INFRASTRUCTURE AND ECONOMIC DEVELOPMENT IN METROPOLITAN BOSTON: A REGIONAL SURVEY

PART II: DEVELOPMENT AREA PROFILES

This is Part II of *Infrastructure and Economic Development in Metropolitan Boston: a Regional Survey.* This study was commissioned by A Better City (ABC), with funding from The Boston Foundation. The research and writing was carried out by the consulting firm AECOM, with guidance from ABC staff and an Advisory Committee which ABC convened for this study. The study seeks to evaluate the state of public infrastructure investment in metropolitan Boston, particularly as it relates to the region's potential for near- and longer-term economic development.

Part I of the study provides a region-level overview of infrastructure issues. It summarizes and organizes a large body of relevant analysis conducted by others and adds current information on key initiatives and concerns.

Part II provides development and infrastructure profiles for 25 areas defined by the study to represent the universe of region-scale economic development opportunities in metropolitan Boston, from the inner core to I-495. Each profile summarizes the key development opportunities and infrastructure needs of the area in question.

Part III presents a set of four geographic Case Studies, which explore in detail the interface of development and infrastructure issues in a diversity of settings. They include the inner core cluster of East Cambridge and East Somerville; the North Shore cities of Lynn, Salem, Beverly, and Peabody; the MetroWest towns of Framingham, Natick, and Ashland; and the I-495 town of Franklin.

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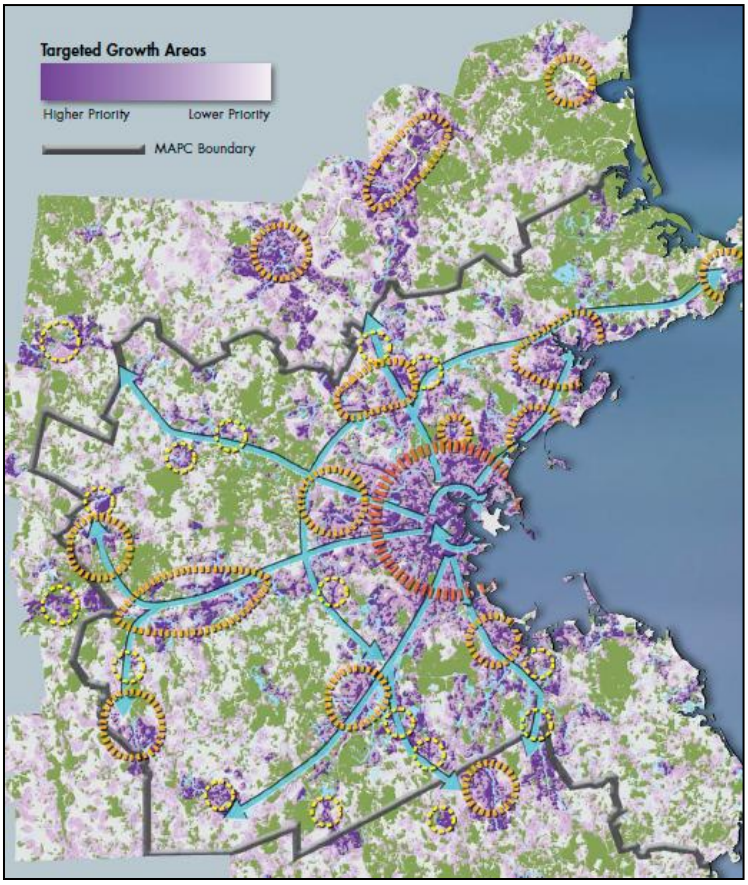
Introduction

A Better City (ABC) seeks to evaluate the state of public infrastructure investment in metropolitan Boston and to relate it to the region's potential for economic development. The relationship between infrastructure and development is hardly a new topic. It is the subject of many recent analyses and a theme of daunting breadth and depth. The intended contribution of this study is to deepen the discussion by linking infrastructure investments—and the consequences of making or not making them in timely fashion—to concrete economic development agendas in the cities and towns of Greater Boston. ABC's strategy for doing so in this study is to start with a review of infrastructure issues at the regional level and progressively "drill down" to subregional and local examples.

This Part II consists of an overview of "economic development project or opportunity areas" in the metropolitan region. Twenty-five (25) such areas have been identified. Listed in Table 1, all are located within the 101-community boundary of the Metropolitan Area Planning Commission (MAPC). The selection captures the Targeted Growth Areas identified in MAPC's MetroFuture Plan (see Figure 1), excluding those located outside the MAPC boundary.[1]

Figure 1: MAPC *MetroFuture* Targeted Growth Areas

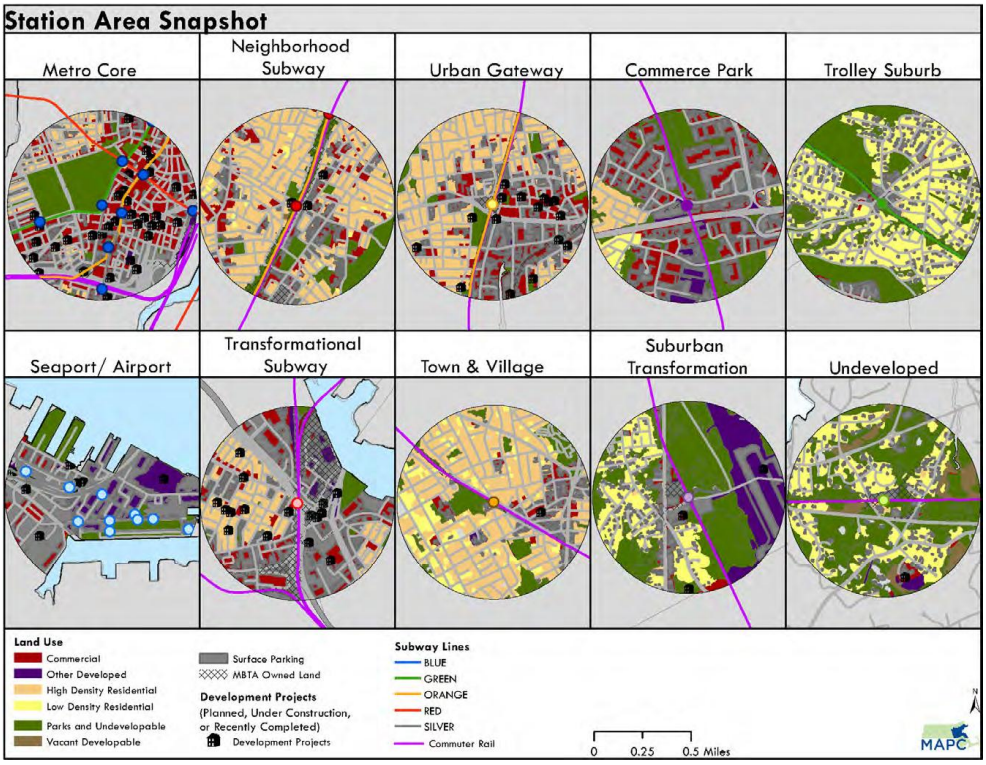


In addition to the MAPC Targeted Growth Areas, three other sources were used to identify or confirm economic development areas; all represent locations where there is a consensus that development is appropriate:

[1] MAPC, *MetroFuture: Making a Greater Boston Region*; June 2009 summary and map.

- Under the state's Growth District Initiative (managed by the Executive Office of Housing and Economic Development), the Governor has designated 20 locations as priorities for public investment and expedited permitting. Seven of these Growth Districts are located within the MAPC boundary; each is included in this review, either as a stand-alone development target or, in most cases, as part of a larger area.[2]
- On June 14, 2012, MAPC published a report entitled *Growing Station Areas*, in which Transit-Oriented Development (TOD) is recognized as an organizing framework for Smart Growth and regional competitiveness.[3] The economic development areas selected for this review include, to the greatest degree possible, the stations identified in the MAPC report as key TOD opportunities, both on the MBTA rapid transit lines and on the commuter rail system. The MAPC report provides a ten-category typology of stations according to their setting, transit modes, and development potential (see Figure 2).

