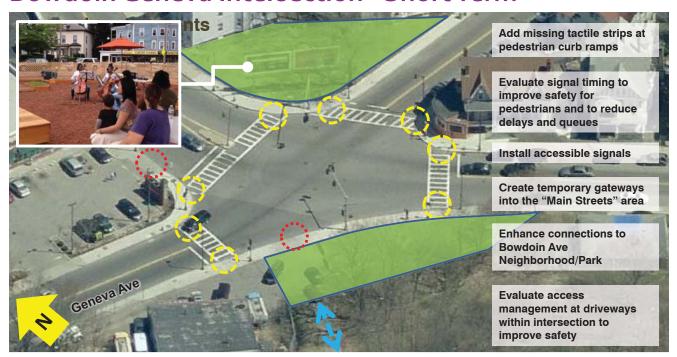
A

Manage Main Street and Neighborhood Parking - Support small businesses, protect residents and enhance transit access. Optimize convenient parking for small businesses and retail activity near Four Corners, Bowdoin/Geneva, and Grove Hall and increase utilization and efficiency of off-street parking lots. Parking is an important component of any commercial and retail district. Additionally, the parking needs of the retail district are immediately adjacent to the parking needs of residential neighborhoods and the parking needs of transit facilities.

The first step of implementing an appropriate parking management plan in the Station Area is to perform a complete parking utilization analysis. This type of analysis will confirm where parking is underused, where capacity issues exist and provide a sound basis for advancing a strategy to align parking demand with parking supply and location. A generalized approach to parking management calls for the following:

- Encourage turnover of prime spaces in the Main Streets districts to support the business district
- Promote shared parking among uses wherever possible such as additional use of public parking associated with Station Area schools or community centers when those facilities are not in high demand
- Encourage a "park once" and walk to destination strategy with enhanced parking and destination wayfinding
- Maximize on-street parking available through design of curbs and roadway
- Consider expansion of the Dorchester resident parking permit areas to protect residential parking as the area continues to grow and thrive

## **Bowdoin Geneva Intersection - Short Term**



B Improve Main Street Gateways - The street and intersection configuration at the entry points into Main Street district centers of activity should be examined to improve pedestrian safety, traffic operations, and the sense of place in the district and should be managed as an overall parking system, rather than individual and uncoordinated parts. Intersection improvements for one gateway into the Bowdoin Geneva Main Street district is shown below. The intersection at Geneva Avenue and Bowdoin Street has been evaluated for potential short term and long term improvements that could enhance the elongated intersection. The short term improvements examine the potential for pedestrian safety enhancements, and improved landscape at the edges of the street.

A long term solution at the intersection of Bowdoin and Geneva should involve the study of crash history, traffic volumes, and vehicular speeds to improve the pedestrian environment. A long term solution should also involve the neighborhood and Bowdoin Geneva Main Streets to evaluate gateway treatments and to inform the selection of

a permanent solution. A long term solution should also evaluate replacing a signalized intersection with a modern roundabout including treatments to ensure pedestrian safety.

At a conceptual and diagrammatic level, a modern roundabout may have several benefits at this location. It would likely fit within the elongated footprint of the existing intersection with miniroundabouts being appropriate for urban areas and requiring a smaller right-of-way. The modern roundabout configuration increases vehicular safety and creates a traffic calming effect by reducing directional conflicts and lowering entry speeds of vehicles. Lastly, potentially the most compelling aspect of a roundabout in this location is the unique environment that it could potentially create at a unique gateway for the Bowdoin Geneva Main Streets district. The center area could be a potential location for art, monument or landscape installations.





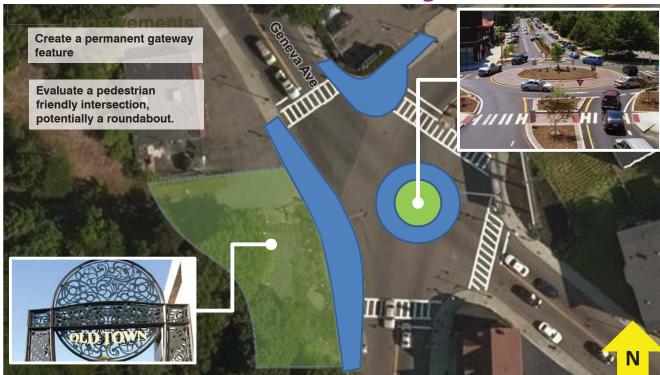








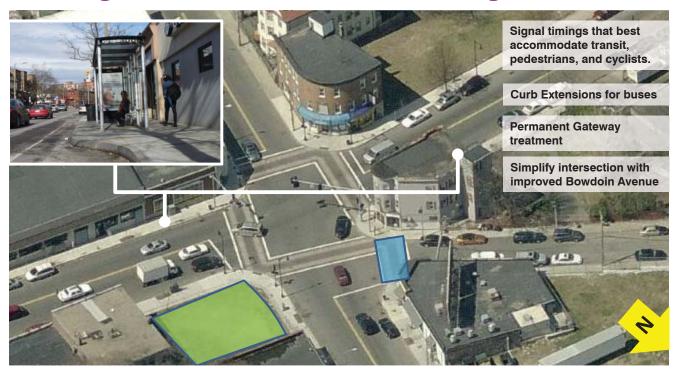
## **Bowdoin Geneva Intersection - Long Term**



## **Washington Bowdoin Intersection - Short Term**



## **Washington Bowdoin Intersection - Long Term**



Increase Neighborhood Walkability and Bikeability - Enhance safe routes from neighborhoods to Main Streets and station entries using the Boston Complete Street policies for safer pedestrian and bicycle circulation. Reinforcing Station Area and neighborhood walkability is critical to offering alternatives to driving. Several issues and opportunities in the pedestrian network around the rail station have been identified. Sidewalk widths should be made as consistent and generous as possible within existing right-of-ways.

The walkability of the Station Area could be further improved by reinforcing pedestrian crossings at all intersections and adding mid-block crossings where the distance between intersections is prohibitive to walking. Adding curb extensions to intersections to shorten the crossing distance for pedestrians and reduce turning speeds for vehicles. Curb cuts for businesses negatively impact pedestrian routes and could be consolidated or reduced.

Bikeability in the Station Area should be improved incrementally to support and be consistent with the Boston's Bicycle Master Plan. Advocacy and promotion of bicycling should be apparent in the Station Area environment including "sharrow" street markings and "share the road" signage on priority bicycle routes. This would promote the long term bicycle planning and provide a first step toward the longer term creation of additional bicycle lanes as part of the City-wide bike network.

Potential improvements to Bowdoin Street can be used to illustrate walkability improvements in the Station Area. On Bowdoin Street there are no MBTA bus routes and it is not designated on the City of Boston Bicycle Master Plan, but it is a major neighborhood connection between Bowdoin Geneva and Four Corners. The existing cross section at Bowdoin Street is about 60 feet wide including two-way vehicular travel, parking on both sides of the street and sidewalks on both sides of the street.













## **Bowdoin Street - Existing**



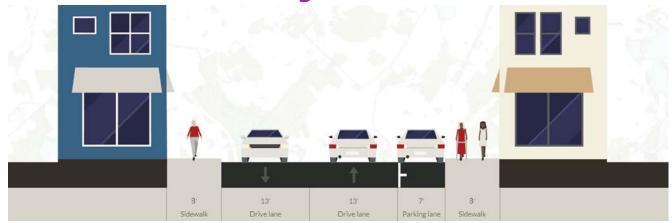
## **Bowdoin Street - Potential**



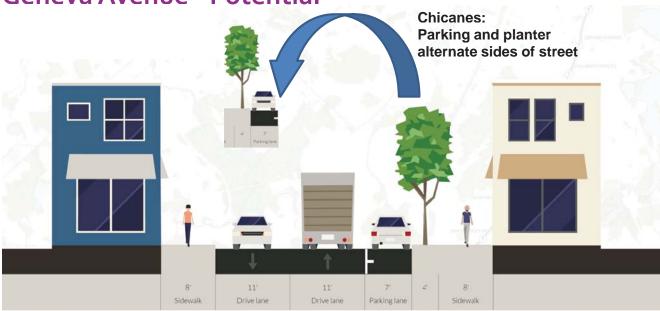
A simple adjustment in the travel lane widths to reduce them to 11 feet in width would reinforce consistency with the City's Complete Streets Guidelines. This travel lane width reduction would also reduce pedestrian crossing distances and increase the sidewalk zone for either larger sidewalks or enhanced and enlarged landscape areas. Additional pedestrian crossings on Bowdoin Street between Geneva Avenue and Washington Street would reduce the lengthy 1,200 feet between existing pedestrian crossings, improving the pedestrian environment and supporting the Main Street district.

A similar approach to other Station Area neighborhood streets should be applied to improve walkability and connectivity on Blue Hill Avenue, Columbia Road, Harvard Street, Erie Street, Normandy Street, Norwell Street, Intervale Street, Ripley Road, Puritan Avenue, Brunswick Street and Richfield Street.

## **Geneva Avenue - Existing**



### **Geneva Avenue - Potential**



Reinforce Public Realm to Station - Public realm connections to the Four Corners/Geneva Station are located on two streets, Washington Street and Geneva Avenue. Both Washington Street and Geneva Avenue are key connecting streets to the station, and have the potential to enhance bike, pedestrian and bus amenities. They are both critical crossroads through the Station Area neighborhoods.

Geneva Avenue has one travel lane in each direction, with parking on one side of the street (the parking lane is not striped) resulting in a

curb to curb width of approximately 32 feet. The street offers access to the Station and the Bowdoin Geneva Main Street. It also offers access to a school and community center. It includes a bus route and the Bicycle Master Plan calls for shared lanes on this street. Distance between existing pedestrian crossings is extensive with 1,200 feet between Columbia Road and Olney Street and 850 feet between Olney Street and Bowdoin Street. As noted below, Geneva Avenue needs a marked pedestrian crossing at the Station entry and rail overpass.









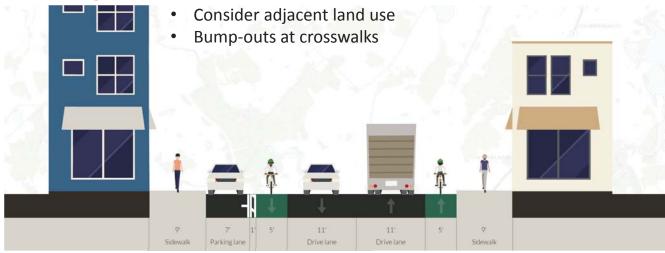




## **Washington Street - Existing**



## **Washington Street - Potential**



One potential solution to enhance walkability and a sense of place on Geneva Avenue is alternating the location of the on-street parking from one side of the street to the other. This street configuration is referred to as a chicane and can include landscape bump-outs with enhanced areas to plant street trees. This approach could also reduce the travel lanes to 11 feet in width to be consistent with the Complete Streets Guidelines. Bumpouts at crosswalks would also reduce the pedestrian crossing distance and increase visibility of pedestrians to vehicular drivers.

Washington Street has one travel lane in each direction with parking on both sides of the street resulting in a curb to curb width of approximately 40 feet. The street includes the Route 23 bus services, one of the MBTA's "Key Bus Routes". It is also the location of the Four Corners Main Street district and the Washington Street station entry. The distance between existing crosswalks on Washington Street between the station entry and Columbia Road is reasonable and varies between 200 and 350 feet between pedestrian crossings. Between the station entry and Harvard Street

additional pedestrian crossings may be warranted. The existing distance between crossings are between 750 and 1,150 feet. Washington Street is an important crossroad in the Bicycle Master Plan and is called for as a shared-lane road in the short term and a bicycle lane road in the long term.

The potential future cross section of Washington Street would also benefit from a reduction in the travel lane widths to 11 feet. This would allow for a few options for the street. One potential option, shown above, would be to add bike lanes on Washington Street to be consistent with the Bicycle Master Plan. This would require removing parking on one side of the street, but could potentially alternative between sides of the street. Given community support for parking to support business districts, on-street parking removal should be further analyzed to help inform decision making for revised roadway cross-sections. Bump-

outs at crosswalks could be used to add area for improved landscape and to shorten pedestrian crossing distances.

Enhance Station Entries - Add small plaza spaces and expanded mobility hubs for bike or bus connections including bus shelters and places to sit. Explore access to platforms from locations in adjacent neighborhoods (for example - Ronald Street or the Holland School). At Washington Street, improved pedestrian crossings the near station entry would enhance pedestrian access. The station entry on Washington Street must also integrate bus stops north and south bound to reinforce transfers.

At the Geneva Avenue entry, opportunities exist for improving pedestrian crossings near the entry. This is also a prime location for a crossing due to the proximity to the school and community center. Currently, no marked pedestrian crossing exists at this critical location. Examples of enhanced























pedestrian crossings are shown in the photographs below and would be appropriate in this location.

In addition to reinforcing the rail station entries and amenities, additional bus shelters should be considered for the Station Area. Few bus shelters are provided in the Station Area on Geneva Avenue or in the Bowdoin Geneva Main Street district. New bus shelter locations should be reviewed for convenience of bus transit and also as a placemaking opportunity for some of the Main Street bus stop locations. A simple enhancement, such as adding shade with shelters or trees, improves the experience of using transit and transferring between modes of transportation.

The Four Corners/Geneva rail platforms should be considered beyond the station entries to be viewed as a potential enhancement of Station Area walkability. The rail platforms should be considered an extension of the Station Area public realm and used as a convenient pedestrian route connecting Washington Street and Geneva Avenue. The station platforms should be made to be more pedestrian-friendly and active to enhance this walking connection. In this area of Washington Street and Geneva Avenue, cross connections between the two streets are limited. The cross connections include Columbia Road, Strathcoma Road and Bowdoin Street.



## PARKS AND PUBLIC SPACE

The *Parks and Public Space* section deals with issues and opportunities related to parks in the Four Corners/ Geneva Station Area. Strategies and recommendations focus improving access to public open space, increases the frequency of use of public space, and addressing open space needs in the Station Area.

## Parks and Public Space

Publicly accessible open space is deficient in the Station Area (relative to other neighborhood averages). Strategic additions of new open spaces and enhanced access, use and safety of existing resources would address the issue. The following approaches have been identified to improve neighborhood open space amenities:

- A Improve Use of Existing Open Spaces Enhance routes to primary open spaces such as Franklin Park and make better use of urban wilds and the Holland School campus.
- B Expand Geneva Cliffs Improve on the existing open space asset, expand into adjacent underused utility parcels and enhance as a focal point of the Station Area open spaces.
- Strategically Add Open Space Convert vacant lots to open space where gaps exist in the open space network adding small neighborhood pocket parks.
- D Leverage Underused Spaces Continue and expand the program of event spaces and pop-up parks in vacant lots to create highly visible and active gathering places.
- E Add Station Entry Plaza Space Expand and celebrate Station Entry points on Washington Street and Geneva Avenue to enhance the gateway, civic amenity and gathering space.

















## 👺 Parks/Public Space

The City of Boston has approximately 15% of its total land area as a percentage of land that is publicly accessible open space. Publicly accessible open space is deficient in the Station Area (relative to other neighborhood averages). Strategic additions of new open spaces and enhanced access, use and safety of existing resources would address the issue.

As redevelopment occurs the preservation and creation of open space to retain this community resource is the same proportion is important. Public space in the Station Area fulfills several important functions for the surrounding neighborhoods by providing a community recreation resource, gathering place, green space, amenity and urban agriculture sites.

New public spaces should fill in the gaps in the existing network of resources and complement broader patterns of open space networks in the Station Area. New public space resources should not duplicate existing amenities, but provide a more comprehensive network of amenities that are responsive to the community's needs. The following approaches have been identified to improve neighborhood open space amenities:



## Improve Use of Existing Open Spaces -

Enhance routes to primary open spaces such as Franklin Park and make better use of urban wilds and the Holland School campus. The presence of open space alone is not often enough to provide a recreation resource for the surrounding neighborhoods. Safe and accessible routes to the open spaces must be provided and integrated with the station area circulation. The Fairmount Greenway has developed a multi-modal connection that follows the path of the Fairmount Indigo Line while connecting residents to neighborhood open space assets and recreational opportunities.

In the Four Corners/Geneva Station Area, the Fairmount Greenway reinforces multi-modal



Concept illustration of a Fairmount Greenway multi-modal neighborhood street (Image: Fairmount Greenway, Moon, 2015)

connections on Norwell Street, Washington Street, Eldon Street, Rosseter Street, Olney Street, Puritan Avenue, Columbia Terrace, and Ceylon Street. This route enhances connections to Mount Bowdoin Green, Geneva Cliffs, the Holland School Park, and Ceylon Park.

Improved connections should also leverage Franklin Park as a significant open space resource and connection for Station Area residents. Multimodal connections along Columbia Road, Erie and Glenway Streets and Geneva Avenue would strengthen area connections to Franklin Park and the Emerald Necklace. Mount Bowdoin is another important community open space that needs to be reinforced as part of a larger network of resources.

Other improvements to existing open spaces may include the amenities and equipment that are part of the open space. Optimizing the match between the type of recreation needs of the community and the type of open space amenities provided is important to creating actively used parks. Providing public spaces with adequate amenities, while maintaining flexibility and meeting the needs of a diverse and varied population is a difficult balance.

It is important that the largest portions of open space be designed to retain flexibility and meet the space requirements of many different recreational activities to meet the demands of the Station Area neighborhoods. In addition to recreational activities, the public open spaces are also used as community gathering places. Seating and tables













would reinforce this type of activity in existing open spaces.

One of the most difficult issues with parks and public space in the Station Area is the perception and reality of public safety. Several factors contribute to the perception of safety in the Station Area and many are addressed directly by this plan. One aspect of the public spaces that can contribute to the sense of safety and security is the lighting.

Lighting in parks should be relatively uniform and avoid dark areas. Light trespass onto adjacent properties or light pollution upward into the sky should be minimized. Active areas of the parks should maintain a minimum lighting level of (1) foot-candle of light to provide illumination for safety purposes. The contrast between light areas and dark areas should be minimized as much as possible. Athletic activity areas should be designed with lighting for the purposes of the activity, but should minimize glare and light-spill into adjacent areas and properties.

Parks and public spaces should be enhanced with additional feature and focused lighting to reinforce visibility. Lighting maintenance is important to retain a safe and well-lit parking environment.

**Expand Geneva Cliffs** - Improve on the existing open space asset, expand into adjacent underused utility parcels and enhance as a focal point of the Station Area open spaces. The existing open space at the Geneva Cliffs is a unique park located at the intersection of Geneva Avenue and Bowdoin Street. It is at the corner of the Bowdoin Geneva Main Streets district. The unique park is mostly wooded and includes a rocky ledge that sits above Bowdoin Street by about 40 feet. The park includes a variety of trails, walking paths, clearings and wooded areas. Geneva Cliffs is an "urban wild" that is owned by the Boston Conservation Commission and it provides a natural environment in the center of the Station Area that is a unique recreational opportunity and outdoor event space for area residents.

