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## JEWELRY DISTRICT/OLD HARBOR PLANNING FRAMEWORK STUDY

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*Prepared for:*  
Jewelry District Association  
The Providence Foundation

*Prepared by:*  
The Cecil Group  
Economics Research Associates  
Maguire Group

September 2008

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## ACKNOWLEDGEMENTS

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This study is the result of a collaborative effort among residents, businesses, institutions and local officials living, working and learning in the Jewelry District/Old Harbor of Providence. This study is intended to inform other ongoing and future planning efforts, such as the City's comprehensive planning process. The consultants would like to thank the sponsoring institutions, the **Jewelry District Association** and **The Providence Foundation**, and all the community members who generously contributed much of their time, ideas and resources to this process. Very especially, we would like to thank the members of the **Steering Committee** who actively shared in many positive discussions and meetings. We also extend our deep gratitude to the **Providence Children's Museum** and the **Hi Hat** at Davol Square for allowing us to hold open forums at their venues, free of charge and open to the community.

### **Steering Committee Members**

Richard Jaffe, *Chair, Davol Square Jewelry Mart Corporation*

Frederick Butler, *Vice Chair, The Providence Foundation*

Rebecca Barnes, *Brown University*

Daniel Baudouin, *The Providence Foundation*

Jody Bishop, *Lifespan*

Phoebe Blake, *Resident*

Jim Brown, *Resident*

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Pamela Kennedy, *Rhode Island Historical Preservation and Heritage Commission*

Peter McClure, *Resident*

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Stephen Durkee, *Chair, Providence City Plan Commission, and Business Owner*

Ernie Hutton, *Hutton Associates, City Council Representative*

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Rhode Island School of Design  
Struever Bros. Eccles & Rouse, Inc.  
The Hudson Companies  
The Providence Foundation

## Jewelry District Association

The Jewelry District Association (JDA) is a nonprofit organization consisting of retailers, building owners, business and residents who live and/or work in the Jewelry District area of Providence. The association is dedicated to enhancing business and building community - creating a safe, accessible, friendly, and walkable live/work environment.

### Officers

Richard Jaffe, *President*  
Jim Brown, *Vice President (President-elect)*  
Mark Milloff, *Vice President*  
Ed Marchwicki, *Treasurer*  
Seth Handy, *Secretary*

## The Providence Foundation

The Providence Foundation is a private sector, not-for-profit organization, supported by 115 leading companies and institutions in Rhode Island. The foundation originates and promotes policies and projects for the development of downtown and the City.

### Officers

Robert Gilbane, *Chair*  
Frederick Butler, *Vice Chair*  
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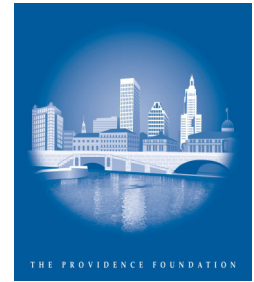
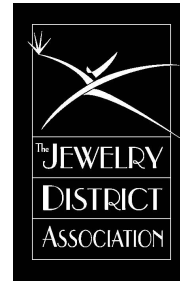
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In the life of a city, there are special times when enough forces are aligned to make positive change possible. For the Jewelry District/Old Harbor, that magical time is at hand. The forces arrayed include: 1) the reconnection of DownCity and the Jewelry District through the complete removal of the I-195 highway barrier by 2012, and the creation of several acres of developable land in its place; 2) a public policy context that recognizes this as a strategic development area for the growth of the knowledge-based economy, Providence and Rhode Island's richest resource for economic development; and 3) a vision for the future of a vibrant, mixed-use district shared broadly by those who live there, work there, own property and businesses.

In this special context, and anticipating the City-sponsored downtown neighborhood planning charrette later this year, the community – represented by members of an ad hoc steering committee – has worked to articulate such a vision for the future that highlights a handful of key implementation strategies. The purpose of this vision, which you will find described in this document, is to assist ongoing planning and development by offering thoughtfully-considered ideas about some of the ways in which such a mixed-use district might be most fruitfully guided into being.

Among the many findings, ideas, and identified opportunities, two summarize the report most succinctly. One is the vision for the future of the district:

**The Jewelry District/Old Harbor area should be unique among Providence's neighborhoods because it provides a vital balanced and rich mixture of institutional, commercial, residential and cultural uses.** Read more about this wonderfully inclusive and achievable vision in the *Shared Visions* section of this report.

Second, and equally important, is the conviction that the fulfillment of this vision requires the close and long-term and strategic collaboration of the City, the State, the Federal government, not-for profit institutions, residents, cultural and civic institutions, developers, the business community, and the community at large.

Without a pro-active and focused collaboration among all stakeholders, the Jewelry District, including the surplus land of I-195, will continue to be characterized by relatively low density; low usage buildings in an area largely dominated by surface parking lots.

However, if we all work together, guided by a shared vision, we have an enormous opportunity to grow our economy with jobs and businesses to retain and attract new residents in a distinctive, unique community that enhances the city as a whole by being well connected to its surrounding neighbors.

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The recommendations and observations of this study are intended to be seen in the larger context of several other ongoing studies and, taken as a whole, these studies can inform a comprehensive plan for achieving a bright future for downtown Providence. These related studies include the City's Parking Study; the RIEDC/RIDOT/PPD Redevelopment and Marketing Analysis of the Relocated Interstate 195 Surplus Land; the Greater Providence Chamber of Commerce and The Providence Foundation's Knowledge Based Economy Study; the Chamber's Economic Development Marketing Study; the City's upcoming Economic Development Strategy Study; finalization of the I-195 parks design; institutional master plans, most recently Johnson & Wales'; and of course the City's Providence Tomorrow and comprehensive plan update processes. Each of these studies will benefit from knowledge of and interaction with the others' data collection and analysis. The number, timeliness and inter-relation of these studies are themselves good indicators of the community's strong interest in making positive change happen.

We encourage you to read the study's recommendations, and to actively advocate for the ideas you find most useful. Working together, as an informed community dedicated to shaping its future, we can translate the spirit of this report into a new and revitalized place to enjoy city life in Providence.



Frederick Butler, Co-Chair



Richard Jaffe, Co-Chair

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Notes on Implementation

This document provides a framework for planning initiatives that will shape the future of the Jewelry District/Old Harbor neighborhood in Providence. As a framework, it is intended to be a timely and topical resource for the many participants and proponents who are stakeholders in that future.

This study has been predicated upon several simple observations.

The Jewelry District/Old Harbor has been the focus of many planning and community improvement initiatives for several decades. Looking ahead, there are new opportunities to fulfill aspirations for the district, including new public, private and institutional projects that are emerging. All of these efforts can benefit from a planning resource that provides information, analysis, case studies of similar districts, and explores optional strategies that might be pursued in shaping the future of the Jewelry District/Old Harbor.

Significant and positive changes are on the horizon - the City is engaging in important new planning for the downtown, the realignment of I-195 will make land available for productive new uses, and the area's institutions are planning and implementing growth in their programs and facilities. Stewards of the community, regional and state economy are exploring creative methods to support contemporary, desirable growth including the "knowledge-based economy" that is a distinct competitive advantage for the Providence area.

Persistent common themes and goals permeate both the informal and formal forums among the stakeholders in that future. It will be useful to devote discussion and study within those topics where a common ground may already exist – what this study calls a "shared vision" – to help inform subsequent planning and decisions. As a shared framework, there is an inherent implication that the fulfillment of the ideas within this report can only occur through collaborative efforts and shared responsibilities.

This approach also recognizes that additional topics, divergent opinions and alternative approaches should and will be integral to the public planning processes ahead. Although there has been a general consensus among the participants in this process, there are concerns among some residents, and along with the elements of the "shared vision" come specific concerns about the way in which the vision could be achieved, the viability of residential mixed use, and how it could be achieved in an institutional setting.

The process for preparing this framework has been sponsored by the Jewelry District Association and the Providence Foundation. These organizations facilitated discussions among many of the public, private and institutional interests. A Steering Committee was assembled from among the stakeholders to serve as a forum for discussion. Representatives from various public agencies participated in meetings and discussions. Two public forums were also held to invite input and comment. Professional planning research assistance, including the assembly of this report, was provided by a multidisciplinary team.

The following actions have been recommended as **future steps**:

- *Additional planning focused on the district, possibly a district master plan and rezoning effort*
- *A formal process to plan for the I-195 parcels (which could be part of a district master plan or a separate study)*
- *An open space plan and implementation strategy to create a connected series of parks and open spaces through the blocks of the district*
- *Collaborative effort to create a signature pedestrian bridge across the river*
- *A parking plan and parking development strategy to facilitate the provision of structured parking at key locations*
- *Partnerships and coordination among the public and private sectors, working together to achieve the “shared vision”*
- *Development incentives to support the creation of a desirable use mix, including residential uses, neighborhood retail and cultural activities*
- *Strategies for improving roadway conditions, streetscape, and transit service*
- *Coordinated actions to ensure management, maintenance and sustainability of public spaces and infrastructure*

*Photograph courtesy of  
Maguire Group, Inc.*



This report underlines some of the key observations that have been advanced as part of the planning process. It has been organized to reflect the topics that the study addressed:

- Baseline: Existing Character and Conditions – The study assembled information about planning-related topics, including the physical, land use, economic and transportation characteristics that form the context for future decisions.
- Shared Vision for the Future – The process solicited ideas about the future, established where there is common ground, and provided a statement of the shared goals among those who participated.
- Comparable Places – Other cities are finding imaginative ways to develop and enhance mixed use districts with characteristics similar to those of the



Jewelry District; the study examines several such cases as sources for ideas and information.

- Focus Topics: Strategic Options for the Future - Three topics were chosen to provide analyses of strategic options for the future of the district. They consider:

1. *Mixed Use* - How to create and maintain a mixed use character
2. *Economic Development Strategy* - Possible components of an economic development strategy
3. *Connections* – Strategies for strengthening the physical connections within the district and to neighboring areas

- Implementation Tools – Notes on implementation and a list of potential tools and mechanisms are provided.



*Aerial photograph of the Jewelry District, about 1930; photo courtesy of Ken Orenstein, Jewelry District Association*



*Vision of the future Jewelry District, From Providence 2020; prepared for the City of Providence by Sasaki Associates in 2005*

This report is intended to be concise and focused on the main topics discussed, in order to better convey the key ideas and findings generated through the planning process. Additional information and supporting data, including a market overview, are compiled in an *Appendix*, provided as a separate document. The *Appendix* also includes extended descriptions of existing conditions, comparable case studies, focused topics and strategic options, and relevant support materials that were developed for presentation and discussion at Steering Committee meetings and public open forums.

## Key Findings of the Study

A series of findings and suggestions for the future of the Jewelry District/Old Harbor have been assembled during the process of research, review and discussion that took place during this study. The following thoughts are offered for future reference and consideration.

- There is an opportunity to achieve a **mixed use character** and distribution similar to the one identified through the shared vision expressed in this study through the **reconsideration of zoning mechanisms** and development review processes.
- There is an opportunity to achieve an **urban design character** and quality of living in the district similar to the one identified through the shared vision expressed in this study through the collaboration of key stakeholders in **joint partnerships and initiatives**, including the City, the State, the Federal government, local institutions and private developers.
- Parking as an accessory use is a necessity that can severely constrain the potential for new development and detract from a desirable urban design character, unless an adequate balance is found between the amount of land dedicated to parking and the amount dedicated to other uses. The physical capacity to accommodate surface parking appears to have been “maximized” for the existing buildings, and the **opportunity to accommodate new development** in the district or unlock its redevelopment potential may hinge on the provision of **structured parking** at key locations.
- Parking strategies will need to be combined with strategies for growth and **improvement of the existing transit systems** and the **support of alternative modes of transportation**, such as walking and bicycling, in order to achieve envisioned goals of diversity and sustainability.
- The **relocation of I-195**, and the marketing and disposition of the land that will be made available as a result represent a **unique opportunity for economic development** and the reconnection of the Downtown with the Jewelry District/Old Harbor. This is well-understood and recognized by a majority of parties and individuals.
- Future success in the redevelopment of the I-195 parcels may depend on the definition and pursuit of a **shared public strategy** to incent, monitor and control an **adequate balance of new development, open space and parking**.
- As vested owners with access to particular financial resources, the local **institutions** represent a significant **source for potential new investment** that could bring forth economic development and improvements to the physical fabric and the quality of living in the neighborhood.
- **Joint partnerships** and **public/private initiatives** have been employed in other comparable places to finance and support the provision of amenities that are desirable for the development of a livable, sustainable and attractive community, but would not be necessarily feasible without mutual cooperation.
- **Transit oriented development** and **sustainability** are two important elements of the identified shared vision for the future of the district.



### Study Area

The Jewelry District/Old Harbor is located south of DownCity and extends along the Providence River to the Hurricane barrier. The study area boundaries are shown in the aerial photograph. Until recently, the district's edges were defined by the river and Interstate highways I-95 and I-195, which separate the area from the Downtown financial district and the surrounding neighborhoods. However, significant changes include the relocation of I-195 along the southern edge of the district, which will remove the physical barrier that now separates the Jewelry District from the rest of the Downtown. As a result of this relocation, expected to be completed by 2012, the district will become physically reintegrated into the Downtown neighborhood fabric.



*The area studied during this process is shown on this aerial photograph, which indicates the approximate new alignment and new blocks that will be created in place of the old bridge ramps and interchange.*

At the beginning of the 20th century, the district was booming with industries and trade, including metal and jewelry factories, and coal piers. Today, the district is far less densely built and is characterized by a mix of uses that includes offices, research and development, restaurants and entertainment, residential buildings, industrial and automotive services, cultural facilities and surface parking.

The study area comprises approximately 146 acres of land, including all of the streets and parcels in the Jewelry District/Old Harbor, the land that will be released as a result of the I-195 relocation, and adjacent blocks of the Downtown that will likely be impacted by roadway realignments. Of this land area, approximately 43 percent is consumed by roads, rights-of-way, utilities and land below the realigned highway; approximately 57 percent or about 84 acres is available for developed uses and open spaces.

### Observations on Existing Conditions

- Land Use - The map on the following page illustrates existing land use based on site visits and information provided by local stakeholders. It is important to note that more land is used for commercial than for industrial activities, and that large parcels along the waterfront are either vacant or occupied by regional transportation facilities and utilities. However, there are a myriad of other use types, such as residential units, health care services, academic buildings, offices, research and lab space. Surface parking occupies a significant portion of the entire land area – approximately 34 acres or 40% of the land occupied by developed uses.
- Patterns of Development - The district displays a “checkerboard” pattern of dispersed buildings and building clusters punctuated by surface parking lots. While many historic buildings remain, the dense and continuous texture of the historic neighborhood has long been lost. The parcelization pattern and scale of development is immensely varied; small lots with small buildings stand close to enormous utility facilities (both in operation and undergoing adaptive reuse), multi-building institutional complexes have been assembled near remaining industrial properties.
- Block Size and Street Grid – The district is unusual in terms of the great variety of block sizes and configurations, as well as the different widths and functions of the streets that define them. The block sizes tend to be relatively small and the street segments short near the center of the district, while large blocks and longer streets frame the edges of the district.
- Parking – The parking supply within the district’s parking lots was estimated at approximately 5,600 spaces, of which about 1,400 spaces are contained in parking structures. The remaining parking spaces are in surface parking lots; on-street parking was not estimated. This parking supply currently occupies an important percentage of the available land area in the district – approximately 44 percent of the land area that is not devoted to utilities. From an urban design perspective, the presence of large expanses of surface parking contributes to create a disruption of pedestrian continuity and a perception of lack of safety in the district.



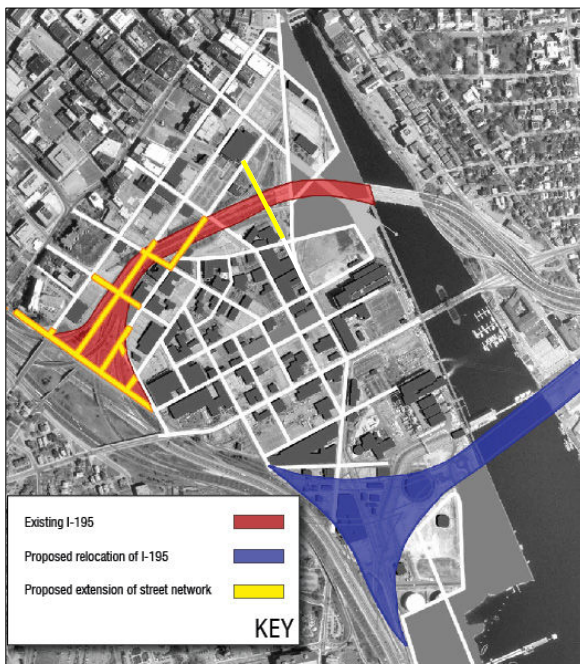


Key:

Office	Industrial	Cultural/Museum
Commercial Services	Utility	Governmental
Mixed-use	Structured Parking	★ Restaurant/Entertainment
Residential	Surface Parking	● Cultural/Museum
Institutional - Higher Education	Vacant	▲ Research Facility
Institutional - Health Care	Open Space	□ Historic District

*This diagram illustrates the existing land use in the Jewelry District/Old Harbor based on site visit observations and information provided by local residents and organizations (GIS data courtesy of The Providence Plan)*

- Development Density - The density of development is measured by the ratio of building area to site areas; the existing area-wide Floor Area Ratio (FAR) would seem to indicate a fairly high level of development. There are nearly 4.3 million square feet of building area in the district, excluding the buildings that contain utility facilities. This can be translated into a standard density measure for these existing uses of about 1.2 FAR. Such a building density is normally considered “urban”, and would typically require that all of the parking be contained within parking structures and/or have very high transit ridership. However, this is not the case in the Jewelry District/Old Harbor today. An examination of the actual parking demand, supply and available transit service leads to a conclusion that the utilization of the existing building stock is very low relative to that evidenced by economically vibrant mixed-use districts. So, economic and urban design enhancement of the district may imply both new construction and an increased, more efficient utilization of the building stock in the district that will remain.



*This diagram illustrates the proposed extension of the street network through areas that will be subject to redevelopment after the relocation of I-195.*

- Transportation – Re-organization of the highway and local street network is nearing completion, and will provide the district with excellent highway access. Some of the streets will need to support through traffic and connect to neighboring districts of Providence, while other streets will continue to serve largely local traffic. Improved transit service and access to an expanded regional network is being contemplated, but will not significantly shift travel patterns in the short term.
- Real Estate and Development Economics - Under current and projected conditions, demand is limited for new uses that would attract private sector investment at the scales and amounts necessary to redevelop substantial portions of the area. Modest expansion of the housing stock or new commercial office may occur, and there are limited opportunities for retail uses and services. However, the interest and opportunities for new and expanded institutional uses are substantial. The greatest demand and activity is expected to be generated by Johnson & Wales University and Brown University.

More information on land use and urban design character, economic and market conditions, transportation and utilities is included in the *Appendix* to this report (provided as a separate document).



The shared vision identified through this study for the future of this district is summarized in the following statement:

*The Jewelry District/ Old Harbor should be unique among Providence's neighborhoods because it provides a vital, balanced, and rich mixture of institutional, commercial, residential and cultural uses.*

- *This pedestrian-oriented district will be distinguished by the range of different open spaces and pedestrian routes that connect the district's uses to one another, to the riverfront and to the neighboring areas of the City.*
- *Innovative new buildings will stand in contrast to preserved and renovated commercial, industrial and residential structures.*
- *The scale and height of buildings will vary through the district, but will be located and designed to preserve a high quality ground-level experience.*
- *The district will be well served by transportation modes and supporting facilities (transit, motor vehicles, bicycles, and pedestrian routes) that allow highly efficient use of the land.*
- *This district will join other Providence neighborhoods in contributing to an environmentally sustainable city.*

A comprehensive list and discussion of specific elements that form part of this vision is included in the *Appendix* to this report (provided as a separate document).

### Comparable Places

Research was conducted on four comparable mixed-use districts that have been created or preserved, in order to gather information and clues to the approach that other communities have employed in the development of neighborhoods with a similar character and conditions. The comparable places selected for this analysis were the following:

- South Lake Union in Seattle, Washington
- New EastSide/East Baltimore in Baltimore, Maryland
- University Park in Cambridge, Massachusetts
- Virginia BioTechnology Park in Richmond, Virginia

The case studies selected were chosen for the following similarities to the Providence circumstance:

- Mix of uses - In each case, the mix of uses included institutional, life sciences or biotech research & development.
- Location - Each district has been influenced by its proximity to a downtown or urban center and has involved active initiatives by both the public sector and institutions, pursuing a broad program of economic and physical redevelopment.

- Varied approaches - The case studies indicate that both the approaches and participants in district redevelopment are widely varied and do not conform to a clear formula for success.
- Phasing is needed - In each case, a phased effort was required over one or two decades and benefitted by geographically clustering improvements.
- Stewardship - In every case, there were long term commitments by a few principal participants to key investments.

### Lessons Learned

The lessons learned are the following:

1. Individualized Approach – Each case study utilized different methods for initiating, planning, financing and implementing the redevelopment process. In all of the cases **multiple parties built consensus around a common need** to increase physical development around a central theme, such as life sciences, but the parties were different in each case. In each case a vision and master plan were developed and has been utilized to guide the implementation.
2. Patient Timeline – In each case the parties planned for a **phased development** to occur over a 14-20 year time period. The phased approach enabled strategic actions, investments and infrastructure upgrades to be coordinated in an effective manner.
3. Commitment – All of the cases exhibited **long-term commitments among different parties** to ensure the redevelopment would occur. Participating institutions and private developers or a new authority entered into agreements that would leverage resources among the parties. This included commitments with the municipal government in all cases, and with the state government in two of the cases. The **involvement of the municipal government** appears to be a key component of the redevelopment efforts. The role of the municipal government varied but generally included providing public funding for infrastructure improvements and needed changes to the regulatory conditions to enable the planned redevelopment to occur.
4. Key Investments – In each of the cases the first phase of implementation was secured by an **investment by the sponsoring institution(s)**, which led to **increased private investment** in subsequent phases. This included entering into long-term leases for the first space developed for research and residential space, or land-lease agreement for institution owned property to be developed for institutional and market uses by a private developer.
5. Geographic Clustering Enhances Success – In each case the redevelopment plan is built upon **clustering of institutional and business uses** based on institutional strengths. The expansion of research space for the sponsoring institution in a specific knowledge-based area is completed in concert with the development of space for related businesses. The redevelopment plans were intentional in their efforts to cluster uses of space that would build this foundation to increase activity in the area and create demand for the other desired mix of uses. In three of the cases this includes a significant increase in public spaces or linkages, residential units and retail uses.

Table 1. Comparable Places – Summary of Facts

Providence Jewelry District/Old Harbor Planning Framework Study				
Comparable Case Studies				
Criteria/Data	South Lake Union Seattle Washington <sup>(1)</sup>	New EastSide/ East Baltimore Baltimore Maryland	University Park Cambridge Massachusetts	Virginia BioTechnology Research Park Richmond Virginia
Statistical Metropolitan Area Population (millions)	3.2	2.6	4.4	1.2
Institutions sponsoring or conducting research	University of Washington	Johns Hopkins Medical Campus	Massachusetts Institute of Technology	Virginia Commonwealth University
State/City participation or incentives	Yes	Yes	Yes	Yes
Urban campus/urban setting	Yes	Yes	Yes	Yes
Geographical proximity to sponsoring institutions	Yes	Yes	Yes	Yes
Timeline for implementation (years)	14	10	20	18
Master Plan present	Yes	Yes	Yes	Yes
Public Transportation present	Yes	Yes	Yes	No
Other Amenities	Yes	Yes	Yes	Nearby
<b>Program and Use</b>				
Total land area (acres)	180	88	27	34
<i>Approximate square footage of total development (million sf)</i>	<i>5</i>	<i>3</i>	<i>2.3</i>	<i>1.5</i>
• Office (sf)	1,500,000	100,000	N.A.	N.A.
• Retail (sf)		80,000	250,000	
• Research (sf)	2,500,000	2,000,000	1,500,000	1,500,000
<i>Total research/office (million sf)</i>	<i>4.0</i>	<i>2.1</i>	<i>1.5</i>	<i>1.5</i>
<i>Residential units</i>	<i>1850</i>	<i>1500</i>	<i>674</i>	<i>0</i>
<i>Residential square footage (million sf)</i>	<i>1.85</i>	<i>1.5</i>	<i>0.67</i>	<i>0</i>
<i>Ratio of residential to research/office use</i>	<i>46%</i>	<i>71%</i>	<i>45%</i>	<i>0</i>
<b>Total Development Cost</b>	<b>\$2,500 m</b>	<b>\$1,800 m</b>	<b>\$740 m</b>	<b>\$500 m</b>

(1) Information provided for South Lake Union is focused on the first phase of development only (total development is estimated to reach up to 10 million square feet in the long term future)

More detailed information on these and other findings about the comparable places is included in the *Appendix* to this report (provided as a separate document).

### Why are Strategies Needed?

The collection of observations and analyses that were performed during the course of this study underline the need to create and adopt deliberate redevelopment strategies for the Jewelry District/Old Harbor, if the elements of the shared vision are to be accomplished. Otherwise, the studies suggest that the district could remain stalled in a state of economic and physical development “equilibrium”, in which only relatively minor changes may occur. In brief, the future of the Jewelry District/Old Harbor could look very much like today’s existing conditions for a protracted period of time.

This stalled state of affairs would be due to many contributing factors, including:

- Limited market demand – Market conditions and projections indicate that the underlying private sector market demand would need to be accelerated in order to substantially drive redevelopment in the district. This would require an entrepreneurial effort to direct development to this location relative to other possible venues.
- Land use and parking balance – The current density of development and occupation of land for surface parking appears to be near an equilibrium level. Additional development would require structured parking, which cannot be provided through normal market mechanisms.
- Scattered development patterns – The patchwork pattern of development tends to make coherent and mutually-reinforcing redevelopment difficult to achieve.
- Limited transit options – In practical terms, there are limits to redevelopment that can be accomplished without substantially enhancing the number of people who can move in and out of the area using transit or other modes of transportation (including walking).

The following observations are drawn from the research and discussion associated with each of three focused planning topics, each of which suggest choices that may be made to craft strategies that result in desirable changes. Additional information on specific elements covered under each focus topic is included in the *Appendix* to this report, provided as a separate document.

### **Topic #1: Strategies to Create and Maintain a Mixed-Use District**

In order to achieve the identified shared vision for the future of the district, a land use mix in which there is an adequate and desirable proportion of uses in relation to each other would need to be established. Two possible strategies to establish and monitor a balanced use mix were outlined and discussed, including examples of zoning mechanisms and implementation tools (refer to the discussion of *Focus Topics* in the *Appendix* for more details). Potential strategies considered the definition of **land use targets for mixed use**, the creation of **development incentives** for desirable uses, and the use of **performance standards** that would establish and maintain targeted relative proportions of desirable uses through a negotiated process with reasonable benchmarks for performance.

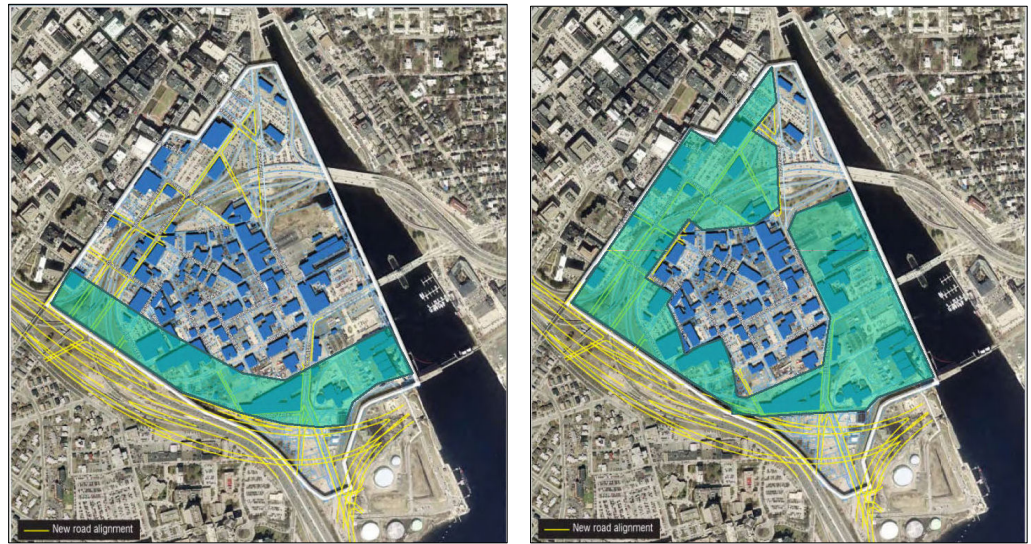
The following points summarize the results of these discussions.



- The need for land use management tools - Creating and maintaining a vital mixed use district will not occur without land use management tools that can be employed by the City and those committed to achieving the mixed use vision. Market forces and the short-term needs of institutional and public investments will not reliably result in the **sustainable type of use mix** or compatibility envisioned among the stakeholders that have participated in this study. Zoning, as described below, can provide powerful and effective methods. Other land use management tools can be crafted through the inter-jurisdictional coordination processes now underway between the City and the State of Rhode Island on a variety of topics. Still other land use management mechanisms could be created through land use and development agreements among the City, institutions and other prominent stakeholders in the district.
- Options for zoning strategies – There are multiple zoning methods that could be considered to manage development in a mixed use district, but any of these options will need to be evaluated in relationship to the City’s district-based zoning strategies that are being advanced. One model provides incentives to development projects that provide a desirable mix of uses within one project or through linked proposals. Another model uses performance standards that set the basis for discretionary approvals of projects, based on the desired vitality and economic contributions to the district. The City through its community-based planning process will determine which zoning strategies will be adopted in this case.
- The need for a strong housing component – A common theme among the stakeholders and within each of the case studies has been the importance of having a **sustainable residential component** within any mix of uses. Considerations regarding the location, amount and type of housing may be more related to the perception of value, activity, and security and quality than any absolute number of units.
- Mixed densities and special approaches to building height – The shared vision and participating stakeholders recognized that variety of building densities, scale and heights can be a desirable and distinguishing characteristic of the area. The siting of taller buildings can be managed and directed through a variety of methods. One method would provide a formula for building heights that takes into account more factors than occurs in traditional zoning, such as the size of the parcel, its location within the district, and the provision of benefits such as open space. Some communities apply special “**performance standards**” that ensure that there is an appropriate match between tall buildings, the sites on which they are located, and the benefits that they provide.
- Hierarchy of streets and places – It is important to recognize that there will be no “standard” street or uniform pattern of development within the district. As a planning framework, this study includes observations on the need to define those public ways that must carry significant vehicular traffic, for example, and those that may be oriented towards local access and can support stronger pedestrian-oriented characteristics.

A desirable use mix balance would not be merely quantitative, but also qualitative in its distribution. As such, the use mix would be intended to be distributed in a way that is conducive to and generates the type of pedestrian environment identified by the shared vision. General principles of distribution would need to be developed in conjunction with zoning strategies, in order to define ranges of site coverage and building height considerations that would support the vision for the district. These would also apply to the definition of site requirements for parking structures that may be strategically required to properly serve the district.

The diagrams below illustrate zones in which site coverage, building massing and height could have different implications in terms of their impact due to location.



*Edge conditions along the highway and the periphery of the study area suggest the potential for the location of buildings with larger footprints than the ones possible at the core of the district.*

## Topic #2: Components of an Economic Development Strategy

Potential development options and strategies to facilitate the amount of development that would begin to resemble the envisioned type of use mix were explored and discussed as part of this focus topic. In particular, three potential strategies were discussed in more detail: setting **minimum development goals** as part of zoning or other mechanisms, reinforcing **competitive advantage**, and leveraging **institutional investment**. Findings and conclusions from the related discussions can be summarized as follows:

- I-195 parcel redevelopment as a complement to the vision for the future – The redevelopment of the I-195 parcels through the collaborative process now underway will be a substantial benefit to the Jewelry District/Old Harbor, erasing a barrier to DownCity and repairing a damaged edge that would have inhibited successful redevelopment of the district had it not been relocated. Any mix of uses and urban designs that repair this edge and create an attractive new setting for adjacent improvements in the neighborhood will contribute enormously to accomplishing the shared vision expressed by stakeholders during the study process.

