

the boylston



November 7, 2014
Response to the Massachusetts Department of Transportation
Request for Proposals
Air Rights Parcel 13 & Hynes Convention Center Station

Submitted by Trinity Boylston LLC

Trinity Financial
Aimco Properties, L.P.
ICON architecture, inc.
STV Group
Dimeo Construction
LeMessurier Consultants
McPhail Associates
Wilmer Hale
Copley Wolff
CBRE/Grossman Retail Advisors

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SCHEDULE 1

**MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
REQUEST FOR PROPOSALS
AIR RIGHTS PARCELS 13 & HYNES CONVENTION CENTER STATION
BOYLSTON STREET AND MASSACHUSETTS AVENUE, BOSTON
PROPOSAL FORM**

NAME OF PROPOSER: Trinity Boylston LLC

The undersigned (the "Proposer") hereby acknowledges that it is fully familiar with all provisions contained in the Request for Proposals; Air Rights Parcels 13 & Hynes Convention Center Station; Boylston Street and Massachusetts Avenue, Boston issued by the Massachusetts Department of Transportation ("MassDOT"), and in any addenda issued in connection therewith (collectively, the "RFP"). The undersigned hereby represents and warrants that it is submitting this Proposal (the "Proposal") in response to the RFP subject to and in accordance with the terms and provisions of the RFP, and that it offers to enter into one or more development agreements, leases, and all related agreements with the Massachusetts Department of Transportation for the development of Parcel 13, subject to: (i) the terms and conditions described in the RFP; (ii) the terms and conditions contained in the Proposal; and (iii) further terms and conditions to be negotiated with MassDOT.

BY:

SIGNATURE: _____

TYPED NAME: James G. Keefe, President

TITLE: _____

By: Trinity Boylston LP, its initial member By: Trinity Boylston, Inc. its General Partner

DATE: November 5, 2014

WITNESS:

SIGNATURE: _____

TYPED NAME: Jill Hyde

TITLE: General Counsel, Trinity Financial

DATE: November 5, 2014

The Proposer hereby designates the following individual as its sole contact person and representative for purposes of providing clarification and any additional information required in connection with this Proposal.

TYPED NAME: Kenan Bigby

TITLE: Vice President

STREET ADDRESS: Trinity Financial, Inc. 75 Federal Street, 4th Floor

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2. Development Team

a. Developer

i. Development Entity

The proponent of the Parcel 13 redevelopment will be Trinity Boylston LLC, a Delaware limited liability company, the sole member of which initially will be Trinity Boylston Limited Partnership, a Massachusetts limited partnership (wholly owned by Trinity principals). Depending upon the final underwriting of the project, an affiliate of Aimco will employ either a similar structure to the One Canal transaction (entering into a development agreement with Trinity at the outset of the project, acquiring the leasehold estate at the construction loan closing, and engaging Trinity to serve as development and construction manager), or will join Trinity Boylston LLC as a member to venture with the Trinity affiliate.



Daytime Gateway View



Aerial Gateway View



Boylston Street Looking West

ii. Proposer

Since 1987, Trinity Financial has pursued a distinctive vision of real estate development dedicated to revitalizing neighborhoods and strengthening cities. During that time, Trinity Financial, Inc. has completed or is currently developing over \$2 billion in real estate, including over 8,000 residential units and 500,000 square feet of commercial space.

In the past ten years, Trinity has completed or is currently developing a total of approximately 4,500,000 gross square feet of development. For a complete list of Trinity’s development work as well as additional detail on select projects that are analogous to Parcel 13, please see section 6.b. of Component III.

Key Individuals from Trinity

Jim Keefe, Principal, is a founding partner of Trinity Financial, Inc. and will serve as Principal-in-Charge.

Kenan Bigby, Director of Development, and **Abby Goldenfarb**, Vice President, will be the primary managers for all aspects of the development effort. They will serve as contacts with all public agencies, oversee team members, structure the necessary financial resources and act as liaison to residents and community stakeholders.

Frank Edwards, Vice-President of Design, will provide oversight of the architect and engineering consultants; lead the design coordination effort and bid and negotiate construction contracts with the potential general contractors.

Lawrence Sparrow, Construction Project Manager, will join the development team on a full-time basis approximately six months prior to beginning construction. He will provide daily oversight of the actual construction process and serve as the liaison between the MassDOT/MBTA officials and engineers to coordinate construction.

The following is a description of some of Trinity’s recent projects and how they fit into each of the categories identified in the Selection Criteria.

Experience Developing Complex Urban Projects with Significant Infrastructure Components

Trinity has completed work with the MBTA and MassDOT on two complex urban projects, Ashmont TOD/The Carruth and Avenir, both of which had significant infrastructure components. In 2013, Trinity began construction on a third mixed-use project with the MBTA and MassDOT, One Canal, which will be completed in 2015. With all three developments, the project’s complexity stemmed from their location above or immediately adjacent to an MBTA station(s).

Together these three projects represent 620,000 square feet of development and a total development cost of approximately \$400 million. The following is a more detailed description of these three projects and their complexity.

Ashmont TOD/The Carruth

Boston, MA
 Total Development Cost: \$52.6M
 Units: 74 rental, 42 condominium
 Retail: 10,500 SF
 Completed: 2008

The Ashmont TOD/The Carruth project was a dramatic transformation of a blighted neighborhood parcel in Dorchester. The project included the construction of a new \$40 million transit center at the MBTA’s Ashmont Red Line Station and a \$50 million investment in a residential anchored, mixed-use development, The Carruth. Developed by a partnership between the MBTA and Trinity, The Ashmont TOD/The Carruth project was one of the first true transit-oriented developments to be constructed in the City of Boston. The Ashmont TOD/The Carruth project includes both housing and neighborhood retail services, the latter of which are all “walk-to” designed for transit users and neighborhood residents to access as part of the Peabody Square shopping district.

The Carruth is the mixed-use building that sits directly adjacent to the MBTA’s Ashmont Station in Dorchester. The Carruth includes 116 units of mixed-income housing and approximately 10,500 square feet of neighborhood retail. The development parcel is the subject of a long-term ground lease between Trinity and the MBTA. Construction began in August 2006, occurring in unison with the MBTA’s total reconstruction of the adjacent Ashmont Station. The project was completed in 2008 and is now 100% occupied.

Avenir

Boston, MA
 Total Development Cost: \$150M
 Units: 241
 Retail: 29,000 SF
 Completed: 2009

Avenir is a residential anchored, mixed-use TOD project on former MBTA parcel 1A in the heart of the historic Bulfinch Triangle in downtown Boston. The site was cre-



The Carruth



The Carruth



The Carruth



Avenir



Avenir



Avenir



One Canal

ated by the removal of the elevated transit structures and the redesigned expressway. Avenir established a new residential component to the Bulfinch Triangle in a high-density building and offers neighborhood retail and entertainment opportunities that supports and enhances the transformation of the surrounding neighborhood into an inviting, safe, pedestrian environment.

As with the Ashmont TOD, Trinity coordinated the development of Avenir with the MBTA to fully integrate safe and convenient access to public transit. Trinity developed Avenir as a ten-story, mixed-use transportation-oriented development located directly above the MBTA's North Station, which is served by the Green and Orange lines. The base of the Avenir building includes a head house to access North Station. The project also is the subject of a ground lease with the MBTA. The block-long building features 29,000 square feet of retail on the ground floor, a 121-space parking garage on the second and third floors wrapped with housing, 241 residential units, including 17 affordable units, and a transit hub. Trinity's Station Designer for the Parcel 13 project, STV, also performed the station improvement work associated with Avenir prior to its development.

One Canal

Boston, MA
 Total Development Cost: \$197M
 Units: 320
 Retail: 21,000 SF

One Canal is located adjacent to Avenir in the Bulfinch Triangle neighborhood of Boston and at the tip of the Rose Kennedy Greenway. As with Avenir, One Canal sits on parcels that were created by construction of the Central Artery Tunnel Project/Big Dig and submersion of the MBTA Green Line.

One Canal Street involves a 99-year ground lease with MassDOT. Sitting above the MBTA's Orange and Green Lines as well as Interstate 93, Avenir posed a number of infrastructure challenges, all of which were overcome by working closely with the MBTA and MassDOT. One Canal Street is currently under construction, and includes the development of approximately 435,000 square feet of residential and retail space: 310 units of luxury rental housing, 21,000 square feet of ground-floor retail space, and 159 indoor parking spaces and bicycle storage.

The ground floor of One Canal is designed to accommodate an urban supermarket tenant with appropriately sized loading areas, storage, trash/recycling space and mechanical equipment. One Canal Street continues the transformation of the Bulfinch Triangle area into a mixed-use district that complements its surrounding areas and brings vitality to an area once in shadow from the elevated highway and Green Line structures.

Urban Mixed-Use Project Experience

The following is a description of three of Trinity's urban mixed-use projects that have been completed or are under construction. These three projects represent over 800,000 square feet of development and total development costs of roughly \$400 million.



Hamilton Canal District



Hamilton Canal District



Northampton Square

Hamilton Canal District

Lowell, MA
 Total Development Cost: \$500M
 Units: 725
 Commercial Space: 425,000 SF
 Retail: 55,000 SF

In August 2007, Trinity Financial was selected by the City of Lowell as Master Developer for 15-acres of vacant and underutilized land in the heart of the City of Lowell, known as the Hamilton Canal District.

Trinity’s vision of a vibrant, mixed-use neighborhood spanning the Merrimack, Pawtucket and Hamilton Canals will transform the gateway of Downtown Lowell by connecting the transportation hub at the Gallagher Terminal and the Lowell Connector with the core downtown, the Arts District and the city’s major event venues. Upon designation, Trinity began a series of meetings with the community in order to formulate a Master Plan and create a Form Based Zoning Code for the site. These “Vision Sessions” commenced in the Fall of 2007 and were each attended by over 100 people, resulting in a comprehensive Master Plan that has the overwhelming support of the community and includes up to 725 units of housing, up to 425,000 sf of commercial and up to 55,000 sf of retail.

The Master Plan was completed in August of 2008 and approved by the City Council in September 2008. The entire project is expected to take approximately ten years to complete. Construction of Phase I, the rehabilitation of the Appleton Mills (130 apartment units) and the rehabilitation of 110 Canal Street (55,000 square feet of office) was completed in 2011 and 2013 respectively.

Northampton Square

Boston, MA
 Total Development Cost: \$172 million
 Units: 557 (multi-phased)
 Office: 160,000 SF
 Anticipated Completion Date: 2017 (for all phases)

The Northampton Square complex is located in the South End/Lower Roxbury neighborhood of Boston, one block away from the Boston Medical Center and the Boston University Medical Campuses. The complex currently consists of a 29-story residential and commercial building at 35 Northampton Street and a 12-story residential building at 860 Harrison Avenue. The Northampton Square project contains three main components: (1) the renovation of 35 Northampton Street, (2) the renovation of 860 Harrison Avenue, and (3) the construction of a new tower (known as Albany Tower) at the corner of Northampton Street and Albany Street.

In total, the project will create or preserve 558 units of housing, 347 (62%) of which will be maintained as affordable and below market rent, and 135,000 square feet of office space. The new 26-story tower will provide 211 new luxury apartments and approximately 52,000 SF of office space for the Boston Public Health Commission. The complex includes an existing 538-space parking garage with sufficient capacity for the new and the renovated housing. The renovation of 35 Northampton Street is currently underway and is expected to be completed by the end of 2014. The

renovation of 860 Harrison is expected to begin in January 2015 and be completed in December 2015. The construction of Albany Tower is expected to commence in 2015 and be completed in 2017.

The original complex was built between 1969 and 1973 to house the Boston City Hospital School of Nursing. The Boston Public Health Commission (BPHC) acquired the site on July 1, 1996 and has managed the property since. In December of 2010, the BPHC selected Trinity Financial to redevelop various components of the site.



Park Square West, Phase II

Park Square West, Phase II

Stamford, CT

Total Development Cost: \$157M

Units: 416

Retail: 6,800 SF

Anticipated Completion Date: Spring/Summer 2015

In July 2012, Trinity completed a deal with the City of Stamford and Corcoran Jenkinson, the original designated developer, to purchase the development rights, existing plans and specifications for the Phase II portion of the Park Square West Project, a mixed-use project in Stamford, Connecticut. Phase II is currently under construction and is on schedule to be completed in the spring/summer of 2015. Design and construction drawings are currently underway for Phase IV.