The expansion of the Geneva Cliffs open space appears to be possible based on the ownership



Community event held at the Geneva Cliffs open space (Image: Friends of Geneva Cliffs)

and use of adjacent parcels. The frontage of the park along Geneva Avenue and Bowdoin Street is privately owned by several private individuals or groups. One of the lots with frontage on Bowdoin Street is owned by the City of Boston, acquired through foreclosure on the property. The remaining interior parcels, which are not currently part of the Geneva Cliffs open space, are listed on assessor's data as Boston Edison Company, now known as Eversource. It does not appear that the property is actively used or a necessary component in Eversource's utility operations in the area.

The community has voiced a strong preference for this land to be part of an expansion of the usable open space of Geneva Cliffs, rather than potentially being part of a future redevelopment project. The vacant land has been the subject of previous discussion between the City and NStar (now Eversource) to allow the City and community to improve the site and use it as an extension of Geneva Cliffs and for community events. A neighborhood group, Friends of Geneva Cliffs, has advocated for the extension of the open space. Formal expansion of the urban wild would need to be pursued and finalized with the City and Eversource.

More generally, the recognition and facilitation of "Friends of" groups to advocate for and support open space in the Station Area would support the parks and public space goals. This type of organization empowers Station Area residents to pursue parks improvements and maintenance needs that have been identified by the community.



Washington Street lot proposed as an "edible food forest" (Image: Fairmount Indigo Collaborative)

Strategically Add Open Space - Convert vacant lots to open space where gaps exist in the open space network adding small neighborhood pocket parks that are usable. Across the inventory of parcels that are under the control of the City, mostly through the Department of Neighborhood Development, a strategic approach to strengthening the open space network should be undertaken. While much of the City inventory of the parcels in the Station Area should be leveraged to bring positive investment and redevelopment, a portion of the inventory should be converted to neighborhood open spaces where a deficiency of open space currently exists.

Many of the City-owned vacant parcels that would enhance the open space network are in the southern half of the Station Area. Many of these parcels have also been identified by the Greater Four Corners Action Coalition Community Planning efforts from 2013. These include vacant parcels on the neighborhood streets of Seaver, Bradshaw, Radcliffe, and Nottingham Streets. The parcels are mostly former residential lots and would provide modest new open spaces that can provide a neighborhood gathering place, a small playground, community garden, or other usable amenity that would serve the surrounding residential neighborhood streets.

This pattern of small open spaces repurposed from vacant lots is very similar to what occurred in the South End with the South End Lower Roxbury Open Space Land Trust, which is now part of the Boston Natural Areas Network. Consideration of

the long term maintenance of the parks is a major concern that is addressed by this type of broader stewardship group. This pattern of open space is also consistent with the Fairmount Greenway Concept Plan's vision to transform the Washington Street Urban Wild with enhancements that include edible and native trees and shrubs and improved access. The parcel, which is in the heart of the Four Corners Main Street district, creates a discontinuity in active uses on Washington Street with a frontage that stretches for several hundred feet. The park design and improvements would strategically add a usable open space at the center of a Main Street district near the rail station. In this case, the open space exists, but it is inaccessible and not used.

One possible mechanism for expanding, adding or improving open space resources in the Station Area would be to fund efforts through development mitigation that benefits the City in other locations. If the market-based development success of other parts of the City is not able to be repeated in the Station Area, but the neighborhoods are experiencing some of the impacts, open space improvements in the area may be one method to directly address some of the issues.















Vacant lot conversion into a active public space in the Bowdoin/Geneva Main Streets district Image: Dorchester Reporter

Everage Underused Spaces - Continue and expand the program of event spaces and pop-up parks in vacant lots to create highly visible and active gathering places. Ideally, as the Station Area becomes a thriving, active and vital district it will have a substantial amount of pedestrian activity and use. As more people are walking in the Station Area, more attractive and usable open spaces that are conveniently located will be needed. As has been happening throughout the City and in the Station Area, vacant lots can be economically reused as simple open spaces to great benefit and impact in the community.

Two current vacant lot conversions in the Station Area are an excellent example. A vacant lot at the intersection of Topliff and Bowdoin Streets was transformed into a community open space by the Dorchester Community Food Co-op, Sustainability Guild and community members. Another vacant lot at the intersection of Washington and Bowdoin Streets was recently transformed into a highly visible community space with the help of residents, business owners and the Four Corners Main Street district.

This type of transformation of a vacant lot, even if short term, has a large impact on the community perception of space and the use of high activity nodes by pedestrians. A short term use of the lot will assist other investments in the district. If the lot remains active as an open space and is not an appropriate location for future development,

the temporary fit-out of the open space could be replaced and improved over time with more substantial funding and open space improvements. If the temporary open space is redeveloped, then the same process and transformation should move to a new high profile lot or area that is vacant or underutilized.

In the long-term, as temporary community spaces are transformed again as redevelopment, new investment in the Station Area should include amenities and improvements that would maintain or improve the quality of life and community space in the Station Area. New development should require considerations for improvements to existing parks, streetscape, and infrastructure or other community amenities.

Improvements to existing parks and public spaces may include enhanced lighting, enhanced park equipment and amenities (playgrounds, tot lots, dog parks). New publicly accessible open space or community gathering space is another amenity that would be desirable to the community. This type of development requirement should be associated with larger scale development within the Station Area and would be consistent with the type of review associated with the City of Boston's Article 80 Small Project Review. The development thresholds to activate this type of review and potential development requirements would be any redevelopment with (15) or more residential units or between 20,000 and 50,000 square feet of new construction.

The Station Area is also home to several areas within the Boston Urban Wilds network, such as the Geneva Cliffs. Over the years, the Urban Wilds have had maintenance, stewardship and development encroachment issues. As new development in the Station Area occurs in the future, the local Urban Wilds may be a location to foster a direct relationship between development and conservation that could strengthen the natural resource of the urban wilds and community open space access.

Add Station Entry Plaza Space - Expand and celebrate Station Entry points on Washington Street and Geneva Avenue to enhance the gateway, civic amenity and gathering space. One set of locations that would benefit from an emphasis on open space and pedestrian amenities is the areas of the station entries on Washington Street and Geneva Avenue. In both areas, the rail station has been added, but the location has not yet been recognized or celebrated in the public realm on the adjacent streets.

It is important to consider the four properties that are adjacent to the rail station entry and how they may be leveraged to recognize the significance of the new transit access and pedestrian destination. Adjacent to the Geneva Avenue entry is residential development on either side, with the station entry ramps and a small MBTA parking lot. Across the street is a vacant lot and small open space/ playground for the ABCD Head Start Community Center. This entry also includes the rail overpass as an opportunity to provide a unique covered space for pedestrians or a placemaking art opportunity. These four adjacencies for the Geneva Avenue entry are not optimized to enhance the pedestrian experience, provide amenity and celebrate the station entry.

Adjacent to the Washington Street entry are active ground floor uses on an adjacent corner and active ground floor uses on the other adjacent corner past a small MBTA parking lot. Across the street are active ground floor uses in the retail block at the corner of Erie Street and vacant lots. Washington Street passes over the railway and the overpass is the location of frequent pedestrian activity and bus transfers. The Four Corners Main Street district implemented a new bench for sitting while waiting for the bus and is exploring other placemaking opportunities. The vacant lot across the street at the corner of Eerie Street is an excellent location for additional open space and a pedestrian plaza that could include, a status board for connecting buses, a pick-up/drop-off area, a taxi-stand, a hubway bicycle station, a clock, and sheltered seating area.



As part of a community-based placemaking effort led by the Fairmount Indigo Collaborative, the Washington Street entry was used to promote the rail service and to enhance the visibility and sense of place and community at the station entry. This included temporary seating, amenities, music and art to celebrate this active location and gateway into the Station Area. Photographs above and to the right are from this placemaking event.



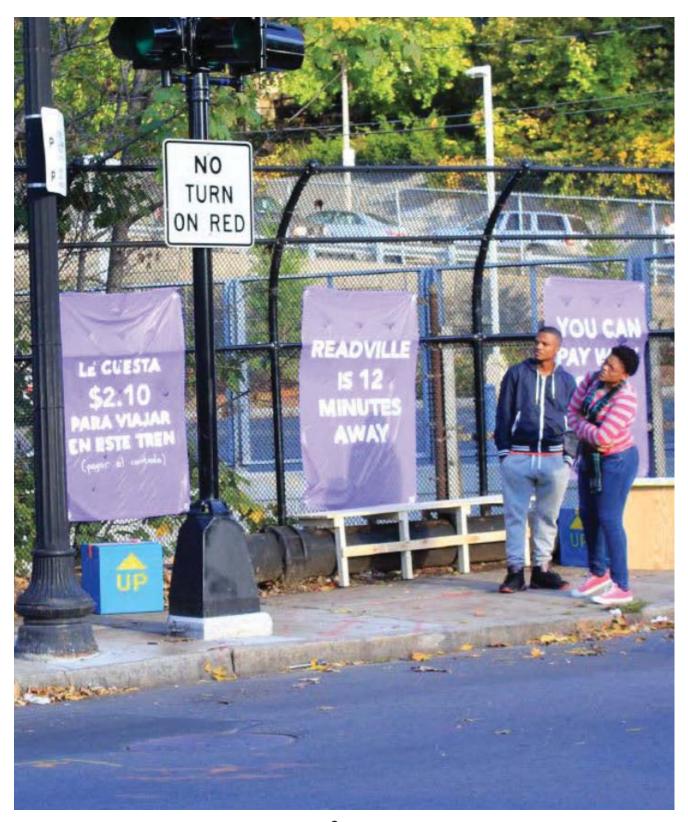














## QUALITY OF LIFE

The *Quality of Life* section deals with issues not captured by the other section topics, but also focuses on Arts and Culture in the Four Corners/Geneva Station Area. Strategies and recommendations focus on the most important aspects of the Station Area that affect the daily life of residents and businesses.

## 📮 Quality of Life

The Station Area is anchored by the Main Street districts and quality of life enhancing amenities, such as the Dorchester Arts Collaborative (DAC). The following approaches build upon existing amenities:

- A Enhance Public Safety Improve community pride and safety through focus on maintenance of public realm, lighting, and engagement of resident community.
- B Connect Network of Arts and Culture Encourage arts and cultural activity by connecting the surrounding network of arts and cultural sites back to the Main Streets.
- **C** Build Opportunity and Success Use Station and Main Street gateways to connect residents to existing community centers, training centers and Main Street businesses. Consider temporary storefront uses in Main Street districts to provide training or job connection opportunities.
- **D Engage Youth Directly** Bring the next generation of Station Area stakeholders directly into each of the Station Area strategies and create opportunities to link youth to the Main Street districts.





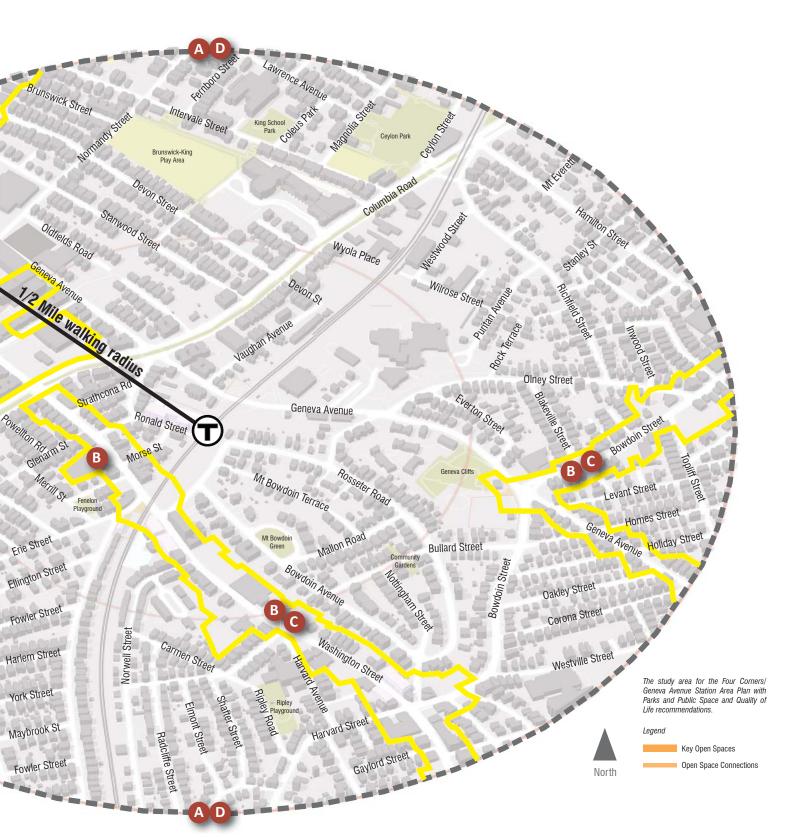












## Quality of Life

Nearly all of the recommendations of the Four Corners/ Geneva Station Area Plan directly or indirectly address and improve quality of life in the Station Area. The Quality of Life category of recommendations is intended to address any other specific improvements to quality of life that were not discussed in other categories. The term quality of life may be defined differently in other contexts, but for this study, quality of life refers to the ability of the attributes of a place, its character, amenities and environment, to positively or negatively affect the daily life of residents, businesses and visitors.

More than any other category, negative aspects that cause daily inconvenience, nuisance or safety issues are difficult to look past. If negative quality of life issues persist, other positive aspects, amenities or improvements are overshadowed. Public safety and safety for youth in particular has been a major issue that raised in conversations with the community. This must be addressed to create the appropriate context for the other positive elements to flourish.

The Station Area is anchored by the Main Street districts and quality of life enhancing amenities, such as the Dorchester Arts Collaborative (DAC). The following approaches build upon existing amenities:

A Enhance Public Safety - Improve community pride and safety through a focus on maintenance of public realm, lighting, and engagement of the surrounding resident community. Building positive activity in the community and bringing it out into the public realm is an important aspect of sustaining community connections and pride, while enhancing safety in the Station Area. The general appearance, maintenance and cleanliness of the environment is an important reflection of community involvement and public safety.

Grassroots efforts to clean up and maintain the areas surrounding the station can have a large impact on the perception of public safety. Build community perception, respect and safety with resident and business support for positive activity and community stewardship. Businesses can contribute to a positive perception by removing security gates and roll-down gates that create a negative perception of the area when the store is closed. Main Streets, Community Groups and residents can formally or informally organize to pick-up litter, particularly from streets, sidewalks and public spaces.

Partnerships and joint efforts, such as the Neighborhood Response Team, are an important approach addressing public safety, health and many other issues in the Station Area. This type of meeting with residents, community organizations and inter-departmental City representation, is critical to addressing the pervasive needs of public safety and community perception. Community policing that includes walking beat (deployment) with equitable distribution of officers throughout the Station Area would reinforce this effort. Investment, redevelopment, open space or transit connections, will not be appropriately enjoyed and appreciated if simple issues such as street lighting, sidewalk repairs, trash removal, and problem properties persist.

One aspect implicit in many of the Station Area strategies is the building and strengthening of community. The quality of life, safety and comfort of the Station Area is large part is dependent on the people in the Station Area. Getting to know neighbors, the owner of the corner store, or other people passing daily on the street is a simple, yet fundamental part of creating neighborhoods that are active, healthy and safe.















Image: Dorchester Arts Collaborative

## B Connect Network of Arts and Culture -

Encourage arts and cultural activity by connecting the surrounding network of arts and cultural sites and events back to the Main Streets and Rail Station. The focal point of the Station Area arts and cultural activity is the Erik Jean Center for the Arts at 157 Washington Street. The space is home to the Dorchester Arts Collaborative that provides connections to other aspects of the Station Area arts and cultural network.

Much of the arts and cultural activity that already exists in the Station Area should be brought to the station entry and platforms to be made more visible to Station Area residents. This network of activity includes the Bowdoin Geneva Multicultural Festival, Four Corners Day, Dorchester Open Artist Studios, the Artist in Residence with the Four Corners Community, and Torrent Engine 18. Engine 18 is a historic fire station on Harvard Street that is being renovated and reused as artist housing, performance and exhibit space.

Bringing the arts into plain view in the community is an important aspect of brining awareness to this great resource in the Station Area. One possible connection of arts and Station Area issues could leverage the many vacant lots in a unique event of performance and gallery space. A small network of vacant lots could be used on a temporary basis for outdoor dance spaces, outdoor galleries or stages. It is a low cost idea that could be implemented with

dramatic impact. Space is very valuable for artists, performers or dancers and underused space in the Station Area could be viewed as an asset for this type of use. This could foster community performances or outdoor classes, whether for visual arts or other forms of art.

The Dorchester Arts Collaborative, the station entry areas, or some combination of these locations which are central to the Station Area, could be used to display, communicate and support the network of art and cultural events that are taking place in a variety of locations throughout the Station Area. A dedicated location for such postings could also become an art installation of sorts that promotes the various events.

Additionally, the Station Area should be more actively considered as a location for artist housing. Increasing the number of artists in residence in the Station Area would enhance the local arts and cultural activity and the Station Area is an alternative location for artists in the City. Many areas of the City that were formerly home to artists, such as Fort Point Channel or Dudley Square are experiencing a loss of artists due to real estate and market pressures. The Four Corners/Geneva Station Area should be promoted to artists as a centrally located, convenient and affordable neighborhood in the City.

Build Opportunity and Success - Use Station and Main Street gateways to connect residents to existing community centers, training centers and Main Street businesses. Consider temporary storefront uses in Main Street districts to provide training or job connection opportunities.

Importantly, all of the improvements to quality of life, the physical environment, amenity and transit will not make a difference if individuals feel disconnected from success and feel marginalized by limited opportunities. The Station Area must become a center of positive activity and a conduit for success for area residents and businesses. Partnerships and programs that focus on local

wealth creation and youth development should be highlighted as a consistent and important feature.

The Fairmount Indigo Corridor is intended to reinforce connections to opportunity and success between the Station Areas, Corridor opportunities in other locations and downtown Boston. The Main Streets districts in the Station Area can play an important role in creating connections to opportunity by providing a physical collection of resources for training, job placement, and business training and partnership programs. Vacant space in storefronts in the Main Streets districts could be used temporarily or permanently to provide training and neighborhood business incubator space to get residents trained and connected to jobs and to reinforce opportunities for locally-owned businesses and entrepreneurial opportunities. This type of service and space could be storefront-oriented like many of the other neighborhood-serving main street businesses and would be consistent with the idea of Neighborhood Innovation Districts discussed for Dudley Square, East Boston, Fields Corner and Bowdoin Geneva.

This type of approach doesn't need to occupy an entire Main Street district, but could provide another active destination in the district that is an anchor for other positive neighborhood-oriented business.

Engage Youth Directly - Bring the next generation of Station Area stakeholders directly into each of the Station Area strategies and create opportunities to link youth to the Main Street districts. As with the other strategies discussed in this Quality of Life section, this recommendation is cross-cutting and applies to partners with nearly all strategies described in the Station Area Plan. The success of the Station Area, in many significant ways, is determined by the engagement of the next generation of residents.

The Station Area must engage and be engaging to youth in the area to reinforce a match between young residents, safety, education, opportunity and neighborhood and housing choices in the future.



Attendees of the Four Corners/Geneva Station Area Plan community open house

One of the key components of the community vision is to retain Station Area diversity, by creating a neighborhood environment that the next generation works to be a part of and grow with, that vision is more achievable.