- Critical mass to support economic redevelopment – Case studies revealed a common conviction that **concentrated and coordinated development** is required to transform a district and accomplish its economic potential. A “critical mass” of contiguous, redeveloped streets and blocks has the capacity to dramatically improve the image and character of the district. This study recognizes that the proposed Johnson & Wales campus expansion and the adjacent redevelopment of other I-195 parcels will be critical components to such a critical mass. If a relatively small amount of development opportunities can be concentrated with any reasonable combination of nearby blocks, the district’s economic and mixed-use transformation will be accelerated.



*These images illustrate potential locations and clustering options for redevelopment along Chestnut and Richmond Streets, including I-195 parcels.*

- Shared parking strategies will be needed – The provision of structured parking in a limited number of accessible locations is essential to creating the density and character of development that meets the vision of a vital urban district and provides high economic benefits. Under current conditions, the available parking supply is not adequate to fully support the efficient use of the existing building stock, if it were to be fully renovated and redeveloped in a manner consistent with high economic performance. Any significant new development that either adds to or replaces existing building stock will require additional parking. However, the economics of land values and feasible market rate development in the Jewelry District/Old Harbor will not support the provision of structured parking without some **effective funding or financing assistance** by government and/or institutions. The most cost-effective methods to achieve this goal will be a shared strategy of parking facility development and management that also shares parking supplies among multiple users.
- Decision and partnership required: investing in research and development – Based on the research and interviews conducted through this process, the Jewelry District/Old Harbor is very unlikely to be chosen as a site for significant research and development activities and investment in facilities without associated institutional commitments and involvement. This type of investment may also require additional public sector incentives. As a result, decisions need to be made by the area’s institutions (most likely

medical institutions and Brown University) whether to commit to such activities. If **partnerships among institutions and government entities** are a required condition to set the stage for such investment, then those relationships and commitments must be forged.

The analysis of potential development strategies took into consideration the results of the market overview, and attempted to quantify a tentative “critical mass” of new development that could shift the image, value and character of the district toward the achievement of the shared vision. The market overview indicates that current demand for residential and commercial uses is relatively limited (refer to the discussion of *Economics and Real Estate Development* in the *Appendix* for more details), and market development of these types of use in the Jewelry District/Old Harbor would be conditioned by the district’s competitive advantage within the Providence metropolitan area.

A potential use mix to achieve a “critical mass” of new development and possibly jump-start the creation of a self-sustaining mixed-use district in the Jewelry District/Old Harbor was estimated to consist of approximately 750,000 square feet of new development. This amount was based on the analysis of infill development potential for a strategic cluster of blocks and parcels in the study area, which would likely incorporate key parcels generated by the relocation of I-195. The potential use mix was then evaluated from an economic perspective including possible phasing, development strategies and economic/financial issues (refer to the discussion of *Focus Topics* in the *Appendix* for more information).

An evaluation of development economics indicates that some of the desirable uses envisioned as part of the use mix, including retail, restaurants, offices and research and development, may require economic incentives. This is due in large part to the need to provide for structured parking as described above. Economic incentives could include state and federal incentives and grants, development partnerships with equity participation, tax credits and other incentive programs.

The ability of the local institutions to leverage resources for a shared future could be explored to consider innovative financial and investment strategies that would meet institutional needs while building mutually beneficial partnerships with the local community, the city and the state.

#### *Elements of a Successful Parking Strategy*

Although the shared vision for the Jewelry District/Old Harbor emphasizes the importance of pedestrians, bicycles and transit, the district must provide adequate quantities of off-street parking to support the mix and density of uses sought. However, surface parking alone cannot provide for the future parking needs associated with the scale and character of a mixed use district that is envisioned. Surface parking – even at relatively low parking ratios relative to the amount of development within the district – would consume an inordinate amount of land and effectively block the ability to create the fine-grained texture and pedestrian continuity that has been articulated by previous plans and current stakeholders.

The only practical means to solve this dilemma is to create parking structures in opportune locations that will serve the emerging mix of renovated buildings and new

development. These structures must eventually absorb several thousand parking spaces, if the shared vision is to be achieved. The new parking structures should be within easy walking distance of the patron's destination, but they should not become detriments to the pedestrian-oriented district that they are intended to support. As a result, **a physical strategy for locations of parking structures must be created.**

Unfortunately, the **economics associated with the provision of parking structures are not favorable** for the Jewelry District/Old Harbor. In simple terms, the market evaluations performed by ERA as part of the consultant team confirmed that the net financial benefit of structured parking for offices, retail, or housing uses is substantially below the net expense associated with creating parking structures. For such market-based uses, the public sector is typically required to provide special financing, funding or other tools to decrease the cost of parking structures so that they become affordable, allowing higher density development to occur.

**Institutions can sometimes overcome some or all of the high costs associated with parking structures**, if they gain benefits other than direct economic value from the parking facilities. Hospital, health care institutions, colleges and universities may contribute to or build parking structures if they enhance convenience and preserve a compact "building complex" or "campus" environment that they seek.

These observations lead to a conclusion **that a financial strategy for parking structures must also be created**, and accompany the physical strategy that will define their size, location, and the uses that they will support. A framework for creating successful parking strategies will need to include the following components:

#### *Physical Strategy for Parking Structures*

The planning strategy for parking structures should focus upon those sites where relatively large parking garages can be created above grade, but without creating negative visual and functional impacts on the surrounding properties and uses. Elements of a successful strategy are likely to incorporate the following:

- Perimeter sites – In general, sites should be favored that are along the periphery of the district, rather than being located within the central blocks.
- Shared use – Parking structures should be planned and located to support a range of different uses and nearby locations, wherever practical.
- Positive adjacent relationships – Parking garages must be located and designed in a manner that avoids negative effects on adjacent parcels and buildings.
- "Wrapping" or buffering garages with other uses – It will be highly desirable, where possible, to "wrap" uses around the edges of parking structures, or provide intermediating buildings and uses that dilute the negative visual impacts on the district.
- Relationship to pedestrian network – The pedestrian circulation to and from parking structures should be directly linked and become part of the primary pedestrian network within the district.



### Financial Strategy for Parking Structures

A shared strategy must be pursued that will combine the benefits of public financing, revenues that can be contributed through private sector development, and institutional participation. Elements of a successful financial strategy are likely to incorporate the following:

- Institutional participation – The institutions are in an unusual position to provide funding and financing of structured parking to the extent that it directly contributes to their own missions and the overall character of the neighborhood in which their facilities are located.
- Market-based participation – While the private market may not be able to feasibly develop structured parking, many of the private sector uses can support some of the costs of parking through parking fees, long-term leasing of spaces, or other means.
- Public sector participation – Cities, states and federal sources have played an important role in other cities, providing direct or indirect subsidies and grants that make parking structures feasible in the interest of creating high quality urban reinvestment environments.

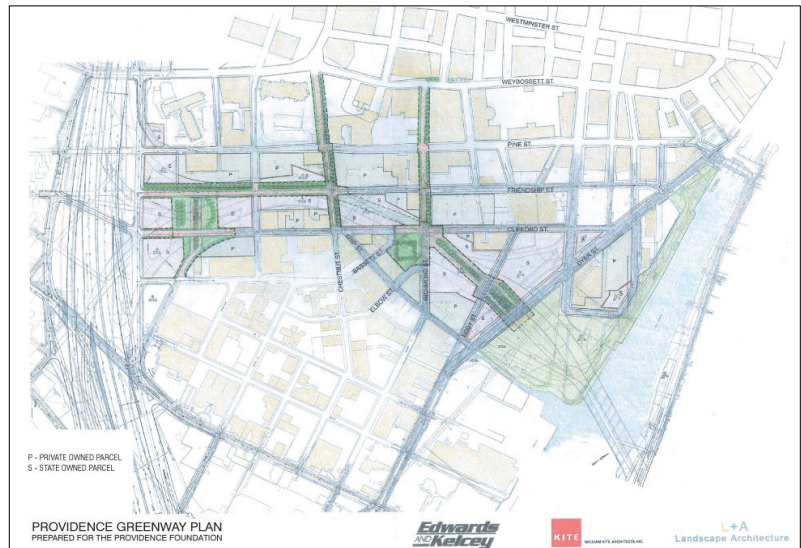
Additional discussion of parking strategies is provided in the *Appendix* to this report.

### **Topic #3: Connection Strategies**

Connectivity of the Jewelry District/Old Harbor to its surroundings has been identified as one of the key components of the vision and one of the most desired qualities in the district, understanding connectivity as the capacity to establish visual and physical connections to neighboring places, either by virtue of walking, driving or riding a vehicle (such as a bicycle, car, bus or boat). The following types of connections are needed in order to have a successful district:

- Connections to DownCity – The realignment of I-195 allows reconnection of the Jewelry District/Old Harbor to DownCity to the north. Multiple corridors are available, and the re-integration of pedestrian and visual links should be developed along multiple pathways and alignments.
- Connections to the west and south – The reconstruction of the I-95 corridor to the west creates opportunities to connect the Jewelry District/Old Harbor to adjacent neighborhoods and concentration of medical institutions. Because of the expense of creating bridges and pedestrian- and bicycle-friendly connections, future public processes can serve to designate the preferred alignments and help concentrate future improvements.
- Connections to the east – The vision of a signature pedestrian bridge connecting the new park proposed by the City and RIDOT, the Jewelry District/Old Harbor, and the neighborhoods to the east remains a consistently supported element of many plans and visions that have been framed.

*This concept plan has been proposed by a community-sponsored organization for a Greenway system of parks and east-west connections.*



- Relocation of I-195 – The relocation of I-195 provides a unique opportunity to create an east-west pedestrian/open space connection and a network of parks as illustrated in the Greenway concept plan below. This open space network could be integrated to the vision of the proposed pedestrian bridge to the east and possible connections to the west.
- Improved transit connections – As the relocation of I-195 advances, discussions have been initiated about the potential location of a secondary transit hub near the future I-95/I-195 intersection, which could include a multimodal transportation center with stops for local and regional buses. This opportunity would be strengthened by the creation of enhanced pedestrian connections to the Jewelry District/Old Harbor and the hospitals. Additional transit improvements could be made possible through the consideration of increased number and frequency of buses, coordination among the existing RIPTA bus routes and institutional shuttle services, and the creation of transportation management associations. Improved transit connections could also contribute to support potential transit oriented development in the future.
- Elements of an open space network – The shared vision for the district suggests that the most appropriate and successful approach to the provision of an open space network will be through an incremental and connected series of highly varied spaces, parks and promenades that wind their way along, around and through the blocks of the district. This could be coordinated through performance standards and development agreements.

The designation of the most appropriate alignments and the staging of investments required to generate these connections will require continued collaboration among multiple jurisdictions and may include landowners within the district.

*This diagram collects some of the connection concepts and ideas that have been advanced prior to and during this study process.*



### Creating Connections: Strategies for Urban Design

The Jewelry District/Old Harbor area will be redeveloped through incremental projects sponsored and managed by many different parties. It is not possible to predict exactly how this redevelopment will unfold. The public sector will be able to provide certain components of the open space and pedestrian connection network, such as the riverfront park that has been initiated by the City and the State. However, a great many of the components will be created in association with private and institutional development projects over time.

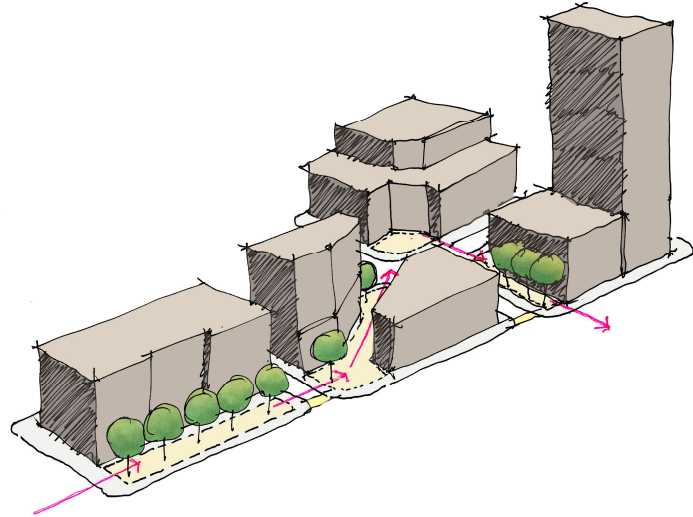
### Strategy Concept: Design Guidelines

Instead of a determinate “plan”, design guidelines can be created and will ultimately produce a coherent and connected network of spaces if consistently applied. Guidelines, if properly drafted, can include confirmable standards and more general principles that will inform site planning and design, and serve as the criteria for approvals of projects before they are constructed. Guidelines have a distinct benefit of providing practical flexibility, so that the requirements of building design, circulation, infrastructure and other factors can be integrated into the decision-making process on a site-by-site basis.



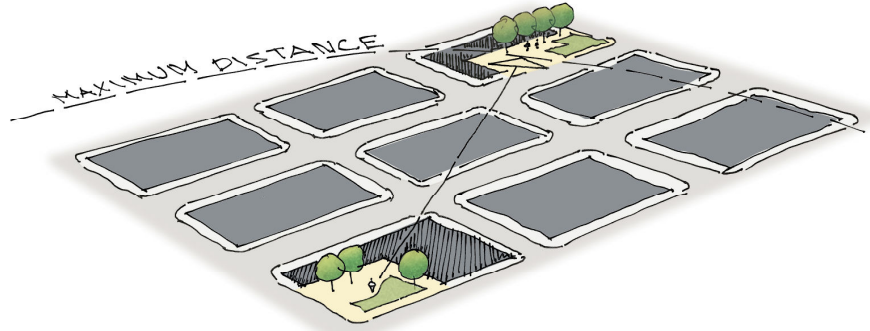
### Examples of Site Planning and Urban Design Principles

The preparation of design guidelines should accompany the planning that will occur within the district over the next few years, if they are chosen as a tool. Design guidelines would need to be tailored to the resources and mechanisms available for their application, as well as the types and locations of the projects that they would be intended to address. The following pages outline examples of principles that guidelines could help ensure are incorporated into site planning and design. These principles are discussed in more detail in the *Appendix* to this report, provided as a separate document.



*This diagram illustrates the application of urban design principles outlined in this section, in particular connectedness and continuity*

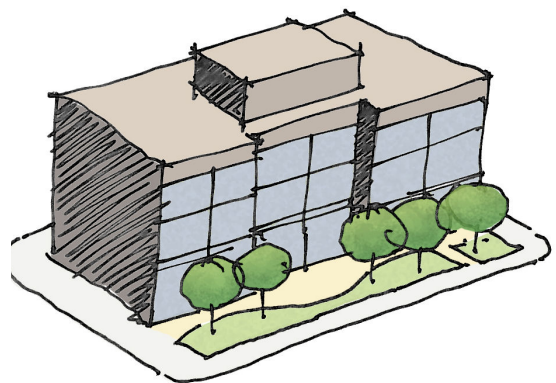
- Connectedness and Continuity – A requirement could be established that every block should provide or support the public open space and pedestrian network, with the provision that the alignment of such improvements be visibly linked to adjacent portions of the existing network.
- Interior, Exterior and Edge Connections – The Jewelry District offers an unusual opportunity to provide linked open spaces and pedestrian networks that are composed of a variety of different spatial types and experiences.
- Variety and Distribution – Guidelines could categorize the types and distribution of various types of open spaces that could be created, without establishing specific locations or detailed designs in advance.
- Hardscape and Greenscape – Urban pedestrian and open space networks must have “hardscape” components that create at least the walking surfaces that are needed. Introduction of “greenscape” elements – planted areas – is an aesthetic and environmental choice. The desirable balance between these two characteristics can be set by policy and implemented through guidelines that set baseline standards on the minimum amounts or ratios between paved and planted areas in a systematic manner.



*Guidelines could induce the provision of pocket parks or plazas within a minimum distance of each other*

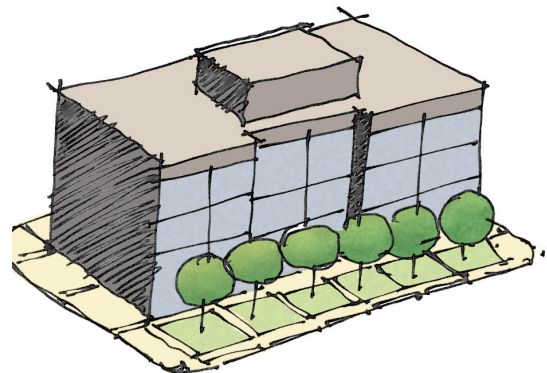
- Public Realm, Architecture and Publicly Accessible Space – In the context of a public, mixed use urban environment, it is important that the public, civic realm be distinguishable and have its own integrity.

*This diagram illustrates public space designed to invite public access and distinctive from the building architecture*



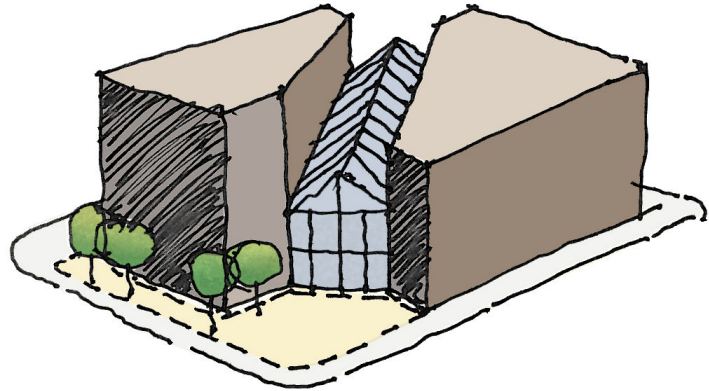
A hierarchy of public sidewalk, public space, and building architecture...

*In this diagram, public space is less open to public access and reproduces the building architecture*

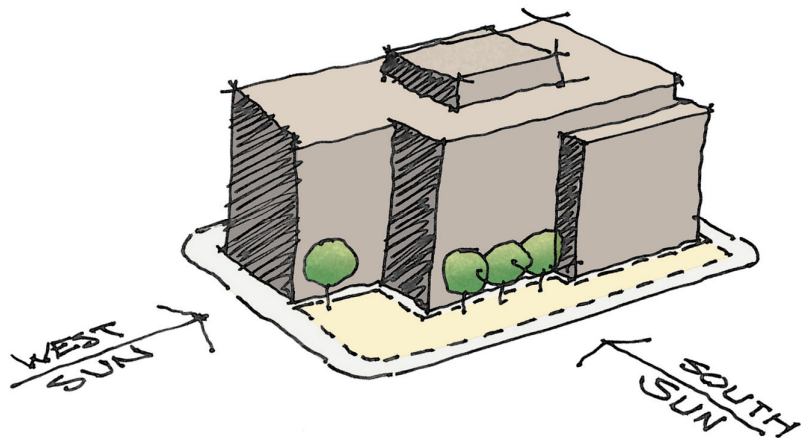


Versus architecture extended through the public space and the public realm.

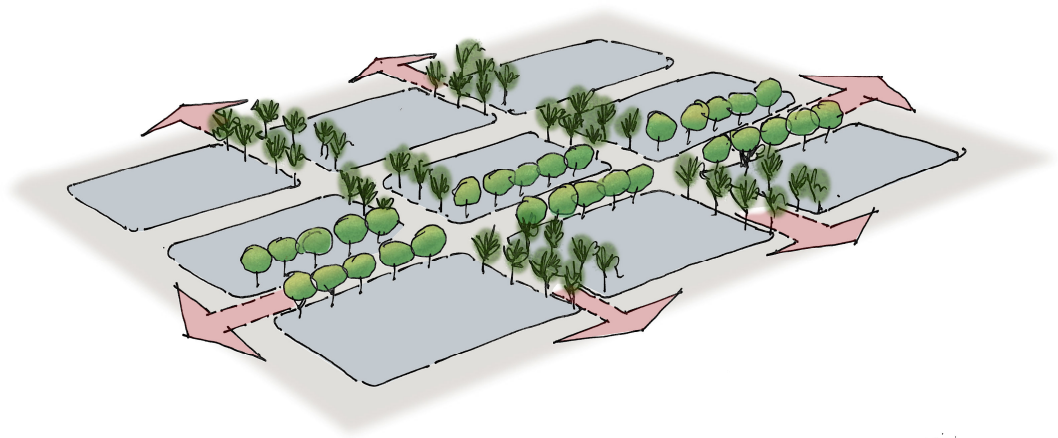
- Enclosed Interior Spaces and Connections – Enclosed interior spaces, if they invite and support public use, can be a very practical and highly desirable component of an open space network system. Such interior spaces are very traditional components of the city fabric, and provide an alternate environment conducive to pedestrians during the inclement months of the New England calendar.



- Orientation and Climate – The orientation of pedestrian connections and open spaces is very important within the New England climate. Simple and clear preferences can be established for southerly and westerly orientation of open spaces intended to be comfortable for pedestrians, for example.



- Orientation and Streetscape – Through a coordinated set of standards or guidelines, the streetscape character can employ variations in materials, plantings or other design features to express the hierarchy of streets. Also, pedestrian circulation, ease of access and walking experience can be enhanced by signage, graphics and public art. On a practical level, such a coordinated approach can serve as orientation devices for those moving to, from and within a district.



*This diagram illustrates the use of different plant varieties to express the hierarchy of the streets*

#### Open Space Connections: Public Sector Stewardship

Implementing a network of open space connections and the associated pedestrian and bicycle network could be focused upon design guidelines and collaborative project planning. Nevertheless, the public sector must be the steward of certain key improvements that cannot be achieved without directed planning and resource commitments over time:

- Public parks and promenades – The City must be responsible for orchestrating the development and controlling the future maintenance and operations associated with the public parks that will be integral to the community.
- Bridging the Providence River – A dedicated pedestrian bridge to the east side of the river can only be achieved through public sector commitments and funding.
- Reaching to the west – Public sector designation of the final locations, design and funding is required to connect to the neighborhoods to the west across the I-95 corridor.
- Land along the I-195 infrastructure – The redesign of the highway network, will leave large areas of “leftover” land that could be used to significantly contribute to the green space and open space network of the district.

### Looking Ahead: Shared Ideas and Shared Actions

In the end, this report will be most helpful if it supports the translation of ideas into concrete actions that will steadily transform the Jewelry District. The shared visions that have been articulated - and will continue to emerge - will benefit from a shared foundation in the type of facts and analyses presented here. Providence will benefit from the lessons learned by other communities that are successfully advancing similarly ambitious mixed-used districts. Finally, this study underlines the importance of *shared strategic thinking* about the future, so that incremental changes reinforce one another.

In order to achieve the identified vision for the Jewelry District/Old Harbor, the assumptions derived from the analysis of strategic options and the roles of active participants need to be considered. The main actors involved in the potential redevelopment of this district are the State of Rhode Island, the City of Providence, neighborhood residents, local institutions, and the private market. Each of the actors has its own interests, roles, and resources that may be utilized to assist with some aspect of the desired revitalization.

Given the shared vision previously described, the roles that need to be pursued by the main actors have become clearer. Currently the challenges presented by the vision and the subsequent goals of this district are significant obstacles for any of the main actors to overcome individually.

- The City of Providence needs to maximize the opportunity to generate the desired returns for tax revenue, degree of development and design guidelines that are determined to be realistic, consistent with the city standards and supportive of the desired vision.
- The State of Rhode Island may be able to facilitate the desired development of the I-195 parcels, in concert with the city, through the standards established in the disposition process. But the state will not be able to transform the remainder of the district in a manner that will fulfill the stated vision and goals for the district, unless it provides incentives for economic development or the creation of needed parking or public space.
- The private market given its current state and interests does not appear to be able to transform the district in the desired way on its own. The private market will enter this redevelopment when the individual actors within this market determine that risk has been decreased or demand has been created.
- The institutions appear to be the likely actors that are in position to redevelop some land parcels over time in a manner that may resemble components of the vision. In so doing, the institutions will need to consider providing a portion of the cost for the types of uses, such as parking and other shared spaces that they and the district desire as part of the vision. The institutions may be interested in this opportunity if it is conducted in partnership with the city and the state.

Additional considerations on potential implementation strategies and future steps are noted in the *Appendix* to this report, provided as a separate document.

## Infrastructure and Maintenance

One of the subjects addressed during meetings and discussions has been the poor condition of physical infrastructure in many places within the study area, and in particular roads and sidewalks. Needs for roadway and streetscape improvements should be addressed as part of future planning and development initiatives, and prioritized in terms of public investment. Similarly, the status of the existing utility networks, the location of high voltage lines, and the need to add electric substation capacity are important issues that affect the redevelopment potential of prime properties along the waterfront. These are complex issues that may require a joint approach from utility companies and public agencies in order to bring about resolution and positive change.

Shared initiatives and efforts among businesses, developers, institutions and public entities may also be useful to facilitate the management and maintenance of public infrastructure. Joint partnerships and development agreements could be used to set terms and conditions leading to the successful maintenance and care of the new parks, open space and public connections that may be created as a result of new development and the relocation of I-195.

## Implementation Tools and Strategies

The table on the following pages lists potential strategies and associated implementation tools that could be applicable to the Jewelry District/Old Harbor, as identified through this study and the related meetings and discussions.

*Photograph courtesy of  
Maguire Group, Inc.*





Table 2. Summary Matrix of Strategies and Implementation Tools

Focus Topic	Idea/ Element	Option/ Strategy	Action	Implementation Tool	Leadership/ Participation
Strategies to Create and Maintain a Mixed Use District	Use Mix and Balance	Strategy #1: Land Use Targets for Mixed Use	Definition of desirable uses and appropriate ratios representing minimum and maximum proportions.	Zoning mechanisms (allowed uses would be the subject of more detailed study and planning by the City)	City Community
		Strategy #2: Performance Standards for Mixed Use	Establishment of qualitative principles and standards for location and distribution of the various use categories.	<ul style="list-style-type: none"><li>• Zoning mechanisms</li><li>• Disposition process and regulatory standards for I-195 parcels</li><li>• Public/private partnerships</li></ul>	City State Community
	Principles of Distribution	Strategy #1: Dimensional Height Standards	Definition of maximum building heights determined by zoning	Zoning mechanisms (building heights and densities would be the subject of more detailed study and planning by the City)	City Community
		Strategy #2: Performance-Based Height Standards	Establishment of qualitative principles and standards for allowing building heights based on their potential impacts	<ul style="list-style-type: none"><li>• Overlay zone with special permit for height</li><li>• Performance standards and criteria</li><li>• Impact assessment process</li><li>• Schedule of offsetting benefits</li><li>• Design guidelines and design review process</li></ul>	City Community
Components of an Economic Development Strategy	Critical Mass Program and Phasing	Strategy #1: Minimum Development Goals for the District	Infill development strategy: Clustered continuous blocks with both existing and new development opportunities.	<ul style="list-style-type: none"><li>• Zoning mechanisms</li><li>• Disposition process and regulatory standards for I-195 parcels</li><li>• Public/private partnerships</li></ul>	City State Institutions Businesses
			Leveraging public control, public interest and public process for the I-195 parcels.	<ul style="list-style-type: none"><li>• Disposition process and regulatory standards for I-195 parcels</li><li>• Public/private partnerships</li></ul>	City State Institutions Businesses
			Financing the conversion of surface parking to new parking structures	<ul style="list-style-type: none"><li>• State/Federal incentives and grants</li><li>• Development partnerships</li><li>• Public/private partnerships</li></ul>	City State Institutions Businesses
	Development Economics	Strategy #2: Reinforcing Competitive Advantages	Funding the development gap.	<ul style="list-style-type: none"><li>• State/Federal incentives and grants</li><li>• Green incentives</li><li>• Development partnerships for Office/R&amp;D space with equity participation from institutions</li><li>• Retail rents discounted by residential developers and institutions</li></ul>	State Institutions Businesses
			Create effective partnership between developers, institutions and public agencies to incent development and attract businesses.	<ul style="list-style-type: none"><li>• Incentives (zoning bonuses in return for inclusion of desirable uses, economic incentives, grants, tax stabilization programs, etc.)</li></ul>	City State Institutions Developers
			Develop a “pairing” strategy to build structured parking in latter phases.	<ul style="list-style-type: none"><li>• State/Federal incentives and grants</li><li>• Public/private partnerships</li></ul>	State Institutions Developers

Table 18. Summary Matrix of Strategies and Implementation Tools (Continued from previous page)

Focus Topic	Idea/ Element	Option/ Strategy	Action	Implementation Tool	Leadership/ Participation
Components of an Economic Development Strategy (continued from previous page)	Development Economics (continued from previous page)	Strategy #3: Leveraging Institutional Investment	Determine physical, program and financial needs for new institutional development	Institutional master planning	City Institutions
			Establish guidelines and standards for desired development (associated with or “paired” with institutional development)	Design and development guidelines and standards	City Institutions
			Establish partnership to fund and finance shared space (parks, parking garages, connections, etc.)	Negotiated agreements	City State Institutions
			Construct partnerships that maximize returns (right balance of tax-exempt and taxable development)	Development partnerships including for-profit and nonprofit organizations	Institutions Developers Businesses
Connection Strategies	Texture: Open Space Framework	Strategy #1: Concerted Public/Private Initiatives	External connections (Pedestrian / open space corridors): <ul style="list-style-type: none"><li>Greenway (east-west open space system)</li><li>Pedestrian and bicycle bridge across the river</li><li>Riverwalk extension (walkways and connections along the river’s edge)</li><li>Pedestrian and bicycle bridge/deck across I-95 (associated with potential east-west greenway)</li><li>Enhanced sidewalks and streetscape</li><li>Transit hub and improved transit</li><li>Enhanced pedestrian and vehicular connections to the downtown and the hospital areas (Chestnut, Richmond, Eddy and Point Streets)</li></ul>	<ul style="list-style-type: none"><li>Transportation Improvement Programs (TIP)</li><li>Public grant programs</li><li>Disposition process and regulatory standards for I-195 parcels</li><li>Privately-owned and maintained parks for public use</li><li>Public/private partnerships</li><li>Open space easements</li></ul>	City State/Federal government Developers Institutions Businesses Community
			Internal connections (Streetscape improvements): <ul style="list-style-type: none"><li>Sidewalk reconstruction</li><li>New crosswalks</li><li>Greening along wider corridors</li><li>Street furniture</li><li>Linked open space system of pocket parks and through-block connections at selected locations</li><li>Signage and public art</li></ul>	<ul style="list-style-type: none"><li>Transportation Improvement Programs (TIP)</li><li>Public grant programs</li><li>Public/private partnerships</li><li>Negotiated agreements</li><li>Design and development standards</li><li>Performance standards</li><li>Design guidelines</li></ul>	City State/Federal government Developers Institutions Businesses Community
		Strategy #2: Performance Standards for Open Space	Set standards for the provision and design of open space as part of zoning or development agreements	<ul style="list-style-type: none"><li>Design and development standards</li><li>Zoning incentives (height or density bonuses) in return for the provision of open space and public amenities</li></ul>	City Community
		Strategy #3: Design Guidelines	Establish a design review process based on design guidelines	Design guidelines: <ul style="list-style-type: none"><li>Building exterior</li><li>Site design and landscaping</li><li>Open space</li><li>Public areas and connections</li></ul>	City Community



**Building Density** – Density is a quantitative measure of the numbers of units on a particular area of land or property, often expressed in terms of housing units or amount of square feet per unit of land (square feet or acres). Building density is often used to convey the amount of development that exists or could exist on a determined land area.

**Building Scale** – Scale is a qualitative measure of the relative size, height and massing of buildings and spaces, especially when compared to each other. Dramatic contrasts in scale between adjacent buildings can result in negative impacts on the surrounding uses, especially at the ground level; impacts can be reduced by creating a transition among a range of several building heights.

**Critical Mass** – Minimum quantity and balance of uses needed to reach a threshold of redevelopment that will substantially shift the image, value and character of the district so that additional development may be largely dependent upon market and regulatory forces.