Centrally located in the heart of downtown Stamford, Park Square West, Phase II is being constructed as a 15-story, mixed-use development. It will consist of 209 residential units in a Class A apartment building, 6,800 square feet of ground-floor retail, and a 324-space structured parking garage. Phase IV will be a 17-story, Class A apartment building with 207 residential units and 4,000 square feet of ground-floor retail. Both Phase II and Phase IV will include a mix of studios, one-, two-, and three-bedroom units.

Experience Developing Retail

Trinity has significant experience developing stand-alone retail space and as well as retail space that is part of a mixed-use development. The projects described below include a total of approximately 185,000 square feet of retail space.

Shaw's Supermarket

Boston, Massachusetts

Total Development Cost: \$24 million

Retail: 59,800 SF

Completed: 2003



Shaw's Supermarket

Shaw's Supermarket is a neighborhood grocery store in Dorchester's historic Lower Mills district. This project entailed the extensive restoration of the former shipping and receiving warehouse of the Walter F. Baker Chocolate Factory, a historic landmark complex in Dorchester dating back to the 1860s.

The new supermarket is 59,800 gross square feet, with a selling space of approximately 40,000 square feet. In addition, 190 parking spaces were created on two parking levels, one at-grade and a second on a single mezzanine level below-grade. The total development cost for Shaw's is \$24 million financed through the sale of Historic Tax

Credits and private debt and equity.

90 River Street

Boston, MA

Total Development Cost: \$8 million

Retail: 63,000 SF

Completed: 2005

Located in the historic Lower Mills district along the Neponset River, The Riverway encompasses over 63,000 square feet of retail and office space. A cornerstone of neighborhood commerce, the tenants at The Riverway conveniently include Rite-Aid Pharmacy, Planet Fitness, and Bank of America. Additionally, the plaza provides shopping and dentistry services to the surrounding community. To accommodate the customer base, The Riverway is equipped with ample parking.

Acquired and redeveloped in 2005, Trinity collaborated with and relocated the then current occupant (Star Market, now Shaw's Supermarket) to a newly redeveloped space located down the street. Subsequently, Trinity sub-divided and renovated the vacated space with upgrades in mechanical systems, life and safety systems, and aesthetics. Additional improvements include the addition of over 5,700 square feet of office space located on a second floor and extensive improvements to the parking lot. Total development costs were approximately \$8 million financed through private debt and equity.

The Carruth: The Carruth Building at Ashmont Station features 10,500 square feet of ground-floor retail space. The space is occupied by Tavolo, an Italian restaurant, Eastern Bank branch and with Flat Black, an independent coffee shop.

Avenir: The mixed-use Avenir property features 29,000 square feet of retail space, a portion of which is occupied by a CVS/pharmacy and Boston Common Coffee Company, a local coffee shop.

One Canal: Upon its completion in 2015, One Canal, in Boston's Bulfinch Triangle neighborhood, will offer 21,000 square feet of retail space.

Park Square West: When it is completed in 2015, Park Square West in Stamford, Connecticut will feature 6,800 square feet of ground-floor retail space.

Enterprise Block: The first phase of the Enterprise Block project, which is slated to be completed in the middle of 2015, will include 5,000 square feet of space for a restaurant tenant and another 1,500 square feet for a small retail tenant.

Aimco will be the project’s equity investor.

Aimco is a Real Estate Investment Trust (REIT) headquartered in Denver, Colorado and is one of the largest owners and operators of apartment homes in the country. Led by Chairman and CEO Terry Considine, Aimco is a top provider of apartment homes to nearly 250,000 residents. Aimco has properties in 24 states and the District of Columbia. The company’s shares are listed on the S&P 500 and are publicly traded on the NYSE under the symbol AIV. Long recognized as an exemplary corporate citizen, Aimco has a philanthropic arm called Aimco Cares.

Redevelopment of well-located communities offers significant opportunities for Aimco to create value for its customers and company. Through thoughtful planning and design, Aimco is able to extend the lifespan of its communities, offer improved surroundings and services to its residents, and contribute to the vibrancy and economic development of the cities in which it does business.



2900 First Apartments

2900 First Apartments

Seattle, WA

2900 First Apartments is undergoing renovations to bring new amenities and exciting enhancements to its residents. Residents at 2900 on First Apartments will enjoy a courtyard complete with patio seating, and open grassy areas perfect for a picnic or a game of fetch with the dog. It’s the perfect backyard, right in the heart of Belltown. In early 2015, a brand-new resident lounge with indoor/outdoor fireplace, a BBQ area with stainless steel gas grills and a fenced-in dog park will open. Inside, residents will have access to a multi-media interactive table, meeting room and access to indoor/outdoor lounge with terrace.



Preserve at Marin Apartment Homes

Preserve at Marin Apartment Homes

Corte Madera, CA

Preserve at Marin Apartment Homes is currently going through a complete community renovation to bring spacious, luxury apartment living to Corte Madera, CA. Situated atop the beautiful hillside of the Ring Mountain Open Space Preserve, residents will enjoy spectacular views of The Bay, Mt. Tamalpais and the Richmond Bridge as well as immediate trail access.

Lincoln Place Apartment Homes

Venice, California

Lincoln Place Apartment Homes is located within the Penmar Venice neighborhood with its spacious yards, ample parking, quiet atmosphere and easy access to shopping, recreation and the rest of Silicon Beach and Venice. “The Linc,” with its trendy boutiques and restaurants, was recently ranked second in Time Out Los Angeles’ “Five Los Angeles neighborhoods to watch in 2014” list. Lincoln Place is also within walking distance of Abbot Kinney Boulevard (named “The Coolest Block in America” by GQ) with great shopping and dining. Lincoln Place Apartment Homes is undergoing a major renovation to bring exceptional, modern apartment living to Venice. Located just a half-mile from Abbot Kinney and a mile from the Google Campus and Venice Beach, residents will be within walking or biking distance to everything.

b. Construction Manager/Project Manager

For the Parcel 13 project, it is anticipated that Lawrence Sparrow will act as the Senior Construction Manager. Mr. Sparrow is an experienced construction professional who brings over 35 years of experience in construction management and particular experience in complicated projects involving MBTA infrastructure. Mr. Sparrow received his Bachelor of Architecture from the University of Oregon and is a Licensed Construction Supervisor in Massachusetts. Since joining Trinity, Mr. Sparrow has served as Construction and Design Project Manager for many large-scale projects involving close collaboration with public agencies. Collectively, these projects represent almost \$330 million in total construction value and approximately 1,200,000 gross square feet of development.

The following is a more detailed explanation of the projects that Mr. Sparrow has managed.

Avenir

From 2006-2009, Mr. Sparrow managed the \$100 million construction contract with Dimeo Construction for 241 units of luxury rental housing, 217 parking spaces, and 27,000 SF of retail over the MBTA Orange and Green Line Superstation at North Station. The complex 380,000 SF project not only utilized the North Station Superstation infrastructure to support the building, but also required that the MBTA station remain open and accessible for the over 15,000 commuters that utilized in every day throughout its construction. Mr. Sparrow adeptly worked with MBTA staff throughout the construction, holding weekly meetings involving MBTA staff, closely monitoring vibration, waterproofing details, safety concerns and impacts of construction on the entrances and exits of the T station. Mr. Sparrow delivered the project on time and on budget in 2009.

One Canal

Since 2012, Mr. Sparrow has been involved in the 450,000 SF One Canal project. Today he is currently managing the \$140 million construction contract with John Moriarty & Associates for 310 units of luxury rental housing, 159 parking spaces and 21,000 SF of retail designed to accommodate an urban supermarket. This complex project involves construction above both the MBTA Orange and Green subway line tunnels and the Central Artery tunnel. Additionally, the complicated site also necessitates constructing the high rise building around an existing MBTA vent shaft and electric substation and maintaining MBTA access to these throughout construction. Close attention must be paid to mitigate MBTA concerns around safety, impacts on the tunnels and operations. The project is on schedule and is expected to be complete in early spring 2016.

Maverick Landing

From 2002-2006, Mr. Sparrow managed the \$89 million construction contract with Dimeo Construction and CWC Builders for 426 homes at Maverick Landing on the East Boston waterfront. This multi-phased construction project on four city blocks involved the relocation of existing public housing residents, the rebuilding of multiple city streets and associated public infrastructure, and the construction of multiple open space and community elements including a park, community center and a harborwalk along the East Boston waterfront. The project was developed in public private collaboration with the Boston Housing Authority and was delivered on time and \$1.5 million under budget.

Additionally, Mr. Sparrow has overseen the reconstruction of the dilapidated Appleton Mills into 130 units of affordable housing for artists, the historic 110 Canal into 55,000 SF of office space in downtown Lowell, and the construction of 20 for sale condominium units at Foundry Square in Newburyport, MA. Prior to joining Trinity, Mr. Sparrow was the Senior Construction Manager for the Casali Group where he worked on Harvard's \$125 million consolidation of the Center of Government and International Studies designed by Pei Cobb Freed and Partners. Prior to that, Mr. Sparrow supervised all construction related activities at Keen Development for more than two decades.

c. Station Improvements Designer (submitted as a separate, sealed package)



Avenir



Maverick Landing



Hamilton Canal District



Boston East

d. Other Development Team Members

The following is a description of the key members of The Boylston development team.

- ICON architecture
- STV Group Inc.
- Dimeo Construction
- Copley Wolff Design Group
- LeMessurier Consultants

For information on the balance of the development team, please see section 6 of Component III.

ICON architecture, inc. is a Boston-based firm of 40 staff with award-winning work focused on sustainable urban development—creating new paradigms for city living ranging from infill transit-oriented development to innovative adaptive reuse. Our projects mix uses—high-end market residential with workforce/affordable housing, artist live/work communities with retail and incubator environments, and collegiate facilities engaging their neighborhood edges. ICON’s projects have been case studies for nationally distributed books on urban housing, published by the Urban Land Institute, Harvard University Press, and Global Green. Our work has won numerous awards, including the National Turner Prize for Innovation and Leadership in Sustainable Housing, multiple Builders Choice Design Awards, a Governor’s Smart Growth Leadership Award, and multiple Preservation Achievement Awards from the Boston Preservation Alliance and the Massachusetts Historical Commission.

ICON has collaborated with Trinity on numerous urban mixed-use projects, including Avenir and One Canal, in Boston, as well as Park Square West in Stamford, Connecticut.

Nancy Ludwig, FAIA, LEED AP BD&C, Principal-in-Charge of Design, serves as President of ICON architecture, inc. She brings extensive experience building over transit systems, including her mixed-use Boston designs for Avenir and One Canal in the city’s West End over the MBTA North Station and Central Artery. Her leadership is demonstrated in her guidance of ICON’s design staff, her technical direction of concurrent multi-million-dollar architectural projects, her sensitivity to Boston and New England contexts, and her practical know-how accumulated in the design and construction of thousands of housing units.

Janis Mamayek AIA, LEED AP, and Principal-in-Charge of Construction, brings expertise in the construction of new multi-phase, transit-oriented, urban mixed use developments. She seamlessly managed the construction of Avenir over the MBTA North Station.

Kendra Halliwell AIA, LEED AP, Associate and Project Manager, has served as project manager for a range of innovative residential projects and several mixed-income developments in Boston.

David Stockless AIA, LEED AP, Senior Project Manager, has successfully completed a wide range of projects including residential, workplace, retail and recreation spaces.



ArtBlock 731



Park Square West (101 Summer Street)



Morville House



Morrissey Boulevard Residences

He makes every effort to deliver the highest quality design and construction documents.

Matthew Marotta, Architectural Designer, is highly-skilled in 3D imaging using BIM platforms, including ArchiCad, SketchUp, and Artlantis. He has contributed to several mixed-income and market-rate housing developments.

Relevant Experience

ArtBlock 731

Boston, MA

Catering to Boston’s “Artist Space Initiative,” ArtBlock 731 creates two new live/work loft buildings wrapped around an historic school converted to artist work space. The contemporary exterior emulates the surrounding rhythms and materials of the historic South End and expresses the community-of-arts within. Winner of the 2009 Builder’s Choice Award and the 2007 Preservation Achievement Award Notable New Construction in Harmony with Boston’s Built Environment.