Figure 2: MAPC TOD Station Typology (*Growing Station Areas*)



- In March 2012, the 495/MetroWest Development Compact was released—a joint effort of the Executive Office of Housing and Economic Development, MAPC, the Central Massachusetts Regional Planning Commission, two MetroWest regional consortia, and Mass Audubon. The study area extends along the entire western arc of I-495, from Boxboro to Foxboro. The heart of the analysis is the designation of site-specific Priority Development Areas (PDAs) and Priority Preservation Areas PPAs) in each community (see Figure 3).[4] The identification of economic development areas along I-495 took the PDAs into account.

[2] http://www.mass.gov/hed/economic/eohed/pro/gdi/

[3] MAPC, *Growing Station Areas: The Variety and Potential of Transit Oriented Development in Metro Boston*; June, 2012.

[4] Commonwealth of MA, MAPC, et al., *495/MetroWest Development Compact*; March 2012.

Figure 3: 495/*MetroWest Compact* PDAs and PPAs

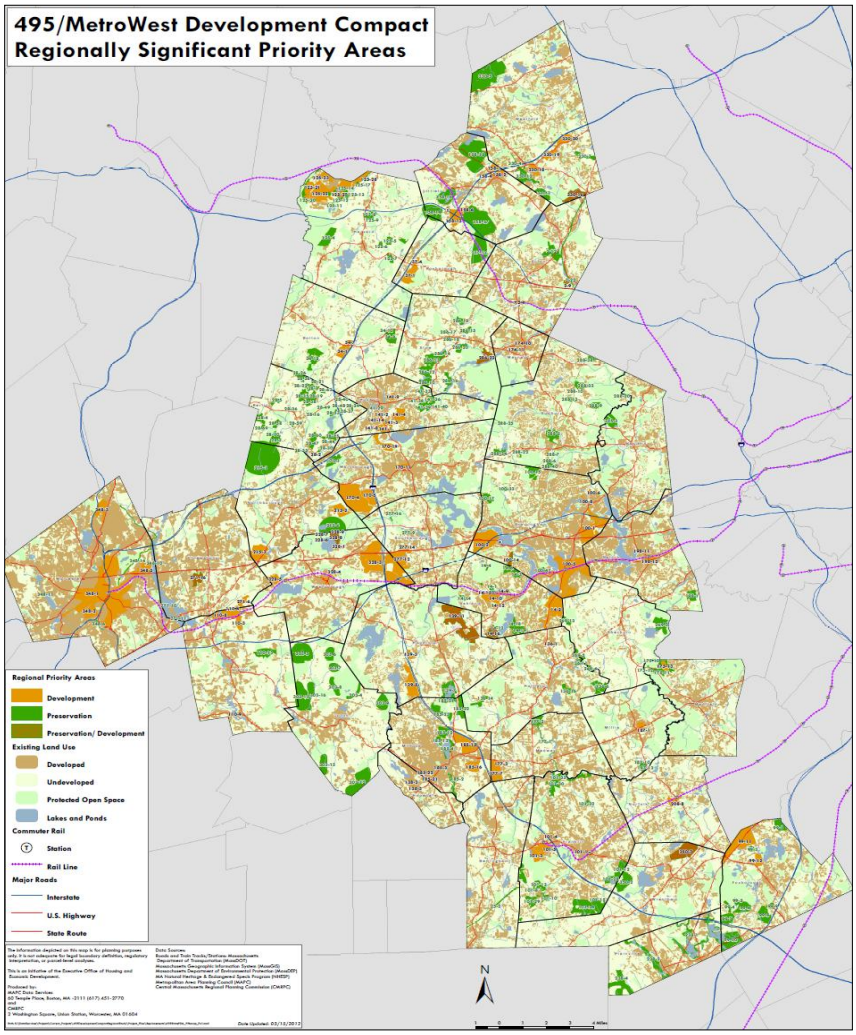


Table 1 categorizes the 25 selected economic development areas according to:

- the eight MAPC sub-regions
- the MetroFuture community typology of Inner Core, Regional Urban Centers, and Suburban Centers.

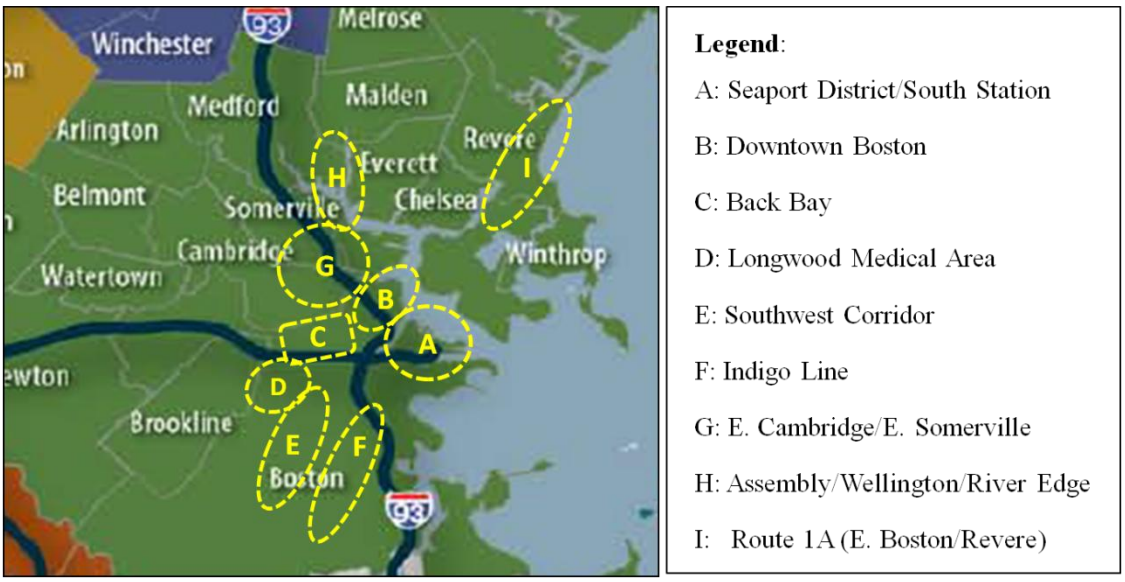
Table 1: Economic Development Areas by MAPC Sub-Region and Community Typology

	Inner Core (9)	Regional Urban Centers (10)	Suburban Centers (6)
Inner Core	• South Station / Seaport District • Downtown (including North Station) • Back Bay • Longwood Medical Area (including Brookline Village Gateway) • Southwest Corridor • Indigo Line • East Cambridge / East Somerville (Kendall, North Point, Brickbottom/Inner Belt, Union Square) • Assembly Square (Growth District)/ Wellington/River Edge Growth District • Route 1A Corridor (Suffolk Downs/ Revere Beach Growth District)	• Lynn Downtown/Waterfront Growth District • Waltham • Quincy Center Note: Lynn, Waltham, and Quincy, while part of the Inner Core, share many characteristics of Regional Urban Centers.	
North Shore		• Gloucester • Salem/Peabody/Beverly	
North Suburban		• Woburn/Burlington NW Park Growth District *	
Minuteman			• Concord • Maynard • Littleton/Boxborough (495 PDAs)
Metro West		• Framingham/Natick/Ashland * • Marlborough/Southborough/Hudson (495 PDAs) *	
Southwest		• Milford/Hopkinton (495 PDAs) *	• Franklin (495 PDAs)
Three Rivers		• Norwood/Canton / University Station *	• Foxborough Rt. 1 Growth District (495 PDA)
South Shore			• SouthField Growth District

* Combination of a Regional Urban Center (Woburn, Marlboro, Framingham, Milford, Norwood) and contiguous suburban locations.