**Design Guidelines** – Design guidelines are guiding principles that establish the overall design quality that is desired and promoted for a building, space or district. Guidelines direct the design toward the achievement of the desired image and expression without necessarily dictating or constraining the ability to create distinctive architecture and places.

**Design/Development Standards** – Design and development standards are measures that express the public interest in the design of buildings and public spaces by establishing measurable and specific requirements in terms of dimensions, materials and other conditions. Standards should be quantifiable and verifiable; they are often employed in codes and regulations to provide a basis for review and approvals.

**Floor Area Ratio (FAR)** – Commonly used measure of building density, which is obtained by dividing the number of existing or allowed building square feet by the lot area (in square feet).

**Greenway** – Linear open space along natural corridors, such as valleys, streams or riverfronts, or manmade corridors, such as railroad rights-of-way, roadways or other routes. Greenway systems can include local systems within a neighborhood, community-wide systems and regional systems.

**Institutional Master Plan** – Requirement of the Providence Zoning Ordinance to promote the orderly growth and development of institutions while preserving neighborhood character, historic resources, and to insure that the plans are consistent with the city's comprehensive plan. The plan includes an implementation element which defines and schedules for a period of five (5) years or more, the specific public actions to be undertaken in order to achieve the goals and objectives of the plan.

**Knowledge-based Economy** – In a post-industrial era in which information is key to the development and distribution of products and ideas, a knowledge-based economy is understood as an economy based on the use of knowledge to generate economic benefits. Within this perspective, expertise and intellectual property become more critical as economic resources than land or natural assets, and institutions that generate knowledge become important sources of economic development.

**Mixed Use Development** – Development that combines two or more types of land use in an attempt to create lively and vibrant urban environments with public amenities, allowing opportunities for people to live, work and shop at one place. This type of development often seeks to create pedestrian-friendly environments and higher building densities to support a variety of uses and activities.

**Offsetting Benefits** – Measures to offset or mitigate negative effects caused by a certain condition or variation from a prescribed standard. Offsetting benefits are often required as conditions for approval of plans or projects subject to a development review process or other types of negotiated approval.

**Overlay Zone/Overlay District** - A district established by zoning ordinance that is superimposed on one or more districts or parts of districts, and that imposes specified requirements in addition to those otherwise applicable for the underlying zone.

**Parcelization** – Subdivision of land in parcels; term that is also applied in reference to the configuration and size of parcels and the subdivision patterns that characterize a group of parcels as a result.

**Performance Standards** – Standards that measure the performance of a certain element within a range of accepted values. In terms of land use and zoning, performance standards establish limits (lower/upper) to a particular dimensional or measurable quality such as building height, density, setbacks, etc. (see *Design/development standards* above).

**Public/Private Partnerships** – Joint initiatives by the public and the private sectors to develop and maintain public spaces and other improvements, in which public and private investments are linked to maximize the benefits of limited resources and the potential for additional funding.

**Research and Development** – In terms of land use, buildings or structures dedicated to technological research aimed at discovering solutions to problems or creating new goods and knowledge. It may include laboratory space, although not necessarily in all cases.

**Sustainability** – Planning approach based on six key principles: future-oriented/long term, bounded by limits, natural/geographic, means-oriented, holistic/interconnected, and participatory. Term often associated with living in compact communities, using public transit, minimizing energy consumption and recycling waste.

**Transportation Improvement Program (TIP)** – List of transportation projects that the State intends to implement using federal highway and transit funds. It is developed by the Transportation Advisory Committee every two years, and it programs federal transportation dollars to projects implemented by RIDOT and RIPTA.



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## JEWELRY DISTRICT/OLD HARBOR PLANNING FRAMEWORK STUDY

*Appendix*

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*Prepared for:*  
Jewelry District Association  
The Providence Foundation

*Prepared by:*  
The Cecil Group  
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September 2008

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This document is a compilation of general findings, baseline data and support information gathered during the preparation of the Jewelry District/Old Harbor Planning Framework Study. This document has been conceived and organized to serve as an *Appendix* to the study's main report, which provides a framework for planning initiatives that will shape the future of the Jewelry District/Old Harbor neighborhood in Providence. As a framework, this study is intended to be a timely and topical resource for the many participants and proponents who are stakeholders in that future. The main report is brief and concise, summarizing the key findings and results of the study in a condensed format for easy reading and distribution.

This *Appendix* contains additional support information compiled during the study, including a detailed list of envisioned elements and qualities for the future of the district. It also contains more detailed and elaborated descriptions of the potential options and strategies for future planning initiatives identified in the main report.

### Study Process and Methodology

The Jewelry District/Old Harbor areas have been the focus of many planning and community improvement initiatives for several decades. Looking ahead, there are new opportunities to fulfill aspirations for the district, including new public, private and institutional projects that are emerging. Significant and positive changes are on the horizon - the City is engaging in important new planning for the Downtown, the realignment of I-195 will make land available for productive new uses, and the area's institutions are planning and implementing growth in their programs and facilities. Stewards of the community, regional and state economy are exploring creative methods to support contemporary, desirable growth; including the "knowledge-based economy" that is a distinct competitive advantage for the Providence area.

All of these efforts can benefit from a planning resource that provides information, analysis, case studies of similar districts, and explores optional strategies that might be pursued in shaping the future of the Jewelry District.

This study was managed through the joint sponsorship of the Jewelry District Association and the Providence Foundation and was conducted through the active participation of a Steering Committee. The Steering Committee membership was drawn from a range of area stakeholders and served as a forum for ideas and discussions that began in the fall of 2007, leading to the preparation of the study report in spring, 2008.

Many meetings were conducted as part of this study, including monthly Steering Committee meetings and working sessions, informational meetings with representatives of the sponsoring organizations, and open forums with the participation of the community and the public in general. The study also included numerous interviews and phone conversations with local property owners, business owners, and residents. All these meetings and interviews served to gather a significant amount of input and positive discussion. The results of these meetings have been incorporated into the findings and conclusions of the study.

A conscious effort has been made through this process to avoid the comprehensive type of analysis and recommendations that could be considered or interpreted as a "plan" for the future of the district. The main focus of this study is the analysis of existing conditions, opportunities and options, and the generation of a shared vision for the



future. The City through its Department of Planning and Development is currently in the process of conducting a series of neighborhood “charrettes” as part of its ongoing *Providence Tomorrow* comprehensive planning process. A neighborhood charrette that will address the Jewelry District/Old Harbor as part of the Downtown, and will include a series of public forums to review planning opportunities, issues and concerns, has been tentatively scheduled for October 2008.

It is the hope of the Steering Committee and the organizations sponsoring this planning framework study that its findings and conclusions will serve to inform and support future plans and initiatives to be undertaken by the City, the State and other entities.

### **Study Area Boundaries**

The Jewelry District/Old Harbor is located south of Downcity and extends along the Providence River. Until recently, the district’s edges were defined by the river and Interstate highways I-95 and I-195, which separate the area from the Downtown financial district and the surrounding neighborhoods. However, significant changes include the relocation of I-195 along the southern edge of the district, which will remove the physical barrier that now separates the Jewelry District from the rest of the Downtown. As a result of this relocation, expected to be completed by 2012, the district will become physically integrated into the Downtown neighborhood fabric.

Historically, these areas were seamlessly integrated before I-195 was built. At the turn of the 19<sup>th</sup> century the district was booming with industries and trade, including metal and jewelry factories, and coal piers. Today, the district is less densely built and is characterized by a mix of uses that include offices, research and development, restaurants and entertainment, residential buildings, industrial and automotive services, cultural facilities and surface parking.

The I-195 realignment will result in a release of land currently occupied by the highway, which soon will be available for new development. The land freed up through this process will be crossed by new roads reconnecting the street network patterns previously bisected when I-195 was constructed in the 1950s. New parcels and buildings will provide a transition between the dense urban fabric of the Downcity and the core of the Jewelry District/Old Harbor.

The study area comprises approximately 145 acres, and includes all the streets and parcels in the Jewelry District/Old Harbor area, the land that will be released as a result of the I-195 relocation, and adjacent blocks of the Downtown that will likely be impacted by roadway realignments. The study area boundaries are shown in *Figure 1*, and include the following:

- Pine Street between I-95 and Dorrance Street, and Friendship Street between Dorrance Street and the waterfront, to the northwest.
- The waterfront’s edge along the Providence River between Friendship Street and the Hurricane Barrier, to the northeast.
- The Hurricane Barrier, to the south.
- I-95, to the west.

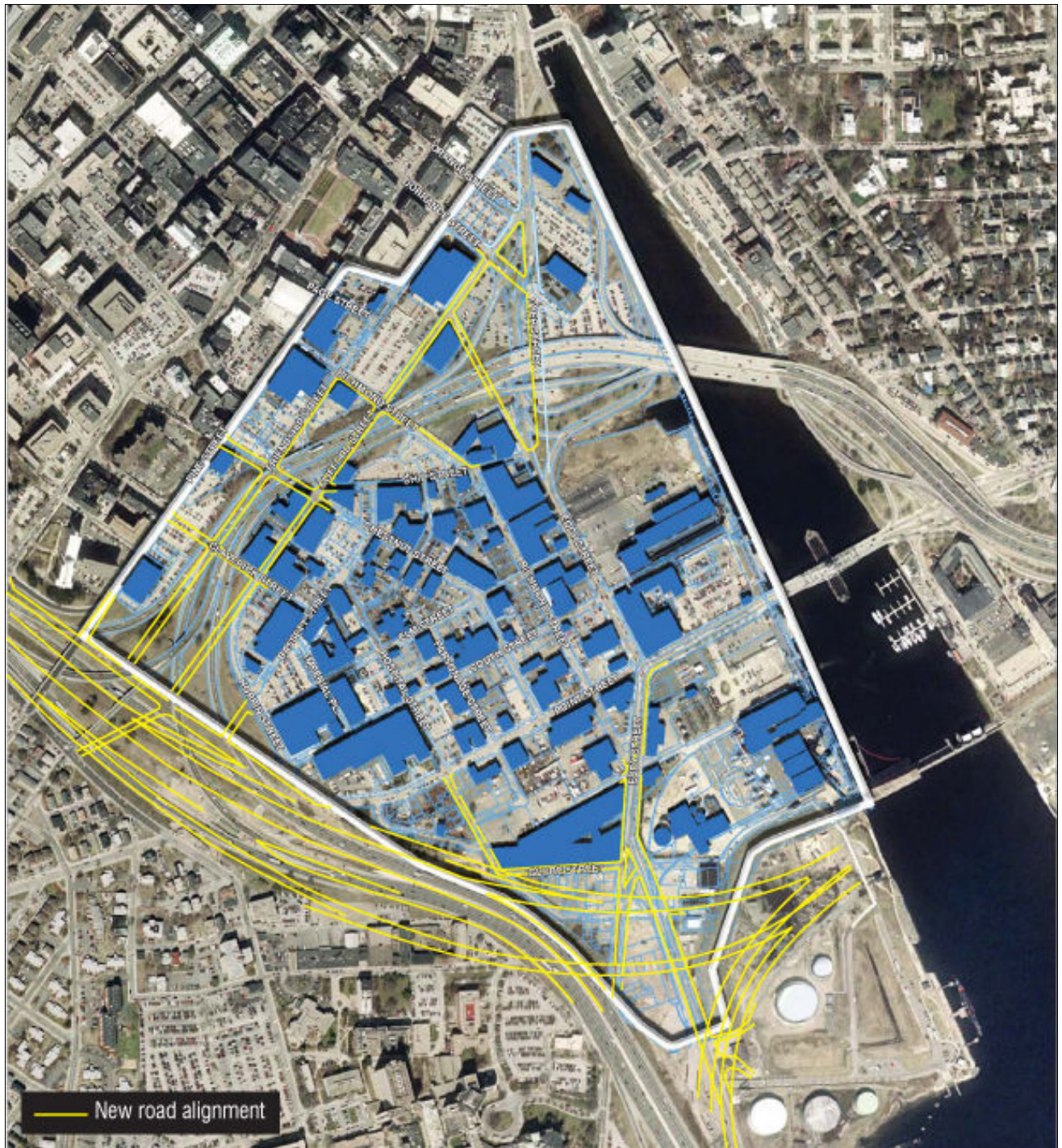


Figure 1. Study Area



## EXISTING LAND USE AND URBAN DESIGN CHARACTER

A review of the existing conditions in the district including a summary of the market trends that are occurring and other relevant findings was conducted in the early stages of this study. The key topics covered by the analysis of existing neighborhood character and conditions include the following:

- Land Use and Urban Design
- Economics and Real Estate Development
- Transportation
- Utilities and Infrastructure

### Existing Land Use

*Figure 2* illustrates existing land use based on site visits and information provided by participating organizations and members of the community (database has been made available as a courtesy of the Providence Plan). Historical land use patterns have resulted in a district mainly characterized by commercial and industrial uses, in which more land is used for commercial than for industrial activities. However, the district includes other uses as well: some historic and industrial buildings have been converted into residential apartments and lofts; institutional uses include health care facilities, academic buildings, offices, research space, and student housing; large parcels along the waterfront are either vacant or occupied by regional transportation facilities and utilities. Open space is scarce and mostly concentrated along the waterfront, in areas that are difficult to reach for many of the people that live and work in the district. Parking-at-grade occupies a significant portion of the entire land area (approximately 20%). *Table 1* on the next page summarizes the available land use and parking data.



Figure 2. Existing Land Use

*Table 1. EXISTING LAND USE DATA AND USE MIX (Data source: Providence Plan GIS)*

**Summary of Areas By Use (Excluding Parking Structures)**

LAND USE	PARCEL		BUILDING	
	SF	%	SF	%
Mixed Use <sup>(1)</sup>	122,072	2.7%	520,926	10%
Commercial/Office <sup>(2)</sup>	688,802	15.0%	1,421,661	25%
Institutional - Nonprofit	34,605	0.8%	57,431	1%
Institutional - Health Care <sup>(3)</sup>	278,273	6.1%	670,604	12%
Higher Education	246,551	5.4%	660,107	12%
Cultural - Museum <sup>(4)</sup>	35,070	0.8%	105,406	2%
Residential - Condo	36,003	0.8%	40,589	1%
Government	240,255	5.2%	270,296	5%
Municipal	1,114	0.0%	-	0%
Industrial	351,447	7.7%	718,848	13%
Utility	1,011,261	22.1%	956,234	18%
Vacant/Parking	502,494	11.0%	71,186	1%
Vacant/New (I-195) Parcels <sup>(5)</sup>	1,035,184	22.6%	-	0%
SUBTOTAL (Including utilities) <sup>(6)</sup>	4,583,131	100.0%	5,394,286	100%
SUBTOTAL (Excluding utilities) <sup>(6)</sup>	3,571,870	77.9%	4,339,052	80%

(1) Includes proposed Dynamo House hotel/office development (320,000 sf) and parcel area

(2) Includes restaurants, excludes the Richmond St garage

(3) Excludes the Coro garage

(4) Excludes parcel area assigned to Dynamo House

(5) Based on GIS area take offs

(6) Excluding parking structures

*Table 1. EXISTING LAND USE DATA AND USE MIX (Data source: Providence Plan GIS)  
(Continued from previous page)*

<b>Parking Structures</b>	<b>Parcel SF</b>	<b>Levels</b>	<b>Parking SF</b>	<b>Spaces</b>
Coro Garage	9,891	9	343,124	920
Richmond St Garage	64,664	4	139,906	424
<b>SUBTOTAL</b>	<b>74,555</b>		<b>483,031</b>	<b>1,344</b>

<b>Summary of Parcels and Buildings</b>	<b>Parcel SF</b>	<b>Building SF</b>
SUBTOTAL (Including utilities) <sup>(7)</sup>	4,657,686	6,075,317
SUBTOTAL (Excluding utilities) <sup>(7)</sup>	3,646,425	5,119,083

(7) Including parking structures

<b>Summary of Land Areas</b>	<b>Parcel SF</b>	<b>Acres</b>	<b>%</b>
Subtotal Parcel Area <sup>(8)</sup>	4,657,686	107	73.4%
Land Under New I-195 <sup>(9)</sup>	392,077	9	6.2%
Roads and Right-of-ways <sup>(10)</sup>	1,291,837	30	20.4%
<b>TOTAL LAND AREA/STUDY AREA<sup>(9)</sup></b>	<b>6,341,600</b>	<b>146</b>	<b>100%</b>

(8) Including garages and utilities

(9) Measured from GIS area take offs

(10) Estimated by subtracting parcels and land under new I-195 from total land area

<b>Parking</b>	<b>Spaces</b>
Existing parking in structures <sup>(11)</sup>	1344
Existing parking at grade <sup>(12)</sup>	4231
<b>TOTAL PARKING<sup>(12)</sup></b>	<b>5575</b>

(11) Based on GIS and owner's information

(12) Estimated from aerial photographs and area take offs

*ALL CALCULATIONS ARE BASED ON GIS DATA AND AREA TAKE OFFS FROM GIS MAPS AND AERIAL PHOTOGRAPHS; THIS INFORMATION IS INTENDED FOR PLANNING PURPOSES ONLY*



## Zoning

Several zoning districts are designated within the study area, including Downtown CBD (D1), Downtown Mill District (D2) and Heavy Industrial (M2). These districts are shown in *Figure 3* below. Uses allowed within these districts are generally consistent with the overall land use patterns identified in the land use map.

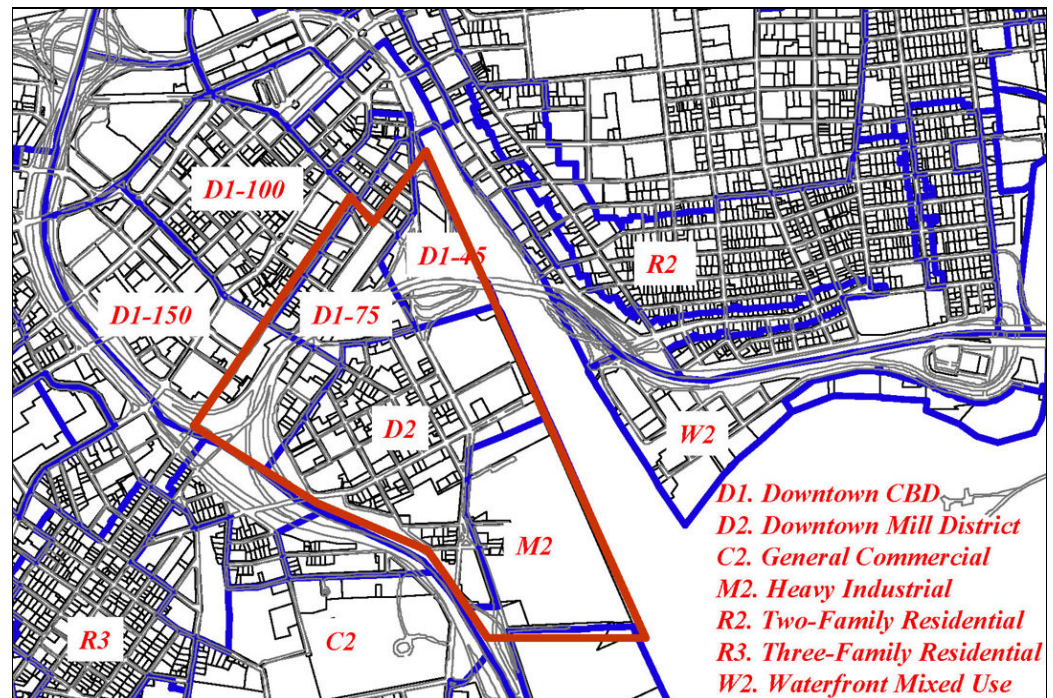


Figure 3. Zoning

## Parking

It has been estimated as part of the analysis that the current parking capacity of the study area amounts to approximately 5,600 parking spaces (not including on street parking). This amount is based on parking and area counts from the available orthophotos and land use information. In cases where spaces are not clearly demarcated, we have estimated parking capacity by dividing the square footage of the available parking area by 315 (average square footage of space and maneuvering area required per vehicle).

## Street Network Pattern

The area's street network provides logical and efficient travel ways through the district. Generally speaking the network is a grid, articulated with several diagonal thoroughfares. Such a network lends itself well to providing a logical sense of direction, efficient travel routes and unique moments of visual interest that break up the monotony of a rigid, perpendicular grid. This street form will be accentuated as the right-of-way for Interstate 195 is relocated, allowing streets which are currently interrupted by the highway to extend as continuous thoroughfares. *Figure 4* illustrates the adjustment to the street network resulting from the relocation of Interstate 195.

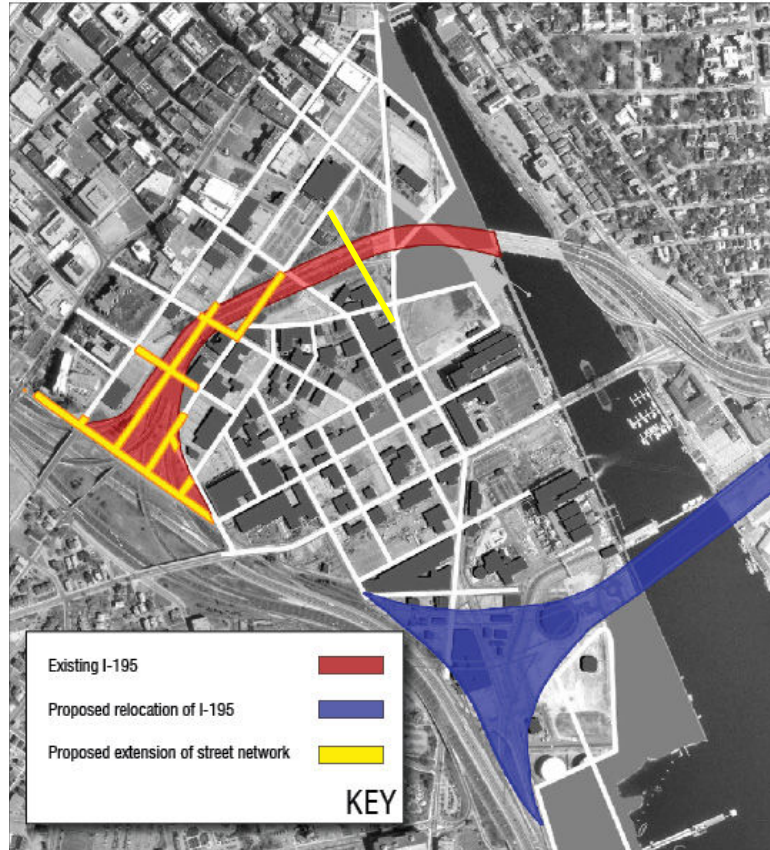


Figure 4. Proposed Roadway Network

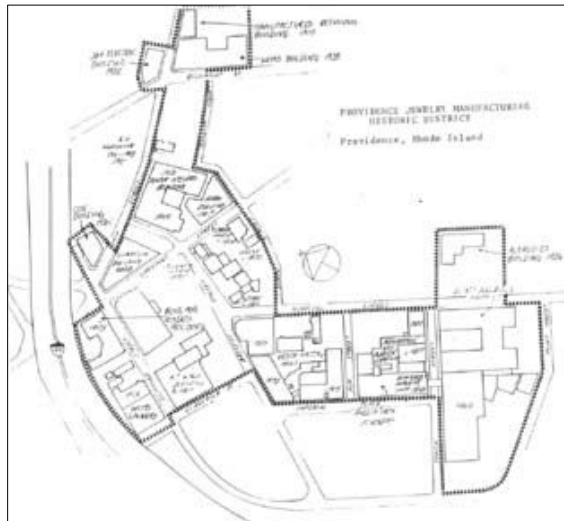
The new blocks that will be generated after the highway relocation will be larger than many of the existing blocks at the core of the district. This may have an influence on the site capacity and land use patterns that could be accommodated on the new parcels, possibly resulting in larger building footprints and larger buildings.

### Historic District

The Providence Jewelry Manufacturing Historic District encompasses the area with the highest concentration of historically significant buildings in the confines of the Jewelry District. The historical district is shown in *Figure 5* and outlined in *Figure 2*. It comprises approximately eleven blocks, stretching down Claverick, Richmond, Hospital, Ship, Imperial, and Chestnut streets, intersected by Point, South, Elm, Bassett, and Clifford streets. Distinctive qualities of the historical district within the larger context of the neighborhood are the irregularly shaped blocks and building arrangements. This pattern resolves as the streets extend further south into the Jewelry District.

Of the historically significant structures within the district, fourteen were originally built as multi-story factories, four as houses, and one as a laundry facility. As this neighborhood developed from a residential neighborhood into the center of the Providence jewelry industry, several of these buildings were transformed for industrial use, including three of the four houses. A brick or reinforced concrete façade, generally





between 5-7 stories, with a flat roof, occupying almost the entire block, defines the building character of the factories. Smaller buildings throughout the district feature brick or stone facades, a timber frame, with a slightly gabled roof. Most of these buildings were erected late nineteenth century to early twentieth, excluding the block created by Bassett, Chestnut, and Elbow streets. The majority of contributing buildings in the district have been adaptively reused for housing, offices and ground floor retail.

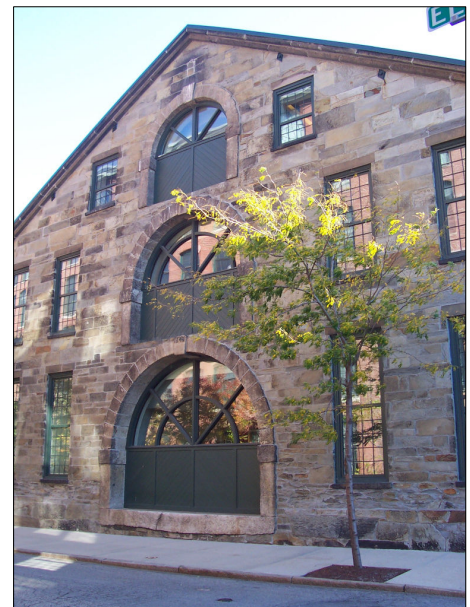
Figure 5. Providence Jewelry Manufacturing Historic District

Standards have been set in place by the State of Rhode Island to control alterations to building exteriors in historic districts. These impose restrictions on signage and landscaping. Standardized landscaping is required if the property is adjacent to parking areas. Institutional master planning is permitted, provided the character of the historical district is maintained.

Sites eligible for listing in the National or State Historic Registers are also eligible for federal or state assistance programs. At the state level, these properties could be considered for tax benefits. National grants, including one organization called “Save America’s Treasures” may provide funding to selected sites, which can be applied toward creating literature and educational community outreach programs. Grants are also available through the Rhode Island Historical Preservation and Heritage Commission.



Figure 6. Contributing Buildings



### Streetscape Character

The streetscape character along the streets of the Jewelry District varies depending on the street type and hierarchy within the roadway network. In general, it can be said that sidewalks are narrow and often in poor condition, lacking in trees and landscaping. ADA requirements also need to be addressed at many locations.

The main arterials crossing the neighborhood – Eddy Street and Point Street – also connect to neighboring districts and carry through-traffic in two directions. These streets are wider and some of the sidewalks have been improved in recent years. However, at less than 6-feet wide in many places, they are still narrow and do not contribute to, support or encourage pedestrian activity. This is an important consideration since both Eddy and Point are the only connections for pedestrians that exist today between the Jewelry District and the neighborhoods west of I-95, including the Hospitals area.

Other through-neighborhood connectors, such as Chestnut and Richmond Streets, are narrower although they also carry traffic in two directions. These roads extend towards the downtown from the core of the district. Sidewalks along these streets have also been improved at some locations. Local streets, such as South, Elm and Claverick, are even narrower and often one-way. The sidewalks along these roads are typically old and in substantial need of repair. Images illustrating sidewalk conditions are shown below.



Figure 7. Eddy Street north of Point Street





Figure 8. Eddy Street south from Point Street



Figure 9. South Street east from Parsonage Street



In general, streetscape improvements would contribute to making sidewalks more comfortable, safe and inviting to pedestrians. Point Street east of Eddy Street intersection has been improved with a landscaped median, which could become one of the potential models for the enhancement of other wide roads that carry heavy traffic loads across the district.



Figure 10. Streetscape improvements along Point Street



Figure 11. Public landing on Point Street

### Open Space

Open space, parks and recreational areas within the district are limited to isolated locations along the waterfront. Proposals have been made to create a riverfront walk, which could eventually connect to the Downcity and Capital Center. There is a boat landing north of Point Street along the eastern edge of Davol Square, which at the present is the only public access to the river within the study area.

A new park is proposed along the waterfront at the end of what is today I-195 right-of-way across the Jewelry District. A design competition has been conducted to identify ideas and landscape design concepts for the park. Another proposal has been made to create a Greenway as part of the new layout of streets and blocks for the land that will be released through the relocation of I-195, shown below. This proposal has been well received by local organizations and the City administration, and it could become a component of a much larger east west greenway pedestrian system.

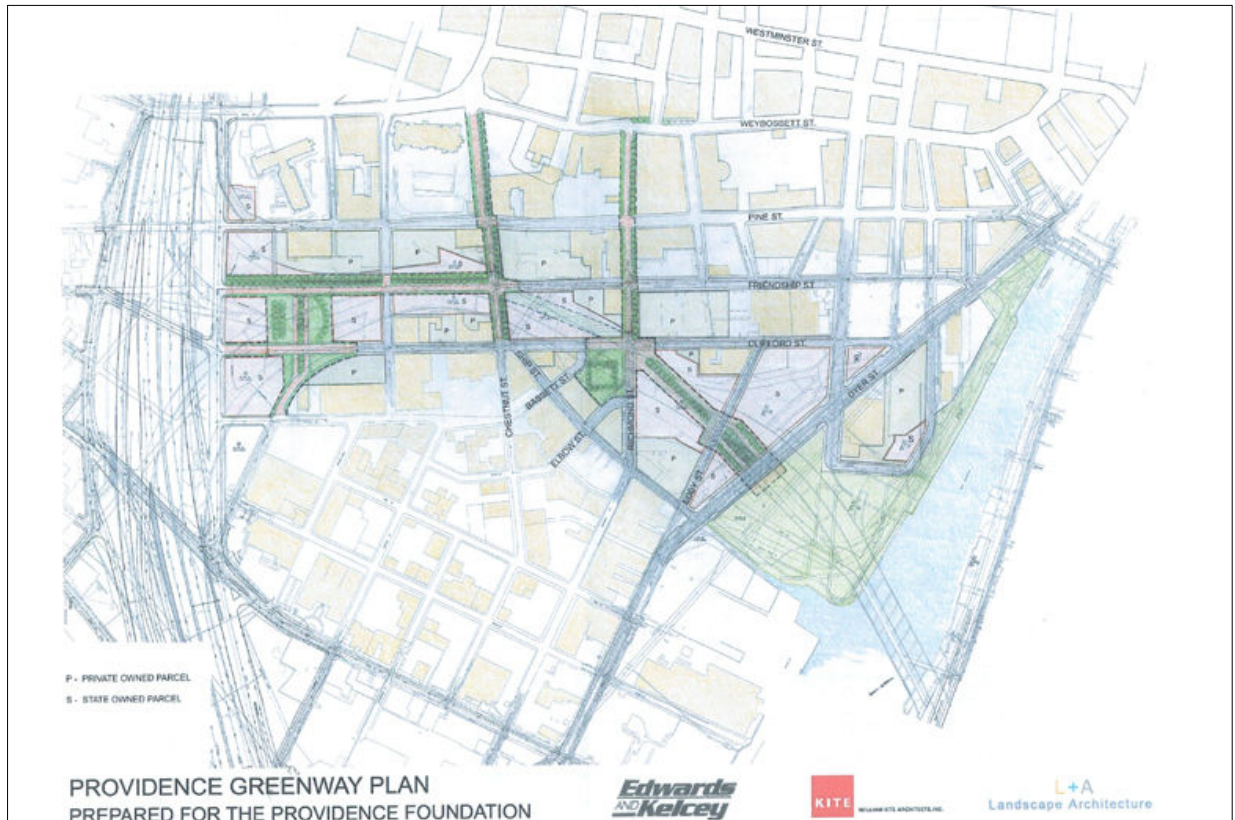


Figure 12. Proposed Greenway concept

Additional ideas for new pedestrian bridges, extended river walk connections, and opportunities for more parks and green space integrated with the rest of the neighborhood have been identified as part of an overall vision for the future of the district, and are described in the *Connections* section of the study report.