Park Square West Mixed Use Development

Stamford, CT

Resurrecting 4.4-acres in downtown Stamford CT, Park Square West creates a new mixed use district with high-rise housing and retail and entertainment. Three high-rise towers --101 Summer Street, 66 Summer, and West Park Place -- blend 570 new apartments and street-level retail into the historic core. The high-rises engage Stamford’s entertainment district and “Restaurant Row” with a midblock pedestrian passage designed to link pedestrian circulation throughout the district.

Fenway Special Study Area

Boston, MA

In response to significant development pressure from major development projects underway in the Fenway area, ICON conducted this study in cooperation with the Fenway community and the Boston Redevelopment Authority to create guide-lines for future development that would improve the quality of life for Fenway residents. The firm developed recommendations for new zoning regulations that would create a more neighborhood-oriented district; urban design guidelines that would enliven and rejuvenate the community; and incentives to foster the types of development and uses envisioned during the planning process.

Morville House

Boston, MA

This 12-story high-rise addition to an existing building blends 30 new residential units into an upgraded senior living complex at Morville House. Located in Boston’s active Fenway and Symphony Hall area, the new tower was designed to reduce shadow impacts on neighboring historic housing.

Morrissey Boulevard Residences

Boston, MA

The first project to be built as part of the extensive new neighborhood of Columbia Point, this 240,000 SF transit-oriented project mixes commercial and live/work ground level space with 280 innovative apartments and lofts. The project wraps around a ground level courtyard, with landscaping and pool, sheltered from the bustle of the city.

STV will serve as the **Station Improvement Designer** as well as the **Civil Engineer** for the Air Rights Parcel.

STV, established in 1912, is a premier multidisciplinary firm with more than 70 professionals and support services located in Boston, and over 1,700 additional resources nationwide with the capacity to staff all necessary engineering, design, planning, and construction management services through in-house resources alone. They are currently ranked 12th in Transportation by Engineering News-Record in the “Top 500 Design Firms Sourcebook,” and 9th in Mass Transit and Rail, and have attained more than 125 awards and accolades from clients, organizations, and owners across the nation.

STV has provided services for planning and design of transportation terminals and intermodal facilities for more than 20 years. They understand that stations, terminals and intermodal transportation centers are in the public eye. Their design must integrate mobility with safety, security, aesthetics and ease of maintenance. STV has met these essential criteria in all their assignments, whether new construction or rehabilitation. Their work is sensitive to station surroundings while addressing requirements for system operations, intermodal connections, accessibility, traffic engineering, passenger and pedestrian flow, information systems, and provisions for the elderly and disabled.

Over the past 35 years, STV has worked on close to 100 projects for the MBTA. This work includes the \$320 million Greenbush Line Rail Restoration Design-Build project (7 new commuter rail stations), the \$104 million Silver Line Courthouse Station project, the new \$20 million Boston Landing at Allston/Brighton commuter rail station (a public-private initiative), the new \$6.2 million Hingham Intermodal Center (bus and ferry), the \$21 million modernization of Green Line Copley Station, and the \$250 million North Station Transportation Improvement project. The services that they have provided for these projects have included mechanical, electrical, civil, structural, architectural, landscape, environmental, and sustainable design. They have designed platforms, ramps, elevators, canopies, sidewalks, crosswalks, pedestrian bridges, bicycle amenities, streetscapes, landscape improvements, green roofing, stormwater management, grading, drainage, ADA improvements, security features, vehicular access, parking lots, lighting, signage, variable message boards, as well as track and signal modifications. STV has a special combination of knowledge and experience in all aspects of rail consulting as well as an intimate knowledge of the MBTA’s design and construction standards, services, and staff.

STV also has an experienced team of civil engineers who provide services in site planning, site investigations, data collection, civil engineering and design, and construction management. STV brings an over 90-year history in providing civil engineering to transportation facilities and infrastructure programs. Their credentials cover grading, drainage, utilities, site fire protection/detection systems, storm and sanitary systems, sewer systems, potable water distribution systems, and pavements and roadways, as well as bridges, tunnels, and other structures such as culverts and retaining walls. The firm has also prepared plans to assist with property acquisitions and has coordinated utility services with utility owners. STV has established a record of undertaking and successfully completing a wide variety of civil services for large-scale transportation projects including streetscape improvements, pedestrian access, security systems, access roads, parking, topographic surveys, sidewalks, and connection ramp structures, among others. STV also offers traffic planning and signaliza-

tion, maintenance and protection of traffic engineering, and lighting design.

STV has developed vehicle circulation, roadway layout, and site improvements required for the construction of numerous transportation facilities, including the design of driveway access, parking areas, sidewalks, street lighting, and ADA-compliant curb ramps. They have also designed major utility upgrades, including water, sanitary sewer, and storm drainage conveyance systems and detention ponds; and traffic calming and signalization improvements. STV has also prepared plans to assist with property acquisitions and has coordinated utility services with utility owners.

Key Personnel

Anthony Timperio, PE, Project Manager, will be responsible for the all the design and engineering of the station. He possesses 25 years of experience in the planning and design of transportation facilities and improvement projects. His experience with the MBTA includes serving as a Civil Manager for the MBTA Greenbush Line Rail Restoration Design-Build project (7 stations), the new million Boston Landing at Allston/Brighton commuter rail station (a public-private initiative), and the new million Hingham Intermodal Center (bus and ferry).

Kristine Gorman, Architect, will serve as Deputy Project Manager and will also be responsible for wayfinding/pedestrian access. She has close to 10 years experience and is currently managing the design of the new MBTA Hingham Intermodal Center. Additionally, she is preparing multiple contracts to be used by Massport for the fabrication and construction of roadside and curbside wayfinding signs to improve navigation for Logan International Airport in Boston.

Paul Tyrell, PE, PLS, LEED® AP, Project Manager, will be the Civil Work & Air Rights Development Lead. He has nearly 30 years of experience in design and construction of transportation projects, including the MBTA Greenbush Line Rail Restoration Design-Build project (7 stations, 130 design packages, 250 different utilities) and the MassDOT Longfellow Bridge Rehabilitation (MBTA Red Line)

David Gonsalves, Civil Engineer, has with more than 25 years of experience and will be responsible for the site improvements and circulation requirements. He also worked on the MBTA Greenbush Line Rail Restoration Design-Build project (7 stations) and the MBTA Green Line Copley Station Accessibility Improvements Project.

Jeffrey Manning, PE, LEED® AP, Electrical Engineer, has more than 10 years experience and will be responsible for street lighting. He recently designed roadway lighting for a large section of the Massachusetts Turnpike in support of the MassDOT Fenway Center, a 1.3-million-sf, mixed-use development within air rights space.

Preethi Sreeraj, PE, LEED® AP BD+C, Civil Engineer, has more than 10 years experience and will focus on the utilities. She is currently designing stormwater management and drainage improvements for the \$255 million rehabilitation of the MassDOT Longfellow Bridge that involves the MBTA Red Line.

Dustin Kerksieck, Civil Engineer, will be responsible for sidewalk/pedestrian access. In the time that he has served at STV, he has focused on sidewalk-level cycle tracks, safety improvements for cyclists and pedestrians, street lighting, and various aesthetic improvements. He is familiar with ADA guidelines and Massachusetts Architectural

Access Board (AAB) regulations.

Relevant Experience



Copley Station Accessibility Improvements

Green Line Copley Station Accessibility Improvements

Boston, MA

Total Construction Cost: \$21M

Completed: 2010

The MBTA retained STV to design accessibility improvements and rehabilitation services to Copley Station in Boston. After coordinating with several agencies to preserve the historic integrity of the site, the firm modernized the station, including reworking the electrical system; performing structural repairs and restoration; and adding elevators, ramps, crosswalks, and other amenities.



MBTA Greenbush Line Rail Restoration

MBTA Greenbush Line Rail Restoration Design-Build

Braintree, Cohasset, Hingham, Scituate, and Weymouth, MA

Total Construction Cost: \$320M

Completed: 2007

STV was the lead designer for the reconstruction of the 18-mile-long Old Colony Greenbush Line, the MBTA's first large-scale design-build project. The project scope consisted of the restoration and reconstruction of 18 miles of right-of-way and included the design of 7 new commuter rail stations with 800-foot-long, high-level platforms and parking. STV also developed a signal and communication system, and rehabilitated or replaced 18 bridges, 28 signalized grade crossings, and 19 signalized traffic intersections. Additionally, this complex project included an 800-foot tunnel and a 2,500-foot underpass. Miles of retaining walls, noise walls, and numerous culverts were also reconstructed or rehabilitated along the alignment, and freight facilities in Braintree were relocated offline. The American Council of Engineering Companies (ACEC) of Massachusetts awarded STV the 2010 Gold Award for professional design excellence.



MBTA Silver Line Courthouse Station

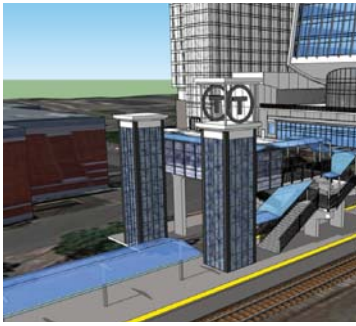
MBTA Silver Line Courthouse Station and Tunnel

Boston, MA

Total Construction Cost: \$104M

Completed: 2004

STV served as the engineer-of-record for the \$104 million Courthouse Station and Tunnel, a major portion of Phase II of the MBTA's Silver Line project. Phase II, which opened in December of 2004, created a connection between downtown Boston and the city's Seaport District. The architecturally significant Courthouse Station is a centerpiece of the waterfront area. The project that featured the design and construction of a 1,900-foot-long, cut-and-cover tunnel beneath Seaport Boulevard and a 600-foot-long below-grade station. The firm also designed and oversaw the reconstruction of Seaport Boulevard.



Boston Landing at Allston/Brighton Commuter Rail Station

Boston Landing at Allston/Brighton Commuter Rail Station

Boston, MA

Total Construction Cost: \$20M

Ongoing

STV is providing multidisciplinary design services for the new Boston Landing at Allston/Brighton MBTA commuter rail station, a public-private initiative being developed in conjunction with footwear manufacturer New Balance's \$500 million New Brighton Landing corporate campus. Estimated to cost \$20 million, the station will be a stop on the MBTA's Framingham/Worcester Line and feature a state-of-the-art center island platform with accessible ramps, elevators, and a pedestrian bridge crossing that connects to the New Balance development, Arthur Street, and Everett Street bridge overpass.



MBTA Hingham Intermodal Center

MBTA Hingham Intermodal Center

Hingham, MA

Total Construction Cost: \$6.2M

Ongoing

STV is designing the new, 8,400-sf facility, which will serve both as a terminal building for bus and commuter boat operations and provide office space for the Hingham Harbormaster, the Department of Conservation and Recreation Harbor Islands staff, MBTA operations staff and ticket sales, and the Massachusetts Environmental Police. The project is being designed to LEED® Gold standards will serve a massive mixed-use development project at Hingham Shipyard, including 479 residential units, 240,000 sf of retail space, and a marina.



Dimeo Construction Company will act as the Construction Manager providing full services through preconstruction and construction including planning, estimating, scheduling, procurement, commissioning and closeout.

For nearly a century, the core principles of quality, value, experience, service, excellence and tradition have served as hallmarks of Dimeo Construction Company. This third generation, privately held, family-owned and operated construction manager and builder is widely recognized throughout the northeast as a leader in providing high quality, innovative construction management and general contracting services for residential, educational, corporate, healthcare, retail, and R&D organizations. Founded in 1930 by Joseph Dimeo as a small, regional contractor, Dimeo has steadily grown to become ranked by Engineering News Record as among the top 100 construction managers in the country.

Stephen F. Rutledge, Principal-in-Charge, directs the overall operations of the company, including project administration, contract management, preconstruction planning and estimating, purchasing, construction operations and safety compliance.

Frank Allard, Project Executive, will lead the entire project operation through planning, estimating, purchasing, and construction in addition to regular interface with the Owner’s representative to review overall project status and specific issues.

Michael J. Fuchs, Vice President of Preconstruction Services, leads Dimeo’s Preconstruction Services Group in the delivery of preconstruction phase services.

Peter M. Eskelund, Senior Estimator/Planner, will be responsible for assisting the project team in the development of budgets and cost estimates.