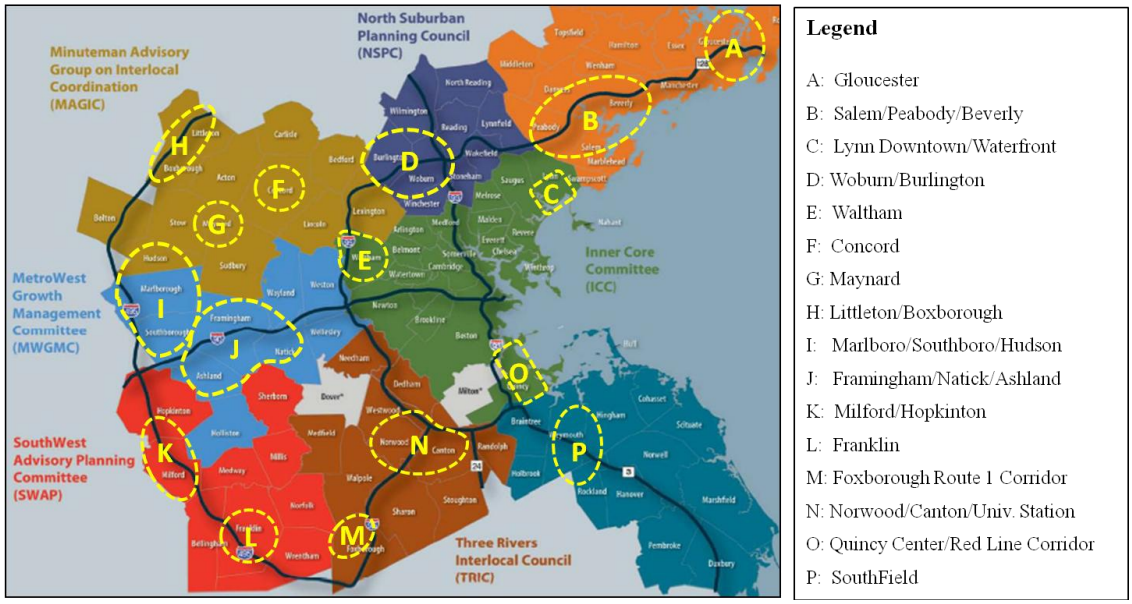
Within the Inner Core, nine economic development areas were defined. Shown in Figure 4, these include the five "development/transit hot spots" recently identified in the Urban Land Institute's *Hub and Spoke* report: Downtown Boston, Back Bay, the Seaport District, Kendall Square, and the Longwood Medical Area.[5] Also included are the Southwest Corridor; the Indigo Line; the cluster of Assembly Square, Wellington Circle, and the River Edge district; and the Route 1A Corridor in East Boston and Revere.

Figure 4: Inner Core Economic Development Areas



The economic development areas outside the Inner Core are shown in Figure 5; these include ten Regional Urban Centers and six Suburban Centers.

Figure 5: Economic Development Areas Outside the Inner Core



[5] ULI and Northeastern University, *Hub and Spoke: Core Transit Congestion and the Future of Transit and Development in Greater Boston*; June, 2012. Kendall Square is included in a larger East Cambridge/East Somerville cluster. The term "cluster" is used in this memorandum to denote a geographic cluster of contiguous or proximate locations, not an "industry cluster".

It should be noted that:

- Three of the Regional Urban Centers (Lynn, Waltham, and Quincy) are located within MAPC's Inner Core sub-region, but their role in the region more closely resembles that of Regional Urban Centers and they are treated as such in this review.
- In defining Regional Urban Centers and Suburban Centers, some contiguous communities (or parts of communities) have been combined, either by MAPC in its original map (Figure 1) or by the author for purposes of this review.

The Development/Infrastructure Nexus: an Overview

While the 25 areas differ significantly, even within the Inner Core, Regional Urban Center, and Suburban Center categories, some general observations can be drawn from the overview.

In the Inner Core, infrastructure issues relate principally to three concerns:

- region-scale transportation improvements, including transit projects (like the Green Line extension or Assembly Square Station) as well as highway projects (like "de-elevating" the O'Brien Highway to open up the Brickbottom and Inner Belt development areas, East or improvements to the Route 1A Corridor as major development unfolds at Suffolk Downs, Wonderland, and Revere Beach);
- the state of good repair and long-term carrying capacity of the core MBTA system, which serves all of the Inner Core development areas.
- "district infrastructure"—the nexus of streets, sidewalks, open space, storm drainage, and utility distribution required to support redevelopment in transformational locations like Assembly Square, Brickbottom, North Point, the Seaport, River Edge, and portions of the Southwest and Indigo Line corridors.

Assembly Square is a good example of a regional transportation project combining with district infrastructure to enable large-scale development. Facing a scarcity of federal transit dollars, the new $56 million Orange Line Station was jointly funded by the developer, MassDOT (using federal "flex funds"), and the Executive Office of Housing and Economic Development. The 65-acre grid of streets, sidewalks, open space, and utilities—a district infrastructure program costing well over $100 million—was achieved through developer contributions, federal stimulus funds, and Massachusetts' two innovative value capture mechanisms: District Infrastructure Finance (DIF) and the Infrastructure Investment Incentive Program (I-Cubed). The result is construction of 453 units of housing and 200,000 square feet of commercial space—the first phase of a $1.5 billion, five million square foot private development program.

In Regional Urban Centers and Suburban Centers, the picture is more mixed. Transportation issues abound, including:

- highway needs, from interchange improvements in MetroWest's Route 9 corridor to SouthField's East-West Parkway, to redesign of the Lynnway to make it less of a barrier between downtown and the waterfront;
- local transit needs, particularly new or enhanced commuter rail stations (as in Salem, Beverly, and Littleton) and the expanded use of "last-mile" collector and shuttle routes to tie development to stations not within walking distance;
- capacity and efficiency in the core of the MBTA system; both the ULI/Northeastern *Hub and Spoke* report and MAPC's *Growing Station Areas* report make clear that without adequate core capacity to

distribute commuters once they reach Boston or Cambridge (or to collect commuters who live in the core and work in the suburbs), the benefits of expanded commuter rail service and better suburban stations will not be fully realized.

Outlying areas are also more likely to face water resource issues beyond simple distribution. In non-MWRA or partial-MWRA communities, either water supply or wastewater treatment may constrain the capacity for growth. The full redevelopment of SouthField (the former South Weymouth Naval Air Station) as a Smart Growth village combining densely clustered, mixed-use development with large expanses of open space and commuter rail service, depends on a long-term solution for the district's 1.3 million gallon per day water demand. Weymouth, Abington, and Rockland, the three host municipalities, are all non-MWRA water communities. An agreement between the South Shore Tri-Town Development Corporation and Weymouth has enabled the first major phase of development to proceed.[6]

In Framingham, an MWRA water and sewer community, the problem of inadequate or deteriorating "retail" connections is illustrated by the successful expansion of Genzyme, whose multi-building campus includes the LEED Gold Science Center and Biologics Support Center. These showcase buildings, as well as the expansion program as a whole, were jeopardized by sewer and water problems in the "Tech Park" Priority Development Area. The Genzyme program, which proposes to add 750,000 feet of space over the next decade, was able to advance only because the Commonwealth's Life Sciences Initiative, contributed $12.9 million in funding to upgrade the sewer and water connections.[7]

Stormwater management is emerging as an issue with potentially major new regulatory and cost implications; a pilot program in the Lower Charles River Watershed directly impacts Franklin and Milford, two of the profiled Suburban Centers.