### Urban Design Opportunities and Constraints

Opportunities to improve and enhance the building fabric and public realm in the Jewelry District/Old Harbor through urban design are multiple, including the following:

- Protect the character of existing historic and contributing buildings.

- Provide guidelines for new development that is innovative and contemporary in design while compatible and harmonious in scale with existing historic buildings.
- Encourage the use of quality materials in the design of buildings and the public realm.
- Create new parks and open space integrated with new development.
- Create new and improved sidewalks and through-block pedestrian connections.
- Create new and enhanced pedestrian connections to the Hospital area and neighborhoods to the west of I-95.
- Create a greenway/pedestrian system connecting the waterfront (and Fox Point) to the Southside neighborhoods.
- Extend river walk access along the entire district waterfront.
- Provide new recreational and open space amenities along the water.
- Investigate and promote innovative solutions for parking and “car storage”.
- Investigate the potential for providing bicycle facilities and accommodation.
- Promote and support the creation of pedestrian-oriented uses at the ground level.
- Investigate and determine the most appropriate locations for ground floor retail.
- Promote the creation of an active pedestrian environment through the allocation of uses and public spaces.
- Investigate options for programs and activities that will attract visitors to the district.
- Build a green and sustainable neighborhood.

Perceived challenges and obstacles include the following:

- Lack of a critical mass of residents and business that would support street activity around the clock.
- Competitive advantages/disadvantages with respect to other areas in the city and the region.
- Physical barriers separating the study area from other neighborhoods, such as the highway, the river and large expanses of surface parking (this condition will improve as a result of the ongoing relocation of I-195).
- Lack of public resources to improve sidewalks and build parks.
- Relatively long walking distances to the DOWNCITY, the Hospitals and College Hill.
- Need for better access to public transportation.
- Cost of providing adequate parking.
- Cost of programming and maintaining parks and public spaces.

This section includes an overview of economic conditions and real estate markets in the Jewelry District/Old Harbor neighborhood. These findings are based on a review of demographic and employment trends in Rhode Island and Providence, and real estate market trends for commercial office, residential, retail and research and development (R&D) uses. As part of this process, both a quantitative and qualitative approach has been employed, by analyzing available data as well as interviewing local specialists. The quantitative analysis has been aimed at analyzing historical trends and existing conditions. The qualitative review is intended to ascertain the mix and scale of potential development in the district.

### Conclusions

The mix of uses that can be accommodated in the Jewelry District may take advantage of the district's current strengths as well as additional demand generated by the redevelopment. Commercial office space is highly viable in the district. Moreover, the area could potentially support additional housing to create a 24/7 mixed-use district. If sited in strategic areas to support development, retail may be integrated incrementally, but the scale and type will depend on the proposed mix of uses. R&D development may occur in conjunction with institutional expansion. Additionally, parking and open space are also major considerations. The entire scheme will be highly dependent on state and city incentives as well as public and institutional support. Full build out may take 20 years or more.

### Economic Trends

Recent employment trends were examined to determine what industries are growing in the city and state and assess the potential of the Jewelry District/Old Harbor to capture or accommodate this growth.

#### *Total Employment*

According to the Rhode Island Department of Labor and Training, Rhode Island has experienced consistent employment growth over the last five years. Total employment in the state grew 0.6 percent annually from 2002 through 2006 while private sector employment (excluding governmental jobs) grew 0.8 percent per year on average. On the other hand, employment in Providence – which represents slightly less than a quarter of statewide employment – rose and fell from 2002 through 2006. However, citywide employment increased from 2005 to 2006 with private sector employment growth (0.9 percent) outpacing the state (0.7 percent). At the same time, private employment grew two percent nationwide from 2005 to 2006.

#### *Growing Industries*

As of 2006, the largest employment sectors in both Rhode Island and Providence were Health Care and Social Assistance, and Government. The Accommodation and Food Service industry was also a major employer. Educational Services is a significant employment sector in the city, representing nearly 10 percent of citywide employment. Sixty percent of statewide Educational Services employment is located in Providence.

The Educational Services sector – which includes schools, colleges, universities, and training centers – is a growing employer in the city of Providence. From 2002 to 2006, the industry added over 1,400 employees, growing 3.5 percent a year on average. Other

growing industries in Providence include Management of Companies and Enterprises; Real Estate and Rental and Leasing; Health Care and Social Assistance; and Professional, Scientific, and Technical Services (*Table 2*). The same industries appear to be growing statewide. Rhode Island netted over 13,600 private sector employees from 2002 to 2006, of which Providence captured less than 2 percent. However, the city captured 21 percent of the state's net employment growth in the nine growing industries. With city, state and stakeholder incentives and initiatives, Providence and the Jewelry District could increase its capture of statewide employment into the future.

While many of the growing industry sectors are users of commercial office space, it should be noted that some of the other major office-using industries are losing jobs in Providence. For example, Finance and Insurance has experienced declining employment in Providence since 2003; at the same time, the sector added 1,600 jobs statewide from 2002 to 2006. The Information sector lost over 100 jobs on net in both the city and state from 2002 to 2006.

*Table 2. Rhode Island and Providence Employment Change, 2002 to 2006*

	Net Employment Change, 2002-2006		
	Rhode Island	Providence	Providence Share of RI Employment Growth
Management of Companies and Enterprises	2,895	490	16.9%
Educational Services	2,602	1,419	54.5%
Construction	3,486	343	9.8%
Arts, Entertainment and Recreation	595	116	19.5%
Real Estate and Rental and Leasing	751	118	15.7%
Health Care and Social Assistance	6,288	1,594	25.3%
Professional, Scientific, and Technical Services	2,522	308	12.2%
Accommodation and Food Service	2,057	352	17.1%
Administrative Support & Waste Mgmt	2,055	80	3.9%
Other Services	483	-92	N/A
Information	-130	-107	N/A
Wholesale Trade	568	-128	N/A
Retail Trade	-946	-472	N/A
Transportation and Warehousing	128	-120	N/A
Finance and Insurance	1,563	-1,071	N/A
Utilities	-15	-128	N/A
Manufacturing	-9,433	-2,485	N/A
<b>Total Private Sector Employment</b>	<b>13,627</b>	<b>217</b>	<b>1.6%</b>
Government	-1,489	-3,310	N/A
<b>Total Employment</b>	<b>12,138</b>	<b>-3,093</b>	<b>N/A</b>

Source: Rhode Island Department of Labor and Training; Economics Research Associates

NOTE: Totals may vary due to rounding.



## Office Market

### *Existing Conditions*

Data from CBRE New England was analyzed in order to understand current office market conditions in the district. This data excludes owner-occupied and some institutionally owned buildings.

CBRE New England reports that the Jewelry District contained 588,400 square feet of non-owner-occupied office space at the end of 2006 or 10 percent of the total Downtown Providence office market. This space was contained in 17 buildings, ranging in size from 3,500 to 116,000 square feet, or 35,000 square feet on average. In this market, office vacancies have been lower in the Jewelry District than downtown as a whole since 2004. At the end of 2006, the Jewelry District experienced a 9.7 percent vacancy compared to 11 percent in Downtown Providence.

Office space in the Jewelry District is in the form of historic industrial buildings converted to good-quality Class B space with some Class C spaces. CBRE reports that 55 percent of the Downtown Providence office market is Class B space with a vacancy rate of 7.7 percent. Average rental rates in the Jewelry District were \$17.37 at the end of 2006, lower than both the Downtown Providence (\$22) and Class B (\$20) averages. Current asking rents in the district are reported to be in the low- to mid-20 dollar range.

Local office brokers indicate that office tenants in the Jewelry District are in range of fields, including creative fields such as art, advertising, architecture, and engineering as well as law, accounting, software, high-tech, and nonprofit. Many of these fields are represented in the Professional, Scientific, and Technical Services industry sector, which has grown roughly 1.3 percent annually over the last few years. According to MG Commercial, recent leases were signed for approximately 2,000 to 3,000 square feet per tenant.

Developer Struever Bros. Eccles & Rouse (SBER) plans to construct about 100,000 square feet of office space and conference facilities in the Jewelry District as part of its Dynamo House project, the redevelopment of a former Narragansett Electric power plant. The redevelopment, which will also house the Heritage Harbor Museum, a 173-room hotel and restaurants, broke ground in November 2007 and is scheduled to be completed by early 2010. While not yet finalized, the office component may include a conference center facility.

### *Market Trends*

Absorption – or the amount of space leased per year – is a typical indicator of office demand. According to CBRE, absorption of non-owner-occupied office space in the Jewelry District has fluctuated over the last five years. While annual absorption was positive from 2003 to 2005, it was negative in 2006 (*Table 3*). The district absorbed an average of 8,500 square feet of office space annually from 2002 through 2006.

Institutional expansion in the district by Brown University, Lifespan, Care new England, Johnson & Wales and other organizations will play a significant role in the future of the district. The potential opportunities that may arise for new development in conjunction with the future needs for space of the institutions will depend on their own particular

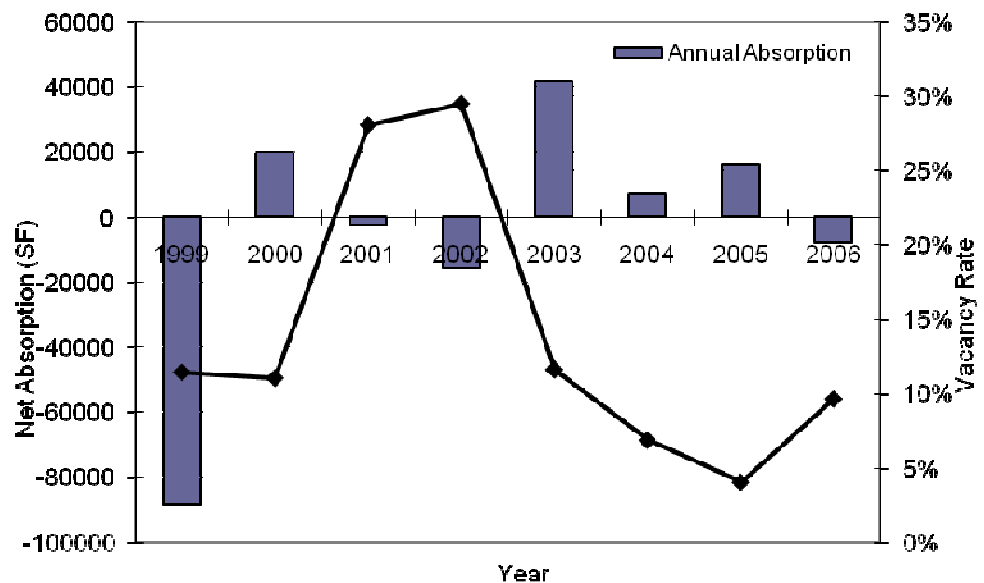
needs, and will be further explored as part of alternative scenarios for the future of the district.

#### *Issues and Opportunities for the Jewelry District*

The Jewelry District offers several competitive advantages in regard to office development. Office space in the district is inexpensive relative to downtown. Additionally, the area is easily accessible by car and there is currently a relatively high availability of parking. However, office brokers anticipate values rising with the relocation of I-195 – the barrier separating the district from the rest of downtown – and the recent acquisitions in the district made by Brown University.

As the area becomes more attractive, rents may increase. Nevertheless, absorption can be expected to remain stable and even increase as the area is integrated into downtown.

**Table 3. Office Absorption and Vacancy Rate**



#### **Demographic Trends**

Demographic trends were examined to determine population and household growth patterns in Providence and assess the potential impact on residential uses in the Jewelry District.

According to the U.S. Census Bureau, Providence's population grew by eight percent from 1990 to 2000, or 0.8 percent annually, to 173,618 people. In 2000, the Providence Plan reported that Downtown – an area roughly bordered by I-95, Route 44 and the Providence River, including the Jewelry District – contained 2,678 people in 1,381 households with a median household income of \$18,085. Of the 1,567 housing units, 1.7 percent were owner-occupied.

From 2000 to 2006, the American Community Survey estimated a slight loss of population and households. The survey reported a slight increase in people aged 25 to 34 and a larger increase of people aged 60 to 64. However, national data provider ESRI projects that population and households will grow through 2011 – at a slightly slower pace than the 1990s – by 0.6 percent annually. Based on this estimate, the city will add roughly 370 households per year over the next five years (including students).

In addition, the American Community Survey estimated that Rhode Island added population from 2000 to 2006, but declined by number of households. National data provider ESRI projects that population and households will grow through 2011 by 0.5 percent annually. Based on this estimate, the state will add roughly 2,200 households per year over the next five years. How many of these households could be targeted to the Jewelry District would be a function of the specific demand for downtown types of housing and location.

## **Residential Market**

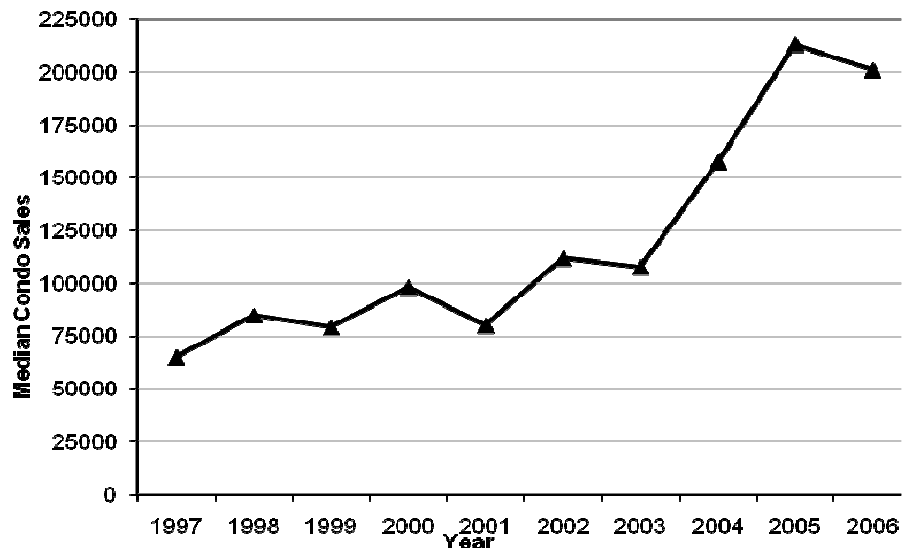
### *Existing Conditions*

Like office space, residential units in the Jewelry District are housed in converted industrial buildings, some of which mix office and residential uses. The Jewelry District Association estimates there are approximately 45 units of residential loft-style condominiums with 75 to 100 occupants living in the district. These condos are housed in three buildings – 18 Imperial Place, 116 Chestnut Street and 20 Richmond Street. Residents are graduate students, professionals and empty nesters who work out of their loft or in the immediate area. The area also contains a residential hall for Johnson & Wales – Imperial Hall at 15 Hospital Street – housing approximately 100 students from September to May.

### *Market Trends*

The Rhode Island Association of Realtors reports that median condominium sales in Providence increased 16 percent a year from 2002 to 2006, reaching a peak of \$213,000 in 2005 (*Table 4*). Condo sales in the first half of 2007 were \$175,750, down from \$199,900 in the first half of 2006. Several new high-end condo projects are currently under construction in Downtown Providence. Waterplace Towers is offering 193 luxury condos ranging in size from 900 to 1,700 square feet with prices starting in the \$400,000s going up to \$2.5 million – over \$400 per square foot. The Residences at the Westin's 103 condos will range in price from \$425,000 to \$2.6 million. In 2004, asking prices for the Ship Street lofts in the Jewelry District ranged from \$170 to \$250 per square foot.

*Table 4. Condominium Median Sales*



In 2006, Rhode Island Housing estimated that monthly rents were \$730 for studio, \$874 for a one-bedroom, \$1,115 for a two-bedroom, and \$1,282 for a three-bedroom. As of October 2007, the asking rent for a two-bedroom condo at 18 Imperial Place – a mixed use building in the Jewelry District – was \$1,600 per month.

*Issues and Opportunities for the Jewelry District*

The Jewelry District offers several advantages for residential development in Providence. The area is convenient to downtown and will become more so with the removal of the physical barrier of I-195. In addition to location, the availability of unique housing units makes the area attractive to young professionals and empty nesters. According to Census data, these demographic cohorts appear to be growing in Providence. Additionally, the creation of rental units in conjunction with new R&D space in the district may appeal to medical students, graduate students and researchers earning roughly \$60,000 a year. A potential challenge may be housing competing for space in the district with office and R&D uses. Moreover, the condominium market has slowed over the last year and some believe that Providence is on the cusp of condo overdevelopment.

## Retail Market

### *Existing Conditions*

Existing retail in the Jewelry District is largely food/beverage and entertainment focused with restaurants and nightclubs. There is also some service retail supporting residents and office workers. Retail spaces are small and a number of establishments are in free-standing structures. SBER's proposed Dynamo House project will include about 9,000 square feet of retail, intended to be one restaurant/bar.

### *Market Trends*

Having a major regional mall – Providence Place Mall – in downtown Providence will greatly impact the opportunity for retail in the Jewelry District. The mall currently satisfies a significant amount of demand for destination retail including apparel, furniture/housewares and specialty retail. The total amount and type of retail in the district will largely be determined by the mix and scale of other uses developed in district.

Recognizing that existing retail in the district is largely food/beverage and entertainment, it is estimated that consumers will drive roughly 20 minutes to this type of destination. Thus, in order to assess the demand for new retail stores, retail spending data was analyzed within a 20-minute drive of the Jewelry District (a 15-mile radius due to convenient highway access), comparing household expenditures with existing retail sales. Based on data provided by Claritas, Inc., there appears to be no unmet spending potential among the resident population within a 20-minute drive for most retail categories, including clothing stores and food and drinking places. This is most likely due to the regional draw of the Providence Place Mall. For those categories with some unmet spending potential, sales productivity rates appropriate for a destination shopping center were applied – \$400 per square foot on average – to calculate the amount of new supportable retail space. This analysis reveals demand for Food and Beverage Stores (including grocery stores), General Merchandise Stores (such as “big box” stores), and Miscellaneous Stores (office supplies, etc.) (*Table 5*). Due to the size of the trade area, the district would likely capture only a small portion of this demand. Several office brokers have also opined that there is not sufficient demand to support new retail in the Jewelry District.

**Table 5. Estimate of Unmet Retail Development Potential - 20 minute drive time**

Trade Area	Demand	Supply	Opportunity	Square Feet <sup>1</sup>
Motor Vehicle and Parts Dealers-441	\$2,607,318,440	\$2,926,019,934	-\$318,701,494	--
Furniture and Home Furnishings Stores-442	\$380,929,624	\$443,286,314	-\$62,356,690	--
Electronics and Appliance Stores-443	\$348,528,447	\$417,805,985	-\$69,277,538	--
Building Material, Garden Equip Stores -444	\$1,508,206,829	\$1,775,875,630	-\$267,668,801	--
Food and Beverage Stores-445	\$1,858,488,545	\$1,659,949,821	\$198,538,724	496,347
Health and Personal Care Stores-446	\$690,633,228	\$1,467,175,603	-\$776,542,375	--
Gasoline Stations-447	\$1,611,100,822	\$1,389,234,252	\$221,866,570	--
Clothing and Clothing Accessories Stores-448	\$701,760,717	\$847,001,980	-\$145,241,263	--
Sporting Goods, Hobby, Book, Music Stores-451	\$265,628,941	\$295,942,378	-\$30,313,437	--
General Merchandise Stores-452	\$1,793,130,513	\$1,236,778,045	\$556,352,468	1,390,881
Miscellaneous Store Retailers-453	\$398,494,357	\$374,772,087	\$23,722,270	59,306
Non-Store Retailers-454	\$1,034,174,394	\$832,374,844	\$201,799,550	--
Foodservice and Drinking Places-722	\$1,548,575,516	\$1,695,338,553	-\$146,763,037	--

Source: Claritas, Inc.; Economics Research Associates

<sup>1</sup>Square-foot projections exclude Motor Vehicle Dealers, Building Material Stores, Gasoline Stations, General Merchandise Stores ("big box") and Non-Store Retailers.

#### *Issues and Opportunities for the Jewelry District*

There may be some opportunity to develop additional convenience retail as redevelopment in the Jewelry District occurs. Retail could serve as an amenity to new workers and residents seeking street activity and variety. This opportunity would be strengthened by sidewalk and streetscape improvements to make the district more pedestrian-oriented. Any new retail should be concentrated at a key pedestrian and vehicular access point to achieve maximum visibility. Focusing a critical mass of district retail in one or two nodes will concentrate activity and ensure the viability of retail businesses. Recognizing that store mix is also an important element of a retail area, some incentives such as discounted rent may need to be offered to provide for desirable stores including a small food market. The type of retail developed can potentially cater to the needs of both the daytime office population (delis, coffee shops) and attract nighttime activity (restaurants/bars/entertainment).



## Research and Development (R&D)

### *Existing Conditions*

The Jewelry District is becoming a center for R&D in Providence. Brown University houses its laboratories for Molecular Medicine including a Bioimaging facility at 70 Ship Street. Brown purchased the building in 2004 and refurbished it into a biomedical research facility. The Coro Center is the principal research building for Lifespan, Rhode Island's largest health system and operator of the Rhode Island Hospital and Hasbro Children's Hospital. Care New England, Rhode Island's other health system, has three facilities in the Jewelry District. The two systems have announced plans to merge into a single entity that will be known as Lifespan.

### *Market Trends*

According to the National Science Foundation, R&D is substantially concentrated in a small number of states – California, Michigan, Massachusetts, Maryland, Texas, New York, and Pennsylvania. However, over the last ten years, Rhode Island has steadily improved its national position. The growth in life sciences caused the Milken Institute to cite Rhode Island as the most improved state on its Science and Technology Index. The state's rank rose from 21st in 2002 to 11th in 2004, due to enhancements in risk capital and entrepreneurial infrastructure and a sizable increase in the technology and science workforce. According to the Rhode Island Economic Policy Council, life sciences employment in Rhode Island has grown to over 4,000.

Rhode Island is well positioned to take advantage of the premier R&D position held by its neighbor to the north, Massachusetts. Southern New England is one of the three most important regions in the country for biotech, driven by the heavy industry concentration in metropolitan Boston. The Providence and Greater Boston labor markets overlap, creating a large pool of educated and experienced life science workers. This has made the construction of large biotech production facilities in Rhode Island, such as Amgen in West Greenwich in 2005, feasible. There are also several organizations and institutions working to grow life science research and the community of new life science ventures in Rhode Island, including the Slater Technology Fund.

Providence is a key location for statewide biotech growth. Providence has the 10th largest independent hospital system in the U.S. in terms of NIH-sponsored research (*Table 6*). Brown more than tripled its expenditure on life science R&D between 1994 and 2004. Federal research grants received by Brown-affiliated hospitals more than quadrupled between 1993 and 2003.

***Table 6. NIH Awards***

	2002	2003	2004	2005	2006	Annual Growth, 2002-2006
Brown University	\$45,565,419	\$53,058,958	\$52,442,747	\$52,592,893	\$55,086,743	4.9%
Rhode Island Hospital	\$25,189,451	\$27,138,164	\$27,063,956	\$26,995,068	\$26,651,801	1.4%
Women and Infants Hospital	\$3,871,512	\$5,758,922	\$5,899,782	\$6,154,056	\$6,128,600	12.2%

Source: National Institutes of Health; Economics Research Associates

### *Issues and Opportunities for the Jewelry District*

Due to its proximity to research universities and hospitals, the Jewelry District offers key locational advantages for creating flexible biotech space that will enable companies coming out of these institutions to grow. Biotech companies prefer to cluster in order to maximize opportunities for collaboration. As stated earlier, the area provides good transportation access.

The Greater Providence Chamber of Commerce and the Providence Foundation are currently sponsoring a study on the knowledge-based economy in the city. The goal is to generate an economic development strategy that will leverage institutional strengths to develop commercial ventures and grow existing businesses. The results of this study will help to assess the role that the Jewelry District could play within such strategy. The 2003 Creative Economy report issued in conjunction with the Rhode Island Economic Policy Council recommended that the physical expansion of biomedical research and the bioscience industry be encouraged in the Jewelry District.

When considering whether biotech firms would locate in Providence as a result of its relative proximity to Boston – nearly 50 miles away, Worcester, Massachusetts, which is approximately 45 driving miles away, could serve as an example. The city is the site of the University of Massachusetts medical school and university hospital, whose spending on life science research surpassed that of Brown and its hospitals by \$38 million in FY05. The UMass-Worcester medical school has about half a million square feet of research space on the medical center campus, which is similar in size to major facilities operated by Brown and Rhode Island Hospital. In 1985, the state developed a biomedical research park – the Massachusetts Biotechnology Research Park – next to the UMass-Worcester campus. Today, the research park’s biotech companies and nonprofit tenants occupy about one million square feet of building space in total. There are also two separate biotech “incubator” facilities outside the park. Worcester’s achievements look impressive considering that most academic medical centers, even those with much larger research budgets, have much less success in attracting biotech. However, when the market was weak in the early 1990s, the Biotech Park gave deep rent discounts to lure tenants from Cambridge.

While Worcester’s research park is laid out like a suburban office park, Providence’s Jewelry District would more closely mirror the mixed-use urban character of University Park at M.I.T. in Cambridge, which was fully completed in 2005. This area includes 1.7 million square feet of total leasable commercial office/R&D space, as well as 210 hotel rooms and 531 residential units.

### Mobility

#### Street Network

The streets of the District are organized in a traditional grid system (see *Figure 13* on the next page). The major arterials are Eddy Street and Point Street. These are cross-city through routes that carry two-way traffic. They are wider than other streets in the District; however they are not true arterials or boulevards due to their limits in width and the opportunities to widen. They provide access to the interstates and major roadways of adjacent districts and neighborhoods.

Historically before the interstates, Eddy Street south of Davol Square, and Point Street east of Davol Square served as the major north to east (New York to Cape Cod) route. This explains the wide widths on these two sections. There was an elevated viaduct over the intersection that allowed traffic to turn north to east, and conversely west to south without passing through the intersection on the ground. Prior to the construction of the Newport Bridge in the 1960's, the Point Street Bridge was the first bridge connecting both sides of the Narragansett Bay. Travelers on the west side of the bay had to drive north, cross the Providence River at Point Street and continue on Route 6 to Route 114 or Route 138 to reach towns on the east side of the bay in Rhode Island and Southeastern Massachusetts. Point and Eddy Streets frame the grid system. Point Street is east-west and runs from Friendship Street in South Providence on the west side of Interstate 95 (I-95) to Wickenden Street on the east side of the Providence River. The through-route continues east on Wickenden Street to meet Gano Street at the Seekonk River. Point Street east of Eddy Street is often congested at peak hours because it is the primary route to and from Interstate 195 (I-195) in this area. Point Street west of Eddy Street is forty feet wide with one lane in each direction. Point Street east of Eddy Street is sixty-four feet wide with two lanes, a median, and parking in each direction.

Eddy Street is a north-south arterial. From the south, it runs from Broad Street in Cranston, past Rhode Island Hospital, through the District, and continues north to meet Dyer Street. It merges with Allens Avenue at Franklin Square. Allens Avenue is an extension of Narragansett Boulevard from the Edgewood section of Cranston. Within the district, Eddy Street from Franklin to Davol Square is often congested at peak hours because it serves as the local southbound route out of downtown and the northbound route to Point Street and I-195. North of Point Street, Eddy Street is 42 feet wide with one travel lane and parking in each direction. South of Point Street, Eddy Street is sixty feet wide with three lanes northbound and two lanes southbound.

The intersection of Point and Eddy Streets is controlled by a signal. During peak hours, particularly during the evening commute, this intersection can become quite congested. Additional traffic can be added to the intersection when I-95 becomes congested during peak traffic or other events that slow traffic on the highway and this traffic attempts to find a "short cut" through the District. Motorists heading towards I-195 eastbound will take Exit 18 - Thurbers Avenue/Allens Avenue and travel north on Allens Avenue toward this intersection to reach Point Street and the on-ramp to I-195 eastbound at Wickenden/South Main Streets. The relocation of the I-195, as discussed below, will alleviate this situation.



Figure 13. Aerial view of the project area.

The second tier of through-streets in the District includes Chestnut and Richmond Streets, which run north-south, and Friendship and Pine Streets, which run east-west. These streets typically originate in the District and terminate in an adjacent neighborhood or section of the City.



Richmond Street carries traffic into Downtown from the District. It allows two-way traffic from Eddy Street to Clifford Street then becomes one-way north at Clifford Street towards Weybosset Street, where it ends at a signalized intersection. There are also signals at Friendship and Pine Streets.

Chestnut Street is another through local-street bringing traffic into the District from Downtown. Chestnut Street is essentially an extension of Empire Street, which starts at Fountain Street near the Dunkin Donuts Center, passes through Trinity Square, joins Chestnut Street at Weybosset Street. Chestnut Street is one-way south from Weybosset Street, through a signal at Pine Street, to the Ship/Clifford Street intersection, which is also controlled by a signal. At Elm Street, it angles right and to the south. Then it becomes two-way to its terminal at Point Street. Chestnut could be extended across Point Street to the south towards Globe Street the current land uses are redefined by new development.

Friendship Street is one-way eastbound. It currently starts at Chestnut Street and runs east to Dyer Street. The intersections at Richmond, Dorrance and Dyer Streets are controlled by a signal. Prior to the 1950s, Friendship Street originally ran from Elmwood Avenue, but it was cut off by the construction of the interstates.

Pine Street is one-way westbound. It starts at Dyer Street and runs west across I-95 to Broad Street in South Providence. The intersections with Richmond and Chestnut Streets are signalized. Pine Street was reduced in width in the block behind the Providence Performing Arts Center (PPAC). It is closed frequently because it is used as a loading and storage area for PPAC show support vehicles.

Within the District, internal collector streets mostly begin and end in the District. They provide access and local circulation. The internal streets are narrow but carry two-way traffic. They are typically 24 feet wide with parking allowed on one side. Elbow Street is the narrowest street, at about 18 feet at its narrowest point between Chestnut and Hospital Streets, with no parking allowed on-street.

The intersections of the internal streets tend to be very compact with short radii on the curbs. This makes it difficult for large trucks and buses to turn from one street to another. In a few sections of the District, streets have been abandoned to facilitate adjacent land uses or development. They include parts of South and Elm Streets. Most intersections of the internal street network are controlled by stop signs.

Typically, most of the streets within the District operate reasonably well with a few exceptions. The intersection at Chestnut and Pine Streets, which is signalized, can become congested with pedestrians and vehicles when students from Johnson and Wales University (JWU) are switching classes or loading the shuttle buses. The area around the Garrahy Courthouse, specifically Friendship Street, also becomes congested during peak hours. Localized congestion also frequently



Deliveries on Chestnut Street cause local congestion.



occurs when delivery trucks double park or otherwise block the travel lane. Chestnut Street south of Ship Street is a good example of this problem.

#### Relocation of Interstate 195

The relocation of I-195 will significantly change the patterns of through-traffic in the District (See *Figure 14*). It will impact access to and from the interstates and change the local street network. As a result of these changes, the major intersections will be impacted.



Figure 14. Improvements to the I-95/I-195 interchange and District street network.

#### *Access to and from the Interstates*

As a result of the I-195 relocation project, access to and from the interstate will shift from the east side of the district to the west side. Five new ramps to and from I-95 and I-195 will be located at or in the vicinity of Point Street:

- I-95 northbound to Point Street at East Franklin Street
- I-195 westbound to Point Street at East Franklin Street

- East Franklin Street to I-95 northbound
- Point Street to I-95 southbound
- West Franklin Street to I-195 eastbound

Access from I-95 southbound will continue to be from the ramp at Atwells Avenue. *Figure 15* shows the details of these changes.