Relevant Experience

Avenir

Boston, MA

Dimeo served as Construction Manager for the Archstone Avenir, mixed-use redevelopment project, located within Boston’s historic Bulfinch Triangle, designed by ICON Architecture. The site is bounded by Causeway, Canal and Haverhill Streets, and Rip Valenti Way. Archstone Avenir is a 241 unit ‘high end’ rental development, with 17 below-market units, in a ten story steel-framed structure. Included within the structure are 116 parking spaces, 28,000 sf of commercial space, and 7,000 sf of reworked MBTA station entries. The project is situated above, and is partially supported by the structure of the MBTA’s Orange and Green Line North Super Station.



Avenir

Natick Collection

Natick, MA

Dimeo served as the Construction Manager for General Growth Properties for the major expansion and renovation to the Natick Mall in Natick, MA. This multi-phased project included 550,000 sf of new retail space on two floors, anchored by Nieman Marcus and Nordstrom’s, and 1,750 structured parking spaces on three separate parking decks. Additionally, the project included 160,000 sf of renovations to the existing mall’s common area, while the space remained completely occupied.



Natick Collection



Brighton Landing

Brighton Landing

Brighton, MA

Dimeo constructed two mid-rise office buildings concurrently on a constrained site adjacent to the Massachusetts Turnpike. New Balance Inc., as anchor tenant, occupies the first 120,000 square feet of the 430,000-square-foot, mixed-use complex for its new corporate headquarters. The complex’s two mid-rise buildings, one ten stories and the other seven, were built in tandem. The \$85 million development includes a 1,200-car garage and a two-story glass atrium featuring a sky bridge connecting the two buildings. Other amenities include executive parking, a full-service cafeteria and a landscaped outdoor plaza with reflecting pool. Dimeo also was the construction manager for tenant fit-outs for occupants that include VirtMed, Entercom Boston, and Newbury Comics, among others.



Independence Wharf

Independence Wharf

Boston, MA

This \$33 million project was built on a waterfront site in downtown Boston. The 14-story, 370,000 sf office building underwent a rebirth to Class A office space with flexible floor plans, new lobby/restaurants, a 120-car parking garage located on the second floor, dramatic harbor and city views, and easy access to subway, commuter rail, water shuttle and bus routes. Dimeo’s project scope included interior and exterior demolition; asbestos abatement; site work; a new glass curtainwall façade; brick and pre-cast masonry; a new roof; new mechanical, electrical & fire protection systems; and interior lobby finishes.



Blue Cross & Blue Shield of RI

Blue Cross & Blue Shield of Rhode Island

Providence, RI

This \$92 million, LEED Silver 13 story office building plus a rooftop mechanical penthouse consists of 325,000 square feet of open landscaped offices and private offices, seven elevators, two stair towers at the core, a cafeteria, and a small fitness center. The building was constructed on a pad site above an existing three-level underground parking garage.

The Sharpe Building at the Foundry

Providence, RI

Presently under construction, the Sharpe Building at the Foundry consists of the conversion of a 157,000 sf historic industrial building into market-rate apartments in downtown Providence. There will be 196-units consisting of studio, 1 and 2-bedroom apartments. Amenities will include a fitness center, theater and roof deck.



Sharpe Building

LeMessurier Consultants

LeMessurier Consultants will act as the **Structural Engineer** for this project.

LeMessurier Consultants, located in Boston, Massachusetts, is a structural engineering consulting firm. Since 1961 our organization has been providing structural engineering services on projects ranging from private residences to multi-million dollar complexes. Guided by seven Professional Engineer Principals and six Associates, the organization's experience includes facilities for airports, transportation, commerce, research and development, education, athletics, housing, health care, public use, and recreation. Its professional engineering staff is accomplished in the design of structures using structural steel, aluminum, regular reinforced concrete, precast concrete, prestressed concrete, brick and stone masonry, timber, epoxies, and visco elastic materials. However complex and elaborate some of its projects have been, the group takes particular interest in finding direct and simple solutions to design problems.

The goal of the firm for each project is to provide excellent services and a superior product on schedule and within budget. As a project is set up, a team is assigned the responsibility of organizing, scheduling, budgeting, and tracking the progress of all phases of work, in order to create a management framework in which designers can work creatively and efficiently. While each group of planners, architects, engineers and specialists is responsible for the technical quality and timely completion of its work, the LeMessurier Consultants team helps to coordinate, direct, and pace the overall effort.

Mysore V. Ravindra, P.E., Chairman, joined LeMessurier Consultants in 1968, becoming President in 1991, and Chairman in 1996. Prior to joining LeMessurier Consultants, Mr. Ravindra was associated for eight years with international contracting and design firms in Europe and India as well as in the United States.

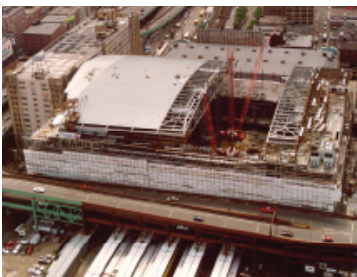
Peter J. Cheever, P.E., President and Project Manager, is responsible for overall project development and implementation of structural design, structural contract drawings and specifications, and construction phase review. Mr. Cheever began his career with LeMessurier Consultants in 1976, becoming an Associate in 1987, Vice President in 1991, Executive Vice President in 2006 and President in 2011.

Relevant Experience

Fleet Center

Boston, MA

The urban location near a major transportation center provided a set of complex structural engineering challenges. Constraints included existing Boston Garden, future Central Artery, MBTA 5-level parking garage with relocated Green Line and new MBTA commuter rail platform with thousands of passengers each day. The three-dimensional physical constraints were further complicated by the fourth dimension: time. Each planned project has a schedule tied to funding, design and construction with interdependent sequences which must be carefully coordinated. The new facility's structural frame had to satisfy an array of loading conditions posed by the planned activities within, in addition to ensuring safe passage by thousands of commuters and Garden Event-goers.



Fleet Center

Prudential Center Redevelopment

Boston, MA

The Retail Phase was a project covering 27 contiguous acres of existing and proposed structures in Boston. The site consisted of several separate use buildings on top of a three-level parking garage bisected by the Massachusetts Turnpike/ Consolidated Rail Corp. tunnel. New one- and two-level structures were added onto the existing structure by utilizing the reserve capacity of the existing columns and foundations.

MTA Parcel 7 / Fenway Center

Boston, MA

The Parcel 7 Fenway Center development will be located over the Massachusetts Turnpike and on land including surface parking lots between the Beacon Street and Brookline Avenue Bridges. It will locate approximately 500 residences, offices and neighborhood-oriented retail space directly adjacent to a new Yawkey Commuter Rail Station, one block from Kenmore Square’s MBTA Station and the Fenway Green Line Station. The development will connect and integrate the existing Fenway, Kenmore and Longwood Medical Area neighborhoods.



One Cambridge Center

One Cambridge Center

Cambridge, MA

One Cambridge Center in Cambridge, Massachusetts is a 13-story office building which was designed to straddle an existing ballroom of the adjacent Marriott Hotel and an existing MBTA power station building. Seven steel transfer trusses, the largest being two stories deep and spanning 140 feet, were required to transfer ten stories of office building to the exterior of the building.



500 Boylston Street

500 Boylston Street Office Building and Garage

Boston, MA

Slurry wall construction for three-story parking garage below office/retail complex in Boston’s Back Bay. Project site was immediately adjacent to Boston Landmark Trinity Church across Clarendon Street and the MBTA Green Line tunnel in Boylston Street. The 25-story superstructure is founded on 6’-0” thick foundation mat bearing on clay. The 6-story low-rise is founded on spread footings, hold down piles (tension piles) and 24” pressure slab designed to resist a hydrostatic head of approximately 25’-0”.

125 Summer Street

Boston, MA

The project site, located in downtown Boston with the building and property line coinciding with four major streets, provided an interesting and unique structural problem. The site was occupied by four older 5 to 6-story buildings that would be demolished to make way for the new construction. However, the existing building’s facade, approximately 70’-0” high had to be maintained on three sides of the building whose foundation was located only 4’-0” below grade, and to make the project viable, a 5-story underground garage had to be constructed for parking on top of which was a 300 ft. high 24-story office building.



125 Summer Street

3. Construction Management/ Project Management

Overall Approach to Construction Management/Project Management

Trinity along with its Construction Manager, Prime Architect, Station Designer and consultants (together and individually) bring a wealth of experience and familiarity with complex Air Rights Development projects and with the mandates and procedures of complex state agencies MBTA/MDOT. Adding to the challenge of constructing over an open and active highway, the procuring and managing of the Station Designer and the publicly bid Station Improvements will present new project management (as well as technical) challenges. However our integrated, seasoned project team has proven that we are flexible enough to meet those challenges.

Our previous proposals for this site demonstrated our ability to seamlessly integrate the Boylston Street entrance into our mixed-use Air Rights Development – thereby accommodating a good portion of the BCIL requirements. Icon Architecture, as Prime Designer of the Air Rights Design, will coordinate with the Station Improvements Designer for the appropriate delineation (with MBTA oversight) of the Air Right's shell components needed to house the new station entries, substation and other MBTA elements. Phased design submissions of the air rights development will be made in concert with the phased design submissions of the Station Improvements.

STV, LLC is to be the Station Improvement Designer and the scope of their contract will be confirmed in consultation with the MBTA prior to its execution. Their scope of services will closely track the MBTA's Model RFP and the contract will follow MBTA terms and conditions inclusive of phased Design Submissions and Construction Administration requirements. The Station Improvement Designer, will be responsible for incorporating MBTA standards and procedures into the competitively bid construction contract.

Dimeo Construction Company will serve as the Developer's overall Construction Manager and will integrate and manage contracts and schedules for both the Station Improvement and the Air Rights Development. Construction schedules will be determined by Dimeo during the design phase in concert with the designers, MBTA Design and Construction and coordinated with OREAD / MDOT for impacts to the Turnpike. Schedule requirements will be embedded in the Station Improvements RFP and into both Construction Contracts. Concurrent delivery of both projects will be evaluated during design of the two symbiotic projects - taking into consideration the desire of continuous operation of the Green Line and minimizing patron inconvenience.

Project Accounting

It is fully understood that accounting for the Station Design Contract and the Station Improvement Construction Contract will be held separately from The Air Rights Contracts and will be fully "open book" and auditable by the MBTA/MDOT.

To facilitate a clean accounting separation of the various "projects within the project", a strong early planning process will be required. As the planning team leader, Dimeo will coordinate the various design teams and their documents to assure that all scope definitions are well-defined by project. The delineation of scopes of work between the various members of our design team must be clear and precise in order to assure accurate bidding. This delineation of scope will create the groundwork for clean and separate accounting for the projects, assuring no fiduciary cross contamination.

With the station work being publically bid, the documents will not only need to reflect the "bricks and sticks" scope but also the logistical scope as it relates to accessing the work, and any restrictions that could impact the execution of the work. These limits of work will be reviewed with the various stakeholders prior to being published for bidding.

Dimeo utilizes a number of tools in the development, monitoring and reporting of project cost. Actual cost reporting is supported through the Dimeo Cost Control Reporting System. This system's reporting capabilities are comprehensive and highly flexible in configuration, depth of detail and timing.

Core reports can be supplemented by a number of subsidiary reports generated from the base data. Reports including: the Management Detail Cost Report; the Vendor Analysis Report; and the Project Cost Verification Report provide easy, on-demand access to a project's current and actual projected cost information, as well as segregation of costs by project(s).

All accounting and job cost reporting systems will be made available directly, on-line and on-demand with distinct levels of access/security through direct connections to Dimeo's web-server. This feature will facilitate the client's up-to-date review and projection of final project cost from their project from any computer with internet access.

Early Engagement

Trinity takes considerable pride in all of its developments and achieves the highest level of quality and attention to detail in their construction. In order to manage the inherent risks and challenges that transit-oriented projects present in particular, Trinity employs a multi-layered approach to the design and construction process.

Initially, Trinity's in-house design and construction department works closely with a third-party architectural team in the planning, conceptual and design development phases of a project. With careful oversight of the architect, and attention to matters involving infrastructure, permitting and financial feasibility, Trinity's project team is then able to manage the inevitable big picture issues that can be problematic in construction.

Once the project design progresses to the construction document phase, Trinity involves the Senior Construction Project Manager who will act as the on-site owner's representative during the construction period. The Senior Construction Manager typically manages one to two projects at a time, depending on the level of complexity and size of the project. While in the construction document phase, the Senior Construction Manager gains an intimate understanding of the building and works with the architect and our property management team to make sure the building systems are designed effectively and efficiently.