An adequate supply of electric power is generally not a "macro" issue in the region, although the continued transition of the generation market from coal and oil to natural gas must be managed with minimal disruption. At the micro level, at least one power plant, Salem Harbor Station, will be repowered in a transaction that will both maintain its role as a power generator and create a major redevelopment opportunity. Footprint Power LLC, which is buying the plant from Dominion Energy, plans to run the existing coal- and oil-powered plant for two years and then demolish and replace it with a state-of-the-art gas-fired plant 630 megawatt plant. The replacement will leave about two-thirds of the site—a waterfront location just north of downtown—available for new development.[8]

Broadband telecommunications coverage is nearly ubiquitous across the MAPC region. While there are scattered pockets of wireless-only service, the vast majority of developed territory within the 101 cities and towns is served by both wireless (mostly 4G) and wireline technologies, and in most of the region, wireline service includes cable, DSL, and fiber.[9]

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[6] http://www.wickedlocal.com/weymouth/news/x874248797/SouthField-water-study-raises-concerns#axzz23ZGY6fq1

[7] http://www.businesswire.com/news/home/20120419005115/en/Genzyme%E2%80%99s-Biologics-Support-Center-Achieves-LEED-Gold; http://www.wbjournal.com/apps/pbcs.dll/article?AID=/20081124/PRINTEDITION/31124; http://www.boston.com/news/local/articles/2010/07/11/a_plan_to_double_genzymes_campus_in_framingham_would_bring_new_jobs_businesses_to_area/

[8] http://www.bostonglobe.com/business/2012/08/06/deal-sell-salem-power-plant-closes-new-gas-plant-and-development-planned/2QXaYxH8CEQ9pvciaNISuN/story.html.

[9] See http://www.massbroadband.org/Availability/gallery.html, the mapping resource of the Massachusetts Broadband Initiative. Other parts of the Commonwealth have deficient broadband coverage, which is being addressed by the Commonwealth through the development of the MassBroadband 123 Network in Western and North Central Massachusetts and the Open Cape initiative.

The Development Area Profiles: Inner Core

The pages that follow present the nine Development Area Profiles for areas within the MAPC Inner Core:

A. The Seaport District
B. Downtown
C. Back Bay
D. Longwood Medical Area
E. Southwest Corridor
F. Indigo Line
G. East Cambridge/East Somerville
H. Assembly Square/Wellington/River Edge Growth District
I. Route 1A Corridor (Suffolk Downs/Revere Beach).

A. The Seaport District

Development Summary

Major development projects completed, 1996-present:
- Moakley Court House (675,000 sf) and Esplanade
- Boston Convention & Exhibition Ctr. (3.4 MM sf)
- World Trade/Seaport Hotel and offices (2.4 MM sf)
- Commonwealth Flats east of D Street (2.6 MM sf: Manulife HQ, Renaissance Hotel, Park Lane Apts.)
- Boston Wharf Company multiple historic rehabs

Major mixed-use projects planned or underway:
- Fan Pier (2.9 MM sf res., office, R&D, retail, ICA)
- Pier 4 (1.0 MM sf) res., hotel, retail)
- Channel Center (209 res., 1.1 MM sf commercial)
- Seaport Square (6.25 MM sf res., retail, office, hotel)
- Waterside Place (350,000 sf res., retail)
- Waterside Crossing (future phase, 500,000 sf mixed)

Convention Center Expansion proposal:
- 500-700,000 sf expanded space in BCEC facility
- second headquarters hotel
- multiple additional hotels

Total potential build-out: approximately 40 MM sf.

Boston Marine Industrial Park (BRA and Massport):
- 3.3 MM sf space restored and marketed
- Boston Cargo Terminal (510,000 sf)\
- Harbor/Legal Seafood Processing Center (130,000 sf)
- 460,000 North Jetty cargo project approved

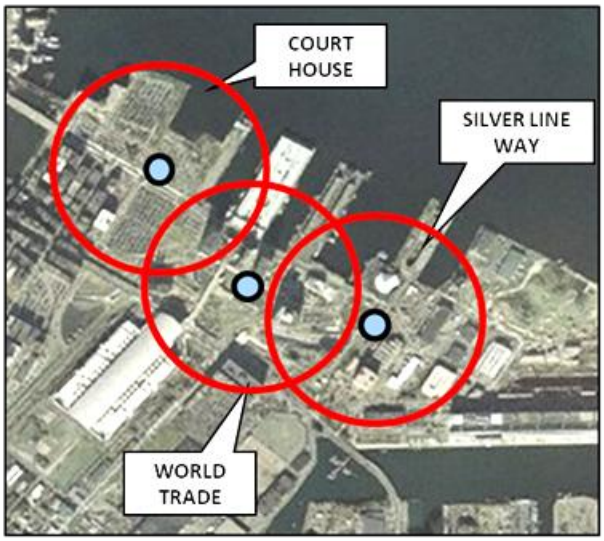
Infrastructure Needs

Transformative projects completed (2005):
- I-90 interchange
- district infrastructure street network
- Haul Road, Bypass, and designated port truck routes
- Silver Line:
  - 3 stations (MAPC station typology: "Seaport")
  - South Station intermodal connections
  - Silver Line service to Logan Airport Terminals

Future needs:
- Silver Line grade separation ("T under D")
- Silver Line III extension to Boylston
- South Station expansion,
- street grids and open space in sub-districts
- Fort Point Channel watersheet improvements
- long-term truck route improvements

BMIP industrial district infrastructure:
- $55 MM, leveraged $170 MM in private investment:
- miles of new utilities (water, gas, electric, telecom)
- miles of \roadways, sidewalks, storm drainage
- rehabbed and constructed piers, berths, cranes.
- 1,834 car central parking garage facility.

Fan Pier (The Fallon Company)



- http://www.advantageboston.com/bcec/bcec-expansion-plans.aspx
- http://www.massport.com/port-of-boston/Maritime%20Properties/SouthBostonProperties.aspx
- http://www.bostonredevelopmentauthority.org/DevelopmentProjects/devprojects.asp
- http://watersideplace.net/projects.asp
- http://www.channel-center.com/about_theproject.html
- http://www.bostonmarineindustrialpark.com/about/history-of-the-park/
- http://www.bostonredevelopmentauthority.org/press/PressDisplay.asp?pressID=393
- http://www.ctps.org/bostonmpo/5_meetings_and_events/2_past/2011/pdfs/8.10_Massport_Presentation.pdf

B. Downtown Boston

Development Summary

Millions of sf of development recently built, underway, or expected to break ground in the next few years.

Greenway/Central Waterfront

- Completed: Atlantic Wharf, Intercontinental Hotel, Independence Wharf
- To be determined: Aquarium Garage redevelopment

Downtown Crossing

- Completed: Millennium Place; Suffolk University and Emerson College buildings
- Underway: Millennium Heyward Place housing/retail
- Pending: One Franklin (Millennium/Vornado; 1.2 MM sf; 500 apartments, office, retail)

North Station/Bullfinch Triangle/Govt. Center

- Completed: Boston Garden (1995); Avenir (Trinity Financial, residential/retail joint devt); Strata Condos
- Underway: The Victor (Simpson, residential)
- Pending: One Canal (mixed-use, Trinity Financial); AvalonBay residential tower next to Boston Garden; two towers on Causeway Street fronting Garden
- To be determined: Government Center Garage site.

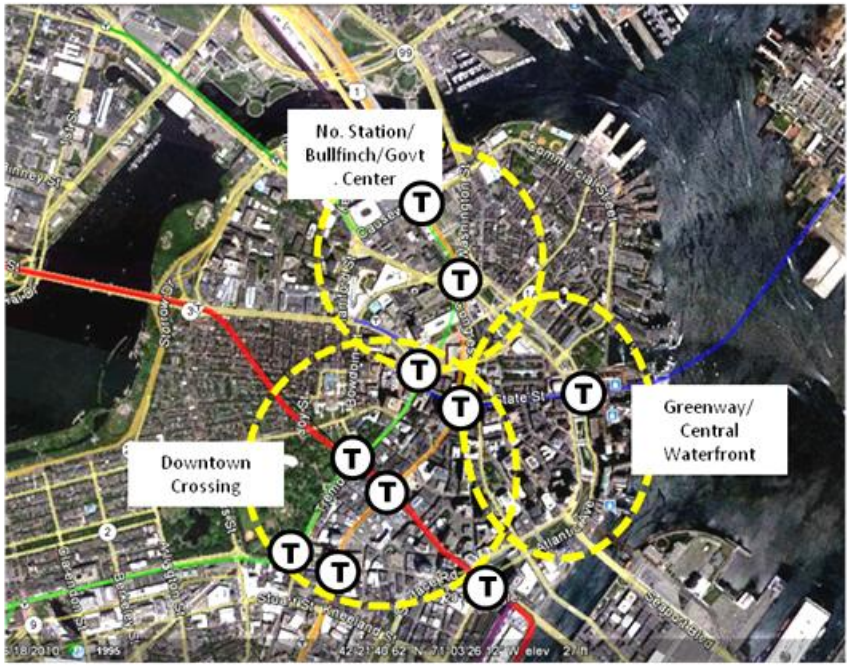
Infrastructure Needs

Major Improvements Completed

- Artery-Tunnel, including Greenway and Bullfinch Triangle street grid
- North Station expansion, Orange-Green superstation
- Aquarium and State Station modernizations (part of Blue Line Modernization)
- Ferry infrastructure at Rowes, Central, Long Wharves