This engagement should occur through community events, engaging the entire family to be involved, leveraging the power of arts and recreational assets to bring people of all ages together and highlighting the assets, advantages and opportunities that the Station Area can provide to young adults in the City. This could be accomplished in part through programs designed for Station Area youth including entrepreneurial workshops or training, business incubators, mentorship, self-awareness seminars or trauma and rehabilitation support.





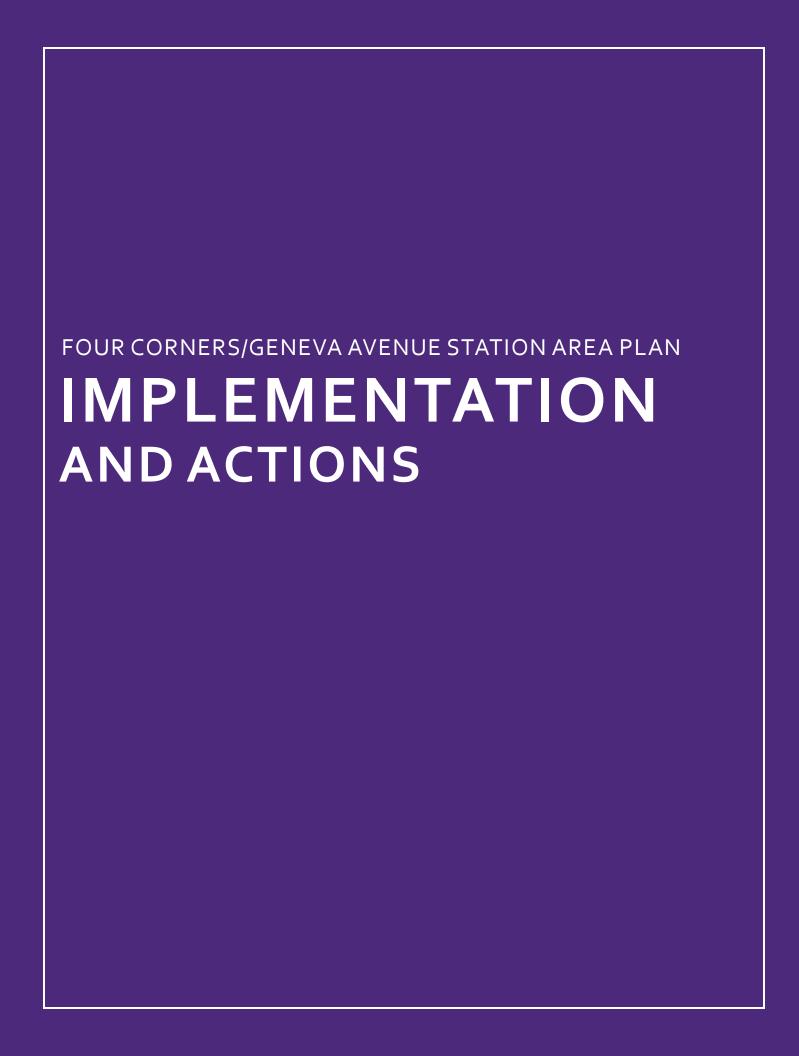












## Four Corners/Geneva Ave Implementation Actions

The Implementation Actions are the critical components of Station Area strategies highlighted as actionable items.

The community vision outlined for the Four Corners/ Geneva Avenue Station Area is not achieved through a single action or solution, but through a series of purposeful and strategic changes that position the Station Area for a positive and incremental evolution over time. This continuum of positive change is already underway and can be expedited with the following key actions:

## **Maintain Community Voice and Presence**

The collective community voice and presence of strong advocacy and representation of the Station Area preferences is an asset and benefit to the surrounding neighborhoods moving forward. The continued advocacy and support for community goals is an important action to carry forward as the Station Area continues to evolve over time. Several important aspects of this action need to be highlighted. First, the community voice links directly to the current community and the desire to minimize displacement of current residents and businesses.

Minimizing displacement must be the focus of several types of actions including partnering with local community development corporations (CDC's) to continue investment in housing, requirement of workforce housing units in all types of redevelopment, and expanding homeownership opportunities and programs. Second, the advocacy of groups such as the Greater Four Corners Action Coalition and Bowdoin/Geneva Neighborhood Association should be recognized by the City and supported within the community to provide a collective voice for current residents.

Timeframe: Ongoing

**Responsibility:** Community members, community advocacy groups, recognition by the City

### Four Corners Streetscape Investment

Invest in streetscape and intersection improvements at the critical Four Corners gateway and commercial node of Washington Street, Bowdoin Street and Harvard Street. Public realm improvements at this location combined with modest investments in several existing buildings would complete a transformation of this critical Main Street node. Intersection improvements should include improved intersection lane markings, pedestrian crossings and stop lines with recalibration of the signal timing based on current traffic volumes. Landscape improvements would further enhance the substantial investments underway.

*Timeframe:* +/- 2 years (timed to follow completion of redevelopment projects)

*Responsibility:* City of Boston with efforts from BRA, BTD and Public Works

## **Modify Zoning to Community Vision**

Modify Station Area zoning to be consistent with the Community Vision, for example allow multifamily housing in Station-adjacent areas as appropriate to the surrounding context or refining the dimensional characteristics for building height and density and offstreet parking requirements in the Main Street districts to enable residential uses over an active ground floor. Current parking requirements have been identified as a economic development burden, reduction of parking requirements for redevelopment near the station, in Main Streets districts and for infill residential projects could improve the likelihood of positive investment in the Station Area. A zoning evaluation for each of the hypothetical redevelopment prototypes is outlined with specific zoning issues for each in the Prosperity section.

*Timeframe:* 1-2 years

**Responsibility:** City of Boston with leadership from the Boston Redevelopment Authority (BRA)

### Improve Bowdoin/Geneva Intersection

Invest in streetscape and intersection improvements at the critical Bowdoin/Geneva gateway at Geneva Avenue and Bowdoin Street. Public realm improvements at this location could enhance this critical gateway into the district from the rail station. Intersection improvements should reconsider the optimal intersection configuration for a very broad, wide and skewed alignment between Geneva Avenue and Bowdoin Street. The current intersection has a large enough footprint that a roundabout could be considered as an alternative layout that could improve traffic flow and create an enhanced opportunity for a gateway landscape treatment for the Main Street district.

Not directly related, but an opportunity for immediate implementation includes the addition of a pedestrian crossing on Geneva Avenue at the Rail Station entry and overpass. This would be a dramatic improvement for pedestrian safety and could be implemented immediately.

*Timeframe:* 3 - 5 years

*Responsibility:* City of Boston with efforts from BRA, BTD and Public Works

## **Expand and Improve Geneva Cliffs**

As part of the effort to expand and improve Geneva Cliffs, a dialogue should be opened with Eversource regarding the use of the land under their control adjacent to the current open space. Leveraging this underused land to expand Geneva Cliffs could further enhance a centrally located open space that should be a focus of the Station Area open space network.

Timeframe: 1-2 years

**Responsibility:** City of Boston with leadership from the Parks & Recreation Department and potential partnership with the Boston Natural Areas Network (BNAN) and Friends of Geneva Cliffs

## **Encourage Investment in Existing Buildings**

Although a focus of planning and implementation efforts is often placed on vacant land and new construction, a parallel effort to encourage investment in existing building assets should be actively pursued. Existing grant and assistance programs offered by the City should be targeted to specific buildings that would further complete the transformation of key Main Street commercial nodes. Design assistance and funding support for facade improvements would be most useful in bringing existing building to a consistent quality with new investments. Investment in existing buildings also reinforces the historic aspects and narrative of the Station Area that is valued by the community.

Timeframe: 1-2 years

**Responsibility:** City of Boston with leadership from the Department of Neighborhood Development (DND) and the City of Boston Main Streets program and funding

## Recognize Community Planning for Bowdoin/ Geneva

Concurrent to the Station Area planning process, a community-led planning process for Bowdoin/Geneva has been underway. As implementation actions are completed in the future, further community direction that is developed through the Bowdoin/Geneva process should be integrated and recognized in those efforts. Additionally, that process could advance a number of the strategies and actions outlined in the Station Area plan if aligned with the community planning efforts.

Timeframe: Ongoing

**Responsibility:** Community members, community advocacy groups, recognition by the City

## Open Dialogue with Key Property Owners

The community vision and Station Area strategy can be used as a tool to engage owners of vacant private properties or properties that have had maintenance or other issues reported. A clearly articulated vision can be used to promote a community-based momentum and sense of pride that will get others, that may not have been involved in the process, to add their own complementary efforts to invest in and enhance the Station Area in the near future.

Historic assets in the Station Area, such as the grand structure at 389 Washington Street are assets of the area and proper stewardship of these assets should be encouraged by the City and the community through active conversation and discussion. Based on this discussion, appropriate resources or types of assistance may be identified that would help property owners to invest in property improvements and building maintenance.

Another form of open dialogue needed is directly with local businesses and business owners. As described in the Prosperity section, the link between the local businesses and resident needs must be strong to reinforce stability and support. Direct outreach to business owners to inquire about the needs they may have or type of assistance that could be offered would be a direct action to strengthen the link between businesses and the surrounding Station Area.

Finally, key property owners should be brought into an open discussion about parking management, particularly in the Main Streets districts. In small commercial districts, parking is best used as a common resource that is shared among properties and businesses. This type of effort could be discussed and formalized through shared parking agreements between key property owners.

Timeframe: Ongoing

**Responsibility:** City of Boston with leadership from the Department of Neighborhood Development (DND) and the City of Boston Main Streets program

## Dispose of Public Property for Redevelopment

Strategically dispose of vacant publicly owned property for catalytic redevelopment consistent with the community vision. For example, disposing of the Ronald Street lots for multi-family or senior housing that is a higher density to leverage the transit-adjacent location and that is appropriate to the scale of the neighboring residences.

Reinforcing or creating active uses for vacant lots also addresses community concerns for enhanced public safety. Strengthening a continuity of active, vibrant and safe residential streets in the Station Area is a high priority. A program that would encourage investment in multiple vacant lots for modestly scaled residential buildings that fit within the context of the street would directly address a major deficiency and asset of the Station Area.

*Timeframe:* 1-2 years

**Responsibility:** City of Boston with leadership from the Department of Neighborhood Development (DND) and the Boston Redevelopment Authority (BRA)



FAIRMOUNT INDIGO PLANNING INITIATIVE

## FOUR CORNERS/ GENEVA AVENUE STATION AREA PLAN

## **APPENDICES**











CITY OF BOSTON Martin J. Walsh *Mayor* 



Boston Redevelopment Authority

FOUR CORNERS/GENEVA AVENUE STATION AREA PLAN OCTOBER 2015

FAIRMOUNT INDIGO PLANNING INITIATIVE WWW.FAIRMOUNTINDIGOPLANNING.ORG

## FAIRMOUNT INDIGO PLANNING INITIATIVE

## FOUR CORNERS/ GENEVA AVENUE STATION AREA PLAN

## **Appendices Contents**

- Process and Meetings
- Existing Conditions Analysis
- 3 Proforma Feasibility Tests
- 4 Sustainability Framework

## PROCESS AND MEETINGS

The Fairmount Indigo Planning Initiative was over a 2 year long process that involved extensive community outreach, participation and conversation. The Planning Initiative involved separate, but parallel processes for corridor-wide planning and Station Area planning. In the first phase of planning, three Station Area Plans were undertaken. The Four Corners/Geneva Station Area Plan is the result of a community process that focused on the neighborhoods, residents and businesses around the Four Corners/Geneva MBTA Rail Station.

The City of Boston appointed members of a Four Corners/Geneva Working Advisory Group (WAG) to be a consistent voice of the community through the process. The WAG Members dedicated over a year of meetings and discussion to the Station Area Plan and the City is grateful for their contributions. All Working Advisory Group meetings were open to the public and attended by members of the community. The following is a list of meetings and agendas that were a part of this community planning process:

## **Working Advisory Group Meeting**

July 22, 2014

- 1. Welcome and Introductions
- 2. Advisory Group Roles and Rules
- 3. Planning Context
- 4. Station Area Context
- 5. Discussion
- 6. Next Steps

## Working Advisory Group Meeting

September 23, 2014

- 1. Introductions, Roles and Rules
- 2. Transportation Context
- 3. Discussion
- 4. Community Forum Outreach/Prep
- 5. Next Steps

## Working Advisory Group Meeting

October 15, 2014

- 1. Welcome, Introductions, Roles and Rules
- 2. Station Area Context Previous Studies
- 3. Station Area Context Market Conditions
- 4. Discussion
- 5. Community Forum Prep
- 6. Next Steps

## **Community Visioning Forum**

January 13, 2015 January 20, 2015

- 1. Background Presentation
- 2. Break-out Group Instructions
- 4. Break-out Group Exercise 1 -

Issues and Opportunities

- 5. Break-out Group Discussion 2 Shared Vision
- 6. Report Back/Next Steps

## **Working Advisory Group Meeting**

February 10, 2015

- 1. Placemaking Results
- 2. Community Forum Summary
- 3. Discussion
- 4. Priorities and Directions
- 5. Discussion
- 6. Next Steps

## **Working Advisory Group Meeting**

March 10, 2015

- 1. Placemaking Results
- 2. Community Forum Summary
- 3. Redevelopment Scenario Sites
- 4. Public Realm Improvement Discussion
- 5. Next Steps

## **Working Advisory Group Meeting**

April 14, 2015

- 1. Update: Letter Sent to BRA
- 2. Discussion: Process shortcomings or other issues
- 3. Discussion: Specific items/actions to address
- 4. Discussion: Agenda for May meeting and next steps

## **Working Advisory Group Meeting**

May 12, 2015

- 1. Open Discussion
- 2. Process, Deliverables
- 3. Community Vision Discussion
- 4. Next Steps and Meetings

## **Working Advisory Group Meeting**

June 9, 2015

- 1. Redevelopment Scenario Discussion
- 2. Public Realm Improvement Presentation
- 3. Public Realm Improvement Discussion
- 4. Next Steps

## **Working Advisory Group Meeting**

July 14, 2015

- 1. Station Area Plan Summary Discussion
- 2. Open House Preparation
- 3. Next Steps

### **Community Open House**

September 21, 2015

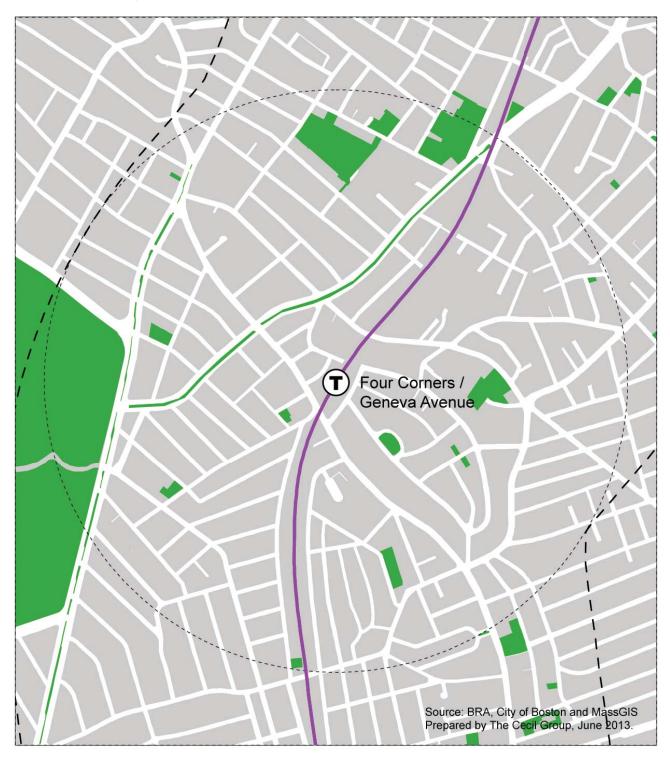
## **Working Advisory Group Meeting**

September 29, 2015

- 1. Final Station Area Plan Review
- 2. Next Steps

# EXISTING CONDITIONS ANALYSIS

The station area as defined for this study and plan includes all parcels within 1/2 mile of the station















The Census Tracts used for the following Station Area existing conditions analysis