Trinity will hire a third party general contractor to perform construction and will also have its own onsite Senior Construction Manager over see the job. Once construction commences, instead of depending upon the architect's inspection services only, Trinity's Senior Construction Manager carefully monitors construction quality, schedule and contingency to make sure that the project remains on schedule and on budget. The Senior Construction Manager runs regular construction job meetings with the team, incorporating the necessary inspectors as appropriate.

4. Development Approach

a. Development Program

i. Program Areas

Gross Square Footage

Floor Level	Service Residential	Service Retail	MBTA	Retail	Parking	Bikes	Lobby/Circ.	Mgt & Leasing	Amenity	Housing	GSF	Height
Basement	2,554	3,000	3,329	0	0		0				8,883	
1st	3,350		5,203	18,859	0		6,200				33,612	16
Mez. P1					9,539						9,539	
2nd P2	1,302			17,077	9,539	1,900	625	5,000			35,443	14
3rd				14,926						18,384	33,310	14
4th									4,209	17,006	21,215	11
5th										21,215	21,215	11
6th										21,215	21,215	11
7th										21,215	21,215	11
8th										21,215	21,215	11
9th										21,215	21,215	11
10th										21,215	21,215	11
11th										21,215	21,215	11
12th										8,495	8,495	11
13th										8,495	8,495	11
14th										8,495	8,495	11
15th										8,495	8,495	11
16th										8,495	8,495	11
17th										8,495	8,495	11
18th										8,495	8,495	11
19th										8,495	8,495	11
20th										8,495	8,495	11
21st										8,495	8,495	11
Totals	7,206	3,000	8,532	50,862	19,078	1,900	6,825	5,000	4,209	268,845	375,457	242

UNIT MIX

Floor Level	ST	1BR	2BR	Total
3rd	8	14	3	25
4th	7	13	3	23
5th	9	15	5	29
6th	9	15	5	29
7th	9	15	5	29
8th	9	15	5	29
9th	9	15	5	29
10th	9	15	5	29
11th	9	15	5	29
12th	3	4	3	10
13th	3	4	3	10
14th	3	4	3	10
15th	3	4	3	10
16th	3	4	3	10
17th	3	4	3	10
18th	3	4	3	10
19th	3	4	3	10
20th	3	4	3	10
21st	3	4	3	10
Total	108	172	71	351
	30.8%	49.0%	20.2%	

AVG. UNIT NSF

Type	NSF
<i>3rd - 11th Floors</i>	
Studio	440 NSF
1BR	625 NSF
2BR	935 NSF
<i>12th - 21st Floor</i>	
Studio	446 NSF
1BR	685 NSF
2BR	1,000 NSF

PARKING

Location	Spaces	Ratio
Mez. P1	45	12.8%
2nd P2	45	12.8%
Total	90	25.6%

ii. Land Uses

Trinity proposes a mix of uses on Parcel 13, including a major new public park, multi-level retail, 351 apartments with associated amenity areas, and new access to the MBTA Green Line Hynes Station at both Massachusetts Avenue and Boylston Street. Program elements array in the following manner:

Ground thru Third Floor Uses: At the Mass Ave/Boylston Street corner, a broad new 1/3-acre public plaza extends for a 200-foot length. A 50,000 SF, three-level retail pavilion extends along its northern edge, designed to allow commercial space sub-division for potential retail tenants. At the eastern end of the public plaza, a tall glass volume signals entry and vertical circulation for the multi-level retail space – this tall volume connects with the MBTA Boylston headhouse, allowing free flow of MBTA patrons into the shopping area within the building. At its western end, the pavilion engages the new Mass Ave entry to Hynes Station, stepping back at ground level to provide a covered waiting area for MBTA Mass Ave Bus patrons. Another street level landscaped plaza further down Boylston engages the residential lobby and a prominent new Hynes MBTA Station entrance/exit directly accessing Boylston Street. Broad storefronts on the second level in this area look into the apartment leasing center and amenity spaces.

Upper Floors: The residential building sits back from the street level podium at the third level, engaging an 11-story, double loaded housing bar that touches Boylston at either end, bends along the triangular entry park, and sets back from the street to reveal a lower scaled podium. At its eastern end, the housing block transitions to a slender 21-story tower set back from Boylston Street, and rising to 360 degree views of Back Bay and Boston beyond.

For the Parcel 13 development Trinity is proposing to meet the requirements of the Mayor’s Order Relative to the Inclusionary Development Policy by providing substantial cash contribution to subsidize affordable housing in an off-site development. The development budget includes \$9.2 million based on the current program. Trinity is committed to applying our experience in developing affordable housing and working with the Back Bay and Fenway communities to ensure that the Inclusionary Development Policy is implemented effectively for MassDOT Parcel 13.

iii. Parking

A three-level (8 foot floor-to-floor) automated parking system accessed off of the alley will provide parking for 90 cars, at a ratio of .26 parking spaces per residence. The garage structure tucks into the back of the residential building – its upper levels extend over the MBTA headhouse. Parking for MBTA vehicles will be accommodated along the ramp into the loading area. No parking is provided for the retail area given the transit-oriented location of the development. Loading for both retail and residential is provided via the green alley accessed off of Gloucester Street.

b. Air Rights Development and Site Design Description

i. Design Intent

The Boylston creates a striking new gateway into Boston’s Back Bay. Reknitting the urban streetscape over the Turnpike, this new development repairs and enriches the public realm. Focused on a new public plaza, The Boylston is woven into the Back Bay grid, extending new retail activity and residential life into the neighborhood. Its architecture is firmly grounded in traditions of the Back Bay, yet enriched by contemporary sensibilities. Embracing and inviting to the surrounding cultural arts community, The Boylston provides a harmonic mix of uses and forms to activate, enliven, and restore this Back Bay gateway as an iconic setting for Boston.

The Boylston is designed to:

- Revitalize this Back Bay Gateway with a dramatic, art-oriented public plaza -- encouraging assembly/gathering/meeting at this important intersection within the city. Interactive sculpture and building environmental graphics combine to visually communicate the contemporary mix of uses and, yet, remind patrons of the history of this place. The undulating paving pattern of the broad, open plaza recalls the original tidal flats of this area while providing artful seating and specialty lighting. An iconic light-filled sculpture at the corner will become a new symbol of renewal, marking this inspiring place as a starting point to engage in creative exploration of the Back Bay and all its institutions.
- Restore Hynes Station – adding highly visible new entries, providing appropriately scaled areas for queuing and ticketing, incorporating much-needed accessibility, and creating a significant new covered public bus waiting area along Mass Ave.
- Regenerate Commercial and Retail opportunities – to engage the nearby cultural institutions with a meeting place for pre- and post-functions, extending entertainment and dining opportunities at this very visible public intersection in the community.
- Extend the Green Alley Renewal – organizing service resources along its edge, and providing thru lobbies for both commercial and residential use that connect the Green Alley to Boylston Street, encouraging pedestrian use of this mid-block connection.

ii. Structural Concept

The building will completely cover the west-bound section of the Turnpike between the existing Boylston Street and Massachusetts Avenue bridges. A smaller section of the building will cover over the west-bound section of the Turnpike bordering the Boylston Street Bridge. The remainder of the west-bound deck will be framed over with the Pedestrian Level Plaza and low-rise structures to provide access to the bus stop and T station.

The existing Boylston Street bridge structure has fly-over beams spanning the Turnpike. These open areas will be in-filled for a new plaza to interface Boylston Street with the new building. Supplemental framing to the existing bridge framing will be required to support the added loading.

Landing points for the new superstructure will include five piers at the median of the Turnpike. All other foundation elements will be to the north of the existing Turnpike. Landing points for the plaza and low-rise wing over the west-bound roadway adjacent to the Massachusetts Avenue Bridge will require new foundation elements adjacent to the 360 Newbury Street building. Coordination with the existing 360 Newbury Street foundations, existing utilities, which, as a minimum, include turnpike drainage structures and piping, is not completed but it is expected that mini-pile foundations with pile caps and grade beams can be needed through the existing utilities, or some utilities can be abandoned/revised in coordination with the foundation support which will be required.

The landing points at the Turnpike will likely consist of drilled shafts installed from the bridge structure above using cribbing and/or matting as necessary to distribute loads within the capacity of the bridge. Selective demolition of the existing crash wall between the railroad and Turnpike will occur in order to install the foundation element and new load-bearing pier. Following installation, the crash wall will be restored while maintaining an isolation joint between the existing bridge abutment and new foundation element and pier supporting the Parcel 13 Superstructure. The design of the foundation elements for the western half of the site need to be sized and coordinated with Turnpike alignment, while assuring that both gravity and lateral loads can be properly supported.

Most of the landing points at the median will only require local demolition of the roadway and possibly relocation of utilities and/or drain structures. Two of the landing points will require temporary reframing of the bridge deck and abutment pier. These will be restored and remain isolated from the new superstructure foundation element.

Following completion of the foundation elements and piers to the deck level, the deck framing, consisting of fireproofed steel beams with composite decks slabs, will be installed. Setting the steel over the open roadway

will need to be coordinated with the approved lane closure and work plan.

Following completion of the deck level, the Superstructure above will be constructed with transfer trusses which gather the loadings of the building above and deliver them to the selective landing points.

During construction, site mobilization and logistics will include the following:

- Set up temporary construction fence/barriers/signage.
- Remove and salvage street lighting/signage/traffic signs and store off site for later installation.
- Remove planter on Boylston Street to temporarily widen roadway for construction phase.
- Remove guard rail/sidewalk/curbing along Boylston for equipment access.
- Set up temporary lane closure on east and west bound lanes along median.
- Set up service lane closure on west bound lane.
- Set up sidewalk and overhead protection along Boylston and Mass Ave.
- Removal and relocation of utilities on Mass Pike overpass if necessary.
- Set up temporary staging areas where available.

iii. Building Design

The Boylston's architecture is firmly grounded in the traditions of the Back Bay, yet enriched by contemporary sensibilities. Composed of three distinct volumes, the development's massing is varied to reflect the cherished urban design character of the Back Bay:

- The three-story retail pavilion recalls the Back Bay's mercantile traditions, rendering a multi-entry façade along the edge of the park with broad glass areas defined for a mix of retailers and eating/entertainment venues. A tall corner at Mass Ave acts as a beacon for this new Meeting Place, projecting ephemeral images on its "metal mesh" wrap to recall the naturalistic origins of this site. The deeply sculpted facade visually expresses the thriving uses within – and plays with surrounding urban sounds, reverberating and dispersing street sounds as new tones. Windows dividing the façade are set back from the building edge to both shelter from the street and the southern sun. Street life and activity are the audience for the pavilion. The retail pavilion engages over 400 lineal feet of Mass Ave and Boylston Street frontage, enclosing a 20,000 SF footprint.
- The eleven-story Residential Block anchors the mid-block length of Boylston Street -- its lower-scaled podium rises just two stories above the street, merging into the predominant 11 story height along its length. The typical floor plate from the third to eleventh floors holds 28 units and 21,000 SF. On the fourth level, the residential amenity area opens out to the rooftop of the retail pavilion, providing a landscaped / green roof as part of the residential amenities. Lush landscaping on this roof, visible from the street below, will reinforce the naturalistic quality of the open space.
- A slim 21-story Tower –at the eastern end of the property, sits above the base, with a modest footprint of only 10 units and 8,500 SF per floor. While taller than the 120 foot zoning allowance, the height balances the overall composition of the development and enhances livability for units on the upper levels with 360 degree views of the City beyond.
- The location and configuration of the MBTA Hynes Convention Center Station headhouses corresponds to that of the Feasibility Study. However, our design does significantly enhance the design.
- A large covered waiting area is provided along Mass Ave for MBTA Bus patrons to wait out of the weather.
- The Retail Pavilion provides direct connection to the MBTA Boylston Street headhouse -- so that MBTA Greenline patrons can seamlessly enter the Retail Pavilion without having to go outdoors. Additionally, this area connects through to the Green Alley, allowing MBTA patrons to enter/exit to the north of the site and walk through the Green Alley for a shorter path to the Boston Architectural College and beyond.
- The new public plaza provides a large, readily accessible seating area to rest while waiting.