Long-Term Needs

- Downtown economy depends on MBTA (all stations are MAPC typology "Metro Core")
- All four "box" stations (Park, State, Govt Center, Downtown Crossing) are ULI congestion hot spots
- North and South Stations are congestion hot spots.
- South Station expansion critical for both Downtown and Seaport
- Orange and Red Line fleet replacements
- Green Line Central Subway track, signal, power
- Govt Center Station /City Hall Plaza upgrades
- Infrastructure for Greenway ramp parcel development
- Silver Line III to expand core capacity, access Theater District, Downtown Crossing



- http://www.bostonredevelopmentauthoritynews.org/2012/02/03/mayor-menino-announces-millennium-partners-to-take-over-one-franklin-street-development
- http://www.bostonredevelopmentauthority.org/DevelopmentProjects/devprojects.asp?action=ViewHood&HoodID=3
- http://www.suffolkconstruction.com/news/suffolkconstructionbreaksgroundonthevictormajorhousingdevelopmentonbostonsrosefkennedygreenway.html
- http://www.trinityfinancial.com/sub/avenir.php
- ULI, *Hub & Spoke*; http://boston.uli.org/; 2012

C. Back Bay

Development Summary

Thousands of housing units are planned or in development, along with 3 -6 MM sf of new commercial development (added to the existing 12 MM sf of office space).

Prudential Expansion (1990-present)

- Complete: Shaws; retail shops; Belvidere Residences; 111 Huntington offices; Mandarin Oriental Hotel
- Pending: 888 Boylston offices; Exeter Residences

Other Major Projects

- The Clarendon (residential)
- Liberty Mutual Headquarters
- Copley Place residences and retail expansion
- 40 Trinity Place (hotel, proposed)
- 350 Boylston (office, retail)
- Boston Conservatory Campus Buildings

Long-Term Opportunities

- MassPike Air Rights Back Bay Parcels
- Christian Science Center Master Plan

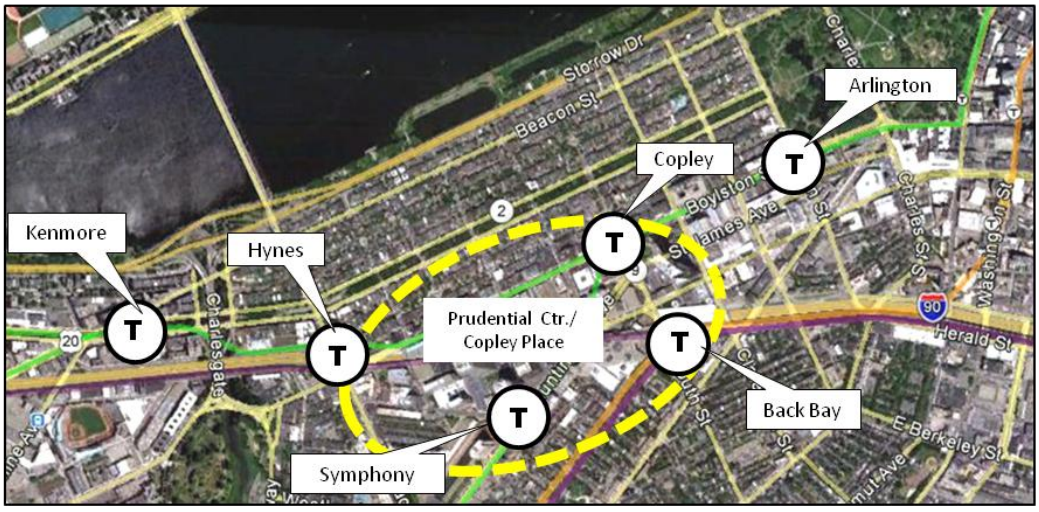
Infrastructure Needs

Back Bay Station (the MBTA's 5th busiest), Copley Square Station (10th busiest), Arlington, and Hynes serve this employment anchor and mixed-use neighborhood. All are MAPC station typology "Metro Core".

Long-Term Needs

- South Station expansion critical for Downtown and Back Bay
- Orange Line fleet replacements
- Green Line Central Subway track, signal, power upgrades are essential

Prudential Center (Boston Properties)



- ULI Hub and Spoke Report; http://boston.uli.org/; June 14, 2012; p. 22.
- http://www.bostonredevelopmentauthority.org/DevelopmentProjects/PipeDocs/Prudential%20Redevelopment/Prudential%20Redevelopment_DPIR.pdf (Prudential)
- http://www.bostonredevelopmentauthority.org/DevelopmentProjects/devprojects.asp?action=ViewHood&HoodID=2

D. Longwood Medical Area

Development Summary

Overview from MASCO and ULI

- Companies and institutions in the 213-acre LMA employ over 45,000 and educate 21,000 students.
- 17.5 MM sf developed space in place
- over a dozen major new projects in pipeline

Longwood Avenue Core

- Joslin Place (Deaconess campus, ~1 MM sf research)
- Longwood Center (100% corner, 350,000 sf research)
- Windsor School (100% corner, 440,000 sf mixed)
- Brigham & Women / Mass Mental Health Site (634,000 sf medical, residential)
- Emmanuel Campus, Merck Research (300,000 sf)

Fenway Triangle / Fenway Center

- Triangle (Samels Devt.): multiple projects; ~1 MM sf mixed-use in remaining phases (incl. "The Point")
- Fenway Center (Meredith): 1.3 MM sf mixed-use on MassPike air rights; Yawkey Station; shared parking

Huntington Avenue Corridor

- Done or concluding: MFA and Gardner Expansions; Wentworth Campus Buildings
- Pending: YMCA expansion; Northeastern dorm at YMCA site; New England Conservatory Expansion

Infrastructure Needs

Transportation

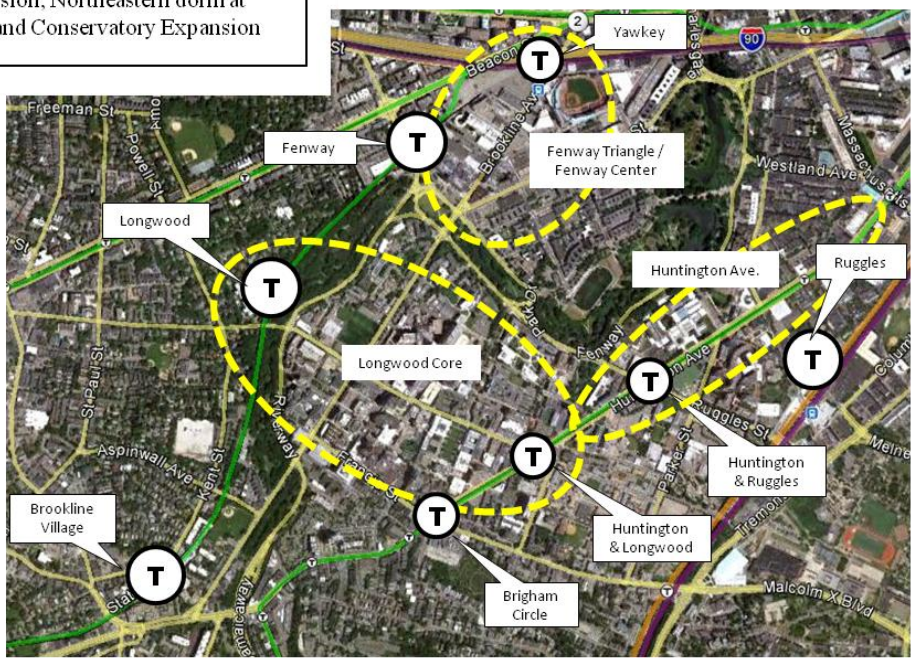
- 100,000 daily in-bound trips; 44% transit mode share
- LMA dependent on MBTA plus managed local transportation within district
- Green Line Central Subway track, signal, power upgrades are essential
- Huntington Ave. boulevard improvements complete
- Masco transportation priorities:
  - system of "last-half-mile" shuttles linking LMA facilities to each other and MBTA (established)
  - creation of Yawkey Station (underway)
  - enhanced commuter rail service at Ruggles
  - maintain Urban Ring Planning for long term