# **Household Income**







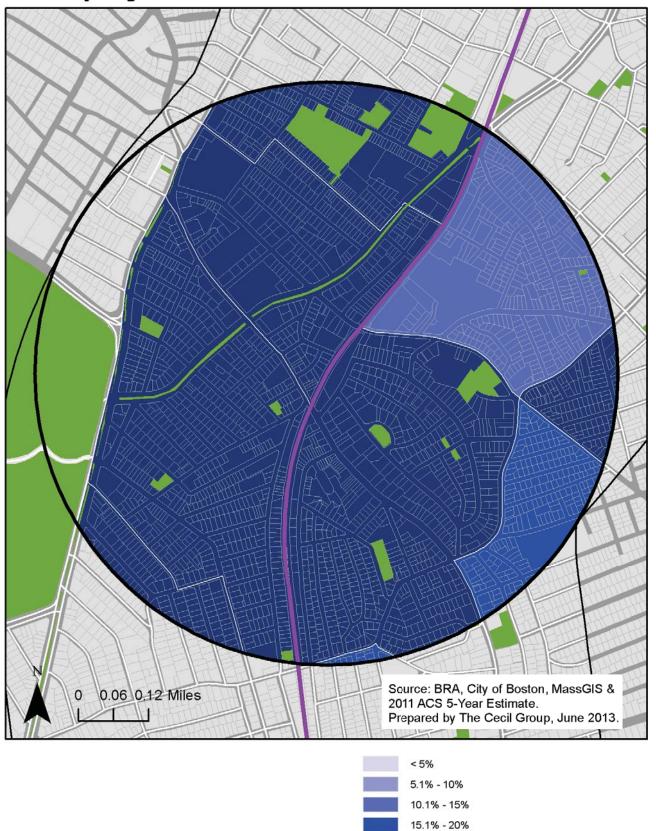






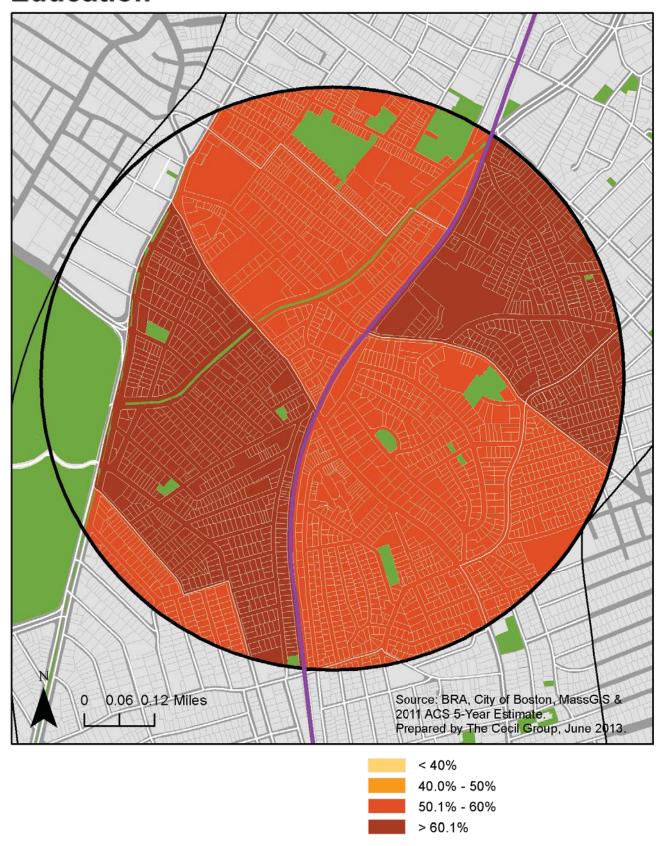


# Unemployment



> 20%

# **Education**







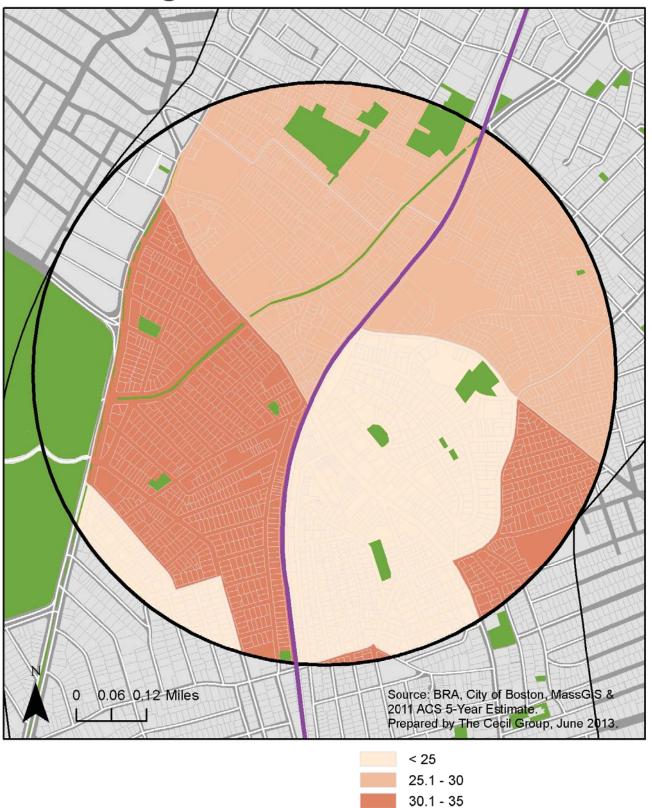






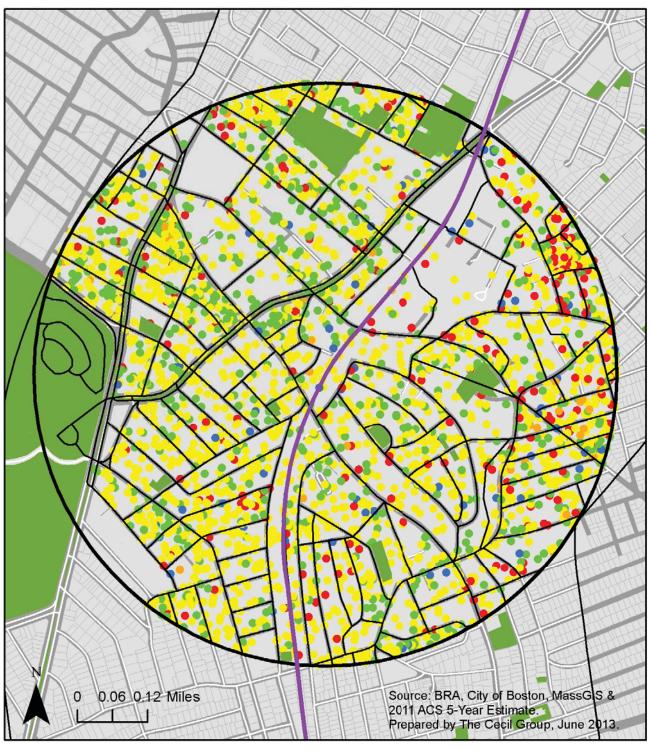


# **Resident Age**



35.1 - 40 > 40

# **Racial Characteristics**



- White
- Black
- Asian
- Other
- Hispanic





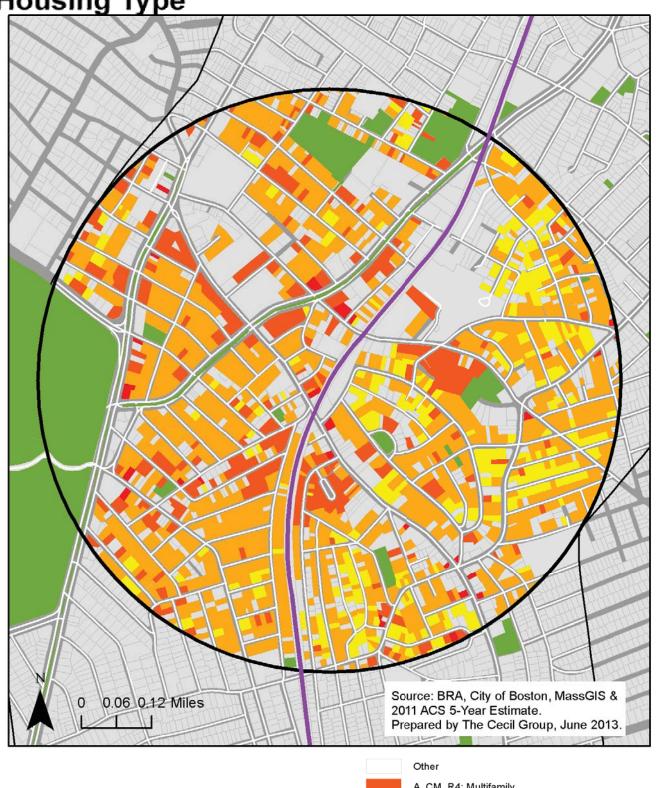






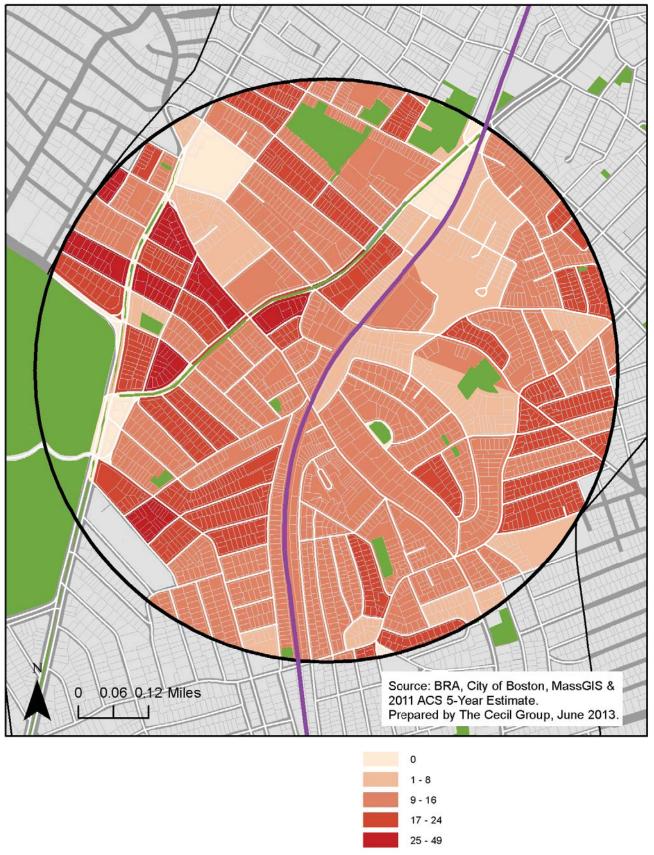


**Housing Type** 





# **Housing Density**







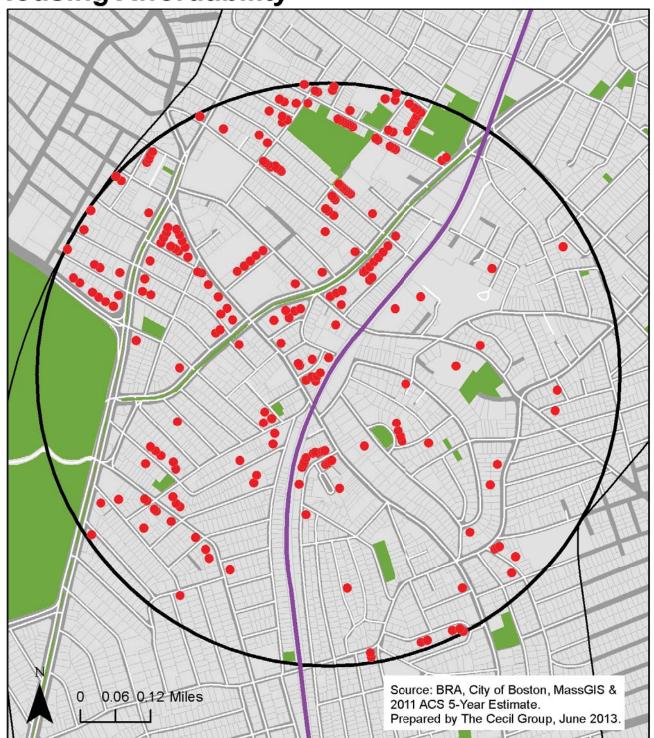








**Housing Affordability** 



## **Affordable Housing Units**

Affordable Units





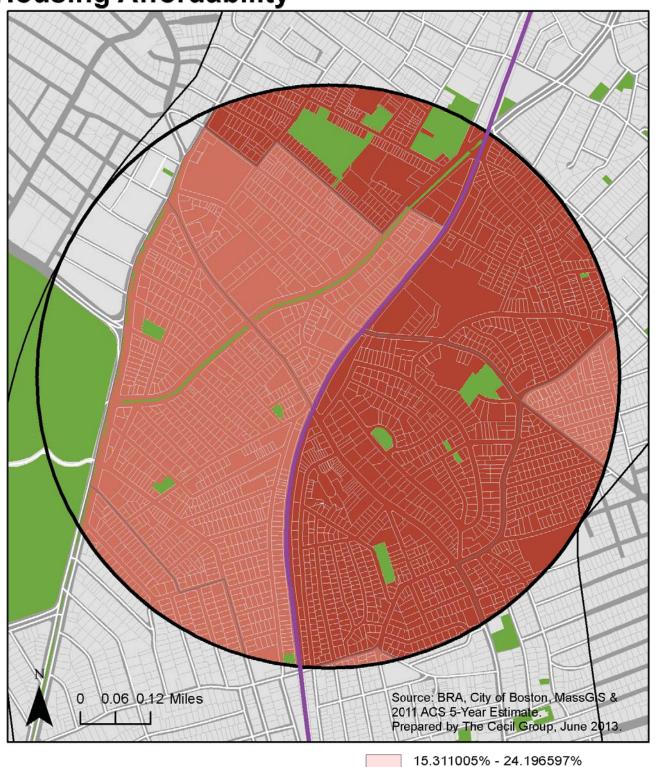








**Housing Affordability** 



15.311005% - 24.196597%

24.196598% - 31.165312%

31.165313% - 37.191157%

37.191158% - 44.034091%

44.034092% - 52.811245%

# **Neighborhood Land Use**







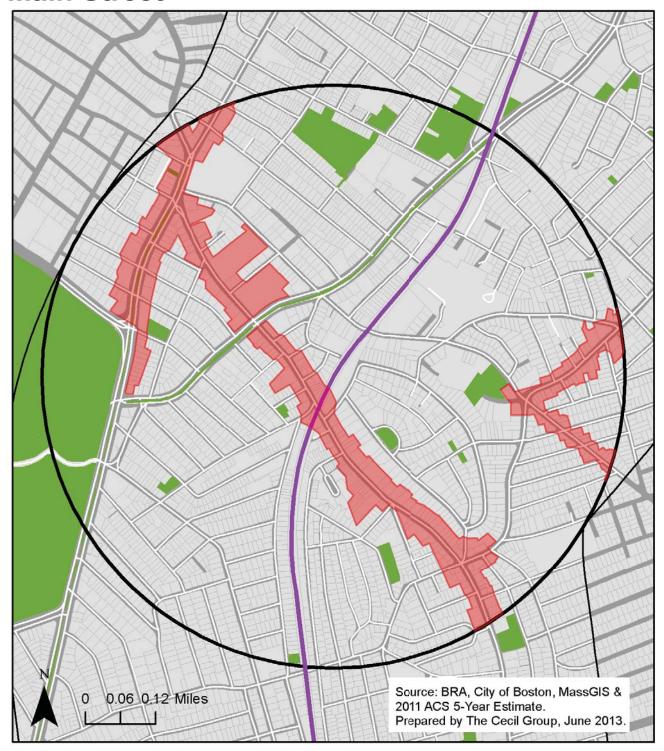








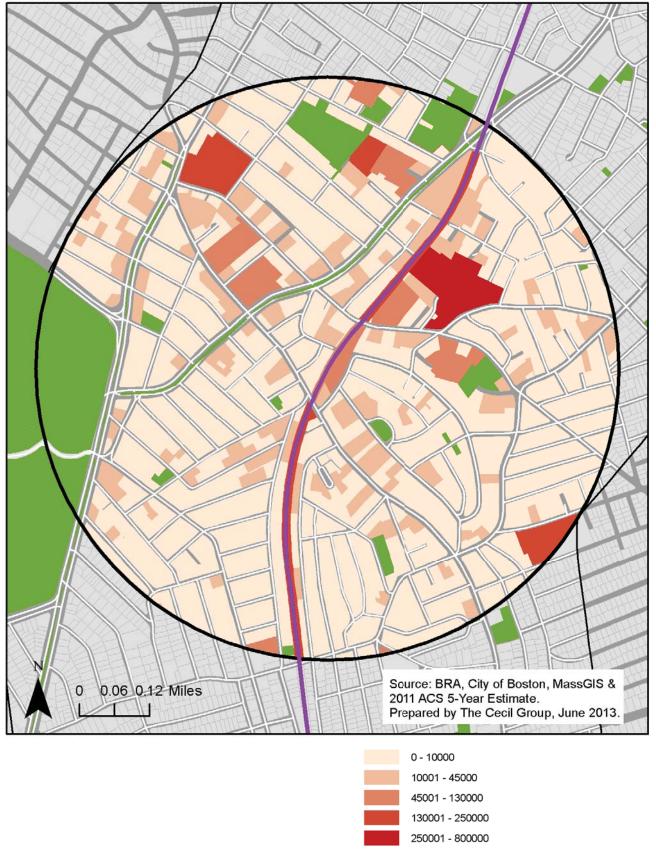
# **Main Street**



## **Main Street Districts**



# **Parcel Size**







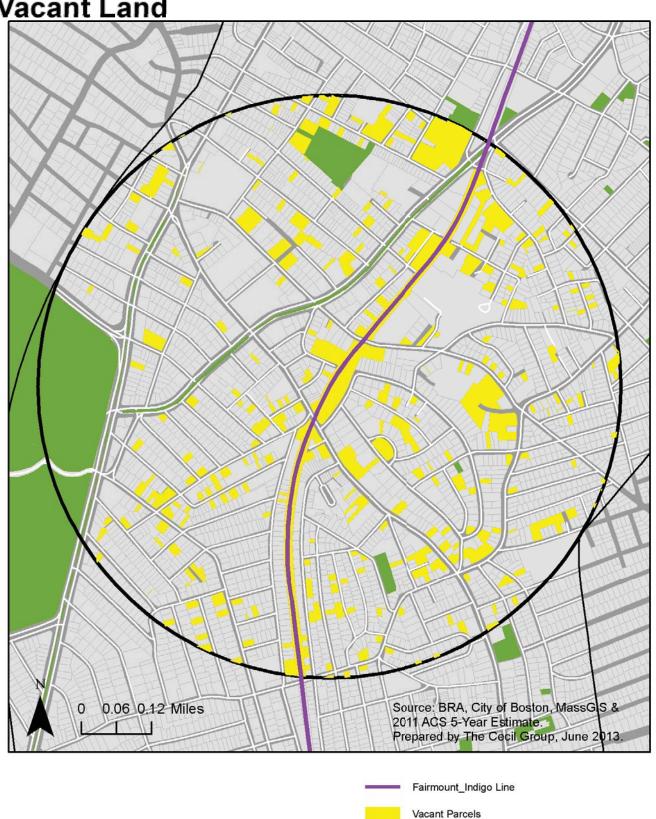




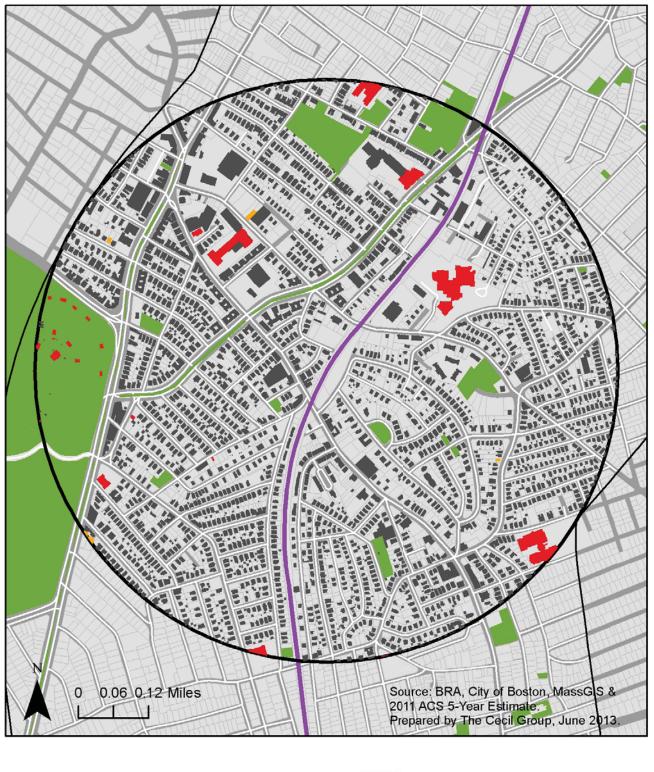




Vacant Land



# **City Property**





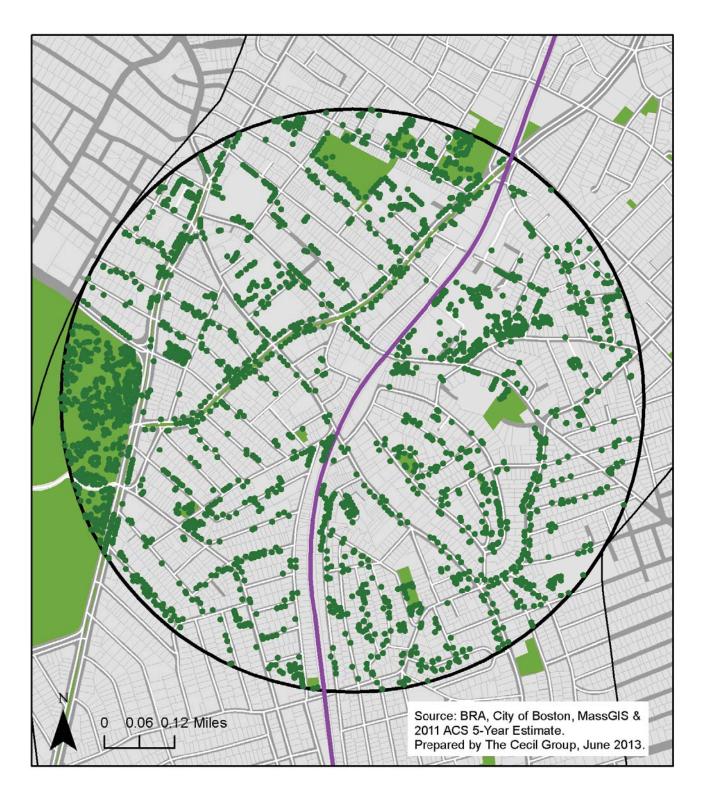












## **Trees**

Trees













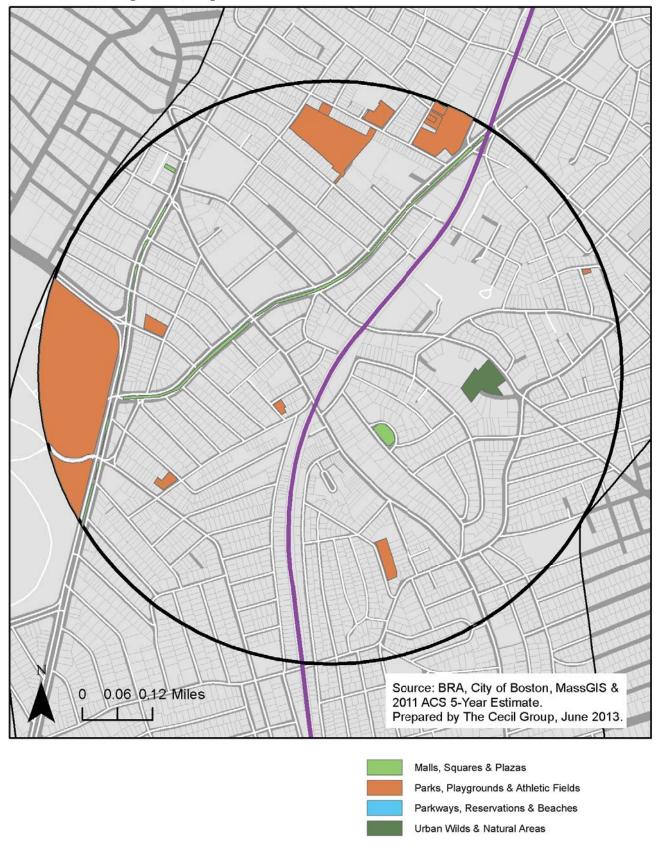
# **Street Network**



**Major Local Streets** 

Major Streets

# **Public Open Space**





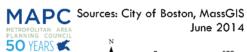




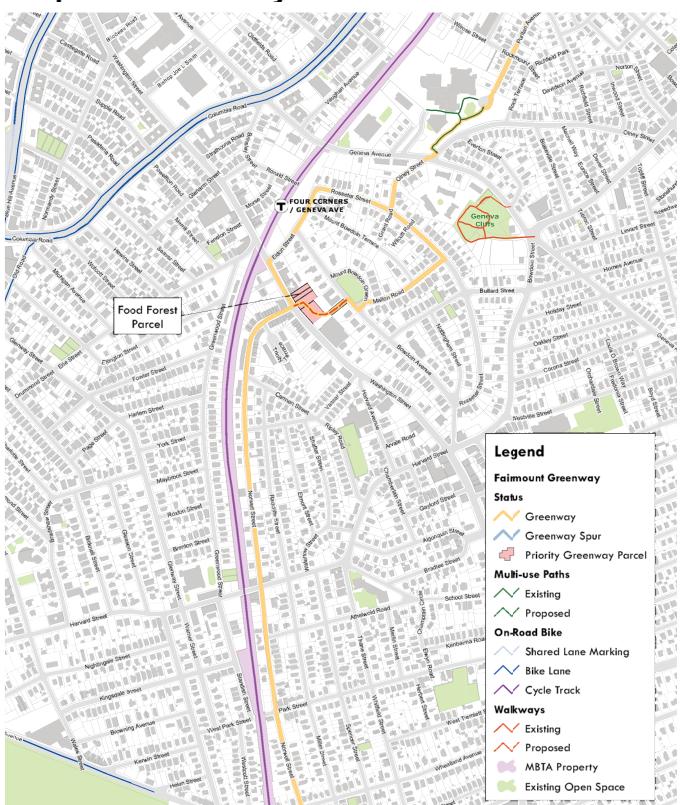








# **Proposed Greenway**



Source: Fairmount Greenway, Note: The exact route some segments of the Fairmount Greenway Concept Plan have not yet been finalized. Some segments may require easements for access to the route.













# **Parking**



--- On Street Parking

# PROFORMA FEASIBILITY TESTS

A conceptual redevelopment proforma was evaluated as part of the feasibility testing of the key sites selected by the Working Advisory Group that tested future redevelopment opportunity for the Four Corners/Geneva Station Area. In conjunction with financial feasibility the physical redevelopment potential of the sites was tested.

The physical fit studies were performed using digital three-dimensional building models to determine the scale of the building that is feasible on the site. An analysis of the market context helped to establish the development program that would occupy the hypothetical buildings that were conceptually tested.

The proforma analysis used the potential development program to test the balance of development costs and revenue on the particular site. All together this feasibility testing helps the community to better understand market conditions and the likelihood of a particular site to redevelop.

The information that follows documents the output of the proforma feasibility tests for the key sites studied. This information is followed by tables that reflect the market conditions of the Station Area for the residential, office, light industrial and retail markets.

# Ronald Street

The tables shown below represents a basic financial feasibility analysis for the hypothetical Ronald Street redevelopment scenario. The potential development program that was developed as part of the physical fit studies is studied to test the relationship between costs and revenue potential to understand a magnitude of profit or gap a developer would face.

| 1 - Ronald Street Lot                     |                 | Scenario D      | efinition:   |                           | Apartment               |
|---|-----------------|-----------------|--------------|---------------------------|-------------------------|
| Feasibility Tests                         |                 | Test Result     | :            | -18.5%                    | Negative                |
| Gross Potential Income                    |                 |                 |              |                           |                         |
| Revenues - Private                        | Units           | RSF             | Monthly Rent | Rent/SF                   | Annual Rent             |
| Apartment-Market                          | 47              | 37,600          | \$1,600      |                           | \$902,400               |
| Apartment-Affordable                      | 9               | 7,200           | \$1,600      |                           | \$172,800               |
| Retail (NNN)                              |                 | 0               | \$0          |                           | \$0                     |
| Office (NNN)                              |                 | 0               | * -          | \$10.00                   | \$0                     |
| Restaurant (NNN)                          |                 | 0               |              | \$30.00                   | \$0                     |
| Parking Spaces                            | 56              | Surface         | \$0          |                           | \$0                     |
| Parking Spaces                            | 0               | Garage          | \$0          |                           | \$0                     |
| Parking Spaces                            | 0               | Underground     | \$0          |                           | \$0                     |
| Subtotal                                  | 56              | 44,800          |              | \$24.00                   | \$1,075,200             |
| GSF (Excl. Parking)                       | 83%             | 53,752          |              |                           |                         |
| Vacancy & Collection Losses               |                 | 1               | Market Rate  | 3.0%                      | (\$27,072)              |
|   |                 |                 | Affordable   | 3.0%                      | (\$5,184)               |
|   |                 |                 | Retail       | 0.0%                      | \$0                     |
|   |                 |                 | Office       | 0.0%                      | \$0<br>\$0              |
|   |                 |                 | Restaurant   | 0.0%                      | \$0                     |
| Effective Gross Income                    |                 |                 |              |                           | \$1,042,944             |
| Non-Reimburseable Expenses                |                 |                 |              |                           |                         |
| Operating & RE Taxes                      |                 |                 | \$8.420      | Per Unit                  | (\$471,520)             |
| Reserves                                  |                 |                 |              | Per Unit                  | (\$19,600)              |
| Commercial                                |                 |                 | · ·          | EGI                       | \$0                     |
| Subtotal                                  |                 | •               |              |                           | (\$491,120)             |
| Net Operating Income                      |                 |                 |              |                           | \$551,824               |
| Capitalized Value of Residential On C     | ompletion-A     | t Stabilization |              |                           |                         |
| Capitalization Rate                       |                 |                 |              | Overall Rate              | \$9,197,067             |
| - Capitalization (tate                    |                 | -               | 0.0070       | Rounded                   | \$9,200,000             |
|   |                 |                 |              | Per RSF                   | \$205                   |
|   |                 |                 | Pei          | Residential Unit          | \$164,286               |
| Development Cost                          |                 |                 |              |                           |                         |
| •   | nament (Drivet- | Doroolo Only)   | 640          | Dor Land CC               | ¢400.000                |
| Land (Private Only) Based on City Asse    | •               |                 | * -          | Per Land SF               | \$109,900               |
| Demolition                                | 0               | SF              |              | per GSF                   | \$0                     |
| Hard Cost                                 |                 | 04              |              | per GSF                   | \$8,900,000             |
| Parking                                   |                 | Structured      |              | per space                 | \$0                     |
| Parking                                   |                 | Surface         |              | per space<br>of Hard Cost | \$83,652<br>\$1,800,000 |
| Soft Costs (includes financing, fee etc.) |                 |                 | 20%          | Rounded                   | \$1,800,000             |
|   |                 |                 |              | Per RSF                   | \$10,900,000            |
|   |                 |                 | Per          | Residential Unit          | \$194,643               |
| Feasibility Surplus/(Gap)                 |                 |                 |              | Downstad                  | (\$4.700.000)           |
| reasibility outplus/(Gap)                 |                 |                 | -            | Rounded                   | (\$1,702,933)           |
|   |                 |                 | (            | % Surplus/(Gap)           | -18.5%                  |

# 2 160 Geneva Avenue

The tables shown below represents a basic financial feasibility analysis for the hypothetical 160 Geneva Avenue redevelopment scenario. The potential development program that was developed as part of the physical fit studies is studied to test the relationship between costs and revenue potential to understand a magnitude of profit or gap a developer would face.

| 2 - 160 Geneva Avenue  |              | Scenario D      | Definition:                                |  | Apartment   |
|--|--------------|-----------------|--|--|---|
| Feasibility Tests  |              | Test Resul      | t:   | 9.5%   | Positive  |
| Constitution of  |              |                 |  |  |   |
| Gross Potential Income   |              |                 |  |  |   |
| Revenues - Private   | Units        | RSF             | Monthly Rent                               | Rent/SF  | Annual Rent   |
| Apartment-Market   | 7            | 5,372           | \$1,600                                    | \$2.00   | \$128,928   |
| Apartment-Affordable   | 2            | 1,600           | \$1,600                                    | \$2.00   | \$38,400  |
| Retail (NNN)   |              | 3,570           | \$7,438                                    | \$25.00  | \$89,250  |
| Office (NNN)   |              | 0               |  | \$10.00  | \$0   |
| Restaurant (NNN)   |              | 0               |  | \$30.00  | \$0   |
| Parking Spaces   | 0            | Surface         | \$0  |  | \$0   |
| Parking Spaces   | 0            | Garage          | \$0  |  | \$0   |
| Parking Spaces   | 0            | Underground     | \$0  |  | \$0   |
| Subtotal   | 9            | 10,542          |  | \$24.34  | \$256,578   |
| GSF (Excl. Parking)  | 84%          | 12,600          |  |  |   |