Both the retail pavilion and residential elements are clad with a mix of masonry, cast stone and precast, with infill areas of metal panel. The buildings step up in scale as they extend down Boylston, with the lower scaled retail pavilion allowing 360 Newbury to retain long views, then transitioning to a scale similar to 360 Newbury

along its midblock length, and stepping up to a narrow 21-story tower set back into the podium. Each façade is punctuated with traditional window openings; entry elements are highlighted with more contemporary glass and metal cladding. Windows are grouped in two-story heights recalling the tall mezzanine upper levels of historic Back Bay structures. The building length is broken down into smaller scale facades with the character and rhythm of the surrounding districts.

Given both Federal and State requirements for accessibility in public and residential developments, the project will embrace universal design. Most notably, the project will be a triumph for MBTA increased accessibility.

Vertical circulation within the buildings has been carefully planned to avoid conflicts with the Turnpike below.

- The retail pavilion vertical circulation core sits towards the back of the site, over terra firma, accommodating the needs of either multiple or single retail space.
- The residential building has two cores – the primary core sitting to the north side of the lobby, just beyond the MBTA platform areas below. In this location, the core extends up into the center of the tower above. Additionally, a secondary core is provided in the western end of the residential bar – this will allow residents to more easily access the amenity areas on that end of the building, leading to the roof terrace over the retail pavilion.

iv. MBTA

As noted above, our layout embraces the Feasibility Study design for Hynes Station, understanding the need to provide redundant access to both sides of the centered tracks below. Our design incorporates the suggested locations for vertical circulation, understanding the need for redundancy. Along Boylston, we have created a broad and welcoming MBTA ticketing lobby at the Boylston Street level; along Mass Ave, we incorporate the MBTA lobby to the side of 360 Newbury, deeply recessed from Mass Ave.

v. Site Design

Two new Landscaped Plazas step back off of Boylston Street at an angle, marking the geometry of the Turnpike below. This edge is not only symbolic of the historic shift in transportation grids through the Back Bay, but allows the existing roadway decking supporting Boylston Street in the area to remain. The plazas engage all of the pedestrian circulation for the building, including the retail storefronts, the restored MBTA ingress/egress, and the residential entry. From these plazas, pedestrians can enter multiple areas within the buildings; through lobbies in both the retail and residential buildings connect to the Green Alley to the north.

vi. Vehicular Circulation and Parking

Structured parking will be provided at a ratio of .25 parking spaces per residential unit – or 90 garage parking spaces for the 351 apartments. Parking is via a three level automated parking structure placed against the existing alley to the north. The garage levels are interconnected and accessed off of the alley along the northern edge of the site and accessed from Gloucester Street. Parking will not be visible from Boylston Street, as it is fronted by the street level retail and residential lobby. Loading and trash will be accessed off the Public Alley to the north. The existing alley ramp will be upgraded and MBTA parking will be accommodated as it provides access to the rear of Newbury Street retail shops and the traction and unit substations, via easement across the parcel.

vii. Civic Vision

The plan recognizes the design guidelines of the Civic Vision and those of the Neighborhood Association of the Back Bay in fostering a lively pedestrian-friendly public realm along Massachusetts Avenue and Boylston Street. Upper floors align with the goals for housing use with a low traffic generation. Street level use is given over to retail that will hopefully spawn a diverse mix of independent businesses. Improved access to public transportation is integrated into the proposed program. Parking is entirely hidden from view of either street,

accessed from the alley off Gloucester Street.

Specific public realm design guidelines are addressed in the following manner:

- Sidewalks – Are linked into the public plaza at the corner of the site. Pedestrians can meander through the broad, open, landscaped areas, casually strolling or stopping momentarily to sit and people watch. The residential podium aligns with neighboring structures, forming a graciously scaled street wall and allowing sidewalks to meander in and out of the site.
- Public transportation facilities – The dormant Hynes MBTA station will be integrated into the ground floor at both sides of the development.
- Building location – The building will completely shield views to the turnpike from Mass Ave and Boylston Street.
- Scale and massing – The building is broken down into smaller scale facades with the character and rhythm of the surrounding districts.
- Height – A three-story height transitions to a 11 and 21-story height, reflecting historic massing in the district and the presence of taller buildings along Boylston Street.
- Design Character – The building is rendered to include signage, awnings and open storefronts at street level transitioning into smaller scaled elements as the building steps back from the street.

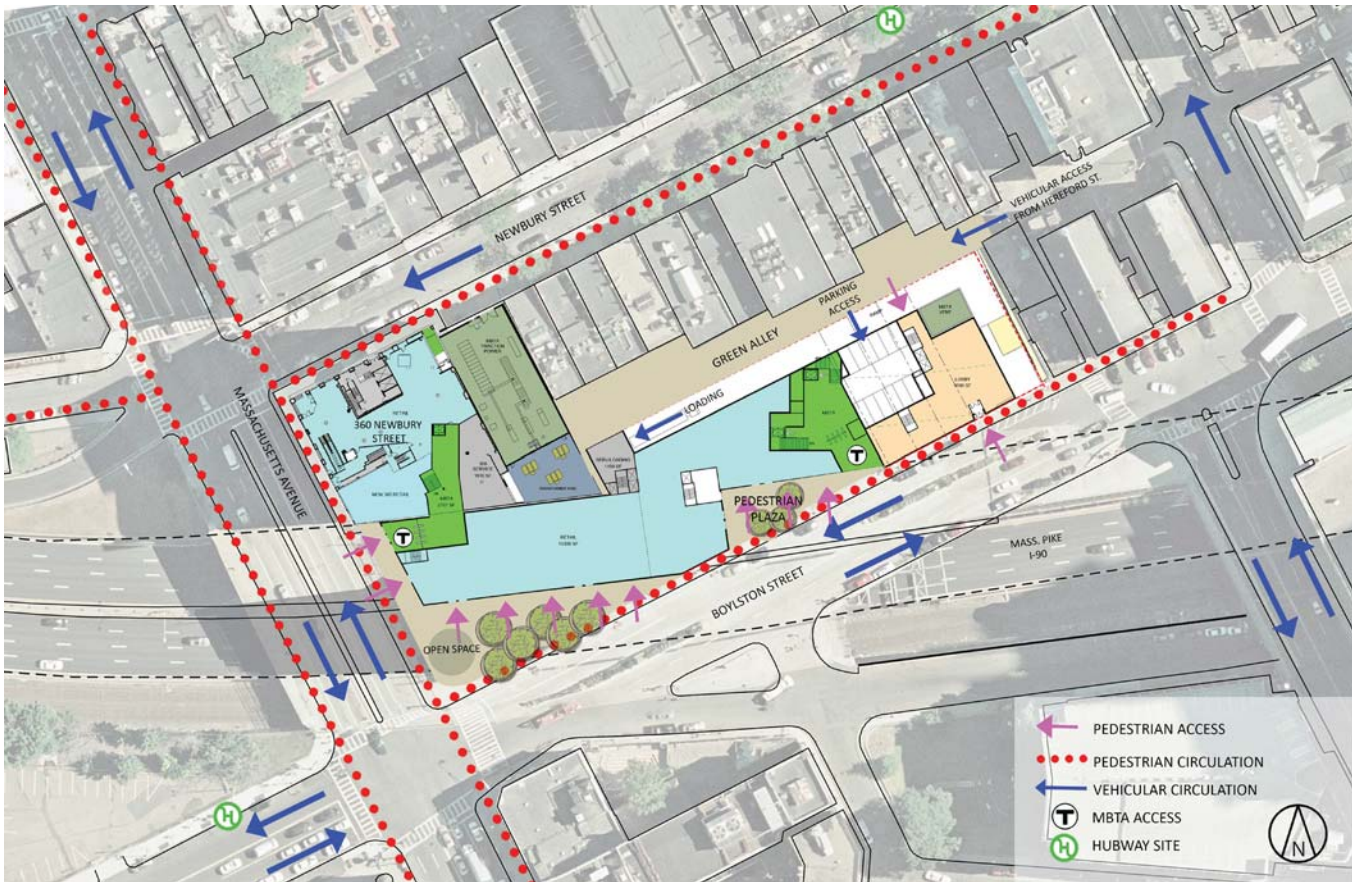
viii. Sustainable Design

The Trinity/ICON team has built more LEED-certified housing units in the City of Boston than any other development entity. Working with Dimeo, we built the first LEED-certified mixed-income housing in Boston – 430 Apartments at Maverick Landing in East Boston. Maverick also incorporated LEED Neighborhood Development principles, reconnecting this new development with new streets and a major new public park. Two years ago, we were honored with LEED Gold Midrise and LEED-H Gold for the 216 units built at Washington Beech in Roslindale. This same team will make sure that this project not only complies with the City of Boston’s Article 37 Green Building standards and the Governor’s Executive Order 484 (Leading by Example – Clean Energy and Efficient Buildings) but will seek to achieve LEED Silver (or better) Certification. The project will strive to set an example for high-performance green building, incorporating the responsible use of resources, including energy, water, and materials, while providing a healthy and comfortable environment for its occupants.

Having successfully completed multiple highrise developments in Boston, our team has positively engaged all review agencies and understands the requirements of permitting on such a difficult site. We have effectively completed MEPA reviews, understand AAB requirements, seek diversity within our own practices (ICON is a SDO-certified women-owned Business Enterprise), and set a high bar for environmental stewardship.

c. Design Model and Drawings

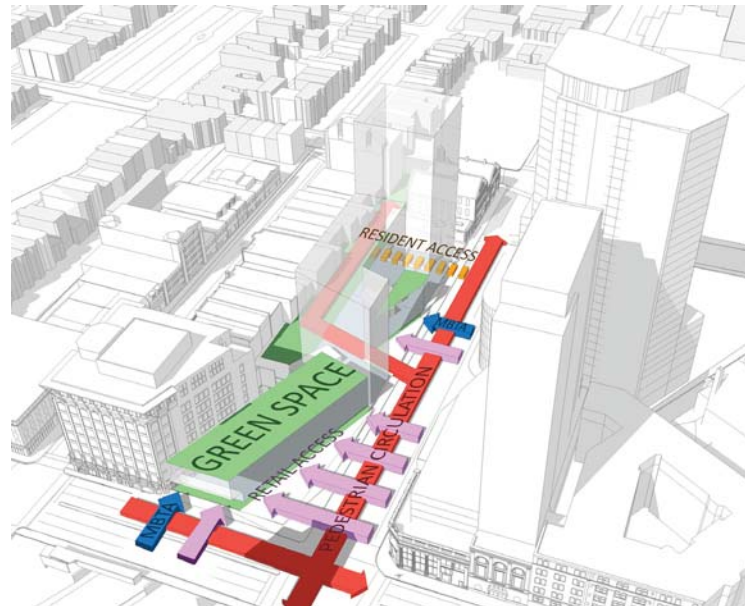
i. Computer model - See enclosed CD.