Water Resources

- Muddy River: stormwater, flood control, daylighting

Brookline Village

- Emerging as extension of LMA—proximity, transit
- Infrastructure improvements at "East Gateway": makeover of Route 9 between Riverway and Cypress



- http://www.bostonredevelopmentauthority.org/DevelopmentProjects/devprojects.asp?action=ViewHood&HoodID=9
- http://www.masco.org/masco/masco
- http://www.meredithmanagement.com/1kenmore.php
- http://www.samuelsre.com/
- ULI Hub and Spoke Report; http://boston.uli.org/; June 14, 2012; p. 22.

E. Southwest Corridor

Development Summary

SW Corridor Project completed 1987.

Major development projects completed:

- Northeastern University projects near Ruggles:
  - --Renaissance Park (Ruggles Joint Development)
  - --West Village
  - --International Village
  - --Davenport Commons
- Roxbury Community College (state)
- Reggie Lewis Athletic Center (state)
- Boston Police Headquarters (City)
- Alice Heyward Taylor Housing Renovation (BHA)
- Madison Park Housing
- Roxse Homes

Major development projects planned:

- Tremont Crossing at Ruggles: (8 acres, 1.6 MM sf mixed use: residential, retail, office, cultural; garage shared with new Whittier St. Health Center
- Jackson Square mixed-use (9 acres; residential/ affordable, retail, office, community)
- Dudley Municipal Building/Boston Public Schools HQ (office, retail, anchor of Dudley revitalization)
- Parcels 9 and 10 (Washington/Melnea Cass): two mixed-use projects; hotel, retail, supermarket, res.)
- Forest Hills MBTA joint development: five parcels, ~17 acres, mixed-use, residential, commercial, civic.

Tremont Crossing (Feldco Development)

Infrastructure Needs

SW Corridor Project components:

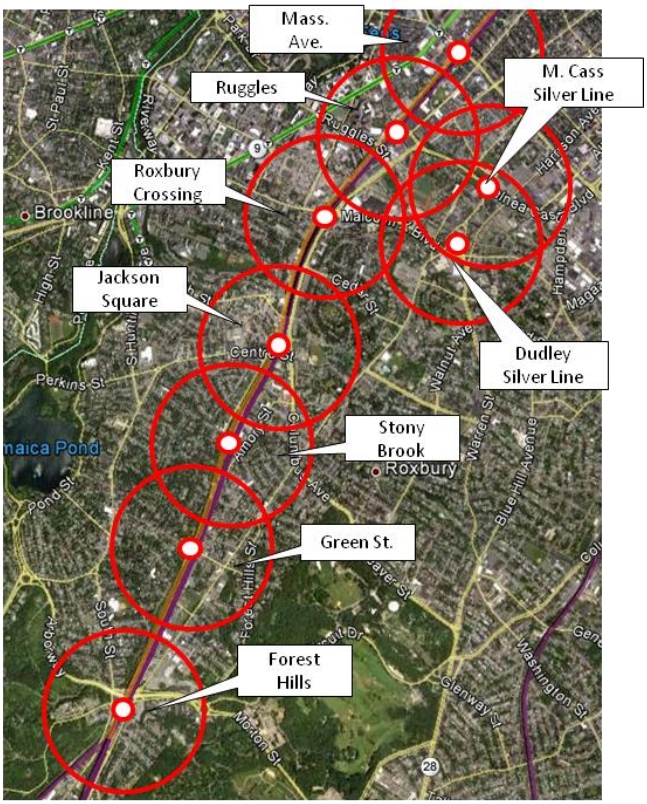
- MAPC station typology for Orange Line: Metro Core (Mass. Ave., Ruggles); Neighborhood Subway; Transformational subway (Forest Hills)
- SW Corridor Park and cross-streets
- Melnea Cass Boulevard, new Tremont / Columbus

Silver Line Washington Street (completed 2002):

- BRT service to downtown
- Dudley and Melnea Cass Stations
- MAPC typology: "transformational subway"
- sidewalk improvements to support development.

Needed to support future development:

- Melnea Cass Blvd. redesign
- At Jackson Square, other new sub-districts: streets, sidewalks, parking, utilities, stormwater, remediation
- Forest Hills: Casey Overpass replaced by new streets



- Tremont Crossing: http://www.feldcodevelopment.com/property/tremont-crossing
- Northeastern: http://www.bostonredevelopmentauthority.org/PDF/ResearchPublications/Rpt593.pdf
- Melnea Cass: Presentation, Design Concepts Meeting, May 30, 2012, Boston Transportation Department.
- Jackson Square: https://www.usgbc.org/ShowFile.aspx?DocumentID=6955; http://www.boston.com/yourtown/news/jamaica_plain/2011/03/largest_part_of_225m_jackson_s.html.
- Forest Hills: http://www.bostonredevelopmentauthority.org/planning/PlanningInitsIndividual.asp?InitID=120&action=ViewInit
- http://www.massdot.state.ma.us/caseyarborway/Home.aspx

F. Indigo Line Corridor

Development Summary

- Nine-mile rail/TOD corridor; state and city priority.
- MAPC station typology:
  - Newmarket, Morton: "transformational subway"
  - Others: "neighborhood subway".
- Major goals:
  - transit equity to all neighborhoods
  - Smart Growth, TOD
  - urban villages: affordable housing, jobs, parks
- Fairmount/Indigo Line CDC Collaborative: 5 CDCs.
- Original 2006 TOD plan (Dorchester Bay , GCA).
- BRA/Collaborative TOD strategic plan underway.

.

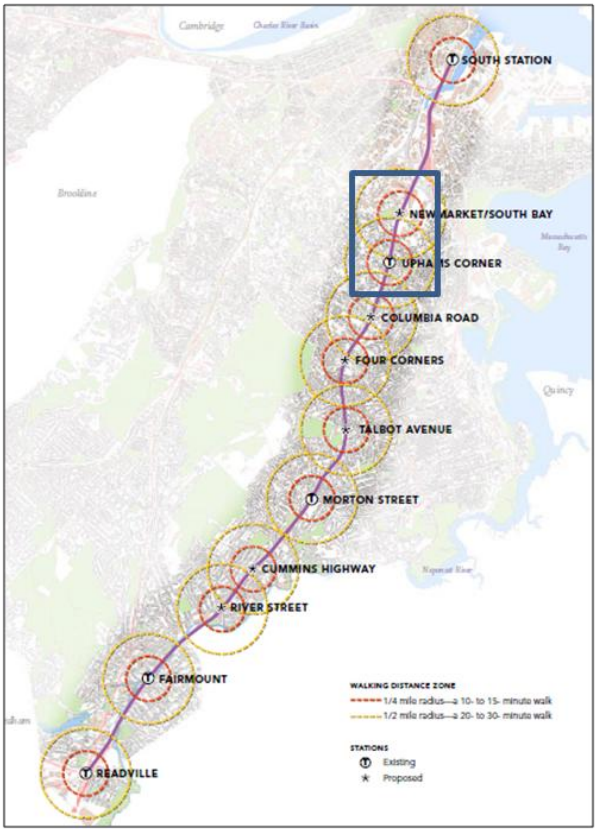
Infrastructure Needs

MBTA implementing $175 million transit project:

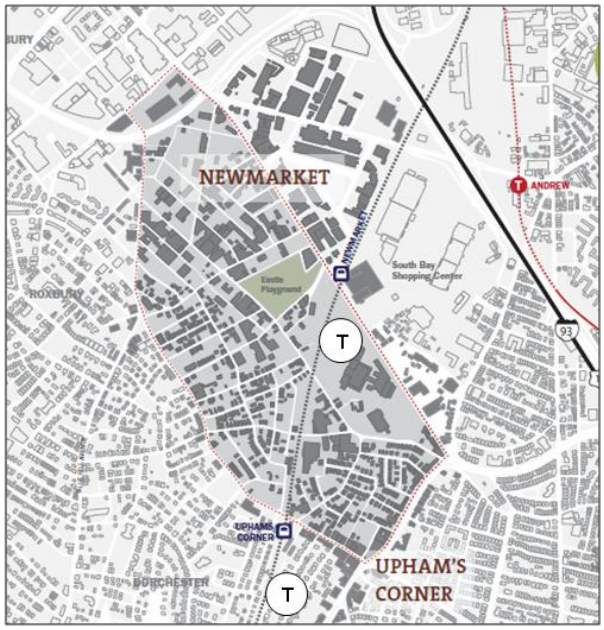
- Two existing stations have been rebuilt
  - Uphams Corner
  - Morton Street
- Four new stations being built
  - Newmarket Square
  - Four Corners/Geneva
  - Talbot Avenue
  - Mattapan/Cummins Hwy./Blue Hill Avenue
- Seven bridges; trackwork and signals.

Further infrastructure needs:

- Extensive streets, sidewalks, parks, parking, lighting.
- Integration of bus routes with Indigo Stations.
- South Station capacity expansion and Red Line fleet.



Indigo Station Areas (Collaborative/GCA, 2006)



Newmarket and Uphams Stations (TACC Report)

- Dorchester Bay EDC: http://dbedc.org/fairmount.html
- BRA: http://www.bostonredevelopmentauthority.org/Planning/PlanningInitsIndividual.asp?action=ViewInit&InitID=157
- http://www.bostonredevelopmentauthority.org/pdf/PlanningPublications/Fairmont/Fairmount%20GCA%20ReportLO-RES.pdf
- Newmarket/Uphams Plan: http://tamcc.org/wp-content/uploads/2012/01/TACC_NMKT_UPHAMS_STUDY_JUNE11.pdf

G. East Cambridge/East Somerville

Development Summary

Kendall
- Kendall the 8th busiest station in the MBTA system.
- 2000-2010: 4 million sf developed, a 40% increase.
- City planning for additional 8.5 million sf by 2030.
- Goal is diversification, 24/7 environment.

North Point

New development team led by HYM Investment:
- 18 parcels, 5.2 million sf of development rights.
- Office, Lab/Biotech and Retail (up to 2.2 million sf).
- Up to 2900 residential units, rental and condo.
- Green Line, Orange Line, I-93, Storrow, Mem. Drive.

Brickbottom/Inner Belt

City conceptual program as of 2008:
- City targets 41% of 2010-2030 growth
- 4.4 million sf of commercial; 12,500 jobs
- 1,750 residences

Union Square

Rezoned for TOD in 2009; FAR 3.0-4.5; height to 120'
- Kiley Barrel brownfield north of station
- Boynton Yard south of station
- City targets 14% of 2010-2030 growth
- 1.5 million sf of commercial; 4,300 jobs;
- 850 residences.

Infrastructure Needs

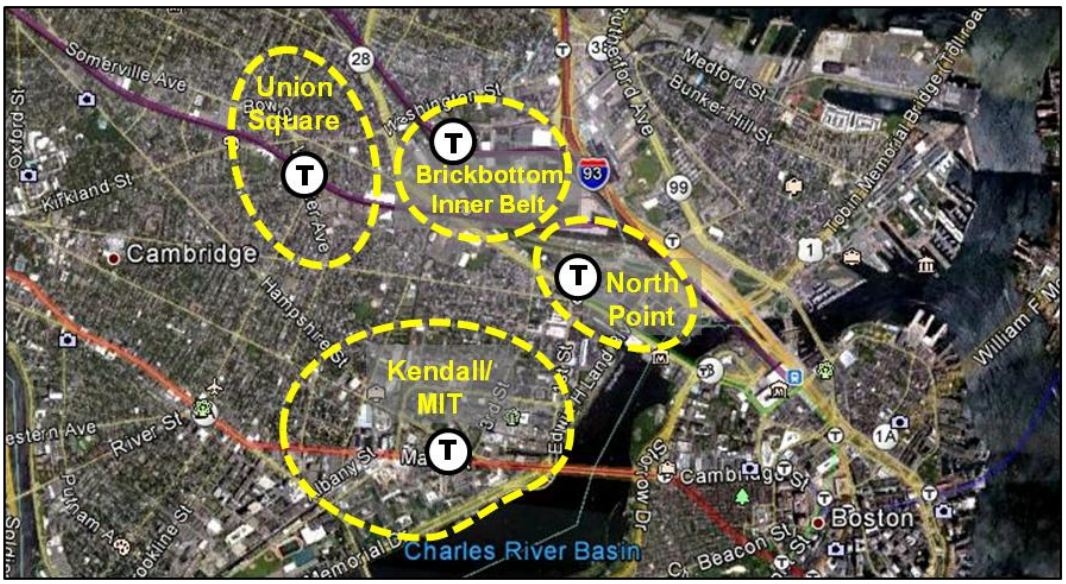
Kendall
- A transit-development hot spot in *Hub & Spoke*.
- MAPC station typology: "urban core".
- Red Line congestion, rolling stock, Red-Blue Connector could impact TOD.

North Point, Brickbottom, Union Square
- Major change: Green Line Extension, including relocation of Lechmere and both branches of GLX
- All three stations: MAPC "transformational subway"
- Central Subway constraint could limit long-term gains
- Redesign of McGrath-O'Brien Highway and McCarthy Overpass would eliminate key barrier

North Point
- Central Artery North Point Park done
- 5-acre on-site central park in progress
- On-site infrastructure: stormwater system, street grid.

Brickbottom/Inner Belt
- Access to Inner Belt through railroad spaghetti
- District infrastructure: street grid, sidewalks, etc.

Union Square
- Two alternative plans for redesign of street pattern.
- Shared-use garage.
- Cleanup and infrastructure for Kiley, Boynton sites.



- ULI, *Hub & Spoke*; http://boston.uli.org/; 2012 (Kendall)
- www.cambridgema.gov/CDD/Projects/Planning/K2C2.aspx (Kendall)
- www.hyminvestments.com/projects/northpoint/northpoint.php (North Point)
- http://www.cambridgema.gov/CDD/econdev/districtinfo/devdistricts.aspx (North Point)
- http://www.somervillema.gov/sites/default/files/A-11BrickbottomPresentation12-29-2008.pdf
- http://www.somervillema.gov/departments/ospcd/squares-and-neighborhoods/union-square
- http://www.massdot.state.ma.us/groundingmcgrath/Home.aspx (McGrath/McCarthy Overpass)

H. Assembly/Wellington/River's Edge

Development Summary

Assembly Square (Somerville)
130 acres, designated a Growth District 2010
Assembly Row, by Federal Realty Investment Trust:
- ~65 acres, total of ~5.2 MM sf mixed use
- ~16,000 construction jobs, ~8,500 permanent jobs
- $1.8 billion lift in valuation, $23 MM net new taxes
- 2,050 residential units
- 1.75 MM sf office space
- 830,000 sf retail
- Phase I underway (453 res., 200,000 sf retail/cinema)