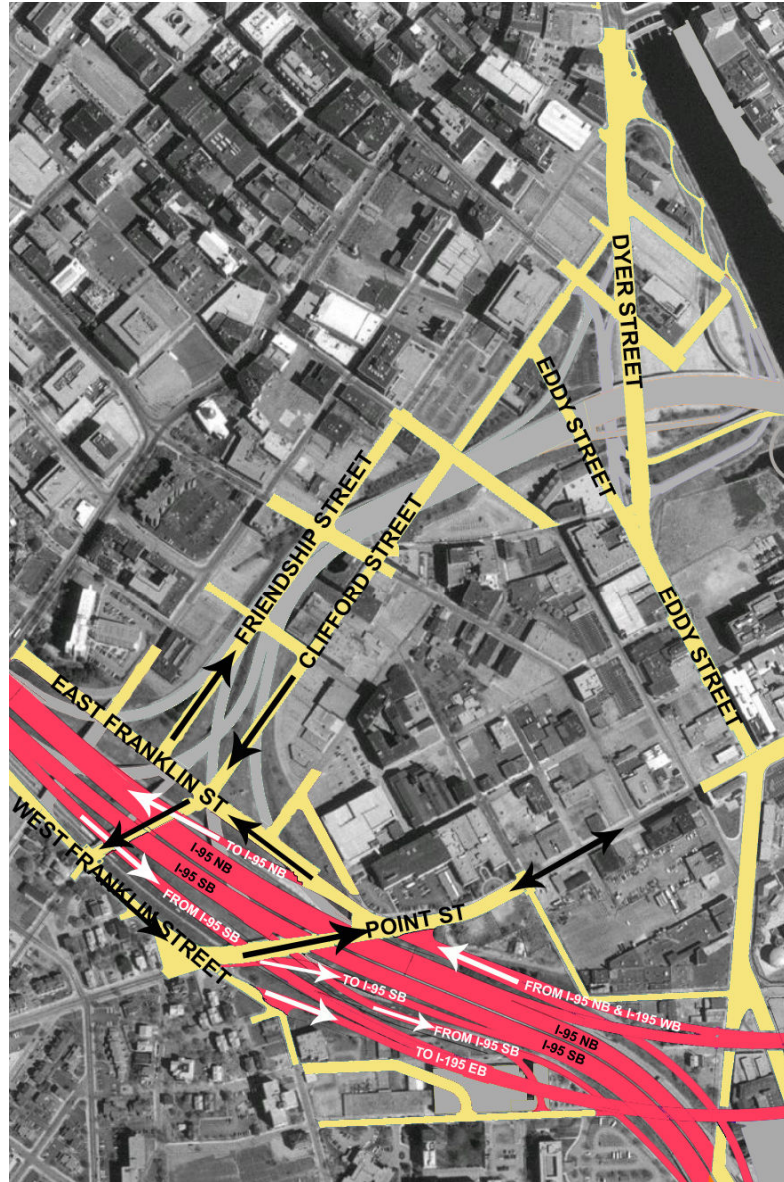


Figure 15. New interstate ramps and reconnected local streets resulting from the relocation of I-195.

The intersections of Point and East Franklin Streets and Point and West Franklin Streets will serve as the new focal points for access to various points in the District, Downtown, Rhode Island Hospital Complex, and Fox Point via these ramps and intersections. Peak traffic flow will change from its existing pattern of north-south along Dyer Street and Allens Avenue to east-west along Point Street.

### *Local Street Network*

The second aspect that will have a critical impact is several new streets will be added to the existing network and existing streets will be extended or reconnected as they were before the construction of I-195. These improvements are also shown in *Figure 15*. They include:

- East Franklin Street  
This is an arterial street that will extend from Point Street to Broad Street on the west fringe of the district. It essentially extends the northbound service road from Broad Street back to Point Street. It will be two-lanes, one-way northbound and will serve to distribute traffic between the interstates and the east-west through streets such as Point, Clifford, Friendship and Pine Streets.
- Clifford Street  
Clifford Street will be completed as a through westbound street from Dyer Street, across Dorrance Street to West Franklin Street at Friendship Street. The missing blocks from Richmond Street to Chestnut Street will be restored. It will cross over I-95 on a new bridge. The direction of Friendship Street west of I-95 will be changed from eastbound to westbound. This means that traffic will be able to travel from Dyer Street to Broad Street on one street.
- Friendship Street  
Friendship Street will be completed as a through eastbound street from East Franklin Street to Dyer Street. This will allow traffic from the interstate to filter down through Friendship Street to destinations in the District such as JWU and the Garrahy Courthouse.
- Claverick Street  
Claverick Street will be connected across the interstate right-of-way from Clifford Street to Pine Street. This will promote local circulation and access to new development parcels that result from the demolition of the existing I-195.
- Eddy Street  
Eddy Street will be reconnected across the interstate right-of-way from Ship Street to Clifford Street. This will promote local circulation and access to new development parcels.
- Dyer Street  
Dyer Street will become a two-way street and connect Eddy Street to Memorial Boulevard. This will be an arterial street and a link in the chain that extends from Narragansett Boulevard in Cranston and Eddy Street through the District and Downtown to Memorial Boulevard and North Main Street.

Overall, the changes in circulation will come about because Clifford and Friendship Streets will become one-way through streets that complement each other for an east-west movement through the District. They will distribute traffic to and from East and West Franklin Streets and eventually the interstates.

In addition, a new traffic pattern will be established using East Franklin Street northbound, Clifford Street westbound, West Franklin Street southbound, and Point Street eastbound to facilitate a one-way pattern and reduce left turn conflicts at intersections near the ramp terminals.

### *Major Intersections*

The change in access to the District, I-195 and I-95 as well as the changes to the local street network will also impact traffic as it moves through major intersections in the District. These impacts include:

- Point and Eddy Streets

The intersection of Point and Eddy Streets is an important junction in the District now and will continue to be after I-195 is relocated. Although the traffic volumes through the intersection are not predicted to change appreciably, the orientation of the traffic will change. This is because Point Street will serve as access to both directions of both I-95 and I-195

Currently, the approaches with the higher volumes are from the south and east. This is primarily hospital-related traffic going to and from I-195 at Wickenden Street. After I-195 is relocated, Point Street at I-95 will serve as a focal point for access into the City. Access to and from I-95 northbound and southbound, from I-195 westbound, and to I-195 eastbound will be available via Point Street. Point Street will convey traffic into the Downtown as well as to the East Side and Fox Point neighborhoods through the intersection at Eddy Street. A heavy left turn from Point Street eastbound to Eddy Street northbound and heavier through traffic on Point Street is anticipated. Improvements are planned at the intersection, which include new signals and crosswalks and the addition of turn lanes to facilitate heavy turning movements.

- Point and East Franklin Streets, Ramps from I-195 Westbound and I-95 Northbound

This is a new signalized intersection that will meter the traffic coming off the interstate on the new ramps. The ramp traffic will have the option of moving straight through the intersection and north on East Franklin Street or turning east onto Point Street. Point Street west of the intersection will be one-way eastbound. Point Street east of the intersection will be two-way. Westbound traffic on Point Street will only be able to continue east or turn right onto East Franklin Street.

- East Franklin Street and Clifford Street

This is a new signalized intersection. The signal will stop traffic on East Franklin Street to allow traffic from Clifford Street to turn onto or cross East Franklin Street. Although outside the District, there are complements to these intersections at Point and West Franklin Streets and West Franklin and Clifford Streets to serve southbound traffic entering the interstates.

- Eddy Street and Allens Avenue

This intersection will be realigned and a new signal will be provided to control traffic. Eddy Street northbound will curve and intersect Allens Avenue across from Globe Street. This will organize and streamline movements through the intersection.

In a capacity analysis, level of service (LOS) measures how well an intersection operates. LOS ranges from LOS “A”, which provides a free flow condition, to LOS “F”, which is a breakdown in traffic flow. Factors used to rank a roadway’s LOS include not only speed, but a motorist’s ability to maneuver through traffic and their proximity to other

vehicles, in other words, the density of the traffic. *Table 7* provides a general description of operation conditions for each LOS.

**TABLE 7. Operation Conditions by Level of Service**

Level of Service	
A	Primarily free-flowing traffic. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	Reasonably free-flowing traffic. Maneuvering through traffic is only slightly restricted.
C	Stable conditions, but flows approach the range in which small increases will cause substantial deterioration in service. Maneuvering through traffic is noticeably restricted.
D	Border on unstable flow. Small increases in flow cause substantial deterioration in service. Maneuvering through traffic is severely limited.
E	Operations are extremely unstable because there are virtually no usable gaps in the traffic stream.
F	Forced or breakdown in traffic flow.

LOSs for some of the intersections were predicted in the Environmental Impact Statement for the I-195 Relocation Project (1996). They are as follows:

**TABLE 8. Predicted Level of Service after I-195 Relocation**

Intersection	AM Peak LOS	PM Peak LOS
Point & Eddy Streets	D	E
Point & East Franklin Streets	C	C
Point & West Franklin Streets	D	C

In an urban environment, LOS D is acceptable at peak hours.

#### Pedestrians

The District is compact and walkable with a predominantly flat terrain; however, the pedestrian environment changes throughout. As previously discussed, sidewalks are along all streets within the District providing connectivity both internally and to adjacent neighborhoods. The same sidewalk network continues into Downtown as well as across Point Street into Fox Point and the East Side.

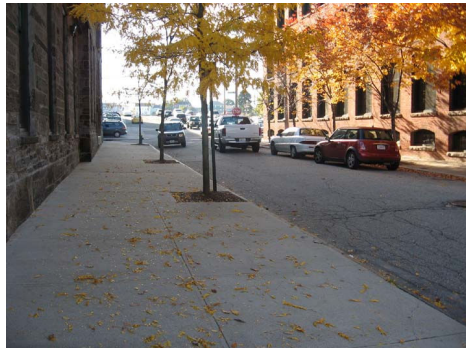
However sidewalk condition varies. Many are not in compliance with the Americans with Disabilities Act (ADA),



Sidewalks on Chestnut Street are narrow and of varying materials.



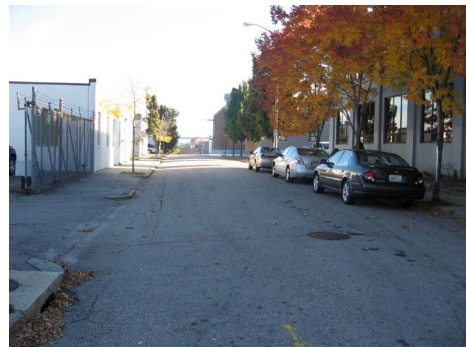
including requirements for a minimum five-foot travel width with free of obstructions and ramps at crossings. Some sidewalks have adequate width and are in good condition, such as Eddy Street and portions of Point and Elm Streets. Other areas, sidewalk condition is poor with buckling and deteriorating pavement and narrow widths by design or as a result of obstacles in the right of way. Obstacles that limit pedestrian mobility include vegetation overgrowth, street trees, and road signs. Vegetation overgrowth can be characterized by the weeds growing in cracks of the sidewalk, along curbing and where street trees were removed and not replaced.



Adequate sidewalk width on Elm Street.



Vegetation overgrowth on South Street.



Contrasting pedestrian environments on Parsonage St.

The pedestrian will walk through areas flanked by buildings with large windows and attractive entrances, buildings with blank walls, or along parking lots with decorative masonry walls or chain link fences. Street trees are throughout the District, but they are at varying maturity. It is truly a contrasting environment. Near buildings comprised of mostly offices, there is little or no “life on the street.” Areas with the highest pedestrian activity are near JWU and the courthouse at Pine Street, and near the restaurants and bars with outdoor seating at Richmond and Point Streets.

Other issues associated with pedestrian mobility include the use of crosswalks at major intersections within the District. One example is Chestnut and Pine Streets. As previously discussed, this intersection is located near JWU classrooms and dormitories and has heavy pedestrian traffic. Typically, large groups of students leave classes at the same time and move along to their next destination. Conflicts between pedestrians or motorists arise frequently even with pedestrian signals. Incorporating better signage for both the pedestrian and the motorist could help alleviate these situations. Examples include incorporating street design elements or signage that clearly moves



Intersection of Point and Eddy Streets is not accommodating to the pedestrian

pedestrians to cross at crosswalks and when to do so as well as visuals to tell the motorist to yield to pedestrians at crosswalks.

Pedestrian mobility is also limited at the intersection of Point and Eddy Streets. This intersection is congested with traffic during peak hours; however, there are businesses in Davol Square and along Point Street east of the intersection that also let out at this time. Some of these businesses use the parking lots adjacent to Manchester Street Station and crossing Point Street during peak hours is difficult. While crosswalks exist, there is no signalization or signage that gives the pedestrian the right of way. There are islands in the center of Point Street across from Davol Square, however they offer no refuge for the pedestrian. With high volumes of traffic, the view of pedestrians attempting to cross the street is obstructed by planters and drivers are distracted by toggling lanes and dodging each other. It produces an unsafe environment for the pedestrian.

### Bicycles



Bikes chained to signs on Richmond Street.

Bicycles are a popular way to move through the city and the district even though there are no designated bike lanes. Safety comes with experienced cyclists who obey the rules of the road and motorists who recognize that a bicycle is another vehicle that shares the roadway. Obstacles to cyclists are the narrow streets, on-street parking and poor road conditions. However, slower speed limits and frequent stop signs at intersections within the District work in favor of the cyclist and increase elements of safety.

There are few bicycle amenities within the road right-of-way; however, many businesses offer bike racks on their properties. Bikes are typically found chained to signs within the sidewalk.

### Transit

The District area is serviced by transit through the Rhode Island Public Transit Authority (RITPA) as well as private shuttle services of local businesses and institutions. The follow summarizes the existing activity.

In 2007, *Growing Smart with Transit* was released, a report developed by the Transit 2020 Working Group composed of representatives from the utility companies, municipalities, state agencies and non-profits interested in increasing transit in the City of Providence and Rhode Island. *Growing Smart with Transit* identifies potential transit corridors based on the Working Group's analysis of user information, current and projected origin and destination data, and projected population centers, activity centers and inter-modal transit connections. Transit 2020 supports surveying employers near and in Downtown, including the District, to determine need and propose options for routes, funding, responsibilities, etc., including those already in operation. The report suggests that some of the publicly owned land that will be reclaimed through the I-195 relocation project should be considered for use as a possible new transit hub.



### Bus and Trolley

RIPTA bus and trolley routes intersect in the District on Point, Eddy and Richmond Streets, as shown in *Figure 16*. Rubber tire trolley routes are along Point and Eddy Streets. The trolley route along Eddy Street links to Memorial Boulevard and Dorrance Street, the Gold Line. The Gold Line Trolley route links Capitol Hill to the South Side. Stops in the South Side are: Community College of Rhode Island, Johnson and Wales University, Rhode Island Hospital Complex (with stops on Point Street near the Coro Building), Ronald McDonald House, Urban League and Women and Infants Hospital.

RIPTA bus routes are along Eddy and Richmond Streets with several stops on these streets. The route on Eddy Street links to Rhode Island Hospital and the South Providence neighborhood, with destinations further south into Cranston and Warwick (Eddy/Gaspee route). The Richmond Street route is the Eddy/Gaspee route back into Downtown/Kennedy Plaza.

In general, the area has adequate public transit service. The District is compact and small enough such that walking to Richmond, Eddy or Point Streets to access a bus or trolley is reasonable. For example, from Hoppin Street to Eddy Street is about 1,460 feet, or just over one quarter of a mile. Individuals who use parking facilities, both surface and structure, within the District can access a trolley or bus into Downtown or other area of the City easily. While shelters are not found along these routes, adequate right of way for their construction is limited.

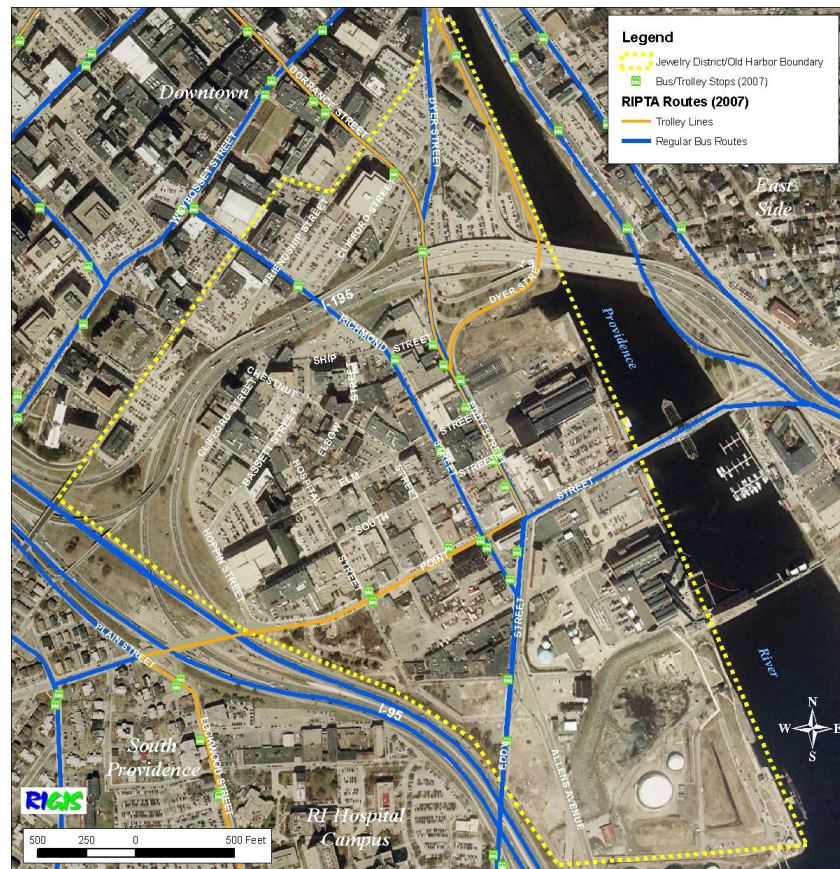


Figure 16. RIPTA service to and through the District.



## Private Shuttles Services

Supporting RIPTA service are the private shuttle services into and through the District (*Figure 17*). Johnson and Wales University (JWU) runs regular buses from their Downtown campus to their Harborside campus at Fields Point (via Allens Avenue) through the District along Eddy and Richmond Streets. These buses run quite frequently, every 10 to 20 minutes depending on the time of day or evening. Shuttling students to their many campuses in the area, both in the City and outside, is also coordinated with RIPTA.

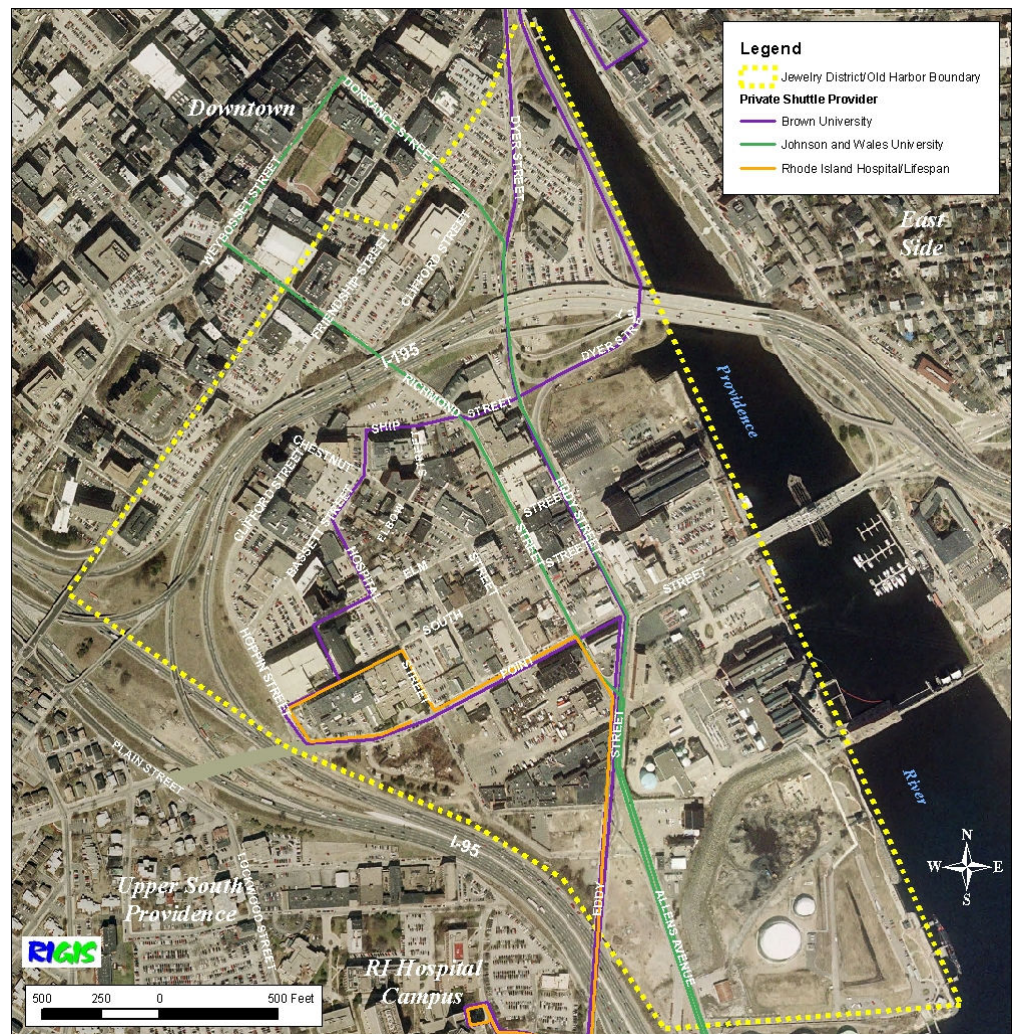


Figure 17. Private shuttle routes through the District.

Rhode Island Hospital has a shuttle loop from the Coro Buildings on Point and Hoppin Streets to their main entrance on Eddy Street, south of I-95. The shuttle runs between 6:30AM and 7PM.

Brown University has a shuttle service to and through the District as well. The BrownMed/Downcity Express runs every 10 minutes from 8AM to 6PM. It loops the university's main campus on the East Side, then heads to the District via Dyer and Eddy

Streets to Rhode Island Hospital. From the hospital, the shuttle goes to the Coro Building on Point Street, traveling through the District to return to the East Side. There are several stops within the District both inbound and outbound of the university.

The smaller shuttles of Rhode Island Hospital and Brown University can navigate through the internal streets of the District and make the tight turns at intersections.

#### Water Transportation

The District abuts the Providence River and there are opportunities to provide water taxi service. However, this may be subject to special events in the area and availability of parking.

RIPTA's Newport/Providence Ferry is docked at Conley Wharf on Allens Avenue, outside of the Jewelry District. Maneuverability through the hurricane barrier proved difficult for the size of the ferry.

A private company offers boat rides from the landing north of Point Street during *Waterfire* events, where routes travel north up the Providence River to the Woonasquatucket River.

#### **Opportunities and Constraints for Transportation**

The opportunities and constraints for the transportation network of the District stem from the relocation of I-195. Access to the District will change by new on and off ramps to access the interstates. Not only will these ramps be used to get to and from the District, but they will also be used to access Fox Point and the East Side as well as portions of Downtown. East Franklin, Point and Eddy Streets will be major thoroughfares to move traffic and congestion will continue to be an issue on these roadways.

The removal of the I-195 will reconnect the District to the downtown. Continuing the streets in this area will circulate traffic between the District and Downtown more easily and increase the relationship between the two neighborhoods.

The District is also serviced by alternative forms of transportation, both public and private. Trolley and bus service by RIPTA is available and stops are within walkable distance from all points within the District.

For the pedestrian, the District is a compact and walkable area. All streets have sidewalks although some of them are in poor condition and the environment can vary from attractive buildings to chain link fences and parking lots. Cyclists use the District's roadways, but they are narrow with on-street parking. Slow speed limits and frequent stop signs and other traffic controls allow for some safety to the cyclist.



## Utilities

In general, existing utilities meet the demands of the District and will be able to accommodate moderate growth. The District was historically denser and was able to meet these higher demands. This includes stormwater and sewer infrastructure capacity as well as water supply. However, if a very large, all-encompassing development comes to fruition, there is a chance that demands could exceed capacity. In previous discussions with utility companies, they indicated that they will need specific build-out scenarios to accurately analyze demand.

The private utilities have indicated that they will install new facilities in the new streets that will be constructed by the I-195 relocation project. Funding for public utilities needs to be identified, but it is assumed that they will be installed when the streets are built.

### Stormwater and Sewer

The District has both combined storm-sewer systems and separate systems, as shown in *Figure 18*.

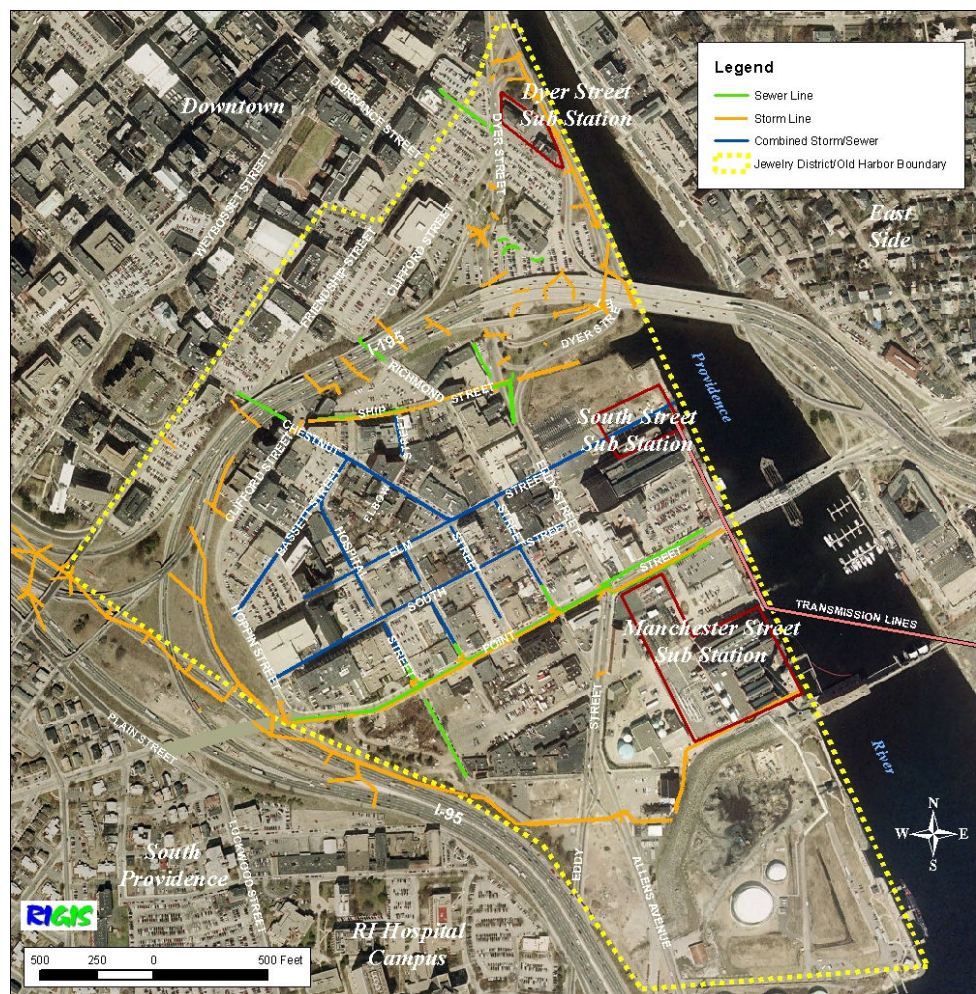


Figure 18. Utilities within the district.

The major roadways on the perimeter of the District, Eddy and Point Streets, have separate systems. Along the smaller, narrower streets within the District, the system is combined. This is an important factor when evaluating the potential impact on future development or redevelopment. Because the system is combined, Narragansett Bay Commission, which has legal jurisdiction over the storm and wastewater system within the area, requires that individual property owners are responsible to treat their own stormwater on site. The regulations state the following:

*“No person(s) shall make direct or indirect connections or shed stormwater from roof down spouts, foundation drains, areaway drains, or other sources of stormwater which in turn are connected to any public sewer unless the NBC determines that a combined sewer is the only reasonable means available for disposal and such connection receives NBC approval. It shall be the responsibility of the user to execute, and bear the cost of, a Storm Water Mitigation Plan if required by the NBC in this regard.” (Rules and Regulations for Use of Wastewater Facilities within the Narragansett Bay Commission District, page 22)*

This can become an additional cost of doing development or redevelopment within the District, particularly in an area that has a substantial amount of impervious surface.

### Electricity

The electric infrastructure is the most prominent utility in the District. The District is home to three electric substations, one power plant, a former power plant, and one of the heaviest concentrations of subsurface electric distribution infrastructure in the City. It is the hub of electric distribution in Providence. Electric generating and substation facilities occupy almost 9.50 acres of land. Most of it is prime waterfront property. This does not include the abandoned portions of the South Street Station.

The spine formed by Manchester Street Power Plant, the former South Street Station and substation, and the Dyer Street substation carries all of the power for the district, downtown, South Providence, portions of College Hill and points beyond. To accomplish this there are overhead transmission lines between Manchester Street and South Street along the river and a dense concentration of underground conduits in Eddy Street between the three substations. In addition there are two subaqueous crossings under the Providence River.

National Grid has indicated that the amount of space needed to provide service to its customers is not shrinking, but may be growing with the proliferation of computers and technology. The utility company needs a new substation in the area because the substations at South Street and Dyer Street are outdated. The existing substations cannot be taken off line until a new one is built. The new station needs to be located near the existing underground distribution network in Eddy Street. Determining the location, a site near the existing station and with enough acreage, will be a challenge. National Grid has proposed to build a new substation next to the existing on South Street, but there has been some opposition to this siting.

### Telephone/Fiberoptics

The telephone companies have made statements indicating that they require less space to provide their services due to advances in technology. The use of fiberoptic cables and digital switching allows the telephone company to transmit large amounts of voice and data over cables that are smaller than the old copper cables with less capacity. Verizon and Cox Communications have facilities in the District.

### Natural Gas

There are existing natural gas distribution facilities that belong to National Grid in the District, including at least one high pressure line. In addition, the Algonquin Gas Transmission line feeder crosses the Providence River and terminates on Allens Avenue near the hurricane barrier.

### Water

The Providence Water Supply Board owns water supply mains throughout the District. Typically they are looped on every street. There is enough pressure to meet current demands and accommodate moderate growth; however large new developments would require reassessment of existing capacity and possible expansion.

### **Opportunities and Constraints for Utilities**

Overall, utilities are accessible within the District and can meet current demands and accommodate moderate growth. Substantial increases in density would require the reassessment of existing capacity and possible expansion, as needed.

Limits of the combined and separate sewer/stormwater systems will influence future development. Treatment of stormwater on-site can increase costs, but could lead to innovative best management practices and techniques for urban environments.

The location of a new sub-station that will replace the out-dated South Street and Dyer Street stations will have to be determined. This has been a contentious topic within the District due to the amount of space required, where it would be located, and the potential impact on future development in the District.

Building on the mission for this process, a shared vision for the Jewelry District/Old Harbor has been developed through a consensus-generating effort among the Steering Committee members and representatives of the sponsoring organizations. A shared vision for the future of this district is expressed in the following statement and supported by the elements described below. This vision is representative of the wishes and opinions expressed by the majority of the individuals participating in this study.

### Vision Statement

*The Jewelry District/ Old Harbor should be unique among Providence's neighborhoods because it provides a vital, balanced, and rich mixture of institutional, commercial, residential and cultural uses. This pedestrian-oriented district will be distinguished by the range of different open spaces and pedestrian routes that connect the district's uses to one another, to the riverfront and to the neighboring areas of the City. Innovative new buildings will stand in contrast to preserved and renovated commercial, industrial and residential structures. The scale and height of buildings will vary through the district, but will be located and designed to preserve a high quality ground-level experience. The district will be well served by transportation modes and supporting facilities (transit, motor vehicles, bicycles, and pedestrian routes) that allow highly efficient use of the land. This district will join other Providence neighborhoods in contributing to an environmentally sustainable city.*

### Vision Elements

This shared vision is supported by elements that explain the type of character, land use, urban design, and infrastructure that the participants want in their future. Each of the elements is supported by the descriptions choices of the desirable types of items and the non-desirable types of items when appropriate.