ii-iii. Design Intent and Site Plan: Access and Circulation

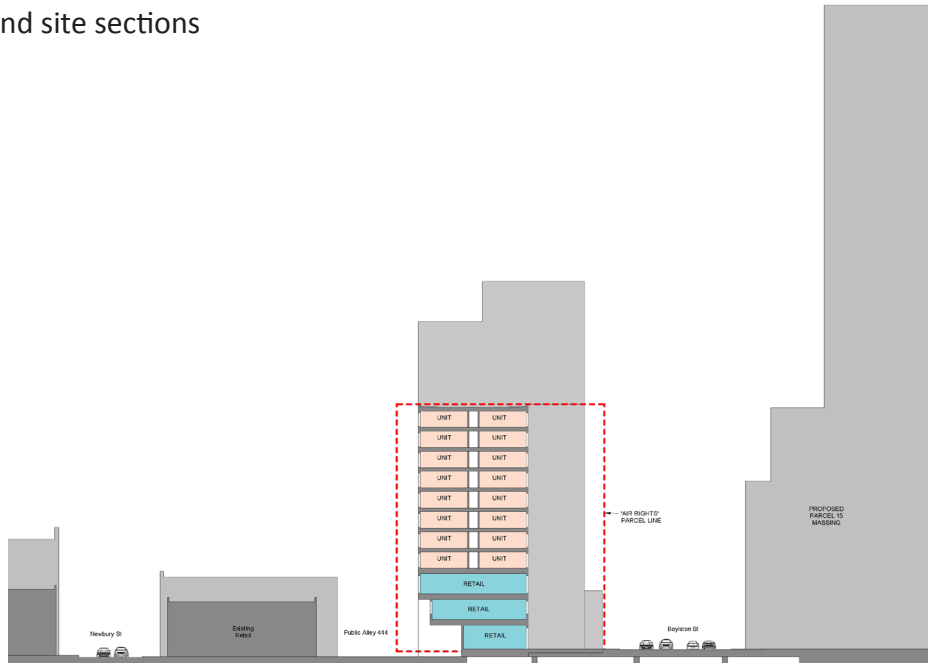


ii-iii. Design Intent and Site Plan: Massing Diagram

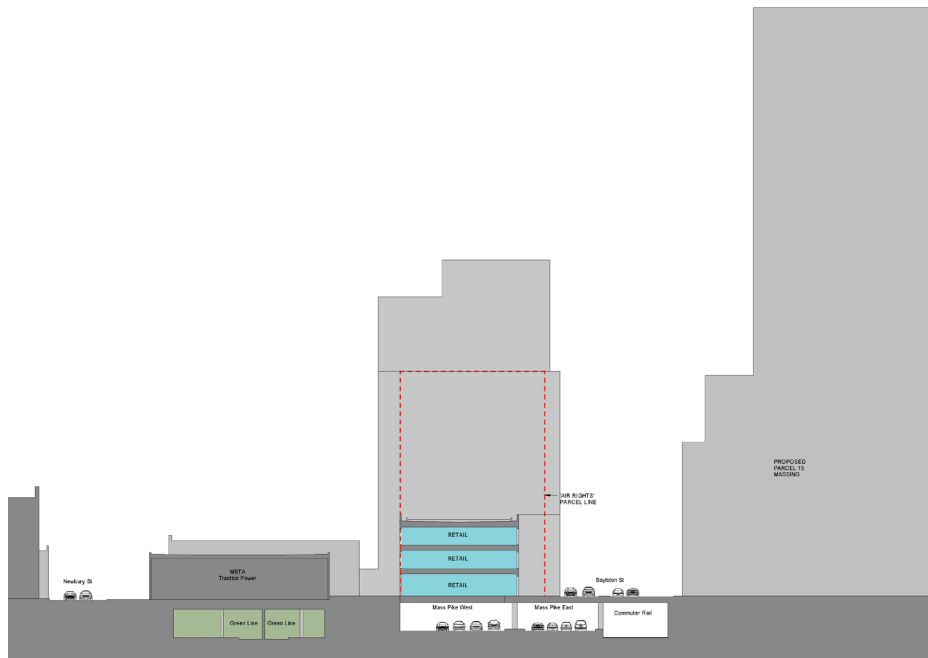


ii-iii. Design Intent and Site Plan: Circulation and open space diagram

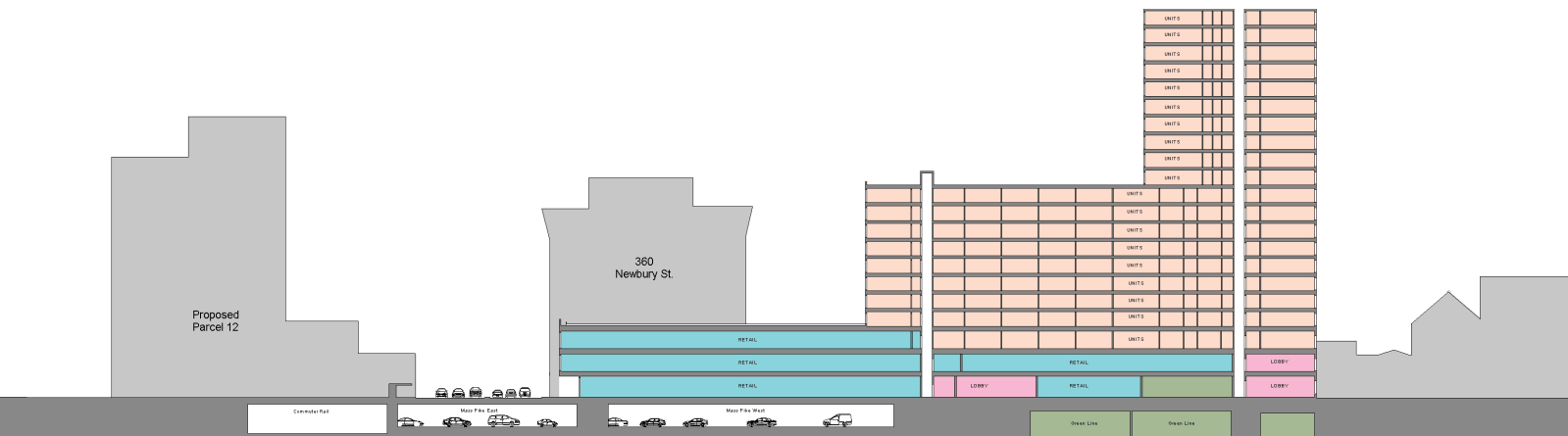
vi. Building and site sections



Latitudinal Building Section at Boylston Street 1

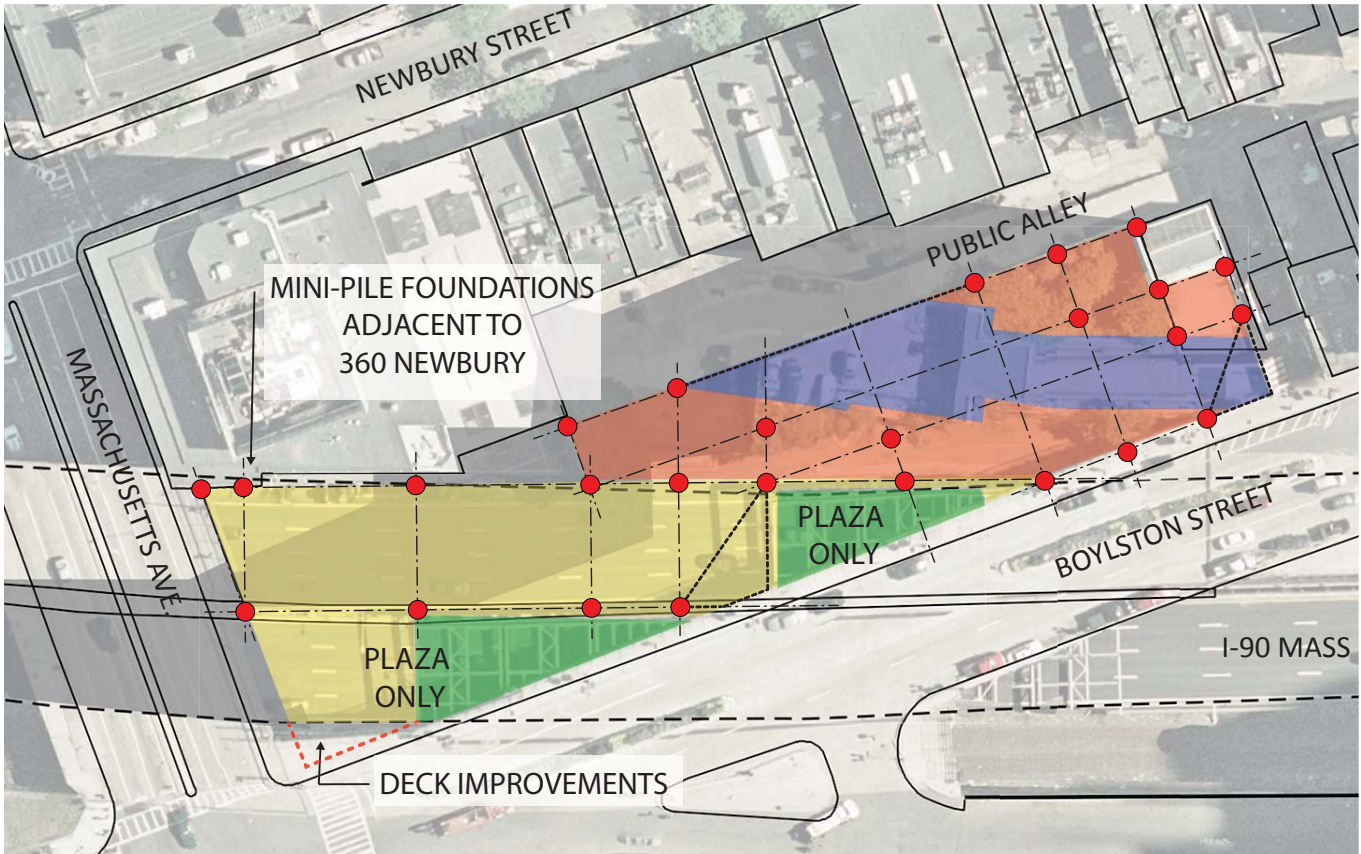



Latitudinal Building Section at Boylston Street 2

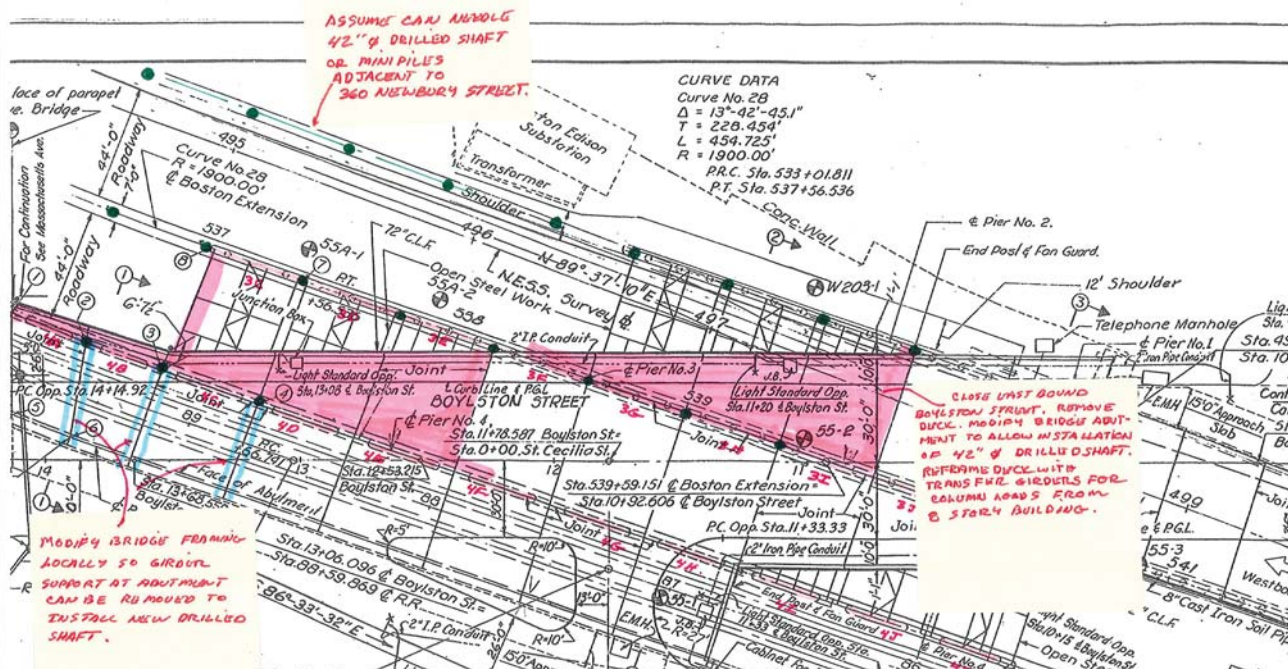


Longitudinal Building Section

vii. Structural diagrams



-  DECKING OVER TERRA FIRMA
- DECKING OVER GREEN LINE
- DECKING OVER EXISTING BRIDGE STRUCTURE
- DECKING OVER I-90



viii. Overall building view or elevations



Gateway Day



Gateway Night



ix. Specific building views

Gateway Aerial



Boylston Street looking east



Boylston Street at Massachusetts Avenue corner



Boylston Street looking west

ix. Specific building views



Boylston Street looking west - distant



Rear Newbury Street (public Alley 444)



Massachusetts Avenue looking south



Massachusetts Avenue looking north

d. Community Uses and Benefits

As Trinity has demonstrated in previous developments with MassDOT, the BRA and other public agencies, the team will seek significant input from stakeholders before finalizing the development plan for Parcel 13. In the years leading up to this RFP, and in the preparation of this RFP response we have engaged and had initial conversations with community representatives from the Neighborhood Association of Back Bay, the Back Bay Association and Boston Architectural College. Trinity is committed to working with MassDOT, the City of Boston and the residents Back Bay to design a viable project that earns the support of neighbors, community groups and elected officials.