| Vacancy & Collection Losses  |              |                 | Market Rate                                | 3.0%   | (\$3,868)   |
|  |              |                 | Affordable                                 | 3.0%   | (\$1,152)   |
|  |              |                 | Retail                                     | 0.0%   | \$0   |
|  |              |                 | Office                                     | 0.0%   | \$0   |
|  |              |                 | Restaurant                                 | 0.0%   | \$0<br>\$0  |
|  |              |                 | Nestaulani                                 | 0.078  | ΨΟ  |
| Effective Gross Income   |              |                 |  |  | \$251,558   |
|  |              |                 |  |  |   |
| Non-Reimburseable Expenses   |              |                 |  |  |   |
| Operating & RE Taxes   |              |                 | \$8,420                                    | Per Unit   | (\$73,380)  |
| Reserves   |              |                 | \$350                                      | Per Unit   | (\$3,050)   |
| Commercial   |              |                 | 3.0%                                       | EGI  | (\$2,678)   |
| Subtotal   |              |                 |  |  | (\$79,108)  |
| Net Operating Income   |              |                 |  |  | \$172,450   |
| Canitalized Value of Residential On Con  | anlation A   | + C+abilization |  |  |   |
| Capitalized Value of Residential On Con  | ipietion-A   | t Stabilizatioi |  | O  | <b>CO 074 400</b>   |
| Capitalization Rate  |              |                 | 6.0%                                       | Overall Rate   | \$2,874,169   |
|  |              |                 |  | Rounded  | \$2,900,000   |
|  |              |                 | Dan  | Per RSF  | \$275   |
|  |              |                 | Per  | Residential Unit   | \$332,760   |
| Development Cost   |              |                 |  |  |   |
| •  | ent (Private | Parcels Only)   | <b>\$11</b>                                | Per Land SF  | \$93,200  |
| I and (Private ()niv) Rased on (:itv ∆esessm                                   | •            | SF              |  | per GSF  | \$95,200  |
| Land (Private Only) Based on City Assessm                                      |              |                 | DIU.                                       | pei Goi  |   |
| Demolition   | 0            | OI .            |  | ner GSF  | •   |
| Demolition<br>Hard Cost  | 0            |                 | \$165                                      | per GSF  | \$2,100,000   |
| Demolition<br>Hard Cost<br>Parking   | 0            | Structured      | \$165<br>\$15,000                          | per space  | \$2,100,000<br>\$0  |
| Demolition<br>Hard Cost<br>Parking<br>Parking                                  | 0            |                 | \$165<br>\$15,000<br>\$1,500               | per space<br>per space   | \$2,100,000<br>\$0<br>\$0   |
| Demolition<br>Hard Cost<br>Parking   | 0            | Structured      | \$165<br>\$15,000<br>\$1,500               | per space<br>per space<br>of Hard Cost   | \$2,100,000<br>\$0<br>\$0<br>\$400,000                                      |
| Demolition<br>Hard Cost<br>Parking<br>Parking                                  | 0            | Structured      | \$165<br>\$15,000<br>\$1,500               | per space<br>per space<br>of Hard Cost<br>Rounded                                | \$2,100,000<br>\$0<br>\$0<br>\$400,000<br>\$2,600,000                       |
| Demolition<br>Hard Cost<br>Parking<br>Parking                                  | 0            | Structured      | \$165<br>\$15,000<br>\$1,500<br>20%        | per space<br>per space<br>of Hard Cost   | \$2,100,000<br>\$0<br>\$0<br>\$400,000                                      |
| Demolition Hard Cost Parking Parking Soft Costs (includes financing, fee etc.) |              | Structured      | \$165<br>\$15,000<br>\$1,500<br>20%        | per space<br>per space<br>of Hard Cost<br>Rounded<br>Per RSF<br>Residential Unit | \$2,100,000<br>\$0<br>\$0<br>\$400,000<br>\$2,600,000<br>\$247<br>\$298,336 |
| Demolition<br>Hard Cost<br>Parking<br>Parking                                  | 0            | Structured      | \$165<br>\$15,000<br>\$1,500<br>20%<br>Per | per space<br>per space<br>of Hard Cost<br>Rounded<br>Per RSF                     | \$2,100,000<br>\$0<br>\$0<br>\$400,000<br>\$2,600,000<br>\$247              |

# Washington/Bowdoin

The tables shown below represents a basic financial feasibility analysis for the hypothetical Washington/Bowdoin redevelopment scenario. The potential development program that was developed as part of the physical fit studies is studied to test the relationship between costs and revenue potential to understand a magnitude of profit or gap a developer would face.

| 4 - Washington Street and   | Bowdoin Str <mark>Sce</mark>       | nario Definiti   | ion:   | Apa   | artment/Retail  |
|---|------------------------------------|------------------|--|---|---|
| Feasibility Tests   | Tes                                | t Result:        |  | 14.3%   | Positive  |
| Gross Potential Income  |                                    |                  |  |   |   |
| Revenues - Private  | Units                              | RSF              | Monthly Rent   | Rent/SF   | Annual Rent   |
| Apartment-Market  | 9                                  | 7,200            | \$1,600  | \$2.00  | \$172,800   |
| Apartment-Market Apartment-Affordable   | 1                                  | 800              | \$1,600  | \$2.00  | \$19,200  |
| Retail (NNN)  | '                                  | 4,030            | \$8,396  | \$25.00   | \$100,746   |
| Office (NNN)  |                                    | 0                | ψ0,000   | \$10.00   | \$0   |
| Restaurant (NNN)  |                                    | 0                |  | \$30.00   | \$0   |
| Parking Spaces  | 8                                  | Surface          | \$0  | φου.σο  | \$0   |
| Parking Spaces  | 0                                  | Garage           | \$0  |   | \$0   |
| Parking Spaces  | 0                                  | Underground      | \$0  |   | \$0   |
| Subtotal  | 10                                 | 12,030           | ΨΟ   | \$24.33   | \$292,746   |
| GSF (Excl. Parking)   | 85%                                | 14,223           |  | Ψ21.00  | Ψ202,7 10   |
| Vacancy & Collection Losses   |                                    | N                | larket Rate  | 3.0%  | (\$5,184)   |
| ,   |                                    |                  |  |   | ***   |
|   |                                    |                  | ffordable  | 3.0%  | (\$576)   |
|   |                                    |                  | etail  | 0.0%  | \$0   |
|   |                                    | -                | Office   | 0.0%  | \$0   |
|   |                                    | R                | estaurant  | 0.0%  | \$0   |
| Effective Gross Income  |                                    |                  |  |   | \$286,986   |
|   |                                    |                  |  |   |   |
| Non-Reimburseable Expenses  |                                    |                  |  |   |   |
| Operating & RE Taxes  |                                    |                  | \$8,420 F  | Per Unit  | (\$84,200)  |
| Reserves  |                                    |                  | \$350 F  | Per Unit  | (\$3,500)   |
| Commercial  |                                    |                  | 3.0% E   | GI  | (\$3,022)   |
| Subtotal  |                                    |                  |  |   | (\$90,722)  |
| Net Operating Income  |                                    |                  |  |   | \$196,264   |
| Capitalized Value of Residential On   | Completion-At Stah                 | ilization        |  |   |   |
| Capitalization Rate   | completion At Stab                 |                  | 6.00/  | Overall Rate  | ¢2 274 064  |
| Capitalization Rate   |                                    |                  | 0.0%   | Rounded   | \$3,271,064<br>\$3,300,000  |
|   |                                    |                  |  | Per RSF   | \$3,300,000   |
|   |                                    |                  |  |   | \$274   |
|   |                                    |                  | Por I  |   | \$274<br>\$330,000  |
|   |                                    |                  | Per I  | Residential Unit  | \$274<br>\$330,000  |
| Development Cost  |                                    |                  | Per I  |   |   |
| ·   | on City Assessment (Privat         | te Parcels Only) |  |   |   |
| Land (Private Only) Based of  | on City Assessment (Privat<br>0 SF | te Parcels Only) | \$0 F  | Residential Unit  | \$330,000   |
| •   | •                                  | te Parcels Only) | \$0 F<br><mark>\$10</mark> p                                   | Residential Unit  | \$330,000   |
| Land (Private Only) Based of Demolition   | •                                  | te Parcels Only) | \$0 F<br>\$10 p<br>\$165 p                                     | Residential Unit Per Land SF per GSF per GSF  | \$330,000<br>\$0<br>\$0   |
| Land (Private Only) Based of Demolition Hard Cost   | •                                  |                  | \$0 F<br><mark>\$10</mark> p                                   | Per Land SF eer GSF eer GSF eer gspace  | \$330,000<br>\$0<br>\$0<br>\$2,300,000  |
| Land (Private Only) Based of Demolition Hard Cost Parking   | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p          | Per Land SF eer GSF eer GSF eer gspace  | \$330,000<br>\$0<br>\$2,300,000<br>\$0  |
| Land (Private Only) Based of Demolition Hard Cost Parking Parking                                       | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p          | Per Land SF eer GSF eer GSF eer space eer space   | \$330,000<br>\$0<br>\$2,300,000<br>\$0<br>\$12,000  |
| Land (Private Only) Based of Demolition Hard Cost Parking Parking                                       | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p          | Per Land SF per GSF per GSF per gspace per space per space per space per space per space per space              | \$330,000<br>\$0<br>\$2,300,000<br>\$12,000<br>\$500,000<br>\$2,800,000                       |
| Land (Private Only) Based of Demolition Hard Cost Parking Parking                                       | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p<br>20% c | Per Land SF per GSF per GSF per GSF per space per space per space f Hard Cost  Rounded                          | \$330,000<br>\$0<br>\$2,300,000<br>\$0<br>\$12,000<br>\$500,000                               |
| Land (Private Only)  Demolition  Hard Cost  Parking  Parking  Soft Costs (includes financing, fee etc.) | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p<br>20% c | Per Land SF per GSF per GSF per GSF per space per space per space f Hard Cost  Rounded Per RSF Residential Unit | \$330,000<br>\$0<br>\$2,300,000<br>\$12,000<br>\$500,000<br>\$2,800,000<br>\$233<br>\$280,000 |
| Land (Private Only)  Demolition  Hard Cost  Parking  Parking  | •                                  | Structured       | \$0 F<br>\$10 p<br>\$165 p<br>\$15,000 p<br>\$1,500 p<br>20% c | Residential Unit  Per Land SF  per GSF  per GSF  per GSF  per space  per space  f Hard Cost  Rounded  Per RSF   | \$330,000<br>\$0<br>\$2,300,000<br>\$12,000<br>\$500,000<br>\$2,800,000<br>\$233              |