#### Character

##### *Qualities*

The Jewelry District/Old Harbor will be distinguished by virtue of becoming...

- An integrated live/work/study neighborhood that combines a healthy balance of housing with the institutional and commercial uses in the district.
- A mixed architectural pattern that combines creative adaptive reuse of valued historic structures with highly innovative new architecture.
- A rich mix of different types of open spaces composed of a highly varied and connected fabric of large destination parks, walkways, tree-lined boulevards, plazas, courtyards, and green spaces that balance the density of development and reinforce the pedestrian experience.
- A district with direct contributions to environmental sustainability through building and site design and management and through the open spaces it provides.

##### *Unique Components*

The Jewelry District/Old Harbor will have unique components...

- A great concentration of cultural venues and museums.
- Educational and medical institutions that are integrated into the civic and neighborhood fabric of their surroundings.
- Several special parks and plazas that serve as destinations as well as being composed with delightful design.
- Strategically located and shared parking lots and structures to maximize the efficient use of the land.

### *Image*

The Jewelry District/Old Harbor will have its own image that will be obvious to everyone who visits any part of the area, because it will be...

- A lively and distinctively “funky” neighborhood where surprising contrasts in scale, land use and design are deliberately sought and celebrated rather than being reduced overtime.
- An improved waterfront, enhanced with parks, walkways, bridges and vistas.
- An area in which uses are mixed but are not uniformly distributed, created with a connected fabric of clusters of compatible uses or related uses, like a great patchwork quilt.
- A district where the collection of contrasts in scale, height, architectural design styles are evident looking from surrounding areas and from the streets within them.
- Where all of the uses are well connected and provide “friendly edges” to adjacent sites and uses within the district – accomplished through organizing uses, architecture and through a finely-tuned and pedestrian-friendly network of streets, inner-block paths, walkways, bridges, courtyards and passageways – that will be easy to reach and move within, regardless of the chosen mode of travel.

### Land Use

#### *Desirable Uses*

The Jewelry District/Old Harbor will be a welcome location for...

- Residential uses that offer a range of ownership and rental opportunities, in quantities sufficient to ensure a high-quality residential environment, populate the district as a vital component to complement all other uses, and to provide for the demand for housing among those that may wish to take advantage of the quality of living that will distinguish the area. Diversity will be reflected in a range of incomes, ages, and employment.
- Institutional uses that will provide needed facilities and functions for Providence’s important educational and medical institutions that contribute to the local knowledge-based economy.
- Commercial and research and development uses that can take advantage of the proximity to these institutions to advance research and development or



undertake the commercialization of the knowledge-based economic opportunities that are created there.

- Commercial office and service uses that can take advantage of the prime location and excellent access afforded by the district.
- Local-oriented neighborhood retail and services that cater to the needs of existing and future residents, such as groceries, dry cleaning and bank services.
- Special places where there are concentrations of pedestrian-oriented destinations that offer food, entertainment, shops and services, which can easily be reached by foot from any part of the district.
- Destination restaurants, shops and entertainment uses to the extent that they are compatible with the residential uses in the district.
- Museums and cultural venues that will be regional destinations.

#### *Inappropriate or Restricted Uses*

The Jewelry District/Old Harbor will not be a welcome location for uses that do not contribute to the mutual benefit of the entire area because of the activities and indirect consequences that may be associated with them. The land use should be managed to avoid the undesirable impacts associated with...

- Large format retail stores or related retail complexes that are internally-oriented, large scale destinations that are not fully integrated into the fabric of the district.
- Uses that rely largely or exclusively on auto-oriented access to the degree that they inhibit the ability of the district to achieve its vision.
- Adult night clubs or uses that become disruptive at late hours, and to the degree that the number and types of operation establish the district as an entertainment destination.
- Heavy industrial uses or sprawling utilities that are inconsistent with the mixed-use character and residential components of the district.
- Large surface parking lots that consume land and disrupt the continuity of the urban fabric that will distinguish the district.
- Uses where there is an inappropriate level of public hazard or safety as determined through current standards.

#### *Mix of Uses*

The Jewelry District/Old Harbor will maintain a mix of uses that includes...

- A consistent minimum proportion of housing in relation to other uses.
- A consistent minimum proportion of pedestrian-oriented retail and services to support a vital pedestrian and mixed-use environment.
- A balanced proportion of uses in relation to other uses within the mix.

- An ongoing process for active monitoring and identification of desirable uses so that the opportunities to create and maintain a vital and balanced district are ongoing.

#### *I-195 Corridor Parcels*

The I-195 Corridor Parcels in the Jewelry District/Old Harbor will contribute to the future of their surroundings by virtue of...

- Incorporation of pedestrian networks and open spaces in a comprehensively-planned manner that provides and enhances key connections, and contributes directly to the network of key streets and paths that will connect the district to the downtown and neighboring areas.
- Uses that serve as catalysts for other desirable development and fulfilling the Vision for the district, distinctive new development that serves to bridge and connect between the Jewelry District and downtown.

#### Urban Design

##### *Density and Distribution*

The Jewelry District/Old Harbor should be developed to provide an urban environment that ...

- Allows for efficient use of the land, eliminating low-value use of open areas for surface parking lots.
- Provides adequate density to support the feasible economic development of the land.
- Generally prefers density and distribution of uses that promote relatively high lot coverage with mid-rise structures, while permitting high-rise structures on limited sites and configurations that can take advantage of the district's location.
- Ensures that the distribution of uses and scales is varied through the district, by promoting mixed use development that truly integrates institutional with commercial and residential uses while allowing for the preservation of significant vistas, view corridors and public access to the waterfront.

##### *Texture and Scale*

The Jewelry District/Old Harbor should be developed to provide an urban fabric that ...

- Preserves an overall balance of building to open space, and provides green relief, views and sunlight through the distribution of development and improved open spaces.
- Protects and preserves valued historic structures while new development provides for contemporary architectural expressions and innovative design solutions representative of our time.
- Promotes a choice of pedestrian routes and corridors within the district that provides a secondary scale of places and building relationships, including a

connected network of “through block” walkways, passageways and open spaces that complement the public street network.

#### *Open Space and the Public Realm*

The Jewelry District/Old Harbor should have a deliberately rich range of open spaces that...

- Includes a limited number of large, destination parks or open spaces, particularly along the river, that are publicly accessible and may include amenities such as a continuous river walk, museums and restaurants.
- Provides numerous small parks, plazas and courtyards associated with adjacent buildings or uses, especially in new developments, but that also make part of a larger comprehensive network of neighborhood open spaces.
- Includes a range of visible open spaces that are public, semi-public or private in a manner that helps ensure that all spaces are perceived to be safe, cared for, and properly used and maintained.
- Provides open space connections that link to the east and west through a pedestrian bridge across the river and a “greenway” access to neighborhoods across I-95.

#### Infrastructure

##### *Pedestrian Network*

The Jewelry District/Old Harbor should have a pedestrian network that...

- Provides a continuous system of sidewalks and streetscapes specifically designed to connect every significant pedestrian entrance for every building in the district.
- Directly connects the district to the downtown through improved sidewalks, complemented by the presence of pedestrian-oriented uses at the ground level.
- Directly connects the district to the waterfront through improved sidewalks and bridges to the districts across the River.
- Directly connects the district to the neighborhoods east and west through new “greenway” pathways and connections, as well as new sidewalks and streetscapes that enhance the experience of walking and biking to the Hospitals area.
- Provides continuous pedestrian connections along the River’s edge, integrated with appropriate uses and amenities, and convenient connections to that walkway.
- Uses the public open spaces as contributing components of the pedestrian network.
- Concentrates improved and generous streetscape along key pedestrian corridors and in locations where pedestrian-oriented shops and services are located.

### *Vehicle Circulation*

The Jewelry District/Old Harbor should have a vehicle circulation network that...

- Provides excellent signage, coordinated vehicle circulation and street improvements to promote effective connections between the regional and local network and the vehicle destinations within the district.
- Retains the local character of internal, narrow streets to discourage through-traffic and promote a safer pedestrian-friendly environment.
- Provides options to ease traffic congestion along the main arterials and connector roads.
- Manages through-traffic in ways that minimize its impact on local streets.

### *Transit*

The central regional and urban location of the Jewelry District/Old Harbor will allow for all of the advantages of transit-oriented development by virtue of...

- Transit routes, stops, and stations located within walking distance of key amenities and destinations.
- Buses, shuttles, trolleys and, possibly, the incorporation of light rail in the long term.
- A new multimodal transportation “hub”, perhaps at the new I-95/195 interchange area, easily accessible by walking.

## COMPARABLE PLACES: LEARNING FROM OTHER DISTRICTS

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Research was conducted on four comparable successful mixed-use districts that have been created or preserved, in order to gather information and clues to the approach that other communities have employed in the development of neighborhoods with a similar character and conditions. The comparable places selected for this analysis were the following:

- South Lake Union in Seattle, Washington
- New EastSide/East Baltimore in Baltimore, Maryland
- University Park in Cambridge, Massachusetts
- Virginia BioTechnology Park in Richmond, Virginia

The case studies selected were chosen for the similarities to the Providence circumstance due to the following characteristics:

- Use program including life sciences and biotech research & development activities
- Geographic proximity to an urban setting and sponsoring institutions
- Active involvement of an institutional partner
- Active involvement of municipal and/or state government
- Redevelopment attempts to meet physical and economic development needs of multiple parties

### Lessons Learned

The lessons learned are provided below. Detailed descriptions for each of the comparable places are provided in the following pages of this section.

1. Individualized Approach – Each case study utilized different methods for initiating, planning and financing and implementing the redevelopment. In all of the cases multiple parties built consensus around a common need to increase physical development around a central theme, such as life sciences, but the parties were different in each case. In each case a vision and master plan were developed and have been utilized to guide the implementation.
2. Patient Timeline – In each case the parties planned for a phased development to occur over a 14-20 year time period. The phased approach enabled strategic actions, investments and infrastructure upgrades to be coordinated in the redevelopment.
3. Commitment – All of the cases exhibited long-term commitments among different parties to ensure the redevelopment would occur. Participating institutions and private developers or a new authority entered into agreements that would leverage resources among the parties. This included commitments with the municipal government in all cases, and with the state government in two of the cases. The involvement of the municipal government appears to be a key component of the redevelopment efforts. The role of the municipal government varied but generally included providing public funding for



infrastructure improvements and needed changes to the regulatory conditions to enable the planned redevelopment to occur.

4. Key Investments – In each of the cases the first phase of implementation was secured by an investment by the sponsoring institution(s), which led to increased private investment in subsequent phases. This included entering into long-term leases for the first space developed for research and residential space, or land-lease agreement for institution owned property to be developed for institutional and market uses by a private developer.
5. Geographic Clustering Enhances Success – In each case the redevelopment plan is built upon clustering of institutional and business uses based on institutional strengths. The expansion of research space for the sponsoring institution in a specific knowledge-based area is completed in concert with the development of space for related businesses. The redevelopment plans were intentional in their efforts to cluster uses of space that would build this foundation to increase activity in the area and create demand for the other desired mix of uses. In three of the cases this includes a significant increase in public spaces or linkages, residential units and retail uses.

*Table 9. Comparable Cases – Summary of Facts*

Providence Jewelry District/Old Harbor Planning Framework Study				
Comparable Case Studies				
Criteria/Data	South Lake Union Seattle Washington <sup>(1)</sup>	New EastSide/ East Baltimore Baltimore Maryland	University Park Cambridge Massachusetts	Virginia BioTechnology Research Park Richmond Virginia
Statistical Metropolitan Area Population (millions)	3.2	2.6	4.4	1.2
Institutions sponsoring or conducting research	University of Washington	Johns Hopkins Medical Campus	Massachusetts Institute of Technology	Virginia Commonwealth University
State/City participation or incentives	Yes	Yes	Yes	Yes
Urban campus/urban setting	Yes	Yes	Yes	Yes
Geographical proximity to sponsoring institutions	Yes	Yes	Yes	Yes
Timeline for implementation (years)	14	10	20	18
Master Plan present	Yes	Yes	Yes	Yes
Public Transportation present	Yes	Yes	Yes	No
Other Amenities	Yes	Yes	Yes	Nearby
<b>Program and Use</b>				
Total land area (acres)	180	88	27	34
<i>Approximate square footage of total development (millions)</i>	<i>5</i>	<i>3</i>	<i>2.3</i>	<i>1.5</i>
• Office (sf)	1,500,000	100,000	N.A.	N.A.
• Retail (sf)		80,000	250,000	
• Research (sf)	2,500,000	2,000,000	1,500,000	1,500,000
<i>Total research/office (million sf)</i>	<i>4.0</i>	<i>2.1</i>	<i>1.5</i>	<i>1.5</i>
<i>Residential units</i>	<i>1850</i>	<i>1500</i>	<i>674</i>	<i>0</i>
<i>Residential square footage (million sf)</i>	<i>1.85</i>	<i>1.5</i>	<i>0.67</i>	<i>0</i>
<i>Ratio of residential to research/office use</i>	<i>46%</i>	<i>71%</i>	<i>45%</i>	<i>0</i>
<b>Total Development Cost</b>	<b>\$2,500 m</b>	<b>\$1,800 m</b>	<b>\$740 m</b>	<b>\$500 m</b>

(1) Information provided for South Lake Union is focused on the first phase of development only (total development is estimated to reach up to 10 million square feet in the long term future)

## South Lake Union, Seattle, Washington

The South Lake Union redevelopment is an effort to revitalize an underutilized area that was separated from other parts of the city. The intent is to develop the area into a biotechnology hub that initially houses new space for the University of Washington Medical Center, Fred Hutchinson Cancer Research Center, Seattle Biomedical Research Institute, and a private firm as anchors to attract other biotech businesses. The planners of this effort believed that biotechnology is an environmentally friendly high-wage industry whose businesses choose to locate close to one another to foster collaboration.

### *Key Findings*

The first commitments for the biotech components were by the non-profit institutions, University of Washington Medical Center and the Fred Hutchinson Cancer Research Center. The planners believed that the institutions would provide the core group of occupants and would serve as the foundation for more growth in subsequent phases of the development.

A unique component of this development was the influence of one firm and one owner. The developer of 58 acres, Vulcan Properties, was backed by significant capital (owned by Paul Allen a founder of Microsoft), acquired the properties during the early 1990s and developed the original vision for the area. This development firm secured the support of the Mayor in 1994 to pursue public funding for significant infrastructure investments. As the first phase of development occurred with the institutional uses and new residential units, Vulcan Properties sought out other users of retail and restaurant space and offered them prominent space at a significant discount. The developer assisted in creating vibrancy along main corridors that included restaurants and retail spaces that future residents and employees would want.

As part of this massive redevelopment area the City has committed to a minimum of \$420 million for improvements including City light infrastructure, road and aqueduct improvements, new streetcar line and parks. A majority of these commitments are provided through the city and are being utilized as part of the incentive package to get this multi-billion development to occur.

### *Planning Process*

A neighborhood master plan for the area was developed by the City of Seattle in the early 1990s, but it did not envision the full-scale of the development that may occur. Private developers urged the commitment of the Mayor to focus economic development efforts in the area on biotechnology and affiliated institution driven areas of expertise. The reality appears to be that private developers have used this master plan as a guide to develop the parcels under their control. Alone, the Vulcan Properties development has a 20-year view that seeks to build over 10 million square feet of residential, office and commercial space on its properties alone.

### *Partnership*

The vision for the area is to partner with others to foster a vibrant, connected neighborhood that blends housing, retail, office, biotechnology, open space, public transportation, culture and education. A formal partnership between the separate private developers does not appear to be in place. Agreements between the anchor institutions

for long-term leases of space for the immediate and potential expansion needs were developed with Vulcan Properties.

### *Program and Use*

The majority of the planned redevelopment of the area supports smart-growth principles of dense development in close proximity to downtown. Vulcan Properties is the largest developer in the area owning 58 acres and has led the development of the biotech hub and mixed-use buildings with almost 3 million sf of space in phase 1 of the development.

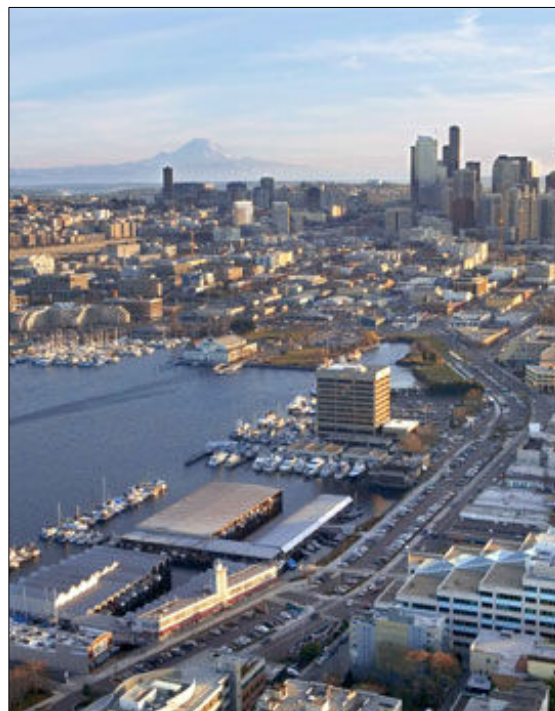
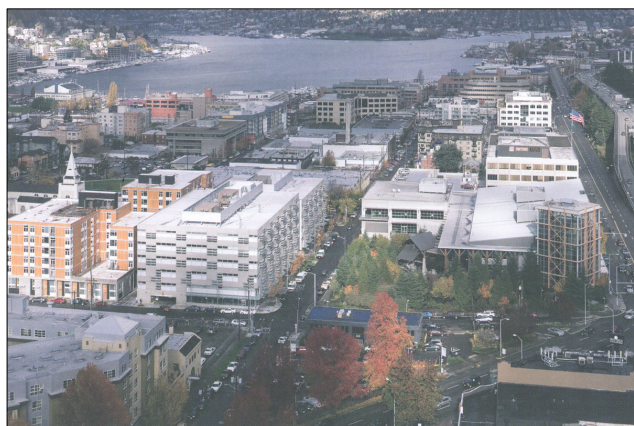
The commitment of the city in this process has been critical to spurring the growth to occur. Examples of the city investment include the following:

- The major thoroughfare in the neighborhood, Mercer Avenue, is being changed from a high-speed, four-lane freeway entrance to a tree-lined boulevard that will slow traffic down significantly;
- Amended the city's land-use code to facilitate laboratory needs by allowing, for example, more mechanical equipment on the roofs of biotech buildings; and
- The 1.3 mile street car line running through the area was completed to increase public transportation availability in the area.

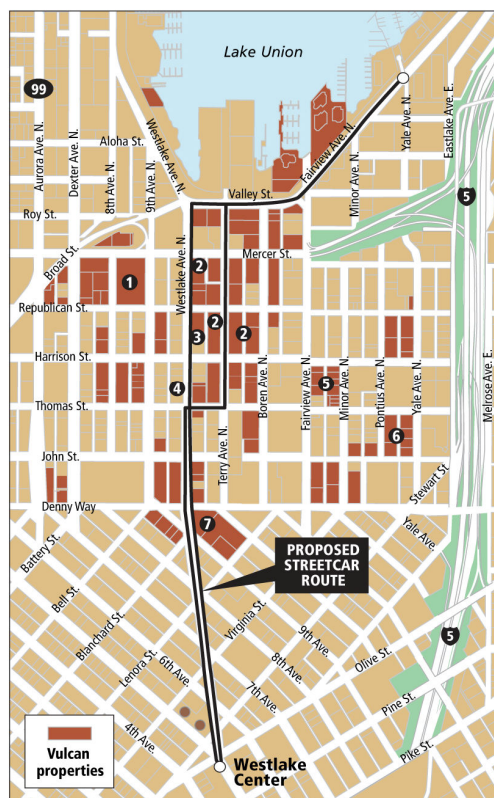
*Table 10. South Lake Union - Fact Sheet*

Criteria	Amount
Statistical Metropolitan Area Population (millions)	3.2
Institutions sponsoring or conducting research	University of Washington
State/City participation or incentives	Yes
Urban campus/urban setting	Yes
Geographical proximity to sponsoring institutions	Yes
Timeline for implementation (years)	14
Master Plan present	Yes
Public Transportation present	Yes
Other Amenities	Yes
<b>Program and Use (Phase 1 Only)<sup>(1)</sup></b>	
Total Land Area (Acres)	180
<i>Approximate sf of total development (millions)</i>	<i>5 m</i>
Office (sf)	1.5 m
Retail (sf)	
Research (sf)	2.5 m
Total Research/Office (sf)	4 m
Residential Units	1,850
Total Development Cost	\$2.5 billion

(1) Square footage and total costs are estimates based on compiling multiple sources and are only for Phase 1 of the development.



#### VULCAN PROPERTIES IN SOUTH LAKE UNION



The Seattle City Council will consider more than a half-dozen proposals related to South Lake Union to make it easier to develop the neighborhood into a biotechnology hub. Billionaire Paul Allen's Vulcan Company is leading the push. Allen owns 58 acres in South Lake Union, and Vulcan plans to build more than 10 million square feet of residential, office and commercial space.

#### CURRENT VULCAN DEVELOPMENTS

This year, companies have moved 550 employees into South Lake Union buildings owned by Vulcan.

- 1 **815 Mercer St.:** University of Washington plans to move about 300 employees into 105,000 square feet in the renovated Washington Natural Gas "Blue Flame" building in December. The building is leased by the university.
- 2 **401 Terry Ave:** Rosetta Inpharmatics/Merck moved about 300 employees into part of the Interurban Exchange complex owned by Vulcan.
- 3 **428 Westlake Ave. N.:** Proposed office building, to be occupied in part by CollinsWoerman Architecture.
- 4 **307 Westlake Ave. N.:** Seattle Biomedical Research Institute moved in 170 employees; Children's Hospital brought 60 workers.
- 5 **301 Minor Ave. N.:** The 162-unit Alcyone apartment complex opened in May.
- 6 **223 Yale Ave. N.:** Headquarters for NBBJ and Skanska. The development that will include 180 residential units, retail and office space.
- 7 **2200 Westlake Ave. N.:** Commercial and residential complex anchored by Whole Foods and the Pan Pacific Hotel.

Figure 19. South Lake Union, Seattle, Washington



## **New Eastside/East Baltimore, Baltimore, MA**

With a high level of public, institutional and private support and interest for revitalization, the Middle East neighborhood in East Baltimore has begun to see a significant amount of investment and physical transformation. The neighborhood is in close proximity to the Johns Hopkins Medical Institute and Medical School and is an area of the city that has experienced little to no investment in recent years. The revitalization of the area is designed to stabilize East Baltimore by generating job opportunities, creating improved housing conditions, and serving as a catalyst for economic development for the neighborhood, city and region.

### ***Key Findings***

The first finding is the goal of the development to create a campus-like setting throughout the neighborhood. The second significant finding is the involvement of the state and city in sharing the incentive to enable the scale of development to occur. The third finding is that the life sciences center will be paid for through a combination of public and private funds. The public sector (state and municipal) has committed to paying for improving the site's infrastructure and is providing funding for specific life science centers or initiatives within the site. The last finding is the example of philanthropic support that is included in this development. A \$30 million grant was provided by the Ann E. Casey Foundation to ensure that current residents of the target area are able to purchase a home in the new development, receive access to education opportunities and jobs in the new park.

### ***Planning Process***

The planning process for this project involved extensive discussion and interaction with community residents, clergy, business owners, police and security officers, city officials and others. A Middle East neighborhood master plan was developed with East Baltimore Development, Inc. (EBDI), Johns Hopkins, neighborhood, residents, community and business leaders to develop a shared vision of what this area would be. This plan integrated the needs of economic development, new housing choices, open space, and public transportation. The goal of the plan was to address physical, human, and economic development components that would enable the redevelopment effort to make this deeply troubled neighborhood attractive as a place to live and work for existing residents and newcomers.

Since December 2005 community stakeholders have been engaged in discussing important issues, developing goals and objectives, and identifying how these strategies will be managed and developed. Plans focused on four basic elements: land use, transportation networks, community facilities including a new community school campus, and site-specific amenities. The master plan identified future use areas for the Life Sciences Center at Johns Hopkins, mixed-use, housing, campus use, open space and public transportation. The plan also identified the types, scale and density of housing that would be developed in targeted areas. In addition, the plan identified areas that would have to be rezoned or integrated into a new urban renewal plan.

### ***Partnership***

The redevelopment of the target area is lead by East Baltimore Development, Inc. (EBDI) which is a non-profit 501(c) (3) organization charged with leading and managing the \$1.8 billion revitalization of an 88-acre portion of East Baltimore. EBDI

works with support from a long list of partners including the City of Baltimore, the State of Maryland, local civic groups and charitable Foundations. EBDI's work is governed by a board of directors that includes government officials, community members, business and academic leaders and representatives of philanthropic organizations. The selection of the master developer, Forest City Enterprises, for the first 30 acres in phase one was carried out by EBDI.

### *Program and Use*

The park will eventually comprise an 88-acre, \$1.8 billion urban redevelopment effort that combines significant new business activity with new housing and a high level of human services, including services for the adjacent neighborhood. The research park is designed to bring together and accommodate the needs of a wide variety of users. The first buildings will be for life sciences companies, new housing, parking and retail space.

With a projected 8-10 year implementation schedule, the plan will cover an 88-acre section of East Baltimore with up to 2 million square feet of biotech research space; 4,000-6,000 new jobs; over 1,200 units of mixed-income housing (new and rehabilitated, homeownership and rental); and new retail facilities. The plan also creates a range of supportive services (job training, family counseling, education programs, substance abuse treatment, etc.) and community building activities that are attempting to address the needs of residents across a range of incomes.

**Table 11. New Eastside - Fact Sheet**

<b>Criteria</b>	<b>Amount</b>
Statistical Metropolitan Area Population (millions)	2.6
Institutions sponsoring or conducting research	Johns Hopkins Medical Campus
State/City participation or incentives	Yes
Urban campus/urban setting	Yes
Geographical proximity to sponsoring institutions	Yes
Timeline for implementation (years)	10
Master Plan present	Yes
Public Transportation present	Yes
Other Amenities <sup>(1)</sup>	Yes
<b>Program and Use</b>	
Total Land Area (Acres)	88
<i>Approximate sf of total development (millions)</i>	<i>3 m</i>
Office (sf)	100,000
Retail (sf)	80,000
Research (sf)	2 m
Total Research/Office (sf)	2.1 m
Residential Units	1,500
Total Development Cost	\$1.8 billion

(1) Other amenities include social and supportive services integrated into master plan development.



## University Park at MIT, Cambridge, MA

University Park at MIT is a private development of 27 acres owned by MIT and developed in partnership with the City of Cambridge. The development started in 1984 with a 5-phase approach designed to take 20 years to implement. The Park includes 2.3 million square feet in 10 research and office buildings; 4 residential complexes; 250,000 square feet of hotel, restaurant, and retail space; and structured parking for more than 2,700 cars. To provide a sense of the park, its marketing statement continues to be “Fostering innovation in a community setting”. A distinguishing feature of the development is the inclusion of a system of parks and open spaces that links the campus together. This 3-acre system is centered on the 1.3-acre University Park Common.

### *Key Findings*

The University Park development is a land lease between an institution and a private developer that was designed to maintain the property on the municipal tax roles. This provides an incentive for the City to be supportive of the development versus the removal of a sizable portion of land from property tax payment (FY 2007 approximately \$12 million). This development is different from the Jewelry District in that the property is owned by one entity and enabled consideration of a significant land lease.

### *Planning Process*

The concept of the University Park at MIT development occurred during a challenging land use time in the Cambridge and Boston area. MIT had been seeking to expand the campus in a manner that would meet its needs and was continuously in conflict with the needs of Cambridge and residents. After a 5-7 year period of intense rezoning efforts to get approval for types of development that would meet the future needs of the institution, MIT determined that a more comprehensive method was required. The institution sought assistance from a private developer who worked closely with MIT, the City of Cambridge, and local residents to develop a master plan for the area. The plan was respectful of the neighborhood fabric, created a new utility and roadway infrastructure, and incorporated low- and moderate-income housing in its residential components.

### *Partnership*

Forest City Enterprises, a real estate partnership, developed an agreement with MIT to utilize land owned by the institution. The intent of the agreement was to develop the types of properties and housing desired by MIT within the larger development area. The long-term ground lease limits the control of the development by MIT, limits the use of the institutions assets and enabled the private developer to assume the financial burdens of the total development. The developer entered into a 20-year development agreement for the 27-acre area.

### *Program and Use*

The development created a successful life sciences campus and mixed use neighborhood adjacent to the campus and fulfilling needs of the municipality. The area provided an opportunity for a blending of office, life sciences, residential and retail with a mixed-use urban development site. The development totals 2.3 million sf of space on 27 acres.

University Park includes 1.5 million sf of lab and office space. Housing included 674 units of rental with 22% of these designed as affordable units. A significant item included in the development was 2,700 parking spaces to meet the demand for development related parking. The additional amenities included in the area in 250,000 sf of space are a hotel, supermarket, restaurants, health club and a child care center.

The development also includes a 3 acre urban park system that provides internal connectivity as an urban campus, centered on a “Common”. Within the Common a collaborative art project lead by local residents traces the history of the Cambridgeport neighborhood. Other landscaped urban parks established a pedestrian-friendly environment that reaches out to the surrounding neighborhood. This open space and park system is designed to create a welcoming and comfortable gathering place for employees, residents, and the broader Cambridge community.

**Table 12. University Park - Fact Sheet**

<b>Criteria</b>	<b>Amount</b>
Statistical Metropolitan Area Population (millions)	4.4
Institutions sponsoring or conducting research	Massachusetts Institute of Technology
State/City participation or incentives	Yes
Urban campus/urban setting	Yes
Geographical proximity to sponsoring institutions	Yes
Timeline for implementation (years)	20
Master Plan present	Yes
Public Transportation present	Yes
Other Amenities <sup>(1)</sup>	Yes
<b>Program and Use</b>	
Total Land Area (Acres)	27
<i>Approximate sf of total development (millions)</i>	<i>2.3 m</i>
Office <sup>(2)</sup>	
Retail (sf)	250,000
Research (sf)	1.5 m
Total Research/Office (sf)	1.5 m
Residential Units	674
Total Development Cost	\$740 m

(1) Other amenities include 1.3 acre park.