The proposed development project will impact neighbors and businesses in a number of positive ways, including:

- Job Creation: An estimated 40 to 50 jobs during development; an estimated 250 to 300 new construction jobs; and an estimated 30 new permanent positions during operations.
- New tax revenue of approximately \$1 million per year given the current program.
- Improved pedestrian experience along Massachusetts Avenue/Boylston Street, including improvements with open space, seating and art.
- Reconfiguration and activation of the Hynes MBTA Station entrance/exit on Boylston Street. The developer will work with the MBTA to fully integrate the MBTA entrance into the new building and our improvements will make it possible for the MBTA to extend full accessibility to this end of the station.
- Completion of the street edges along Boylston Street and Massachusetts Ave to shield pedestrians from the crossing over the Mass Pike.
- Collaboration with the City of Boston's Transportation Department to improve pedestrian and traffic flow.
- Contribution of a cash subsidy of \$9.2 million for off-site affordable housing.

e. Permits and Approvals

Trinity has a well-documented track record of permitting complicated mixed use developments in downtown Boston with the MBTA and MDOT. In 2007, Trinity closed on the financing for the highly complicated MBTA Parcel 1A project in the Bulfinch Triangle neighborhood of Boston. The comprehensive permitting process required all of the federal, state and city permits anticipated for Parcel 13. Working closely with the MBTA, City and State officials and the community, Trinity navigated this process adeptly, completing all of its major permits, including the Massachusetts Environmental Protection Act’s (MEPA) process and city’s zoning and Article 80 review in approximately one year.

In 2013, Trinity closed on the financing for an equally complex deal, the redevelopment of Parcel 2A, 2B and 2C in the Bulfinch Triangle. This permitting process for development over the MBTA Orange and Green line and the Central Artery tunnel included the added complexity of review and approval by the Federal Highway Administration (FHWA). One again, working closely with leadership from MDOT, the Trinity team navigated the challenges of multi-agency review and approvals, working with its experienced design and legal teams to respond to various stakeholders’ interests and concerns.

The following is a list of anticipated permits for the redevelopment of Parcel 13.

AGENCY	PERMIT/APPROVAL
Federal	
Federal Highway Administration (FHWA)	FHWA Review and Approval of Construction Documents, Construction Management Plan, Ground Lease (if required)
National Environmental Policy Act (NEPA)	NEPA Categorical Exclusion (if required)
Mass State Historic Preservation Office (SHPO)	Federal Section 106 Review
Federal Aviation Administration (FAA)	Notice of Proposed Construction or Alteration Crane/Building
Environmental Protection Agency (EPA)	Notice of Intent National Pollution Discharge Elimination System (NPDES) and Stormwater Pollution Prevention Plan - Owner and Contractor
Section 4(f)	Section 4(f) Review
State	
Executive Office of Environmental Affairs, MEPA Office	MEPA Review
Massachusetts Department of Environmental Protection	Fossil Fuel Equipment Approval/Emergency Generator Permit Certification/BWP AQ 06 Notification prior to construction or demolition
Executive Office of Transportation and Construction	Approvals Under MGL Chapter 40 Section 54A
Massachusetts Historical Commission	Chapter 254 Review (as required)
Massachusetts DOT and MBTA	Section 61 Findings for the State
Mass Water Resources Authority	Construction Dewatering Permit 9 (during construction)
City	
Air Pollution Control Commission	APCC Parking Freeze Permit
Boston Fair Housing Commission	Affirmative Fair Marketing Plan
Boston Fire Department	Fire Alarm/Sprinkler Systems
Boston Inspectional Services	Zoning Determination/Rejection/Variances
City of Boston Interagency Green Building Committee	Article 37 sign off
Boston Parks Commission	Landscape in public way / Permit to cut down trees
City of Boston Public Improvement Commission	Discontinuances, License Maintenance and Indemnification Agreement/Specific Repairs to Public Rights of Way/Temporary Earth Support/Canopies and Awnings
Boston Public Safety Commission Committee on Licensing	Fuel Storage License/Permit to Erect a Parking Garage
City of Boston Public Works Department	Street/Sidewalk Occupancy Permits/Street Opening Permits
Boston Redevelopment Authority	Article 80 Review/Article 80 Design Sign-off/Cooperation Agreement/Affordable Housing Agreement/Boston Resists Construction Employment Agreement/Taking plans for vertical discontinuances (if necessary)/Certificate of Compliance
Boston Transportation Department	Construction Management Plan/Transportation Access Plan Agreement
Boston Water and Sewer Commission	Site plan approval and Utility Connection Permits/Sewer Connection BRP WP Compliance Certification
ADDITIONAL DOCUMENTS	
DEP	Emergency Generator Permit Certification
FAA	Determination of No Hazard-Form 7460-2
POST CLOSING	
Massachusetts Department of Environmental Protection	Compliance with Environmental Results Program for Emergency Generators (post closing)
Massachusetts Department of Environmental Protection	Spill Prevention Control and Countermeasures

f. Schedule

4.f Schedule

	Start	End	2014				2015				2016				2017	
			4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr
Developer Selection	November 2014	December 2014														
Negotiate and Execute MassDOT Development Agreement	December 2014	April 2015														
Negotiate and Execute MBTA Station Improvements Agreement	December 2014	April 2015														
Due Diligence	January 2015	October 2015														
Obtain Permitting and Approvals	February 2015	April 2016														
Schematic Design through Design Development	February 2015	December 2015														
Obtain Financing	December 2015	June 2016														
Construction Documents/Bidding	April 2016	October 2016														
Closing		October 2016														
Construction	October 2016	April 2019														
Marketing/Occupancy	October 2018	October 2019														

	Start	End	2017				2018				2019					
			3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Construction	October 2016	April 2019														
Marketing/Occupancy	October 2018	October 2019														

g. Construction Approach

Construction staging is a key component of the project, as limited work zone areas are available, the back bay area is extremely active, and safe access to both the area and the station must be maintained at all times throughout construction. Additional considerations for this project include stakeholder accommodations, noise and dust control features, and contractor lay down areas in order to create a successful project.

At this point we are assuming that the station must remain open during construction. The MBTA elected to close the Government Center Station during construction and the cost and time savings were significant. Fortunately, the existing station has platforms on both the inbound and outbound side so that if one platform is rebuilt during a construction phase, access to the trains could be maintained throughout construction. Phasing will also be required at the platform level to leave portions of each platform usable during each stage of construction.

The MBTA has recently renovated Kenmore, Copley, Arlington, Haymarket and Park St. Stations where they kept the station open while it was made accessible – primarily raising the platform and installing elevators. This was accomplished by:

- Cordoning off areas under construction so that green line vehicles can't stop there and construction material/equipment cannot conflict with vehicles/employees/customers. In addition to mitigating most construction hazards, this saves a great deal on force account, as not as many Flag persons or Inspectors are required.
- Close coordination between the contractor, designer and MBTA Design and Construction, Light Rail Operations, Safety and the OCC to ensure that everyone knows what is being done, and more importantly, how it is being accomplished. This requires intimate knowledge of the construction techniques to be employed; and developing the correct special orders and sops so that the inherent conflicts between the service and the operation are properly and safely mitigated.
- An outstanding internal and external communication plan, so that all stakeholders are aware of what is transpiring, why, and for how long.

Hynes Station has long enough platforms to berth two, two-car trains simultaneously. A portion of the platform could be cordoned off so that the platform could be raised and other station finishes could be addressed. The other section could be open for train service. We need to worry about a second means of egress, which at some point might involve some type of inter-track crossing – which was employed at some of the stations discussed above.

All of this must be coordinated with the MBTA to provide operational acceptability. Additionally, maintaining safe pedestrian and vehicular circulation through the site and on the adjacent roads will be vital to minimizing impacts on the users, residents, business owners, and other stakeholders.

The team has robust resources to optimize construction logistics in a manner that leads to enhanced cost and schedule performance, assures continuity of MBTA services, accommodates public access, and promotes safety and security. Our expertise results from direct, hands-on experience marshalling construction activities in the field. Based on our considerable experience, the following activities form the foundation of our approach:

- Identification of physical components central to cost and constructability: track, platforms, stations, temporary construction, demolition and remediation, construction staging, power, fire safety, signals and communications, earth retention, and foundations
- Evaluation of construction, procedural, and procurement considerations that also have immense cost, constructability, schedule, safety, and quality impacts: construction means and methods, labor availability, force account, operational constraints, inter-agency coordination, procurement, labor allocation, and labor productivity
- Promoting discussion of the interrelationship between the mission of the project and these aforementioned project components and processes; communicating these interrelationships will be our objective when engaging in constructability reviews and conducting value engineering sessions

Site Mobilization

As the project transitions into its construction phase, Dimeo's project leadership will shift its emphasis from preconstruction activities into a full on-site construction mode. Our on-site project team along with project engineering support will implement the teams approved management plan in achieving the requirements of the design. Key activities that will be managed during site mobilization will include:

- Set up temporary construction fence/barriers/signage
- Remove and salvage street /lighting/signage/traffic signs/ store off site for later installation.
- Remove planter on Boylston Street to temporary widen roadway for construction phase.
- Remove guard rail/sidewalk/curbing along Boylston for equipment access.
- Set up lane closure on east and west bound lanes along median.
- Set up service lane closure on west bound.
- Set up sidewalk and overhead protection
- Removal and relocation of utilities on Mass Pike overpass
- Set up temporary staging areas.

BIM

Team members use BIM to aid in construction. A Building Information Model is a virtual three-dimensional model that contains information about the spaces, components, dimensions, and materials comprising buildings and structures. The emergence of Building Information Modeling (BIM) technologies has transformed the construction industry and is reshaping how we deliver projects. The team uses BIM on a regular basis for clash detection, virtual mock-ups, and construction sequencing analyses.

BIM also serves as a valuable communication tool to support community outreach. Utilizing current versions of Autodesk software—AutoCAD, Civil3D, and Revit—the STV team will employ VDC to advance the development of the project structures.

This will enable the MBTA and the various stakeholders to visualize planning and design methodology in a user-friendly format that can be built upon as the program evolves through the phases of design. Modeling projects with Revit produces nearly photo realistic renderings and serves as a clear and readily understandable means by which to coordinate among disciplines.

One of the primary advantages of BIM is that it enables project teams to resolve design, constructability, staging, and sequencing issues in a virtual environment rather than in the field. The result is enhanced efficiency, increased certainty regarding both schedule and cost, and reduced risk. Project team communication is also improved as a result as such, enables us to deliver a higher quality product to our clients.

We see the use of BIM growing in the coordination of both normal and complex projects, and serving as a key component of Integrated Project Delivery. Many owners are now realizing the potential for savings as a result of 3-D design coordination, clash prevention, 4-D planning, and 5-D cost estimating. It is reported that the savings in project costs averages between 3% to 5%. Projects which utilize this technology can benefit from the reduction of risks because there is a much higher level of understanding of the systems and of collaboration by team members. Overall project costs can be reduced because errors are discovered in the virtual model early in the time line, versus during construction where schedule and budget are compromised. The benefits of BIM translate into superior contract documents, better visualization, proactive interdisciplinary coordination, decreased production time, and lower risk.

Safety and Continuity of Operations

We will provide input as to how work can be effectively staged and constructed, while minimizing service impacts and maintaining the safety of the public, personnel, and equipment. Members of our team have worked closely with the MBTA and several other transportation authorities to develop phasing plans that step through the construction sequence to help identify and mitigate potential areas of risk. We offer the following examples from our experience with the MBTA:

- Constructing foundations for facilities adjacent to an operating track requires excavation support that can only be installed during track outages.
- Developing earth support schemes that minimize track outage time and flagging needs, due to the shortage of available flaggers, is critical.

We also have found that the most challenging aspect of railroad projects has been coordinating the work with a number of interested parties.

5. Project Feasibility and Summary Cost Information

a. Total Development Costs

The Boylston's total development costs are projected to be approximately \$223 million. This equates to \$594 per gross square foot of building area which totals 375,457 square feet. The total development cost per site square foot is \$4,091. The site square footage totals 54,500 square feet.

b. Deck Costs

The Boylston development will require decking over the Mass Turnpike in the amount of 28,141 square feet. The estimated cost of constructing the decking is approximately \$46.1 million. This equates to \$123 per gross square foot of building area and \$845 per site square foot. The \$46.1 million in estimated costs equates to \$1,637 per square foot of decked area.