# Washington/Eerie

The tables shown below represents a basic financial feasibility analysis for the hypothetical Washington/Eerie Redevelopment scenarios. The potential development program that was developed as part of the physical fit studies is studied to test the relationship between costs and revenue potential to understand a magnitude of profit or gap a developer would face.

| 5 - Erie Street and Washington Street                 | 9             | Scenario D       | Definition:  |                  | Apartment/Retail |
|---|---------------|------------------|--------------|------------------|------------------|
| Feasibility Tests                                     | -             | Test Resul       | t:           | 6.4%             | Positive         |
| Gross Potential Income                                |               |                  |              |                  |                  |
| Revenues - Private                                    | Units         | RSF              | Monthly Rent | Rent/SF          | Annual Rent      |
| Apartment-Market                                      | 37            | 29,600           | \$1,600      | \$2.00           | \$710,400        |
| Apartment-Affordable                                  | 7             | 5,600            | \$1,600      | \$2.00           | \$134,400        |
| Retail (NNN)  |               | 11,738           | \$24,453     | \$25.00          | \$293,441        |
| Office (NNN)  |               | 0                |              | \$10.00          | \$0              |
| Restaurant (NNN)                                      |               | 0                |              | \$30.00          | \$0              |
| Parking Spaces  | 50            | Surface          | \$0          |                  | \$0              |
| Parking Spaces  | 0             | Garage           | \$0          |                  | \$0              |
| Parking Spaces  | 0             | Underground      | \$0          |                  | \$0              |
| Subtotal GSF (Excl. Parking)                          | 44<br>84%     | 46,938<br>55,827 |              | \$24.25          | \$1,138,241      |
| Vacancy & Collection Losses                           |               |                  | Market Rate  | 3.0%             | (\$21,312)       |
| 1 4 5 5 1 5 7 6 5 5 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 |               |                  |              |                  |                  |
|   |               |                  | Affordable   | 3.0%             | (\$4,032)        |
|   |               |                  | Retail       | 0.0%             | \$0              |
|   |               |                  | Office       | 0.0%             | \$0              |
|   |               |                  | Restaurant   | 0.0%             | \$0              |
| Effective Gross Income                                |               |                  |              |                  | \$1,112,897      |
| Non-Reimburseable Expenses                            |               |                  |              |                  |                  |
| Operating & RE Taxes                                  |               |                  | ¢g 420       | Per Unit         | (\$370,480)      |
| Reserves  |               |                  |              | Per Unit         | (\$15,400)       |
| Commercial  |               |                  | 3.0%         |                  | (\$8,803)        |
| Subtotal  |               |                  | 0.070        | 201              | (\$394,683)      |
|   |               |                  |              |                  | (+== /===/       |
| Net Operating Income                                  |               |                  |              |                  | \$718,214        |
| Constalling d Value of Decidential On Consulation A   | + C+ -  - !!! |                  |              |                  |                  |
| Capitalized Value of Residential On Completion-A      | it Stabili    | zation           | 0.007        |                  | A., 0=0 00.      |
| Capitalization Rate                                   |               |                  | 6.0%         | Overall Rate     | \$11,970,234     |
|   |               |                  |              | Rounded          | \$12,000,000     |
|   |               |                  | D            | Per RSF          | \$256            |
|   |               |                  | Pe           | Residential Unit | \$272,727        |
| Development Cost                                      |               |                  |              |                  |                  |
| Land (Private Only)  Based on City Assessmen          | t (Private    | Parcels Only)    | \$2          | Per Land SF      | \$51,200         |
| Demolition  | 0 5           | • •              |              | per GSF          | \$0              |
| Hard Cost   | 0 3           | <i>7</i> 1       |              | per GSF          | \$9,200,000      |
| Parking   |               | Structured       |              | per space        | \$0              |
| Parking   |               | Surface          |              | per space        | \$74,982         |
| Soft Costs (includes financing, fee etc.)             |               | 2                |              | of Hard Cost     | \$1,900,000      |
|   |               |                  |              | Rounded          | \$11,200,000     |
|   |               |                  |              | Per RSF          | \$239            |
|   |               |                  | Per          | Residential Unit | \$254,545        |
| 5 11111 6 1 1/0                                       |               |                  |              | _                |                  |
| Feasibility Surplus/(Gap)                             |               |                  |              | Rounded          | \$770,234        |
|   |               |                  |              | % Surplus/(Gap)  | 6.4%             |

# **Market Context**

As a foundation to the redevelopment scenarios and proforma analysis of potential key redevelopment sites, a general market overview and context was assessed to understand the real estate market dynamics in the Four Corners/Geneva Station Area.

The most important analysis for the real estate and development context is to evaluate and understand the characteristics of demand. The following simplified market considerations formulate how the various sources of demand translate into development potentials:

- Households drive residential development with housing typologies, price points and match to resident requirements.
- Labor Force drives commercial and industrial development with skills and match to employer requirements.
- **Employment** drives commercial and industrial development with land and building availability and match to business requirements.
- Visitation drives cultural and institutional development with visitor types and match to destination requirements.
- **Expenditures** drive retail development with resident, employee, and visitor expenditure match to the commercial types and sale requirements.

The tables that follow provide summary outputs of the current economic context along with a brief explanation of the relevance of the data and overall conclusions for the Station Area Plan:

Residential Market Background - this table represents data pulled from the context of the Fairmount Indigo Corridor (Dorchester, Roxbury and Mattapan). The table shows a fundamental supply problem. The Corridor, and Boston more generally, are under-supplied with residential units to meet the level of demand present. This shows in the table as a very low vacancy rate (+/- 4%). As a result of the vacancy rate reducing or remaining relatively constant over time, the asking rent is increasing over time. This pattern can be expected to continue and is why introducing additional housing units is an important strategy to retain affordability. This pattern has increased even more sharply with the improving economic conditions in Massachusetts.

- **Retail Market Background** this table represents data pulled from the context of the Fairmount Indigo Corridor (Dorchester, Roxbury and Mattapan). The table also shows a very low vacancy rate of (+/- 4%) and a rate that is remaining relatively constant. This vacancy rate is low enough that it makes normal trading and moving between spaces very difficult.
- Office Market Background this table represents data pulled from the context of the Fairmount Indigo Corridor (Dorchester, Roxbury and Mattapan). Relative to the residential and retail metrics, the apparent demand for office space is low and not conducive to speculative build-out of office space. The Corridor has difficulty attracting office users in a highly competitive market around Boston. It is unlikely that office space would be development program component that would drive real estate investment.
- Light Industrial Market Background this table represents data pulled from the context of the Fairmount Indigo Corridor (Dorchester, Roxbury and Mattapan). Vacancy for light industrial uses is stuck at about 10% which is relatively high and rental rates range between \$9.00 and \$9.60 per square foot. The vacant space figures reflect that large industrial users of the past are less in number and that vacant space is reducing slightly as the successful industrial spaces adapt to be flexible and accommodating to smaller leases.
- Neighborhood Residential Positioningthis table represents data pulled from the Four Corners/Geneva Station Area context. The Station Area context shows that a substantial amount of residential demand is going unsatisfied by new supply in the housing market in the neighborhoods. Even when new supply is added, the vacancy rate does not increase significantly and rents continue to trend upwards.
- Neighborhood Commercial and Industrial Positioning- this table represents data pulled from the Four Corners/Geneva Station Area context and shows that the Station Area context is consistent with the overall Corridor conditions for retail, office and industrial space.

# **Residential Market Background**

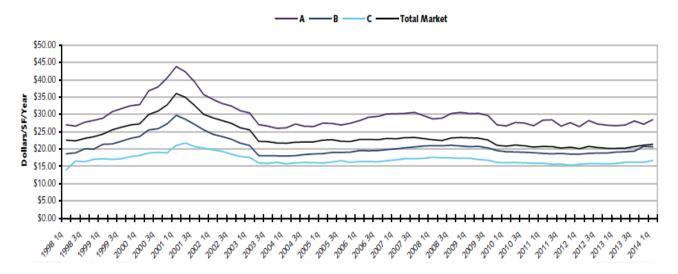
| Year Mont<br>Qtr<br>2009 Y<br>2010 Y |        | Completions | Inventory<br>Growth% | Vacant Stock | Vacancy | Vacancy     | Occupied | Net        |             | A - I: D 4 0/     |
|--------------------------------------|--------|-------------|----------------------|--------------|---------|-------------|----------|------------|-------------|-------------------|
|                                      | 13.776 |             | GIOWIII70            | Vacant Stock | Rate    | Change(BPS) | Stock    | Absorption | Asking Rent | Ask Rent %<br>Chg |
| 2010 Y                               |        | 269         | 2.0%                 | 854          | 6.2%    | 250         | 12,922   | -85        | \$1,489     | - 4.2%            |
|                                      | 13,875 | 99          | 0.7%                 | 652          | 4.7%    | -150        | 13,223   | 301        | \$1,542     | 3.6%              |
| 2011 Y                               | 13,875 | 0           | 0.0%                 | 444          | 3.2%    | -150        | 13,431   | 208        | \$1,577     | 2.3%              |
| 2012 Q3                              | 13,914 | 0           | 0.0%                 | 404          | 2.9%    | 0           | 13,510   | 0          | \$1,610     | 0.9%              |
| 2012 Q4                              | 13,938 | 24          | 0.2%                 | 390          | 2.8%    | -10         | 13,548   | 38         | \$1,615     | 0.3%              |
| 2012 Y                               | 13,938 | 63          | 0.5%                 | 390          | 2.8%    | -40         | 13,548   | 117        | \$1,615     | 2.4%              |
| 2013 Jan                             | 13,976 | 38          | 0.3%                 | 405          | 2.9%    | 10          | 13,571   | 23         | \$1,622     | 0.4%              |
| 2013 Feb                             | 13,976 | 0           | 0.0%                 | 405          | 2.9%    | 0           | 13,571   | 0          | \$1,628     | 0.4%              |
| 2013 Mar                             | 13,976 | 0           | 0.0%                 | 391          | 2.8%    | -10         | 13,585   | 14         | \$1,630     | 0.1%              |
| 2013 Q1                              | 13,976 | 38          | 0.3%                 | 391          | 2.8%    | 0           | 13,585   | 37         | \$1,630     | 1.0%              |
| 2013 Apr                             | 13,976 | 0           | 0.0%                 | 391          | 2.8%    | 0           | 13,585   | 0          | \$1,633     | 0.2%              |
| 2013 May                             | 14,026 | 50          | 0.4%                 | 421          | 3.0%    | 20          | 13,605   | 20         | \$1,637     | 0.2%              |
| 2013 Jun                             | 14,026 | 0           | 0.0%                 | 414          | 3.0%    | 0           | 13,612   | 7          | \$1,633     | - 0.3%            |
| 2013 Q2                              | 14,026 | 50          | 0.4%                 | 414          | 3.0%    | 20          | 13,612   | 27         | \$1,633     | 0.2%              |
| 2013 Jul                             | 14,026 | 0           | 0.0%                 | 421          | 3.0%    | 0           | 13,605   | -7         | \$1,641     | 0.5%              |
| 2013 Aug                             | 14,026 | 0           | 0.0%                 | 421          | 3.0%    | 0           | 13,605   | 0          | \$1,651     | 0.6%              |
| 2013 Sep                             | 14,026 | 0           | 0.0%                 | 407          | 2.9%    | -10         | 13,619   | 14         | \$1,650     | 0.0%              |
| 2013 Q3                              | 14,026 | 0           | 0.0%                 | 407          | 2.9%    | -10         | 13,619   | 7          | \$1,650     | 1.1%              |
| 2013 Oct                             | 14,094 | 68          | 0.5%                 | 423          | 3.0%    | 10          | 13,671   | 52         | \$1,652     | 0.1%              |
| 2013 Nov                             | 14,094 | 0           | 0.0%                 | 423          | 3.0%    | 0           | 13,671   | 0          | \$1,651     | 0.0%              |
| 2013 Dec                             | 14,094 | 0           | 0.0%                 | 409          | 2.9%    | -10         | 13,685   | 14         | \$1,653     | 0.1%              |
| 2013 Q4                              | 14,094 | 68          | 0.5%                 | 409          | 2.9%    | 0           | 13,685   | 66         | \$1,653     | 0.2%              |
| 2013 Y                               | 14,094 | 156         | 1.1%                 | 409          | 2.9%    | 10          | 13,685   | 137        | \$1,653     | 2.4%              |
| 2014 Jan                             | 14,274 | 180         | 1.3%                 | 500          | 3.5%    | 60          | 13,774   | 89         | \$1,705     | 3.1%              |
| 2014 Feb                             | 14,274 | 0           | 0.0%                 | 485          | 3.4%    | -10         | 13,789   | 15         | \$1,701     | - 0.3%            |
| 2014 Mar                             | 14,274 | 0           | 0.0%                 | 471          | 3.3%    | -10         | 13,803   | 14         | \$1,719     | 1.0%              |
| 2014 Q1                              | 14,274 | 180         | 1.3%                 | 471          | 3.3%    | 40          | 13,803   | 118        | \$1,719     | 3.9%              |
| 2014 Apr                             | 14,510 | 236         | 1.7%                 | 580          | 4.0%    | 70          | 13,930   | 127        | \$1,752     | 2.0%              |
| 2014 May                             | 14,534 | 24          | 0.2%                 | 581          | 4.0%    | 0           | 13,953   | 23         | \$1,753     | 0.0%              |
| 2014 Jun                             | 14,534 | 0           | 0.0%                 | 567          | 3.9%    | -10         | 13,967   | 14         | \$1,749     | - 0.2%            |
| 2014 Q2                              | 14,534 | 260         | 1.8%                 | 567          | 3.9%    | 60          | 13,967   | 164        | \$1,749     | 1.8%              |