(2) Amount of office space is unspecified (included in total research/office)



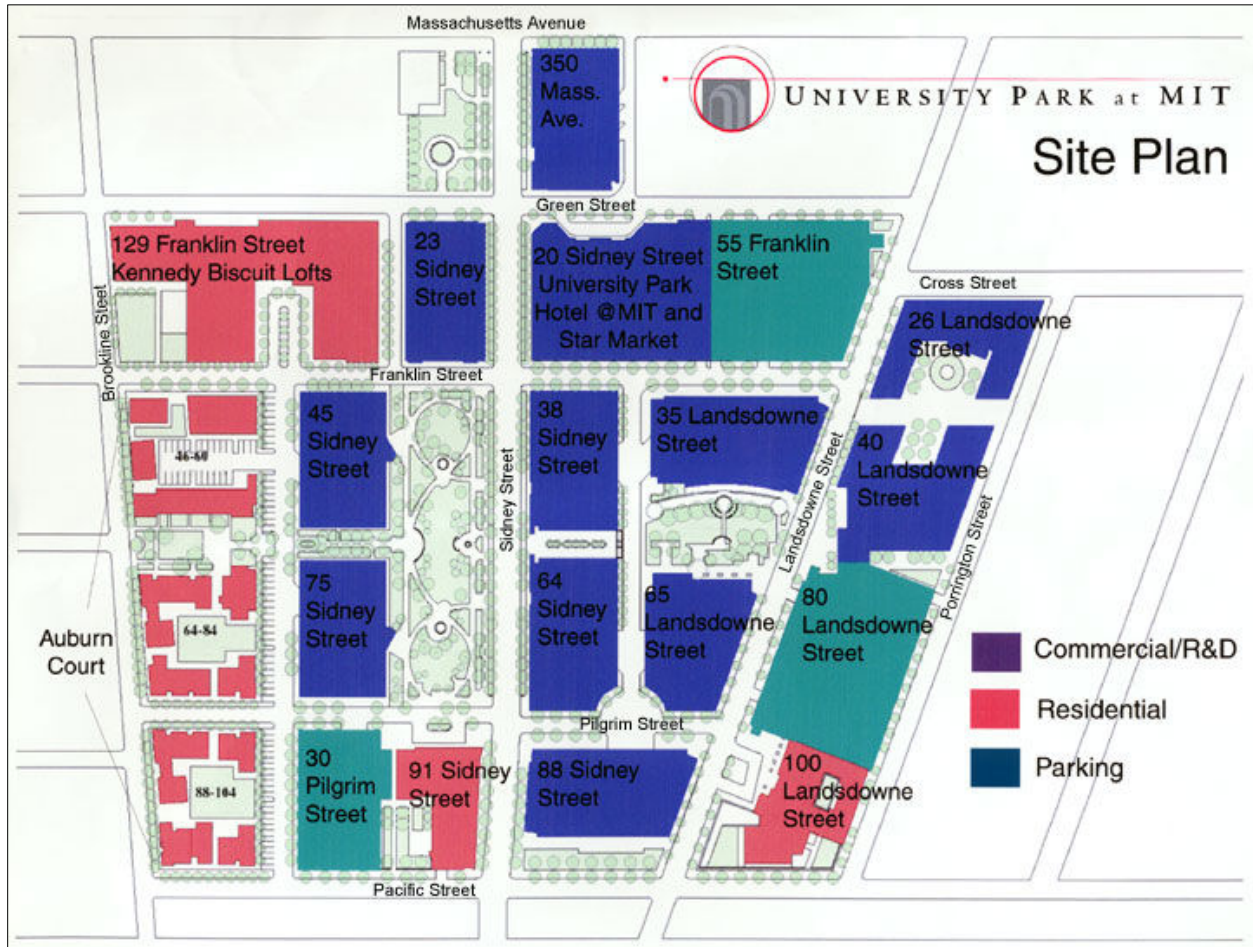


Figure 21. University Park, Cambridge, Massachusetts

## **Virginia BioTechnology Research Park, Richmond, VA**

The Virginia BioTechnology Research Park was designed as a focused business park that would meet the needs of Virginia Commonwealth University (VCU), and the Commonwealth of Virginia, and serve as an economic driver for the region. The life sciences focus of the Park was linked with the expertise of VCU and the knowledge-base in the region and was designed to be a location that businesses within this realm would consider locating or starting. It appears that due to its downtown Richmond location and surrounding uses of land the Park does not include residential, mixed-use or retail components.

### ***Key Findings***

The critical investment in securing the development of the park was by VCU, which guaranteed the master lease of the park's first multitenant laboratory building. The university also leases two reused older buildings for back-office uses. The second multitenant lab building was for the Virginia Division of Forensic Science and Office of the Chief Medical Examiner, and the sixth structure was leased solely to the Virginia Division of Consolidated Laboratory Services. The other significant finding is that the Park operates as a non-profit organization and is a component of the Commonwealth of Virginia that limits its liability for taxes. In addition, the use of the Park Authority as a financing mechanism enables exempt and tax-exempt bonds to be held by the entity and secured by the tenants. The securing of bonds has been done through lease agreements with VCU, state departments and private firms.

### ***Planning Process***

The idea for the Virginia BioTechnology Research Park began in the 1980s, when members of Richmond's planning and civic communities discussed the possibility of establishing a research park to attract life sciences companies to the downtown area. Planning for the research park did not begin until 1990, when a newly appointed VCU president began to pursue the idea with members of city government and other organizations. Planning for the Virginia BioTechnology Research Park began in January 1992 as a joint action of VCU, the City of Richmond and the Commonwealth of Virginia. There was little involvement with community members in the development of the plan.

### ***Partnership***

The Park leveraged the space needs and credit capacity of its academic and government partners to finance the earliest buildings in the park. The Park was incorporated as a nonprofit 501(c)(3) corporation in May 1992, and, in July 1993, the Virginia BioTechnology Research Park Authority began operations as a mechanism for financing development (bond issuances) and construction of facilities in the Park. The Authority is a component unit of the Commonwealth of Virginia, which has the ability to exercise oversight of this entity.

The Park is located in downtown Richmond next to the Virginia Commonwealth University Medical Center and just a 10-minute drive from VCU's Academic Campus. It also is adjacent to the downtown campus of J. Sargeant Reynolds Community

College, offering companies the opportunity to develop customized training programs for their employees. The 700,000-square-foot Greater Richmond Convention Center and Richmond Coliseum are nearby.

### *Program and Use*

The Park is located on 34 acres in downtown Richmond in close proximity to the new convention center, Canal Walk, VCU expansion on both of its campuses and a new performing arts complex. The Park officially opened in December 1995 with the completion of the Virginia BioTechnology Center, which houses administrative offices and the state's first technology incubator. Since that time, the Park has continued to expand and after completion of the new Research and Technology Center for Philip Morris USA, total development in the Park will exceed 1.2 million square feet of space in nine buildings, representing a capital investment approaching \$500 million.

The Park has a mix of more than 50 biosciences companies, research institutes affiliated with the VCU Medical Center and major state and national medical laboratories and organizations involved with forensics, testing of biotoxins and management of the nation's organ transplantation process. When fully developed, the Park will contain 1.5 million square feet of research, office and laboratory space in more than a dozen buildings and employ 3,000 scientists, researchers, engineers and technicians, working in fields that include drug development, medical diagnostics and devices, biomedical engineering, environmental biosciences, and forensics and laboratory services.

**Table 13. Virginia BioTechnology Research Park - Fact Sheet**

Criteria	Amount
Statistical Metropolitan Area Population (millions)	1.2
Institutions sponsoring or conducting research	Virginia Commonwealth University
State/City participation or incentives	Yes
Urban campus/urban setting	Yes
Geographical proximity to sponsoring institutions	Yes
Timeline for implementation (years)	18
Master Plan present	Yes
Public Transportation present	No
Other Amenities	Nearby
<b>Program and Use Mix</b>	
Total land area (acres)	34
<i>Approximate sf of total development (millions)</i>	<i>1.5 m</i>
Office (sf)	
Retail (sf)	
Research (sf)	1.5 m
Total Research/Office (sf)	1.5 m
Residential units	0
Total Development Cost	\$ 500 m

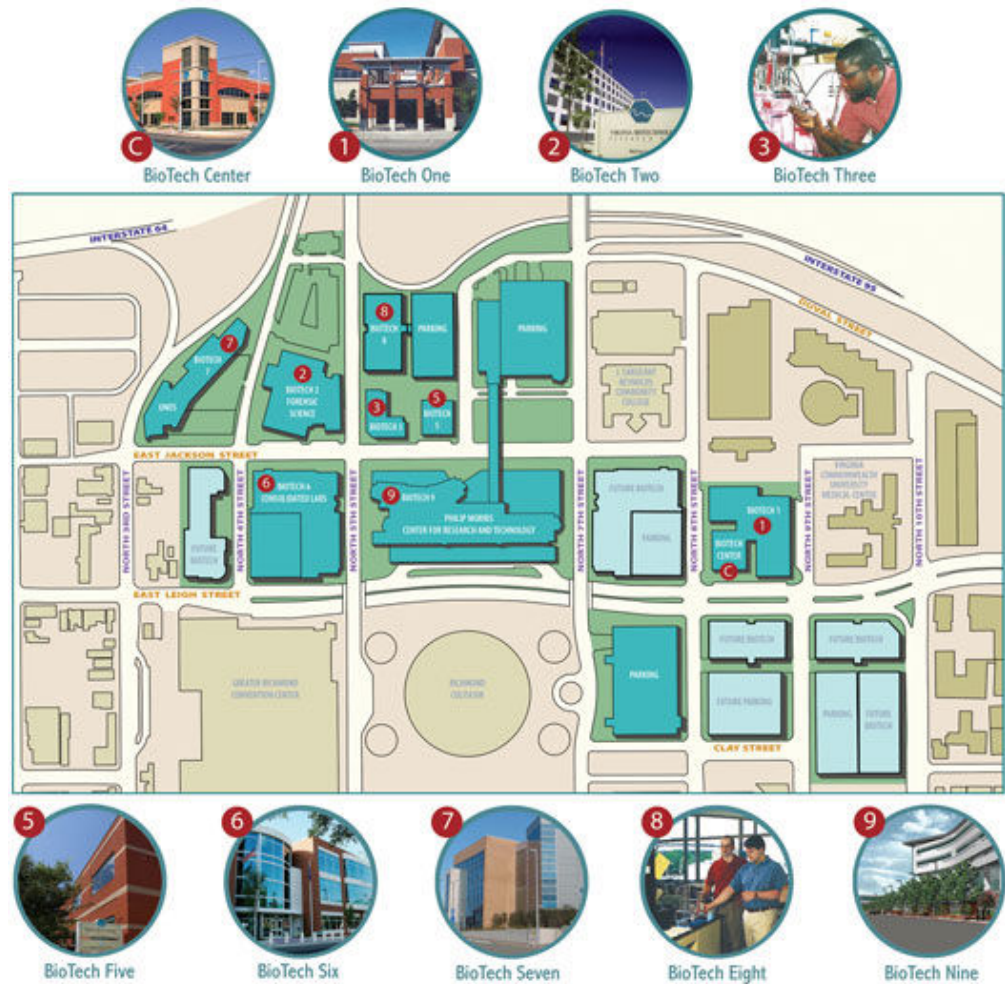


Figure 22. Virginia BioTechnology Research Park, Richmond, Virginia

## FOCUS TOPICS: STRATEGIES FOR THE FUTURE

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In order to facilitate the study of options and strategies for future planning, the second part of the study was organized according to focus topics that were assumed to provide the most valuable contributions for the future of the Jewelry District/Old Harbor neighborhood. This approach recognizes that there are many relevant issues and possible directions that might be chosen. Three focus topics in particular are the subject of analysis:

### Topic #1: Strategies to Create and Maintain a Mixed-Use District

This focus topic translates the concept of “mixed use” into land use management tools and options for zoning that may be sought to provide a preliminary planning framework. These could be further explored and refined through the City’s and stakeholder’s future planning processes. The following ideas are addressed as part of this focus topic:

1. Use Mix and Balance
2. Principles of Distribution
3. Implementation Tools

### Topic #2: Components of an Economic Development Strategy

The economic, market and demographic data suggest that market forces cannot solely be relied upon to effectively produce the extent or character of redevelopment needed to achieve the vital mixed-use vision for the district within foreseeable time frames. The following items identify a framework and strategy for development within the district.

1. Critical Mass Program and Phasing
2. Development Economics
3. Elements of a Successful Parking Strategy
4. Implementation Tools

### Topic #3: Connection Strategies

Excellent connections – particularly pedestrian connections – are required in order to fulfill the promise of a district as vital as active, in which walking, biking or taking the bus are viable options to driving. This focus topic provides ideas for options and strategies in the following areas:

1. Internal Connections
2. External Connections
3. Texture: Open Space Framework
4. Strategy Concept: Design Guidelines
5. Public Sector Stewardship
6. Implementation Tools

Applicable tools for implementation are listed for each focus topic.



### **Focus Topic#1: Strategies to Create and Maintain a Mixed-Use District**

In order to achieve the identified vision and image, a land use mix in which there is an adequate and desirable proportion of uses in relation to each other would need to be established. A common theme among the stakeholders and within each of the case studies has been the importance of having a sustainable residential component within any mix of uses. The amount and type of housing is more related to the perception of value, activity, and security and quality than any absolute number of units.

Creating and maintaining a vital mixed use district will not occur without land use management tools that can be employed by the City and those committed to achieving the mixed use vision. Market forces and the short-term needs of institutional and public investments will not reliably result in the sustainable type of use mix or compatibility envisioned among the stakeholders that have participated in this study. Zoning, as described below, can provide powerful and effective methods. Other land use management tools can be crafted through the inter-jurisdictional coordination processes now underway between the City and the State of Rhode Island on a variety of topics. Still other land use management mechanisms could be created through land use and development agreements among the City, institutions and other prominent stakeholders in the district.

#### Use Mix and Balance

A desirable and appropriate mix and balance of uses would need to be based on the desirable uses and preclude inappropriate uses. This could be defined in terms of ratios in a range representing minimum and maximum proportions, with definitions of uses that may be helpful for future zoning considerations.

There are multiple zoning methods that could be considered to manage development in a mixed use district, but any of these options will need to be evaluated in relationship to the City's district-based zoning strategies that are being advanced. Two possible methods have been identified as potential strategies to achieve a balance in the Jewelry District/Old Harbor: one model provides incentives to development projects that provide a desirable mix of uses within one project or through linked proposals; another model uses performance standards that set the basis for discretionary approvals of projects, based on the desired vitality and economic contributions to the district and the City.

#### *Strategy #1: Land Use Targets for Mixed Use*

A land use strategy could be based on the definition of land use targets for mixed use components. Such a strategy would likely consist of the following:

- A reasonable method of defining uses and desirable use mix.
- A method for targeting and tracking the use mix as time makes progress (this would need to be a simple method for setting high and low proportions of the key uses identified as components of the use mix).
- The ability to deny permission for uses that would result in an unacceptable imbalance.

- An effective method to provide development incentives for desirable uses that cannot be supported by normal market forces, or else the ability and patience to wait for favorable market cycles and conditions.

Development incentives for desirable uses could be provided through one or all of the following methods:

- Special tax or financing benefits (public side)
- Internal “cross-financing” through “paired projects” (e.g. commercial and residential uses, for profit and nonprofit organizations, etc.)
- Accelerated permitting/as-of-right status for uses needed to establish the balance
- Requirement for paired uses (uses that may not be otherwise feasible on their own due to market conditions or other constraints) in order to permit either use

An example of this type of strategy can be found in a Mixed-Use Overlay Zone implemented for Assembly Square, a mixed use redevelopment district in Somerville, Massachusetts ([http://www.ci.somerville.ma.us/CoS\\_Content/documents/Article%206.pdf](http://www.ci.somerville.ma.us/CoS_Content/documents/Article%206.pdf)). In this zone, a one-step priority permitting process is available for Qualifying Multiple Development/Mixed Use Projects in which uses requiring a Special Permit are allowed to follow a streamlined permitting review if they are accompanied by other desirable “Priority Permitted Uses”.

### *Strategy #2: Performance Standards for Mixed Use*

A land use strategy based on performance standards would establish and maintain targeted relative proportions of those uses through a negotiated process with reasonable benchmarks for performance. In order to accomplish this, the strategy would need to include:

- A reasonable method of defining “performance goals”.
- A method for targeting and tracking the performance of the mix.
- A defensible method for negotiating approvals and denying projects that are not acceptable.
- The ability to provide internal “pairing” of desirable uses that cannot be supported by market forces or other incentives.

The performance characteristics that should be used to establish whether a proposed use contributes or detracts from the desired use mix need to be clearly understood and defined (e.g. number of residents/bedrooms, ground level use activation, provision of public space on or off-site, vehicle trip generation, net fiscal impacts or benefits, etc.). Project proposals need to be reasonably and publicly evaluated to determine if they contribute to provide the desired conditions, or if they need to be revised in order to meet community goals.

Examples of this type of strategies can be found in the permitting review processes for Planned Development Areas or Large Projects in the City of Boston, at the following web sites:

<http://www.cityofboston.gov/bra/pdf/ZoningCode/Article3.pdf>  
<http://www.cityofboston.gov/bra/pdf/ZoningCode/Article80.pdf>.

These processes evaluate aspects such as environmental impacts (wind and shadow) that may be caused by the building height and massing, as well as on-site and off-site impacts or benefits, traffic, operations, management and mitigation of negative effects.

### Principles of Distribution

The use mix that would be sought is not merely a quantitative balance; “mixed use” in the context of the Jewelry District/Old Harbor would be intended to be distributed in a manner that is conducive to each use and also engenders the type of pedestrian-oriented environment that is part of the vision. General principles of distribution suggest ranges of site coverage and building height considerations that could achieve the vision for the district, within the parameters of the development strategy articulated below. The principles of distribution would also apply to the definition of site requirements for parking structures that may be strategically required to properly serve the district.

The shared vision and participating stakeholders recognized that variety of building densities, scale and heights can be a desirable and distinguishing characteristic of the area. The siting of taller buildings can be managed and directed through a variety of methods. One method would provide a formula for building heights that takes into account more factors than occurs in traditional zoning, such as the size of the parcel, its location within the district, and the provision of benefits such as open space. Some communities apply special “performance standards” that ensure that there is an appropriate match between tall buildings, the sites on which they are located, and the benefits that they provide.

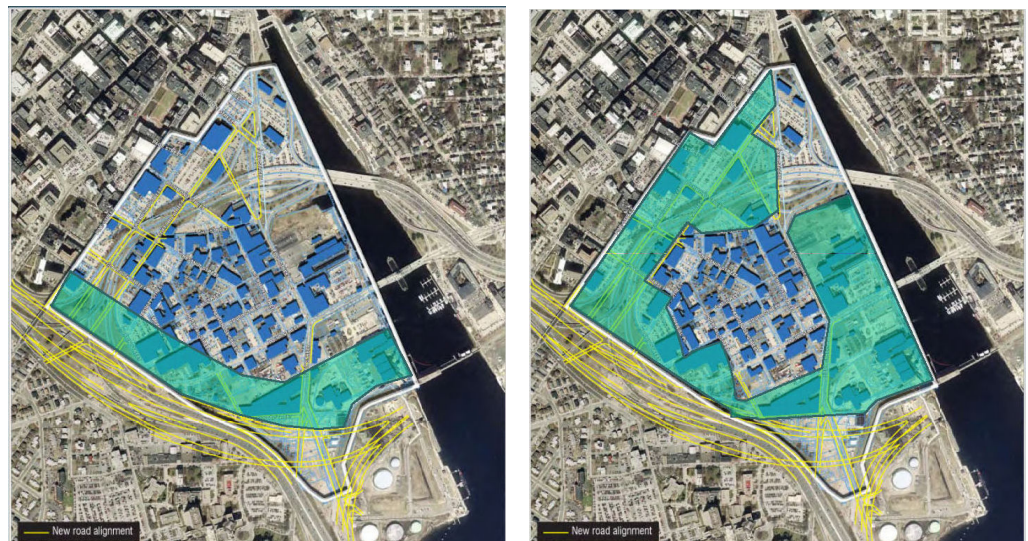


Figure 23. Edge Conditions and Implications

The above diagrams illustrate zones in which site coverage, building massing and height could have different implications in terms of their impact due to location. For example:

- Tall buildings on sites which border highways or other “hard edges” could have limited impacts on those areas due to shadow, wind and relationship to surrounding buildings.
- There are large sites along the district’s edges where a variety of offsetting measures could mitigate the effects of tall buildings (e.g. public open space, intermediate and low-scale intermediate elements to relate to smaller structures, activation of key streets, etc.)
- There is a concentrated core of lower-scale buildings, historic structures and small blocks in the center of the district where tall buildings will be far more difficult to absorb while providing balancing benefits.

### Implementation Tools

A list of implementation tools that might be considered together or in concert, in order to ensure that the mixed use vision is met, would include the following:

- Zoning mechanisms (definition of allowed uses, specific heights and densities would be the subject of further study and planning by the City).
- Disposition process and regulatory process for the I-195 Parcels
- Public resources and actions
- Public/private partnerships
- Overlay zone with special permit for height
- Performance standards and criteria
- Impact assessment process
- Schedule of offsetting benefits
- Design guidelines and design review process

### **Focus Topic #2: Components of an Economic Development Strategy**

This focus area considers options and strategies for facilitating the amount of development that will begin to resemble the desired type of mixed use district. Three applicable strategies are identified as part of this topic: setting minimum development goals as part of zoning or other mechanisms, reinforcing competitive advantage, and leveraging institutional investment. These strategies may be interdependent to some degree and may blend together in certain aspects, while they may not be mutually exclusive.

The redevelopment of the I-195 parcels through the collaborative process now underway will be a substantial benefit to the Jewelry District, erasing a barrier to Downcity and repairing a damaged edge that would have inhibited successful redevelopment of the



district had it not been relocated. Any mix of uses and urban designs that repair this edge and create an attractive new setting for adjacent improvements in the Jewelry District will contribute enormously to accomplishing the shared vision expressed by stakeholders during the study process.

### Critical Mass Program and Phasing

In planning terms, “critical mass” could be understood as the minimum quantity and balance of uses needed to reach a threshold of redevelopment that will substantially shift the image, value and character of the district so that additional development may be largely dependent upon market and regulatory forces. In order to achieve this balance, development goals could be set based on observations regarding the market conditions that must be influenced through public policy, regulations or investments in order to achieve the envisioned development goals.

The study of comparable places revealed a common conviction that concentrated and coordinated development is required to transform a district and accomplish its economic potential. A “critical mass” of contiguous, redeveloped streets and blocks has the capacity to dramatically improve the image and character of the district. Similarly, opportunities for improved transit services and the location of potential transit “hubs” can be associated with the location of such critical mass and the potential for transit oriented development. This study recognizes that the proposed Johnson & Wales campus expansion and the adjacent redevelopment of other I-195 parcels will be critical components to such a critical mass. If a relatively small amount of development opportunities can be concentrated with any reasonable combination of nearby blocks, the district’s economic and mixed-use transformation will be accelerated.

#### *Strategy #1: Setting Minimum Development Goals for the District*

A potential use mix to achieve a “critical mass” of new development and possibly jump-start the creation of a self-sustaining mixed-use district in the Jewelry District/Old Harbor was estimated to consist of approximately 750,000 square feet of new development. This amount was based on the analysis of infill development potential for a strategic cluster of blocks and parcels in the study area. The potential use mix was then evaluated from an economical perspective including possible phasing, development strategies and economic/financial issues. *Figure 24* illustrates potential areas where this “critical mass” could be located.



Figure 24. Areas where a “Critical Mass” of redevelopment could possibly be located



Table 15 presents a tentative distribution of the potential use mix by the amount and proportion of each proposed use. It is important to note that this distribution has been assumed to represent minimum development goals for the district; not the maximum amount of total new development.

**Table 15: Potential Critical Mass Program**

Use	Proportion	Square Feet
Market Housing	15%	112,500
Student/Employee Housing	15%	112,500
Academic/Health Care	30%	225,000
R&D	25%	187,500
Commercial Office	10%	75,000
Retail/Restaurants	5%	37,500
Parking Spaces (Including replacement)	2,700 to 3,100 spaces	

Source: The Cecil Group; Economics Research Associates

The provision of structured parking in a limited number of accessible locations is essential to creating the density and character of development that meets the vision of a vital urban district and provides high economic benefits. Under current conditions, the available parking supply is not adequate to fully support the efficient use of the existing building stock, if it were to be fully renovated and redeveloped in a manner consistent with high economic performance. Any significant new development that either adds to or replaces existing building stock will require additional parking. However, the economics of land values and feasible market rate development in the Jewelry District/Old Harbor will not support the provision of structured parking without some effective assistance by government and/or institutions. The most cost-effective methods to achieve this goal will be a shared strategy of parking facility development and management that also shares parking supplies among multiple users.

Table 16 illustrates the possible staging of the estimated new development in two phases to better reflect and accommodate existing market conditions and trends. Phase I, estimated at approximately 330,000 square feet, is estimated to include student and employee housing, academic/health care (institutional) uses, research and development space, and some retail. It is anticipated that parking structures would be developed near the buildings, beginning with this phase, to serve new uses and to replace ground lot spaces lost during development.

**Table 16: Phasing Assumptions**

Use	Phase I	Phase II	Total Square Feet
Market Housing		112,500	112,500
Student/Employee Housing	112,500		112,500
Academic/Health Care	100,000	125,000	225,000
R&D	100,000	87,500	187,500
Commercial Office		75,000	75,000
Retail/Restaurants	18,000	19,500	37,500
Parking Spaces (Including replacement)	2,700 to 3100 spaces		

Source: The Cecil Group; Economics Research Associates

An estimated Phase II of approximately 420,000 square feet of development could include market-rate housing, commercial office space, and additional institutional, research and development uses, and retail. Office space could accommodate target industries identified in the *Knowledge-Based Economy Study* currently underway. This could include medical device firms, preventative health care services (nutrition, wellness consulting), product design and green technology companies.

#### Development Economics

An evaluation of the economics of the Jewelry District/Old Harbor redevelopment using current real estate pricing trends, as detailed in *Table 17*, indicates that the development of some of the desirable uses envisioned as part of the use mix may require of economic incentives. The analysis excluded the for-sale market-rate housing, recognizing that units would be sold at prices that are sufficient to cover development costs and provide competitive developer profits.

*Table 17: Development Economics*

Use	Development Costs (PSF)	Rent (PSF)	Supportable Development Value (8% cap)	Surplus/ (Gap) (PSF)
R&D	\$430	\$20	\$250	(\$180)
Commercial Office	\$280	\$20	\$250	(\$30)
Retail/Restaurants	\$280	\$15	\$187.50	(\$92.50)
Student Apartments	\$160,000 per bed	\$1100 net per bed	\$165,000 per bed	\$5,000 per bed
Parking Spaces	\$25,000 per space*	\$1,200 per space	\$15,000 per space	(\$10,000) per space

Source: Economics Research Associates

Note: Land costs excluded from parking calculation.

To determine a development surplus or gap, land costs were added to development costs and then compared to estimated development values. Local developers estimate that land costs are approximately \$30 per square foot of building construction. Supportable development values for each use were estimated by assessing potential project Net Operating Income (NOI) based on current area rents, then capping NOI at an eight percent blended capitalization rate. This analysis reveals a cost gap for research and development uses, office and retail. Consequently, economic incentives may need to be provided in connection with future development strategies if these types of use are desired as part of the use mix.

### *Strategy #2: Reinforcing Competitive Advantage – Funding the Development Gap*

Based on the research and interviews conducted through this process, the Jewelry District/Old Harbor is very unlikely to be chosen as a site for significant research and development activities or investment in facilities without associated institutional commitments and involvement. This type of investment may also require additional public sector incentives. As a result, decisions need to be made by the area's institutions (most likely medical institutions and/or Brown University) whether to commit to such activities. If partnerships among institutions and government entities are a required condition to set the stage for such investment, then those relationships and commitments need to be initiated.

The competitive advantage of the Jewelry District/Old Harbor neighborhood with respect to other locations could be strengthened through economic strategies that facilitate the financing of new development. These would include mechanisms to provide the economic incentives that may be required by some of the uses in the desired use mix, as described above. Potential methods and tools to “bridge” the development gap include using state and federal incentives and grants that support scientific research. Other incentives may be those associated with green/sustainable development. Development partnerships may be created for office and research and development space with equity participation from institutions. Additionally, retail rents may need to be subsidized by developers and/or institutions including provisions for free rent for three to five years or leases requiring only percentage rents.

Best practice examples of economic incentive programs are provided by the states of New Jersey, Pennsylvania and New York. Other states have created industry-specific incentive programs, providing annual operation grants and tax credits to encourage communities to locate firms in close proximity to universities and research institutions. The State of Rhode Island also has attractive incentive packages to induce economic development through the Rhode Island Economic Development Corporation and other state agencies.

### *Strategy #3: Leveraging Institutional Investment*

The medical and educational institutions are anticipated to be principal “sources” of redevelopment in the district. During this process the following possible opportunities have emerged that may be leveraged with the institutions for the desired redevelopment of the district. These four items appear to be possibilities that if viewed for mutual benefit, would increase the value of participation by the institutions for meeting their interests and the interests of the other participating entities.

1. Competitive Advantage for Institutions: The institutions exist within a significantly changing marketplace that requires the ability of the institutions to transform physical space to meet new market demands or opportunities. The development of a mixed use area is generally valued by institutions and will increase their competitive advantage in recruiting future employees, students, patients and donors.
2. Shared Future Space: The institutions may be interested in finding ways to share space in the future (e.g., could lab space be developed to a minimum standard within shared facilities and be utilized by either hospital or educational

use as necessary?). This could include space for research and development, office, housing, parking or other mutually desired items.

3. Proximity to Main Campus: Some functions must be in close proximity to the institutions, but others may be more peripherally located, such as research and lab space or an ambulatory care facility. Future developments that would occur away from the institutions may be clustered to create an efficiency of uses and a mixed use environment.
4. Innovative Financial Solutions: The institutions may be able to develop financial strategies that would build on a partnership model to find shared resources for common problems. The ability to leverage resources for a shared future appears to be possible and should be explored to consider innovative financial and investment strategies that would meet the institutional needs for physical space, parking and housing.

Projected opportunities and strategies associated with encouraging appropriate densities and types of institutional investment are listed and described below. These may include the following:

- Institutions considering the degree of physical and program needs, and financial possibilities for new institutional development
- Establish guidelines and standards for desired development (associated with, or “paired” with institutional development)
- Establish partnerships to fund/finance shared space (parks, parking garages, connections, etc.)
- Integrate infrastructure improvements
- Design flexible space (research lab space, housing for market or students)
- Include programs to support the maintenance, promotion and capacity of the district.
- Construct partnerships that maximize returns (right balance of tax-exempt and taxable development, for profit and nonprofit organizations working together, joint private-commercial and residential development, etc.) for the district, city, state and institutions.

#### Elements of a Successful Parking Strategy

Although the shared vision for the Jewelry District/Old Harbor emphasizes the importance of pedestrians, bicycles and transit, the district must provide adequate quantities of off-street parking and support the mix and density of uses sought. However, surface parking cannot provide for the future parking needs associated with the scale and character of a mixed use district that is envisioned. Surface parking – even at reasonably low parking ratios relative to the amount of development within the district – would consume an inordinate amount of land and effectively block the ability to create the fine-grained texture and pedestrian continuity that has been articulated by previous plans and current stakeholders.

Based on the analyses that are summarized in this study, it is estimated that the proportion of surface parking, available land and building coverage is approximately at an equilibrium level, except for the I-195 parcels that are currently vacant. In other words, either new development or redevelopment that increases the density of uses in the district will require additional parking that cannot be reasonably accommodated within existing surface parking. If new buildings are located where surface parking exists today, the problem is exacerbated – parking spaces are removed while the demand for parking spaces is being increased.

The only practical means to solve this problem is to create parking structures in opportune locations that will serve the emerging mix of renovated and new development. These structures must eventually absorb several thousand parking spaces, if the shared vision is to be achieved. The new parking structures must be within easy walking distance of the patron's destination, but they must not become detriments to the pedestrian-oriented district that they are intended to support. As a result, **a physical strategy for locations of parking structures must be created.**

**The economics associated with the provision of parking structures are not favorable under current conditions.** In simple terms, the market evaluations performed by ERA as part of the consultant team confirmed that the net financial benefit of structured parking for offices, retail, or housing uses is substantially below the net expense associated with creating parking structures. This is a common circumstance for middle-sized cities like Providence, and is unlikely to change even in the long term. For such market-based uses, the public sector is typically required to provide special financing, funding or other tools to decrease the cost of parking structures so that they become affordable, allowing higher density development to occur.

**Institutions can sometimes overcome some or all of the high costs associated with parking structures,** if they gain benefits other than direct economic value from the parking facilities. Hospital, health care institutions, colleges and universities may contribute to or build parking structures if they enhance convenience and preserve a compact “building complex” or campus” environment that they seek.

These observations lead to a conclusion **that a financial strategy for parking structures must also be created,** and accompany the physical strategy that will define their size, location, and uses that they will support. A framework for creating successful parking strategies will need to include the following components:

#### *Physical Strategy for Parking Structures*

It is likely that relatively few – if any – below grade parking structures can be feasibly developed within the Jewelry District /Old Harbor. Below grade parking structures are substantially more expensive to build and operate than above-grade structures, except in very rare circumstances. So the planning strategy for parking structures must focus upon those sites where relatively large parking garages can be created above grade, but without creating negative visual and functional impacts on the surrounding properties and uses.

Elements of a successful strategy are likely to incorporate the following:

- Perimeter sites – In general, sites should be favored that are along the periphery of the district, rather than being located within the central blocks. On a practical basis, the interior blocks of the Jewelry District/Old Harbor



are relatively small and have proportions that are not well-suited to absorbing parking structures. Vehicular traffic moving to and from such sites may cause less interference with the pedestrian environment than more central locations.

- Shared use – Parking structures should be planned and located to support a range of different uses and nearby locations, wherever practical. This principle will lead to a fewer number of parking structures being required. This strategy will lead to more efficient, cost effective facilities that would be associated with smaller, scattered facilities dedicated to only one user.
- Positive adjacent relationships – Parking garages should be located and designed in a manner that avoids negative effects on adjacent parcels and buildings. At the ground level, parking garages can drain sidewalks and pedestrian areas of their vitality and retail viability. At upper levels, the facades of parking garages can be a detriment to the views and viability of adjacent buildings. Great care must be taken to ensure that parking garages do not become barriers to adjacent mixed use development through siting, adding ground level uses where practical, and attentiveness to high quality architectural facades.
- “Wrapping” or buffering garages with other uses – It will be highly desirable, where possible, to “wrap” uses around the edges of parking structures, or provide intermediating buildings and uses that dilute the negative visual impacts on the district. There are many models of such development, including excellent examples that have been built or are planned in Providence.
- Relationship to pedestrian network – The pedestrian circulation to and from parking structures should be directly linked and become part of the primary pedestrian network within the district.

### *Financial Strategy for Parking Structures*

The real estate economics in Providence and within the Jewelry District/Old Harbor will make it difficult – if not impossible – to create the amount of structured parking that will be needed by private market forces alone. Instead, a shared strategy must be pursued that will combine the benefits of public financing, revenues that can be contributed through private sector development, and institutional participation.

Elements of a successful financial strategy are likely to incorporate the following:

- Institutional participation – The educational and health care institutions within the district may have the greatest stake in ensuring that the amount, character and quality of the parking solutions matches their needs. The institutions are in an unusual position to provide funding and financing of structured parking to the extent that it directly contributes to their own missions and the overall character of the neighborhood in which their facilities are located. With their ability to undertake long-term planning and the need to provide parking to support their own facilities, the institutions could initiate or participate pro-actively in the process of identifying candidate sites and pursuing shared use and financing mechanisms to which they would be integral contributors.

- Market-based participation – While the private market may not be able to feasibly develop structured parking, many of the private sector uses can support some of the costs of parking through parking fees, long-term leasing of spaces, or other means.
- Public sector participation – The City cannot be expected to supply and operate parking structures within the district without fiscal benefits that outweigh the expense. However, the City has a potentially critical role to play by applying special tools available to support the creation of parking. These could include the ability to assemble land to create publicly-owned facilities that are leased in part to institutions or private-sector businesses, as part of an overall public parking strategy. The City could use tax increment financing and/or public financing to create parking investments that use the parking revenues, supplemented with tax income associated with the surrounding development, to unlock feasible parking structure development. It is also important to underline the critical role that state and federal sources have played in similar circumstances in other cities, providing direct or indirect subsidies and grants that make parking structures feasible in the interest of creating high quality urban reinvestment environments.

### Implementation Tools

A list of recommendations associated with implementing a strategic development plan includes consideration of actions that will improve the competitiveness of the area, provide effective economic incentives, leverage public, private and institutional investments to achieve desired land use and development goals, and support the creation of structured parking. Examples of applicable tools include the following:

- Zoning mechanisms
- Disposition process and regulatory standards for I-195 parcels
- Public/private partnerships
- State/Federal incentives and grants
- Green incentives
- Development partnerships for office/research and development space with equity participation from institutions
- Retail rents discounted by developers and institutions
- Incentives (density bonuses in return for inclusion of desirable uses, economic incentives, tax stabilization programs, etc.)
- Business Improvement District (may be difficult to implement unless there are sufficient members willing to contribute)
- Institutional master planning
- Design and development guidelines and standards
- Negotiated agreements

### Focus Topic #3: Connection Strategies

Connectivity of the Jewelry District to its surroundings has been identified as one of the key components of the vision and one of the most desired qualities in the district. In particular, portions of the Shared Vision elements dedicated to open space, the public realm and the pedestrian network outline the goals and vision of the Steering Committee for connections (refer to *page 45* for more details).

Connectivity may be understood within this context as the capacity to establish visual and physical connections to neighboring places, either by virtue of walking, driving or riding a vehicle (such as a bicycle, car, bus or boat). Connections may be internal and external. Both types of connections are needed in order to have a successful district.

#### Internal Connections

Internal district connections will occur along sidewalks and public open spaces, and might cross private and institutional boundaries through shared internal circulation systems. *Figure 25* illustrates potential for streetscape improvements along these internal connections, including the following:



- a. Sidewalk reconstruction.
- b. New crosswalks and pedestrian-activated traffic lights at selected intersections.
- c. Greening of wider streets (trees, landscaped medians, sidewalk extensions, etc.).
- d. Privately-owned and publicly accessible linked open space system of pocket parks and through-block corridors where feasible.

Figure 25. Potential for Streetscape Improvements

### External Connections

District connections to areas and points located outside of the neighborhood may be critical to the long-term economic success and quality of living. The following opportunities for external connections have been identified as part of this study:



- a. Connections to the north and the south – Enhanced pedestrian and vehicular connections to the Downcity and the hospital areas (Chestnut, Richmond, Eddy and Point Streets).
- b. Connections to the west – “Greenway” paths and open space connecting east-west to neighborhoods located across the Providence River and I-95.
- c. Connections to the east – Signature pedestrian and bicycle bridge connecting across the river.
- d. Walkways and bikeways along the river (extending the existing River Walk along the Jewelry District/Old Harbor waterfront).
- e. Pedestrian and bicycle bridge (or deck) across I-95.
- f. Sidewalk enhancements on existing bridges.
- g. Potential location of a secondary transit hub near the future I-95/I-195 intersection and associated pedestrian connections to the Jewelry District and the hospitals.

Figure 26. Potential for External Connections

- h. Improved transit connections (such as increased number and frequency of buses, coordination among the existing RIPTA bus routes and institutional shuttle services, transportation management associations and policies, etc.)

The reorganization of the land along the I-195 alignment and the redevelopment opportunities within the district will result in opportunities to strengthen walking and bicycling access connections to neighboring areas. This potential has been consistently recognized in a multitude of plans, planning studies, and design propositions advanced over the past decade.

The designation of the most appropriate alignments and the staging of the investments required to create these connections will require continued collaboration among multiple jurisdictions and may include landowners within the district. This type of



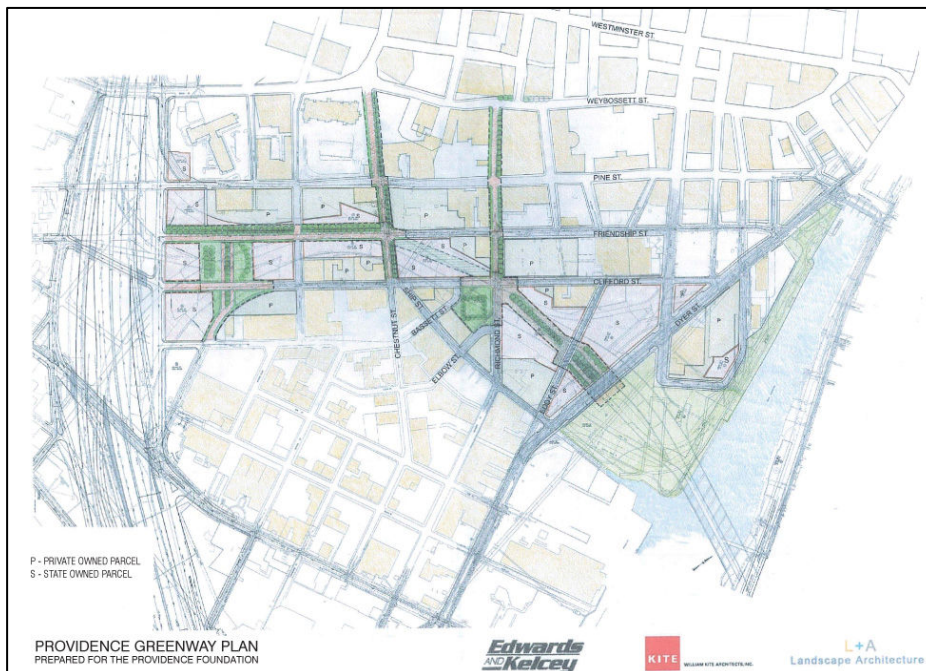
collaboration could play a significant role in the securing of construction, programming and maintenance funding for future parks and public spaces. *Figure 26* collects some of the connection concepts and ideas that have been advanced prior to and during this study process.

### Texture: Open Space Framework

The shared vision for the district suggests that the most appropriate and successful approach to the provision of an open space network will be through an incremental and connected series of highly varied spaces, parks and promenades that wind their way along, around and through the blocks. Accordingly, the texture of future open spaces in the district should combine a variety of public spaces, semi-public spaces on private land that are available to the public, and private open space. Performance standards and design guidelines could help establish the quantity, types, locations and other characteristics that may allow a rich and varied open space framework to emerge. The studies within this topic provide an illustration of how design guidelines could be applied to each incremental private development, public improvement, or institutional development and result in a connected, highly varied, and picturesque system of connected open spaces.

Three potential strategies have been identified as possible methods to generate the envisioned district connections and open space framework: concerted public/private initiatives, performance standards for open space, and design guidelines. In order to succeed, these strategies will need to incorporate provisions for programming, management and maintenance of the resulting parks and public open spaces.

### *Strategy #1: Concerted Public/Private Initiatives*



The funding and financing of parks and other open space amenities could be supported through specific projects and targeted capital investment. The proposed redevelopment and marketing plan for the new parcels that will be generated by the relocation of I-195 represents an opportunity for the creation of an open space system that could incorporate a “Greenway” concept (illustrated in *Figure 27*) through a combination of coordinated public, private and joint public/private initiatives.

Figure 27. Concept Illustration for a Greenway Plan



To the extent that the local business community and institutions will be participants of this process they could also lay the seeds for future open spaces and parks through mutually negotiated development agreements.

An example of this type of strategy can be found in Providence's Waterplace, where transportation funds available from the federal railway Northeast Corridor Project and federal highway (FHWA) money were invested in reconnecting roads and uncovering the hidden river.

### *Strategy #2: Performance Standards for Open Space*

The creation of publicly accessible parks and open space can also be attained by the private sector through public guidance and zoning mechanisms. Performance standards and criteria to guide the provision of landscaping, walkways, bikeways, outdoor sitting areas, and other amenities can be provided by developers. Examples of this approach can be found in Providence's Capital Center Special Development District, where selective requirements for open space within certain development parcels were specified to complement the network of public open spaces and provide for pedestrian connections (pages 80 to 84 of the Capital Center district regulations).

Performance standards could be used as part of zoning or development agreements to achieve the following:

- Set requirements for provision of open space proportional to lot and building areas.
- Set conditions for provision of open space and pedestrian connections based on type and size of project.
- Set conditions for the location of open space based on district-wide goals and design principles (e.g. provision of landscaped connections on a project-basis, pedestrian-friendly intersections and bridges).
- Include height or density bonuses to incent the provision of open space and public amenities (e.g. density bonuses in exchange for pedestrian-oriented uses at the ground level of buildings facing a park could help activate the edges of the proposed new park along the river).

### *Strategy #3: Design Guidelines*

Design guidelines are general design principles that are more flexible than performance standards in their interpretation and application, allowing for a higher degree of variation and creativity in their application. Design guidelines are most effective when applied as part of a design review process, conducted by a public organization for permitting purposes or by a private entity coordinating the design for funding or management purposes. (Example: the Downcity Design Review Committee and associated regulations).

The Jewelry District/Old Harbor area will be redeveloped through incremental projects sponsored and managed by many different parties. It is not possible to predict exactly how this redevelopment will unfold. The public sector will be able to provide certain components of the open space and pedestrian connection network, such as the riverfront park that has been initiated by the City and RIDOT. However, a great many of the

components will be created in association with private and institutional development projects over time.

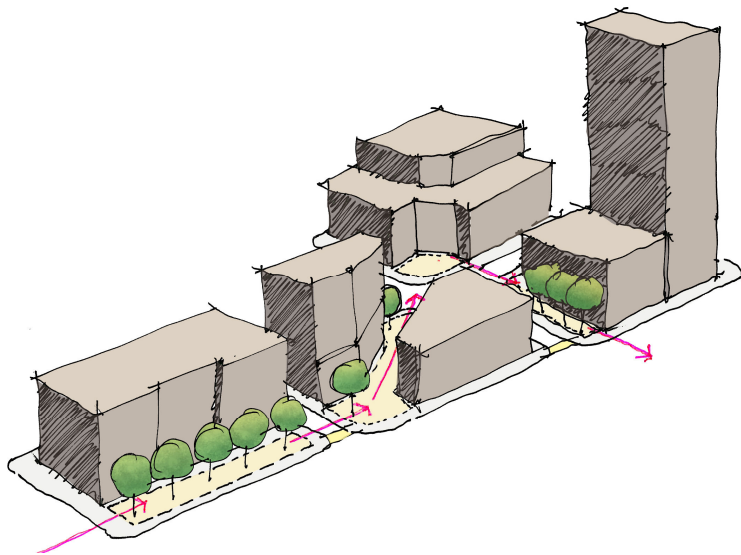
It may not be practical or possible at this time to create a complete and specific “plan” that will endure, as incremental decisions are made. Rather, circumstances suggest that a strategic approach to creating internal connections will be required. The following discussion illustrates how the participants in future planning might craft a strategy.

### Strategy Concept: Design Guidelines

Instead of a determinate “plan”, design guidelines can be created and will ultimately produce a coherent and connected network of spaces if consistently applied. Guidelines, if properly drafted, can include confirmable standards and/or more general principles that will inform site planning and design, and serve as the criteria for approvals of projects before they are constructed. Guidelines have a distinct benefit of providing practical flexibility, so that the requirements of building design, circulation, infrastructure and other factors can be integrated into the decision-making process on a site-by-site basis. Guidelines can be implemented through zoning (such as through special permits or site plan reviews). They can be adopted by institutions or by development entities through as an internal matter, or through joint agreements. They could be applied through special authorities or commissions. In some cities, for example, redevelopment authorities provide this coordinating role.

### Examples of Site Planning and Urban Design Principles

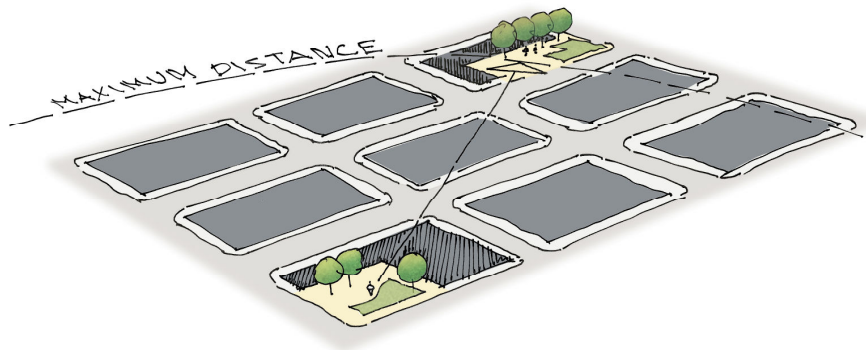
The preparation of design guidelines should accompany the planning that will occur within the district over the next few years, if they are chosen as a tool. Design guidelines would need to be tailored to the method, resources and mechanisms available for their application, as well as the types and locations of the projects that they would be intended to address. Guidelines could help ensure that the following principles, among others, are incorporated into site planning and design.



*This diagram illustrates the application of urban design principles outlined in this section, in particular connectedness and continuity*

- Connectedness and Continuity – A requirement could be established that every block should provide or support the public open space and pedestrian network, with the provision that the alignment of such improvements be visibly linked to adjacent portions of the existing network. This approach would recognize that there is no single route or alignment that is “correct”, and allow variations in the siting of buildings and the internal block organizations of projects. A key component of this strategy is a simple but important idea – connections should lead to crosswalks in all cases.

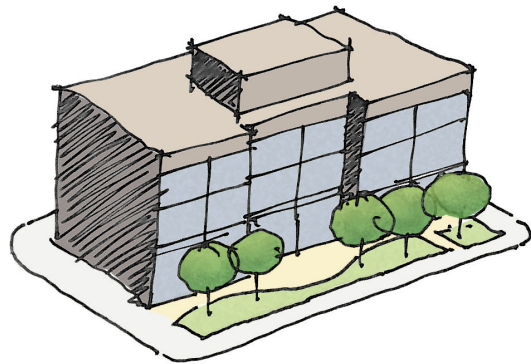
- Interior, Exterior and Edge Connections – The Jewelry District offers an unusual opportunity to provide linked open spaces and pedestrian networks that are composed of a variety of different spatial types and experiences. A method of traditional “city building” ensures that the sidewalks are pleasant paths that accommodate pedestrians. These edges can be widened and varied in appropriate locations to enhance this experience, expand opportunities for activities, landscaping, art installations or other amenities. But the prospect of institutional and large-block development also offers the prospect of through-block connections that can provide an alternative pathway that separates the pedestrian from adjacent vehicular traffic. In some instances, the pathways can expand into larger interior spaces. Design guidelines for the Jewelry District could actively promote or even require the provision of such spaces as integral parts of its pedestrian and open space network.
- Variety and Distribution – Guidelines could categorize the types and distribution of various types of open spaces that could be created, without establishing specific locations or detailed designs in advance. For example, it may be important that there be at least a small park or landscaped public open space within an easy walking distance of any part of the district. This could be accomplished by setting development standards for private and institutional development that would induce the provision of pocket parks or plazas within a minimum distance of one another.



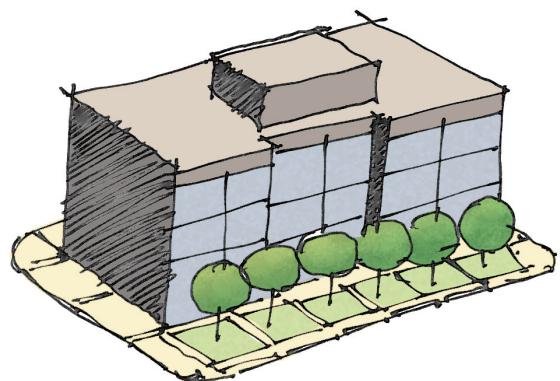
- Hardscape and Greenscape – Urban pedestrian and open space networks must have “hardscape” components that create at least the walking surfaces that are needed. Introduction of “greenscape” elements – planted areas – is an aesthetic and environmental choice. The desirable balance between these two characteristics can be set by policy and implemented through guidelines that set baseline standards on the minimum amounts or ratios between paved and planted areas in a systematic manner. In crafting such guidelines, it is very important that the balance not be set arbitrarily, or as a result of competing positions among design and open space advocates and interests that focus on numbers alone. It will be far more beneficial to evaluate examples and precedents that are considered desirable models for the district, and measure their attributes. Research on urban open spaces, for

example, indicates that perceived qualities are not aligned with the measured characteristics. For example, urban parks that are perceived to be very “green” and landscaped may actually have a surprising amount of hardscape. Studies have shown that a 50% hardscape and 50% greenscape balance creates a very strong landscape character. This approach can also validate the need to have “hardscape” areas that serve as circulation, for special events, and as practical open space that is part of the aesthetic of cities – while still creating a very green and landscaped appearance.

- Public Realm, Architecture and Publicly Accessible Space – In the context of a public, mixed use urban environment, it is important that the public, civic realm be distinguishable and have its own integrity. In some communities, the architecture and public open space design associated with private or institutional development becomes entirely fused and extends up to the street curbing. In contrast, a more inviting and interactive environment can be created - if publicly-owned sidewalks and spaces maintain their own integrity, and if spaces intended to invite public access are distinguished from the architecture of buildings and spaces that are not open to the public.

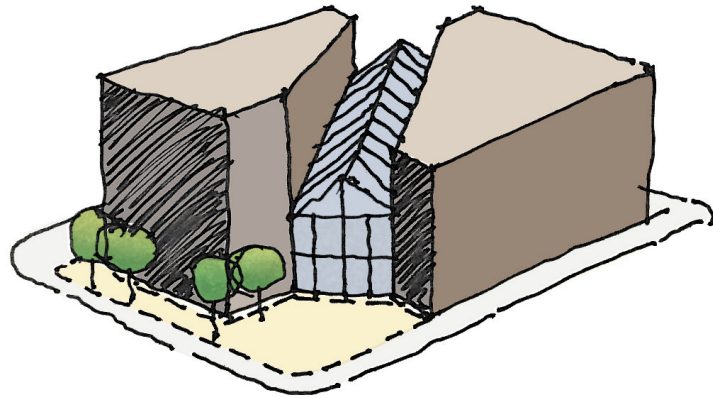


A hierarchy of public sidewalk, public space, and building architecture...

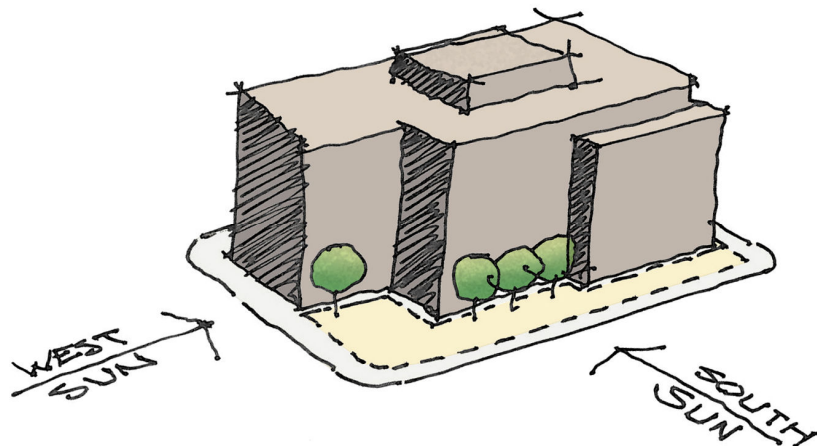


Versus architecture extended through the public space and the public realm.

- Enclosed Interior Spaces and Connections – Enclosed interior spaces, if they invite and support public use, can be a very practical and highly desirable component of an open space network system. Such interior spaces are very traditional components of the city fabric, and provide an alternate environment conducive to pedestrians during the inclement months of the New England calendar. This type of space can also be useful to increase opportunities for pedestrian circulation and path choices in larger blocks, such as the ones that will be created by the relocation of I-195 or the ones located at the periphery of the district. Providence retains and values the oldest interior commercial/public space in the nation – the Providence Arcade Building is now over 180 years old. A few similar compositions could contribute to the Jewelry District’s future, as well.

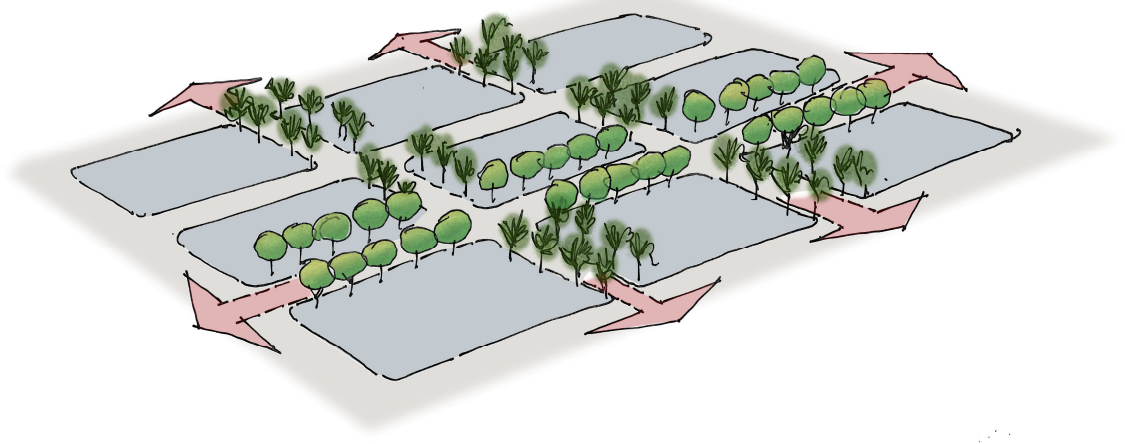


- Orientation and Climate – The orientation of pedestrian connections and open spaces is very important within the New England climate. Simple and clear preferences can be established for southerly and westerly orientation of open spaces intended to be comfortable for pedestrians, for example.





- Orientation and Streetscape – Through a coordinated set of standards or guidelines, the streetscape character can employ variations in materials, plantings or other design features to express the hierarchy of streets. Also, pedestrian circulation, ease of access and walking experience can be enhanced by signage, graphics and public art. On a practical level, such a coordinated approach can serve as orientation devices for those moving to, from and within a district.



#### Public Sector Stewardship

The outlined strategies for implementing open space connections and the associated pedestrian and bicycle network have largely been focused upon design guidelines and collaborative project planning as powerful tools that could be used in the district. Nevertheless, the public sector must be the stewards of certain key improvements that cannot be achieved without directed planning and resource commitments over time.

The agenda for detailed planning in the district must result in clear conclusions and allocation of responsibilities among the City and state agencies regarding several components of the shared vision articulated in this study:

- Public parks and promenades – The City must be responsible for orchestrating the development and controlling the future maintenance and operations associated with the public parks that will be integral to the community. The leadership and stewardship provided by the City in the planning and implementation of Riverfront Park exemplifies the public-spirited role that is essential in creating key portions of the future open space network.
- Bridging the Providence River – Plans and visions have consistently emphasized the benefits of providing a dedicated pedestrian bridge to the east side of the River from the Jewelry District/Old Harbor. This can only be achieved through public sector commitments and funding.

- Reaching to the west – Public sector designation of the final locations, design and funding is required to connect the Jewelry District/Old Harbor to the neighborhoods to the west across the I-95 corridor. This must include coordinated approaches to the design of landscaping, lighting, pedestrian and bicycle pathways.
- Land along the infrastructure – The redesign of the highway network, bridge approaches and ramping will leave large areas of “leftover” land along the edges of the infrastructure. This land could be used to significantly contribute to the green space and open space network of the district.

### Implementation Tools

Implementation tools and measures available to guide the creation of open space and streetscape improvements are listed below.

- Disposition process and regulatory standards for I-195 parcels
- Privately-owned and maintained parks for public use
- Public/private partnerships
- Open space easements
- Negotiated agreements
- Design guidelines
- Zoning incentives (height or density bonuses) in return for the provision of open space and public amenities
- Transportation Improvement Programs (TIP)
- Public grant programs

In order to develop an implementation plan to achieve the identified vision for the Jewelry District/Old Harbor, the roles of main actors and the assumptions derived from the analysis of strategic options need to be considered. The main actors involved in the potential redevelopment of this district are the State of Rhode Island, the City of Providence and neighborhood residents, local institutions, and the private market. Each of the actors has their own interests, roles, and resources that they may utilize to assist with some aspect of the desired revitalization.

Given the shared vision previously described, the roles that need to be pursued by the main actors have become clearer. Currently the challenges presented by the vision and the subsequent goals of this district are significant obstacles for any of the main actors to overcome individually.

The City of Providence needs to maximize the opportunity to generate the desired returns for tax revenue, degree of development and design guidelines that are determined to be realistic, consistent with the city standards and supportive of the desired vision.

The State of Rhode Island may be able to facilitate the desired development of the I-195 parcels, in concert with the city, through the standards established in the disposition process. But the state will not be able to transform the remainder of the district in a manner that will fulfill the stated vision and goals for the district, unless it provides incentives for economic development or the creation of needed parking or public space.

The private market given its current state and interests does not appear to be able to transform the district in the desired way on its own. The private market will enter this redevelopment when the individual actors within this market determine that risk has been decreased or demand has been created.

The institutions appear to be the likely actors that are in position to redevelop some land parcels over time in a manner that may resemble components of the vision. In so doing, the institutions will need to consider providing a portion of the cost for the types of uses, such as parking and other shared spaces that they and the district desire as part of the vision. The institutions may be interested in this opportunity if it is conducted in partnership with the city and the state.

Three key questions will need to be reviewed and determined by the participants:

1. How can the State, City and institutions utilize the I-195 redevelopment process most effectively to achieve the desired economic development, open space, mixed and institutional uses that will be critical to the future of the district?
2. How can the tax revenue needs of the City be balanced with non-profit institutional uses within the district?
3. Are the institutions willing or able to provide a sizable portion of the “gap” funding necessary to support the desired level of housing, parking infrastructure, open space and retail or restaurant space in the district?

### Considerations for Future Steps

If potential partnerships between the state, the City, local institutions and developers were to be explored, the following mechanisms and steps should be considered in support of this community development framework and the City's comprehensive planning process:

#### *State of Rhode Island*

- Explore partnership with institutions and the City to maximize development of the I-195 parcels for economic development.
- Maximize existing incentives for business development, tax credits, historic tax credits and others to entice future development.
- Seek new incentives for pairing development by the institutions and/or a private partner with parking infrastructure financing.
- Maximize reimbursement to City for lost property tax revenue for non-profit uses.

#### *City of Providence*

- Consider development requirements for new parcels that may include “pairing” of uses or pairing of development with infrastructure and open space investments, in order to achieve the desired use mix.
- Develop design guidelines for the district and land use codes that will enable the Comprehensive Plan and district vision to be implemented.
- Encourage institution and private developer partnerships for taxable, mixed-use development to occur.
- Establish a standard for the amount of tax revenue desired to be generated from the district in the future and additional trade-offs that may need to occur to offset non-profit development.
- Consider programmatic components that would improve the district and its long-term maintenance. For example, seek institutions to maintain new park space that is developed in a similar fashion to campus grounds.

#### *Local Institutions*

- Determine critical program for new developments to meet institutional needs.
- Develop minimum space, parking infrastructure and mixed-use components (housing, retail/restaurant) that are critical for use by the institutions in the shared redevelopment.
- Maximize investment in infrastructure and mixed-use development that will not be supported by the market or public sources.
- Seek private developers as financial and operating partners on specific projects (for “paired” uses or desirable mixed-use components).
- Explore the possibilities of securing financing or resources through funding mechanisms available.

### **Infrastructure Management and Maintenance**

The maintenance of the existing and proposed infrastructure of roadways, parks and open space has been identified through meetings and discussions as one of the issues of main concern about the future of the Jewelry District/Old Harbor. The need for improvements and repairs of the existing roadway network is obvious, but funding resources are limited and mainly concentrated on areas affected by the relocation of I-195. This concern extends to the proposed new park that the City and the Rhode Island Department of Transportation (RIDOT) are planning on the waterfront. A large park such as the one proposed could be a great asset for the community, but it would need to be well constructed and equipped, programmed with amenities, and well maintained in order to fulfill its role.

Some of the ideas advanced during meeting discussions suggested the potential for local businesses, institutions and new developers to partner with the City and the state to actively sponsor park improvements and maintenance programs for the long term.

### **Utilities**

The status of the existing utility networks, the location of high voltage lines, and the need to add electric substation capacity in the Jewelry District/Old Harbor are important issues that affect the redevelopment potential of prime properties along the waterfront. Utility needs should be addressed as part of future planning and development initiatives, and prioritized in terms of public investment. A joint approach from utility companies and public agencies may be required in order to bring about resolution and positive change.

The following issues and concerns were expressed at Steering Committee meetings and open forums held in association with this planning process:

- Need to add substation capacity and possibly replace the old Elm Street substation (attached to the former South Street substation)
- Long-term need to bury or relocate the high voltage lines along the west bank of the Providence River, in order to free up open space and allow walkway connections along the waterfront.
- Redundant telecommunication lines in place (phone and cable trunk lines)

### **Transit and Transportation**

- Continuation and expansion of RIPTA trolley service
- Para-transit-coordination of routes and stops for separate van-based commuting systems that cross the district (Brown-RISD, Brown Medical, Lifespan and Women and Infants Hospital)
- Rationalization of curb-space utilization, metered parking, and transit stops throughout the district