# **Retail Market Background**

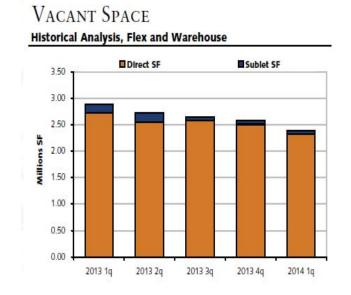
| Votal Value         Month/ Sprills         Inventory Completions (months)         Inventory Conditions (months)         Vacant Stock Vacant (months)         Vacant Stock Vacant (months)         Asking Rent Mark Rent (months)           2009         Y         6,689,000         36,000         0.5%         340,000         5.1%         -130         6,349,000         119,000         \$27,61         1.3%           2010         Y         6,734,000         0         0.0%         253,000         3.8%         -10         6,470,000         121,000         \$27,63         0.1%           2012         Q4         6,779,000         45,000         0.7%         255,000         3.8%         10         6,477,000         -5,000         \$27,72         -0.3%           2012         Q4         6,779,000         45,000         0.7%         256,000         3.8%         0         6,523,000         46,000         \$27.90         0.9%           2013         Jan         6,779,000         0         0         0.0%         225,000         3.8%         0         6,523,000         46,000         \$27.90         0.9%           2013         Jan         6,779,000         0         0.0%         225,000         3.8%         0         6,523,000         40   |      |     |           |             |      |              |      |                        |           |         |             |        |
|---|------|-----|-----------|-------------|------|--------------|------|------------------------|-----------|---------|-------------|--------|
| 2010   Y   6,734,000   45,000   0.7%   264,000   3.9%   -120   6,470,000   121,000   \$27.63   0.1%   | Year |     |           | Completions |      | Vacant Stock |      | Vacancy<br>Change(BPS) |           |         | Asking Rent |        |
| 2011   Y  | 2009 | Υ   | 6,689,000 | 36,000      | 0.5% | 340,000      | 5.1% | -130                   | 6,349,000 | 119,000 | \$27.61     | 1.3%   |
| 2012         Q3         6,734,000         0         0.0%         257,000         3.8%         10         6,477,000         -5,000         \$27.72         -0.3%           2012         Q4         6,779,000         45,000         0.7%         256,000         3.8%         0         6,523,000         42,000         \$27.96         0.9%           2012         Y         6,779,000         0         0.0%         255,000         3.8%         0         6,523,000         42,000         \$27.96         0.3%           2013         Jan         6,779,000         0         0.0%         255,000         3.7%         -10         6,527,000         4,000         \$27.96         0.0%           2013         Mar         6,779,000         0         0.0%         259,000         3.8%         10         6,527,000         4,000         \$27.96         0.0%           2013         Mar         6,779,000         0         0.0%         2271,000         4.0%         20         6,508,000         -15,000         \$28.04         0.3%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%  | 2010 | Υ   | 6,734,000 | 45,000      | 0.7% | 264,000      | 3.9% | -120                   | 6,470,000 | 121,000 | \$27.63     | 0.1%   |
| 2012   Q4   | 2011 | Υ   | 6,734,000 | 0           | 0.0% | 253,000      | 3.8% | -10                    | 6,481,000 | 11,000  | \$27.88     | 0.9%   |
| 2012         Y         6,779,000         45,000         0.7%         256,000         3.8%         0         6,523,000         42,000         \$27,96         0.3%           2013         Jan         6,779,000         0         0.0%         252,000         3.7%         -10         6,527,000         4,000         \$27,96         0.0%           2013         Feb         6,779,000         0         0.0%         259,000         3.8%         10         6,520,000         -7,000         \$28.01         0.2%           2013         Mar         6,779,000         0         0.0%         271,000         4.0%         20         6,508,000         -12,000         \$28.04         0.1%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         -15,000         \$28.04         0.1%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%           2013         Mun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.0%     <  | 2012 | Q3  | 6,734,000 | 0           | 0.0% | 257,000      | 3.8% | 10                     | 6,477,000 | -5,000  | \$27.72     | - 0.3% |
| 2013   Jan   6,779,000   0   0.0%   252,000   3.7%   -10   6,527,000   4,000   \$27.96   0.0%   | 2012 | Q4  | 6,779,000 | 45,000      | 0.7% | 256,000      | 3.8% | 0                      | 6,523,000 | 46,000  | \$27.96     | 0.9%   |
| 2013         Feb         6,779,000         0         0.0%         259,000         3.8%         10         6,520,000         -7,000         \$28.01         0.2%           2013         Mar         6,779,000         0         0.0%         271,000         4.0%         20         6,508,000         -12,000         \$28.04         0.1%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         -15,000         \$28.08         0.1%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.08         0.1%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.3%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%   | 2012 | Υ   | 6,779,000 | 45,000      | 0.7% | 256,000      | 3.8% | 0                      | 6,523,000 | 42,000  | \$27.96     | 0.3%   |
| 2013 Mar 6,779,000 0 0.0% 271,000 4.0% 20 6,508,000 -12,000 \$28.04 0.1% 2013 Q1 6,779,000 0 0.0% 271,000 4.0% 20 6,508,000 -15,000 \$28.04 0.3% 2013 Apr 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 0 \$28.08 0.1% 2013 May 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 \$28.14 0.2% 2013 Jun 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 \$28.14 0.2% 2013 Jun 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 \$28.13 0.0% 2013 Jun 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 \$28.13 0.0% 2013 Jul 6,779,000 0 0.0% 271,000 4.0% 0 6,508,000 0 \$28.13 0.3% 2013 Jul 6,779,000 0 0.0% 274,000 4.0% 0 6,505,000 -3,000 \$28.16 0.1% 2013 Jul 6,779,000 0 0.0% 274,000 4.0% 0 6,505,000 0 \$28.26 0.4% 2013 Sep 6,779,000 0 0.0% 274,000 4.0% 0 6,505,000 -4,000 \$28.39 0.5% 2013 Q3 6,779,000 0 0.0% 278,000 4.1% 10 6,501,000 -4,000 \$28.39 0.5% 2013 Q3 6,779,000 0 0.0% 278,000 4.1% 10 6,501,000 -7,000 \$28.39 0.5% 2013 Q3 6,779,000 0 0 0.0% 284,000 4.2% 10 6,495,000 -6,000 \$28.50 0.4% 2013 Dec 6,971,000 181,000 2.7% 297,000 4.3% 10 6,663,000 188,000 \$28.50 0.4% 2013 Dec 6,971,000 192,000 2.8% 290,000 4.2% 10 6,681,000 180,000 \$28.64 0.2% 2013 Q4 6,971,000 192,000 2.8% 290,000 4.2% 10 6,681,000 180,000 \$28.64 0.2% 2013 Y 6,971,000 192,000 2.8% 290,000 4.2% 10 6,681,000 180,000 \$28.64 0.2% 2013 Y 6,971,000 192,000 2.8% 290,000 4.2% 10 6,681,000 180,000 \$28.64 0.2% 2013 Y 6,971,000 192,000 2.8% 290,000 4.2% 10 6,681,000 180,000 \$28.64 0.2% 2014 Jan 6,971,000 0 0.0% 300,000 4.2% 10 6,681,000 158,000 \$28.66 0.1% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,671,000 -7,000 \$28.91 0.9% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,671,000 -7,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,671,000 -7,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,681,000 190,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,681,000 190,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,681,000 190,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,681,000 300,000 \$29.12 1.7% 2014 Mar 6,971,000 0 0.0% 300,000 4.3% 10 6,681,000 30,000 \$ | 2013 | Jan | 6,779,000 | 0           | 0.0% | 252,000      | 3.7% | -10                    | 6,527,000 | 4,000   | \$27.96     | 0.0%   |
| 2013         Q1         6,779,000         0         0.0%         271,000         4.0%         20         6,508,000         -15,000         \$28.04         0.3%           2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.08         0.1%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.0%           2013         Q2         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.3%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%   | 2013 | Feb | 6,779,000 | 0           | 0.0% | 259,000      | 3.8% | 10                     | 6,520,000 | -7,000  | \$28.01     | 0.2%   |
| 2013         Apr         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.08         0.1%           2013         May         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.0%           2013         Q2         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.3%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%           2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         0         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         4.0%         2.828.26         0.4%           <  | 2013 | Mar | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 20                     | 6,508,000 | -12,000 | \$28.04     | 0.1%   |
| 2013         May         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.14         0.2%           2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.0%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,508,000         -3,000         \$28.16         0.1%           2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         0         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.5%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.59         0.9% <t< td=""><td>2013</td><td>Q1</td><td>6,779,000</td><td>0</td><td>0.0%</td><td>271,000</td><td>4.0%</td><td>20</td><td>6,508,000</td><td>-15,000</td><td>\$28.04</td><td>0.3%</td></t<>   | 2013 | Q1  | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 20                     | 6,508,000 | -15,000 | \$28.04     | 0.3%   |
| 2013         Jun         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.0%           2013         Q2         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.3%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%           2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -0         328.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%           2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.5%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4% <t< td=""><td>2013</td><td>Apr</td><td>6,779,000</td><td>0</td><td>0.0%</td><td>271,000</td><td>4.0%</td><td>0</td><td>6,508,000</td><td>0</td><td>\$28.08</td><td>0.1%</td></t<>  | 2013 | Apr | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 0                      | 6,508,000 | 0       | \$28.08     | 0.1%   |
| 2013         Q2         6,779,000         0         0.0%         271,000         4.0%         0         6,508,000         0         \$28.13         0.3%           2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%           2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         0         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,505,000         -4,000         \$28.39         0.5%           2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%           2013         Oct         6,779,000         0         0.0%         228,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%   | 2013 | May | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 0                      | 6,508,000 | 0       | \$28.14     | 0.2%   |
| 2013         Jul         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         -3,000         \$28.16         0.1%           2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         0         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%           2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.9%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.39         0.9%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%           2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         18,000         \$28.64         0   | 2013 | Jun | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 0                      | 6,508,000 | 0       | \$28.13     | 0.0%   |
| 2013         Aug         6,779,000         0         0.0%         274,000         4.0%         0         6,505,000         0         \$28.26         0.4%           2013         Sep         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%           2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.9%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%           2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         180,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64   | 2013 | Q2  | 6,779,000 | 0           | 0.0% | 271,000      | 4.0% | 0                      | 6,508,000 | 0       | \$28.13     | 0.3%   |
| 2013         Sep         6,779,000         0         0.0%         279,000         4.1%         10         6,501,000         -4,000         \$28.39         0.5%           2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.9%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.64         0.2%           2013         Dec         6,971,000         110,000         0.2%         290,000         4.2%         -10         6,681,000         180,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.2%           2014         Jan         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28  | 2013 | Jul | 6,779,000 | 0           | 0.0% | 274,000      | 4.0% | 0                      | 6,505,000 | -3,000  | \$28.16     | 0.1%   |
| 2013         Q3         6,779,000         0         0.0%         278,000         4.1%         10         6,501,000         -7,000         \$28.39         0.9%           2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%           2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         180,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.2%           2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28.64         0.2%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         40         6,687,000         -5,000         \$28.66  | 2013 | Aug | 6,779,000 | 0           | 0.0% | 274,000      | 4.0% | 0                      | 6,505,000 | 0       | \$28.26     | 0.4%   |
| 2013         Oct         6,779,000         0         0.0%         284,000         4.2%         10         6,495,000         -6,000         \$28.50         0.4%           2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%           2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         18,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.9%           2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         180,000         \$28.64         0.9%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         40         6,681,000         158,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.9  | 2013 | Sep | 6,779,000 | 0           | 0.0% | 278,000      | 4.1% | 10                     | 6,501,000 | -4,000  | \$28.39     | 0.5%   |
| 2013         Nov         6,960,000         181,000         2.7%         297,000         4.3%         10         6,663,000         168,000         \$28.58         0.3%           2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         18,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.9%           2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28.64         0.9%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         0         6,676,000         -5,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.60         0.1%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12 <td>2013</td> <td>Q3</td> <td>6,779,000</td> <td>0</td> <td>0.0%</td> <td>278,000</td> <td>4.1%</td> <td>10</td> <td>6,501,000</td> <td>-7,000</td> <td>\$28.39</td> <td>0.9%</td>  | 2013 | Q3  | 6,779,000 | 0           | 0.0% | 278,000      | 4.1% | 10                     | 6,501,000 | -7,000  | \$28.39     | 0.9%   |
| 2013         Dec         6,971,000         11,000         0.2%         290,000         4.2%         -10         6,681,000         18,000         \$28.64         0.2%           2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.9%           2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28.64         2.4%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         0         6,676,000         -5,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.91         0.9%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Q1         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12  | 2013 | Oct | 6,779,000 | 0           | 0.0% | 284,000      | 4.2% | 10                     | 6,495,000 | -6,000  | \$28.50     | 0.4%   |
| 2013         Q4         6,971,000         192,000         2.8%         290,000         4.2%         10         6,681,000         180,000         \$28.64         0.9%           2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28.64         2.4%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         0         6,676,000         -5,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,689,000         -7,000         \$28.91         0.9%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2   | 2013 | Nov | 6,960,000 | 181,000     | 2.7% | 297,000      | 4.3% | 10                     | 6,663,000 | 168,000 | \$28.58     | 0.3%   |
| 2013         Y         6,971,000         192,000         2.8%         290,000         4.2%         40         6,681,000         158,000         \$28.64         2.4%           2014         Jan         6,971,000         0         0.0%         295,000         4.2%         0         6,676,000         -5,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.91         0.9%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0% <td>2013</td> <td>Dec</td> <td>6,971,000</td> <td>11,000</td> <td>0.2%</td> <td>290,000</td> <td>4.2%</td> <td>-10</td> <td>6,681,000</td> <td>18,000</td> <td>\$28.64</td> <td>0.2%</td>   | 2013 | Dec | 6,971,000 | 11,000      | 0.2% | 290,000      | 4.2% | -10                    | 6,681,000 | 18,000  | \$28.64     | 0.2%   |
| 2014         Jan         6,971,000         0         0.0%         295,000         4.2%         0         6,676,000         -5,000         \$28.66         0.1%           2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.91         0.9%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Q1         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%   | 2013 | Q4  | 6,971,000 | 192,000     | 2.8% | 290,000      | 4.2% | 10                     | 6,681,000 | 180,000 | \$28.64     | 0.9%   |
| 2014         Feb         6,971,000         0         0.0%         302,000         4.3%         10         6,669,000         -7,000         \$28.91         0.9%           2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Q1         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%           2014         Jun         6,971,000         0         0.0%         285,000         4.1%         0         6,686,000         3,000         \$29.25         0.2%  | 2013 | Y   | 6,971,000 | 192,000     | 2.8% | 290,000      | 4.2% | 40                     | 6,681,000 | 158,000 | \$28.64     | 2.4%   |
| 2014         Mar         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         2,000         \$29.12         0.7%           2014         Q1         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%           2014         Jun         6,971,000         0         0.0%         285,000         4.1%         0         6,686,000         3,000         \$29.25         0.2%  | 2014 | Jan | 6,971,000 | 0           | 0.0% | 295,000      | 4.2% | 0                      | 6,676,000 | -5,000  | \$28.66     | 0.1%   |
| 2014         Q1         6,971,000         0         0.0%         300,000         4.3%         10         6,671,000         -10,000         \$29.12         1.7%           2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%           2014         Jun         6,971,000         0         0.0%         285,000         4.1%         0         6,686,000         3,000         \$29.25         0.2%  | 2014 | Feb | 6,971,000 | 0           | 0.0% | 302,000      | 4.3% | 10                     | 6,669,000 | -7,000  | \$28.91     | 0.9%   |
| 2014         Apr         6,971,000         0         0.0%         300,000         4.3%         0         6,671,000         0         \$29.19         0.2%           2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%           2014         Jun         6,971,000         0         0.0%         285,000         4.1%         0         6,686,000         3,000         \$29.25         0.2%  | 2014 | Mar | 6,971,000 | 0           | 0.0% | 300,000      | 4.3% | 0                      | 6,671,000 | 2,000   | \$29.12     | 0.7%   |
| 2014         May         6,971,000         0         0.0%         288,000         4.1%         -20         6,683,000         12,000         \$29.19         0.0%           2014         Jun         6,971,000         0         0.0%         285,000         4.1%         0         6,686,000         3,000         \$29.25         0.2%  | 2014 | Q1  | 6,971,000 | 0           | 0.0% | 300,000      | 4.3% | 10                     | 6,671,000 | -10,000 | \$29.12     | 1.7%   |
| 2014 Jun 6,971,000 0 0.0% 285,000 4.1% 0 6,686,000 3,000 \$29.25 0.2%   | 2014 | Арг | 6,971,000 | 0           | 0.0% | 300,000      | 4.3% | 0                      | 6,671,000 | 0       | \$29.19     | 0.2%   |
|   | 2014 | May | 6,971,000 | 0           | 0.0% | 288,000      | 4.1% | -20                    | 6,683,000 | 12,000  | \$29.19     | 0.0%   |
| 2014 Q2 6,971,000 0 0.0% 285,000 4.1% -20 6,686,000 15,000 \$29.25 0.4%   | 2014 | Jun | 6,971,000 | 0           | 0.0% | 285,000      | 4.1% | 0                      | 6,686,000 | 3,000   | \$29.25     | 0.2%   |
|   | 2014 | Q2  | 6,971,000 | 0           | 0.0% | 285,000      | 4.1% | -20                    | 6,686,000 | 15,000  | \$29.25     | 0.4%   |

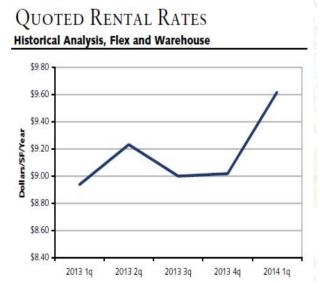
# Office Market Background - Historical Rental Rates

**Based on Full-Service Equivalent Rental Rates** 



# **Light Industrial Market Background**

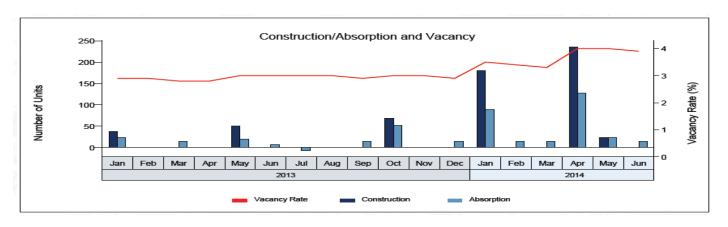




# **Neighborhood Residential Positioning**

| Current Submarket Av | Current Submarket Average Rents and Sizes |            |                   |           |          | Asking Rent Growth |            |          |          |  |
|----------------------|---|------------|-------------------|-----------|----------|--------------------|------------|----------|----------|--|
|                      | June                                      |            |                   | Quarterly |          |                    | Annualized |          |          |  |
|                      | Rent                                      | Avg. SF    | Avg. Rent PSF     | 2Q14      | 1Q14     | YTD                | 1 Year     | 3 Year   | 5 Year   |  |
| Studio/Efficiency    | \$1,182                                   | 451        | \$ 2.62           | 1.6%      | 11.3%    | 13.1%              | 6.3%       | 2.3%     | 2.0%     |  |
| One Bedroom          | \$1,568                                   | 726        | \$ 2.16           | - 0.8%    | 6.2%     | 5.4%               | 4.1%       | 2.7%     | 1.8%     |  |
| Two Bedroom          | \$1,922                                   | 981        | \$ 1.96           | 3.2%      | 2.9%     | 6.1%               | 1.0%       | 1.9%     | 0.9%     |  |
| Three Bedroom        | \$2,661                                   | 1197       | \$ 2.22           | 5.4%      | - 0.7%   | 4.6%               | 6.8%       | 6.3%     | 2.1%     |  |
|                      |   | Average ov | er period ending: | 06/30/14  | 03/31/14 | 06/30/14           | 12/31/13   | 12/31/13 | 12/31/13 |  |

# **Neighborhood Residential Positioning**



# Neighborhood Commercial and Industrial Positioning

Face Rent Analysis Report

|            |                    |          | DIRECT  | SPACES  |         | SUBLET SPACES |     |     |     | TOTAL   |
|------------|--------------------|----------|---------|---------|---------|---------------|-----|-----|-----|---------|
|            |                    | # Spaces | Min     | Avg     | Max     | # Spaces      | Min | Avg | Max | Avg     |
| Industrial |                    |          |         |         |         |               |     |     |     |         |
|            | Negotiable         | 2        | -       | -       | -       | 0             | -   | -   |     | -       |
|            | Triple Net         | 2        | \$15.00 | \$15.00 | \$15.00 | 0             | _   | _   | -   | \$15.00 |
| OffMed     |                    |          |         |         |         |               |     |     |     |         |
|            | Modified Gross     | 1        | \$7.40  | \$9.70  | \$12.00 | 0             | -   | -   | -   | \$9.70  |
| OffRet     |                    |          |         |         |         |               |     |     |     |         |
|            | Plus All Utilities | 1        | \$11.69 | \$11.69 | \$11.69 | 0             | -   | -   | -   | \$11.69 |
| Office     |                    |          |         |         |         |               |     |     |     |         |
|            | Negotiable         | 4        | -       | •       | -       | 0             | -   | -   | -   | -       |
|            | Plus All Utilities | 4        | \$11.92 | \$22.17 | \$30.00 | 0             | -   | -   |     | \$22:17 |
|            | Triple Net         | 5        | \$3.60  | \$13.71 | \$25.00 | 0             | -   | -   | -   | \$13.71 |
| Retall     |                    |          |         |         |         |               |     |     |     |         |
|            | Modified Gross     | 2        | \$18.00 | \$18.00 | \$18.00 | 0             | -   | -   | -   | \$18.00 |
|            | Plus All Utilities | 1        | \$30.00 | \$30.00 | \$30.00 | 0             | _   | -   | -   | \$30.00 |
|            | Triple Net         | 8        | \$11.00 | \$18.20 | \$45.00 | 0             | _   | -   | -   | \$18.20 |

# SUSTAINABILITY FRAMEWORK FOR STATION AREA PLANNING

The concept of sustainability describes a condition where human consumption of natural resources is in balance with Nature's ability to replenish them. Sustainability planning aims to achieve the greatest good for all segments of our population, to protect the health of the environment, and to assure future generations the resources they will need to survive and progress.

Physical, social and economic patterns of human development are affecting sustainability at all levels and expanding the gap between human consumption of resources and Earth's capacity to supply those resources and reabsorb resulting waste. Sustainable planning guides development towards holistic and inclusive approaches. Our approach to sustainable design is based on the "three-legged stool": an understanding that each of the three legs - community, economy and environment is of equal importance to support a healthy, sustainable community. In this way, the concept of sustainable development becomes an overarching framework to guide the planning process toward a holistic and inclusive view of the community; both the natural and human processes. The goals and attainable benefits to this approach are reduced environmental impacts, better health for residents, and greater economic opportunities.

The sustainability framework described below aims to operationalize these principles into guidelines and implementation actions for Fairmount Indigo stationarea planning.

# 1 SUSTAINABILITY PROGRAMS, POLICIES, FRAMEWORKS

The Fairmount Indigo project occurs within the context of existing programs, policies and guidelines in the Boston region, as well as national frameworks and initiatives for sustainability. The Sustainability Framework synthesizes these existing programs, along with community values and priorities, into a planning guide that aims to achieve consistency with and satisfy multiple objectives of local, regional and national policies and programs.

LEED for Neighborhood Development (LEED-ND) serves as the foundation for the Sustainability Framework. The City of Boston requires all new construction over 50,000 SF to be designed and built to meet the LEED certifiable level, and all multiple-building developments to meet the LEED-ND certifiable level (Article 37 – Green Building Regulations of the Boston Zoning Code). Administered by the U.S. Green Building Council, LEED-ND provides a rating system that integrates the principles of smart growth, new urbanism, and green building into a national standard for neighborhood design. LEED-ND guidelines promote environmentally responsible buildings and infrastructure, mixed-use development, walkable streets, and open space.

To customize LEED-ND to the local context, several other programs were considered in creating this framework, including:

- Boston Complete Streets
- Boston Parks and Recreation Department Sustainable Design Guidelines
- Boston Water and Sewer Commission Stormwater BMP Guidance Document
- Boston Harbor Association "Preparing for a Rising Tide"
- A Climate of Progress: City of Boston Climate Action Plan Update 2011
- Massachusetts Climate Change Adaptation Report
- Fairmount Greenway Concept Plan

## QOALS AND OBJECTIVES

The Sustainability Framework is informed by goals and objectives that are expressed – explicitly or implied – in the documents mentioned above. Table 1 summarizes the goals and objectives for station-area redevelopment and future growth.

## TABLE 1

| Category  | Goal   | Objective  |
|-----------|--|--|
| Water     | Restore pre-development hydrology  | <ul> <li>Design for water efficiency in plumbing fixtures, landscaping, and operations.</li> <li>Recycle graywater and rainwater on site</li> <li>Minimize impervious cover</li> <li>Utilize green stormwater infrastructure to slow, cleanse and infiltrate rainwater where it falls</li> </ul>   |
| Energy    | Promote clean, renewable energy  | <ul> <li>Design structures and operations for energy efficiency</li> <li>Generate renewable energy on site</li> <li>Minimize embodied energy of materials</li> <li>Utilize vegetation and solar-reflective surfaces to reduce urban heat island and building heating/cooling energy needs</li> <li>Orient buildings to maximize passive and active solar access</li> </ul>   |
| Climate   | Minimize greenhouse gas emissions  | <ul> <li>Utilize fuels with lower carbon footprint</li> <li>Choose locally sourced materials with lower carbon footprint</li> <li>Utilize design standards that account for projected changes in sea level,</li> </ul>   |
|           | Foster resilience to climate change  | precipitation, and temperature  Adopt climate adaptation strategies  |
| Ecology   | Support healthy soil, plant, and wildlife ecosystems                         | <ul> <li>Specify native vegetation in landscape design</li> <li>Control invasive and nuisance species</li> <li>Preserve existing mature trees</li> <li>Preserve and create open (undeveloped) space</li> <li>Minimize soil disturbance by using a phased approach to landscape construction, where one area will be begun and completed prior to starting the next site</li> <li>Protect and restore wetlands</li> </ul> |
| Community | Foster environmental stewardship in the community                            | <ul> <li>Engage community members in planning and design</li> <li>Include public access, interpretive signage, and educational programming</li> <li>Reflect community identity and values in design</li> </ul>   |
|           | Create community amenities   | <ul> <li>Design stormwater features to provide landscape amenities</li> <li>Preserve and create open space with public access, recreational facilities, and ongoing maintenance and security</li> </ul>  |
|           | Reduce burdens of legacy contaminants and ongoing pollution in the community | <ul> <li>Remediate brownfields</li> <li>Reduce vehicular traffic</li> <li>Install noise damping facilities</li> <li>Limit light trespass</li> </ul>  |
|           | Enhance access and connectivity  | <ul> <li>Create accessible pedestrian and bike routes connecting stations, neighborhoods, open spaces, and commercial centers</li> <li>Repair and upgrade existing pedestrian and bike corridors and facilities</li> <li>Provide secure and covered bicycle storage</li> <li>Design compact, mixed-use, walkable neighborhoods</li> </ul>  |
|           | Expand access to and awareness of healthy, local food systems                | <ul> <li>Dedicate space for urban agriculture and farmers markets</li> <li>Locate markets and CSA drop-offs in central, visible, accessible places</li> <li>Enhance/create signage for local farmers markets, community gardens, urban farm.</li> </ul>  |
|           | Ensure fairness in the distribution of project costs and benefits            | Involve environmental justice community in planning and design   |
| Feeners   | Encourage growth of sustainable businesses                                   | <ul> <li>Create "green business" incubators</li> <li>Co-locate businesses that can share resources (i.e. eco-industrial facility)</li> <li>Incentivize businesses to adopt sustainable practices (green building, bike-to-work facilities, energy conservation, etc.)</li> </ul>   |
| Economy   | Improve access to jobs and services by foot, bike or public transit.         | Promote infill   |
|           | Increase waste diversion among area businesses                               | Composting     Recycling   |

# **3** BEST PRACTICES

The goals and objectives summarized above can be achieved by implementing a set of best practices, as described in the following sections. Under each broad category below, specific best practices are detailed in relation to station site design, neighborhood planning, and station-community connectivity. Overarching themes for each of these planning areas are as follows:

Green and Efficient Stations: Develop neighborhood specific, green, energy efficient stations that are safe, well managed and maintained and that elicit a sense of ownership from the community.

Healthy and Integrated Neighborhoods: Create community driven sustainable neighborhood development with a compact, walkable environment created with environmentally-friendly infrastructure and community connectivity to open space and healthy food systems.

<u>Green Connections</u>: Create a system of accessible pedestrian and bike friendly corridors connecting the neighborhood to the green and efficient stations and reinforce a sense of community and stewardship.

#### 3.1 Green Stormwater Infrastructure

Green stormwater facilities capture, cleanse, and infiltrate rainwater where it falls, mimicking natural hydrologic conditions with small-scale facilities distributed throughout the drainage basin. Typical green stormwater facilities include rain gardens, vegetated swales, permeable pavement, green roofs, street trees, and stormwater wetlands. These facilities can be designed to infiltrate into underlying soils, discharge to the storm sewers, and/ or provide treated rainwater for on-site storage and reuse.

Green stormwater infrastructure meets multiple sustainability objectives. It enables restoration of predevelopment hydrology, allowing for groundwater recharge, improved stream baseflow, and reduced stream channel erosion. These facilities reduce peak runoff flows, thereby reducing demand on existing stormwater and combined sewer infrastructure and reducing the likelihood of localized flooding and combined sewer overflows during extreme events. Filtering and detaining stormwater runoff also improves the quality and temperature of runoff entering water bodies, thereby enhancing ecological, human health, and recreational conditions. If captured rainwater is subsequently reused, potable water can be conserved.

In terms of energy use, green stormwater facilities can provide shading and evapotranspiration to reduce the urban heat island effect and building energy needs. They also reduce the embodied energy of stormwater infrastructure (i.e. soil, stone, plant material versus concrete pipes). In green street applications, green infrastructure provides for traffic calming and improved pedestrian and bike safety. It also creates community green-space amenities, and allows for community engagement and education through planning, design and maintenance.

Green stormwater infrastructure is a common requirement in sustainability guidelines. LEED-ND provides credits for retaining and treating stormwater onsite, and encourages the use of green stormwater retention techniques. The Boston Sewer and Water Commission (BSWC) report, Stormwater Best Management Practices (BMP) Proposal and Guidance Document, identifies green stormwater BMPs for BSWC to consider during site plan review of development projects and when designing capital improvements in both public and private development.

## 3.1.1 Station Site Design

- Design the station to minimize impervious area, maximize vegetated area, and preserve existing trees.
- Surface-level parking areas: bioretention basins (a.k.a. rain gardens) on perimeter and within parking-

lot islands. Tree wells designed to receive flows from surrounding pavement. Permeable pavement.

- Courtyards, walkways: Bioretention basins receiving runoff from roofs and paved surfaces. Permeable pavement.
- Roof: Vegetated roof ("ecoroof") on portion of station roof. (Assume large portion is allocated for PV)
- Specify native species for vegetated stormwater facilities
- Allow for public access and educational signage and programs in low-security areas.

## 3.1.2 Neighborhood Planning

- Assess the condition of storm sewers, combined sewers and receiving waters to identify priority areas for improved stormwater management, along with target pollutants.
- Engage community members in identifying and prioritizing neighborhood sites for green stormwater facilities.
- Develop a protocol and a policy requiring its use for evaluating opportunities for green stormwater infrastructure within all redevelopment/improvement areas.
- Minimize creation of new impervious area (e.g. surface parking lots)
- Preserve existing trees
- Identify paved surfaces that could be revegetated
- Consider community de-paving parties such as those in Somerville
- Identify vacant lots or existing landscaped areas that could accommodate larger stormwater facilities (e.g. large bioretention basin or wetland basin) to receive

runoff from several adjacent properties on which there is no space for green stormwater facilities.

- Specify native species for vegetated stormwater facilities
- Include educational signage.

## 3.1.3 Station-Community Connections

- Evaluate opportunities for installing "green street" facilities along pedestrian and bike routes. These may include tree-well filters, vegetated curb bulb-outs, rain gardens, and permeable sidewalks and bike lanes.
- Select one or two streets to pilot full conversion to green streets
- Specify native species for vegetated stormwater facilities
- Include educational signage.

#### 3.2 Energy Efficiency and Generation

Energy efficiency and on-site energy generation are essential strategies for reducing pollution, greenhouse gases emissions, energy losses along transmission lines, and reliance on depleted non-renewal energy sources.

#### 3.2.1 Station Site Design

- Orient buildings to maximize passive and active solar access
- Design buildings systems including electrical, lighting, HVAC for energy efficiency
- Install solar PV and micro wind turbines for on-site energy generation
- Utilize green roofs and solar-reflective roofing and paving materials to reduce urban heat island effect, and thereby reduce building heating/cooling energy needs.
- Capture and reuse waste heat (if applicable)

## 3.2.2 Neighborhood Planning

• Evaluate opportunities for district heating and cooling systems

## 3.2.3 Station-Community Connections

• Reduce vehicle miles traveled – and thereby fossil fuel consumption – by creating more accessible and affordable transit, pedestrian and bike connections to jobs, schools, services and recreation areas.

#### 3.3 Water Conservation and Reuse

As with other sustainable strategies, water efficiency satisfies multiple sustainability objectives, including lower rates of water withdrawals from aquifers, streams and reservoirs; and reduced energy and chemical use for potable water treatment and conveyance.

Efficient indoor water use can be achieved by utilizing low-flow plumbing fixtures and equipment, and by using lower-quality recycled water for toilet flushing, air conditioning, and other industrial uses (e.g. bus or train wash-down). Outdoor water efficiency can likewise be improved by irrigating with recycled water, and through careful plant selection and landscape design (see landscape section below).

## 3.3.1 Station Site Design

- Design for water efficiency in plumbing fixtures, landscaping, and operations.
- Recycle graywater and rainwater on site

## 3.3.2 Neighborhood Planning

- Evaluate opportunities for neighborhood-scale decentralized wastewater treatment and reuse.
- Identify open areas, such a playing fields, where rainwater can be stored underground in engineered

storage systems and used during droughts for landscape irrigation.

- Specify native and drought-resistant plants.
- Include educational signage.

## 3.3.3 Station-Community Connections

- Specify native and drought-resistant plants.
- Include educational signage.

## 3.4 Landscape Design

Sustainable landscape design incorporates the water efficiency practices described above. It also aims to support ecological health of soil and plant communities; prevent soil erosion; and create green-space community amenities. A sustainable landscape will consist of native, drought-tolerant, aesthetically pleasing vegetation that provides habitat value and other ecological services.

Thoughtful landscape design and plant specification not only enhance the value of green and open space; they also reduce the need for irrigation, fertilizer and pesticide application, and energy-intensive maintenance (e.g. mowing). Native plants have naturally evolved over time with adaptations for survival and reproduction within a specific ecosystem. These adaptations make them resilient to climate changes and less susceptible to insects and disease. Native plants also provide habitat value and forage for wildlife as well as erosion control, stability and aesthetic significance to surrounding human communities. Invasive plants, on the other hand, impair both ecological function and aesthetic appeal. Commonly found invasives in Massachusetts include Japanese knotweed (Polygonum cuspidatum), common reed (Phragmites communis), reed grass (Phragmites australis), and Japanese hop (Humulus japonicus).

## 3.4.1 Station Site Design

• Preserve existing tree canopy and native vegetation

- Specify native and drought-resistant vegetation in landscape design
- Control invasive and nuisance species
- Minimize soil disturbance by using a phased approach to landscape construction, where one area will be begun and completed prior to starting the next site
- Develop and implement an erosion control plan for the construction phase.
- During construction, protect open space and sensitive areas through the use of strict boundaries to reduce damage to site ecology.
- For open areas, select hardy grass species that are adapted to the conditions present
- Use taller grasses in areas where there is a desire to reduce energy and resource input further (less or no mowing) and also to restrict access by humans and or nuisance wildlife.
- Select native tree and shrub species for their tolerances to the environment, i.e. full sun, low water requirements etc. and place them where they are sure to succeed.
- Restrict access to certain areas completely, making them into butterfly or wildflower gardens that provide aesthetic interest but require no maintenance

## 3.4.2 Neighborhood Planning

- Inventory existing landscape conditions, including species composition, vegetative community health, percent cover of native species, percent dominance of invasive species and habitat characteristics.
- Prioritize areas for invasive and nuisance species removal and maintenance
- Preserve and enhance existing open space

- Evaluate parcels for open space creation, with a focus on both recreational and ecological services
- Protect and restore existing wetlands
- Coordinate public events such as interpretive walks or volunteer events to remove invasive species or to plant native species.

## 3.4.3 Station-Community Connections

- Invasive species are commonly found in disturbed, high-use areas and travel corridors. Bike and pedestrian corridors could be prioritized for the control of invasive species.
- Install kiosks and educational signage made of recycled or found materials where informative flyers and maps can go. This will draw public attention and inform them of environmental and sustainability goals and how they can help.

### 3.5 Materials

Sustainable material selection aims to reduce the energy and environmental consequences of material use and waste production. For example, reusing existing buildings reduces construction and demolition waste while conserving raw materials. Likewise, using materials with recycled content diverts materials from landfills and helps conserve raw materials.

### 3.5.1 Station Site Design

- Evaluate the embodied energy (i.e. energy used to extract, manufacture, and transport) when specifying materials.
- Reuse existing buildings
- Specify materials with recycled content

## 3.5.2 Neighborhood Planning

Reuse existing buildings

• Specify paving materials with recycled content

## 3.5.3 Station-Community Connections

Specify paving and sign materials with recycled content

## 3.6 Healthy Food Systems

Urban food systems aim to improve access to affordable, nutritious, locally-produced, fresh food within urban communities. Local agriculture offers myriad benefits, including health, education, food security, and economic benefits for local farmers and consumers alike. It also diminishes the environmental impacts of long-distance transport of food.

Access to fresh, locally-produced foods can be fostered using several tools, including:

- Small urban farms
- Community gardens
- School gardens
- Private/family gardens
- Farmers markets
- Community-supported agriculture (CSA) with local drop-offs

The City of Boston, in partnership with local organizations, has supported the expansion of urban agriculture. In August 2013, the Boston Redevelopment Authority issued draft Zoning Code Article 89, which establishes zoning regulations and standards for urban agriculture in Boston. Several organizations already operate urban farms in Boston: ReVision Urban Farm has two farms in Dorchester; The Food Project includes a 2-1/2-acre farm in Roxbury; and City Growers operates three small farms in Dorchester and one in Roxbury.

## 3.6.1 Station Site Design

- Install signage at or near station to increase awareness to local farmers' markets and urban farms/gardens.
- Dedicate permanent space at transit station for farmers' market, local-food kiosks, and/or CSA dropoff.

## 3.6.2 Neighborhood Planning

- Evaluate vacant lots and open spaces within a ½ mile walking distance of transit station for farmers market, community garden, urban farms and urban orchards
- Review local zoning codes or deed restrictions to ensure that growing food is not prohibited; if it is, work with officials to amend codes
- Ensure suitable soils for growing food, in compliance with Boston Public Health Commission's Soil Safety Protocol for Urban Farms

## 3.6.3 Station-Community Connections

• Create or enhance bike and pedestrian access to farmers' market, community gardens and/or urban farms.

#### 3.7 Climate Resilience

The Fairmount Indigo corridor, as with Boston in general, can expect changes in precipitation, temperature, and flooding in the future as a result of climate change. Precipitation impacts will include more extreme rain events, greater occurrence of droughts, and more winter precipitation in the form of rain instead of snow (therefore more winter runoff and less spring snowmelt runoff). These changes, paired with sea level rise, will increase the likelihood of flooding along the Neponset River and its tributaries. In contrast, stream flows during the summer months are expected to decrease, leading to higher water temperatures and stress on fish populations. The number

of extreme-heat days will also increase, creating higher energy demand for cooling.

The City of Boston has introduced many climate mitigation and adaptation initiatives and policies. Boston Complete Streets and Grow Boston Greener promote green infrastructure throughout the City to reduce the urban heat island effect and mitigate flooding. The BRA requires all new large developments to complete a climate adaptation questionnaire as part of the Article 80 review process. The 2011 update to Boston's Climate Action Plan highlights many of the City's climate preparedness initiatives, and the 2014 update will focus on climate preparedness.

All of the sustainable strategies described in sections above will improve station-area climate resilience. Beyond those, the key recommendation for climate resilience will be to follow the City of Boston's guidelines in its upcoming 2014 Climate Action Plan. Several additional strategies, to be applied to all planning areas, are summarized below.

- Use design standards that are based on projected (not historic) flood elevations, precipitation, and temperatures
- Elevate key utilities (e.g. generators) above projected flood levels
- Seal lower levels or install flood walls; OR allow free passage of water through lower levels
- Relocate key infrastructure away from or above flood zones
- Mitigate the urban heat island effect using shading, green spaces, reflective roofs/pavement
- Design for system redundancy
- Design pedestrian/bike corridors along waterways to serve as flood buffers