Additional ~65 acres for future development by others

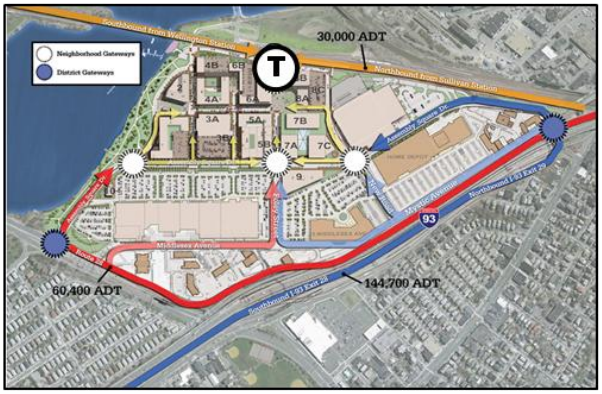
Station Landing (Wellington Station, Medford)
Directly across river from Assembly Square
Mixed-use by National Development; mostly complete:
- 1 MM+ sf total
- 587 residential units
- 160,000 office
- 30 shops and Boston Sports Club
- central garage shared with MBTA Station

River's Edge (Medford, Malden, Everett)
Between Wellington and Malden Center Stations
- ~100-acre Growth District designated 2009
- Formerly known as "Telecom City" in 3 cities
- Phase I: 30 acres in Medford:
  - developed by Preotle Lane & Associates
  - 222 residential; 410,000 sf office
  - riverfront amenities

Infrastructure Needs

Assembly Square
- MBTA Orange Line station: under construction
- Unique funding: developer, MassDOT, Ec. Devt.
- MAPC station typology: "Transformational Subway"
- District infrastructure: street/sidewalk grid, green space, water/sewer/drainage: ~$110 million total
- Financed mostly by I-Cubed; DIF
- DCR to improve Mystic River parklands
- No material infrastructure shortfalls: challenge met

Wellington and River's Edge
- Station built in 1970s at regional highway node
- MAPC station typology: "Transformational Subway"
- River's Edge Drive done
- district infrastructure needed for remaining phases



Assembly Row (Federal Realty)

- http://assemblyrow.com/
- http://stationlanding.com/index.html
- http://www.mass.gov/hed/economic/eohed/pro/gdi/gdi-guidelines.html (select River Edge)
- http://www.riversedgema.com/

I. Route 1A Corridor (East Boston/Revere)

Development Summary

Suffolk Downs

Proposed resort casino:
- hotel (s) and up to 10 restaurants
- 200,000 sf gaming space

If no resort casino, still a major redevelopment opportunity with two Blue Line Stations

Revere Beach / Wonderland Station

First generation of beachfront residential built

Waterfront Square (MBTA and City of Revere):
- 18-acre Growth District designated 2008
- MBTA Intermodal Center (joint development):
  - 1,456-car shared-use garage
  - sheltered busway
  - pedestrian bridge/plaza to mixed-use and beach
- Mixed-use developer is Eurovest, Inc.
- 902 residential; 165,000 sf office; hotel; retail

Wonderland Dog Track site:
- owned by Suffolk Downs ownership
- unspecified mixed-use, non-gaming plans

Infrastructure Needs

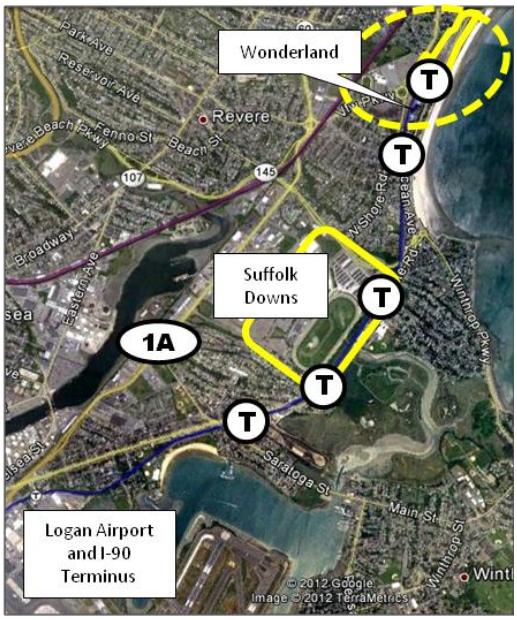
Region-Scale Projects Completed

- Big Dig Extension of I-90 to Route 1A, connecting 1A Corridor to interstate highway system
- Blue Line Modernization and capacity expansion
- MAPC station typology:
  - Suffolk Downs, Wonderland "transformational subway"
  - others "neighborhood subway"
- 1990s renovation of DCR Revere Beach , Ocean Ave., Revere Beach Blvd.
- Current station and garage makeover of Wonderland

Needed to Support Major Development

- Route 1A interchange and capacity improvements
  - Boardman and Waldemar Streets
  - Suffolk Downs access
  - Chelsea Creek side
  - Bell Circle
- Resolution of North Shore Transit Improvements
  - Blue Line Extension to Lynn and/or
  - new commuter rail station at Wonderland site

Waterfront Square at Wonderland Station (Eurovest, Inc.)



- http://www.suffolkdowns.com/resort.html
- http://www.mass.gov/hed/economic/eohed/pro/gdi/gdi-guidelines.html (select Revere)
- http://www.mbta.com/about_the_mbta/t_projects/default.asp?id=1074 (Wonderland)
- http://www.eurovestdev.com/wordpress/waterfront-square/

The Development Area Profiles: Outer Areas

The pages that follow present the 16 Development Area Profiles for areas outside the MAPC Inner Core:

A. Gloucester
B. North Shore Cities: Salem, Beverly, Peabody
C. Lynn Waterfront
D. North 128: Woburn, Wilmington, Burlington
E. Waltham
F. Concord
G. Maynard
H. Northwest 495: Littleton, Boxborough
I. MetroWest 495: Marlborough. Southborough, Hudson
J. MetroWest Core Towns: Framingham, Natick, Ashland
K. Southwest 495: Milford, Hopkinton
L. Southwest 495: Franklin
M. Foxborough Route 1 Corridor
N. South 128: Norwood, Canton, University Station
O. Quincy Center TOD
P. SouthField

A. Gloucester

Development Summary

- Ports of MA Compact signed 2012
- State and five port cities act to boost economic development and improve infrastructure
- Gloucester confronting long-term tension between maritime and mixed-use development in Port area
- 2012 city and MAPC: New Maritime Port Economy
- Promote maritime, visitor-based and fishing economy
- Realize a marine sciences/cluster
- Improve public access, downtown-harbor links
- Waterfront urban renewal parcel (65 Rogers) controversial and unresolved
- UMass Marine Research Station launched
- New/proposed developments outside port/CBD area:
- Gloucester Crossing: $60M 195,000 sf mixed use (retail done, residential and hotel pending)
- Fuller School redevelopment: 176,700 sf building, City exploring potential reuse opportunities
- Three existing industrial parks are at capacity
  - Plan to expand Kettle Cove
  - State funding search for new industrial park

Infrastructure Needs

- Water contamination a significant issue
- Antiquated water treatment/delivery system:
  - 3 wastewater plants beyond useful life
  - Last system to discharge primary effluent into bay
- Mandatory $150M sewage outlays over 10 years
- Must build new sewage plant, retrofit/expand existing
  - Parts of West Gloucester lack sewer

Two commuter rail stations with MAPC TOD typologies:
- Gloucester ("Urban Gateway") , with recent village-scale TOD
- West Gloucester ("Undeveloped")

MBTA's Annisquam River Drawbridge to be replaced
- $34M project begins 2013, fixing constraint on service

Gloucester Harbor Economic Development Plan

2009 Harbor Master Plan	2011 Harbor Economic Development Plan
2011 EDA Economic Development Report	2012 MAPC New Maritime Port Economy
2011 VHB Analysis of Options for Fuller School site	2010-2017 Open Space & Recreation Plan

B. North Shore Cities: Salem, Beverly, Peabody

Development Summary

Salem
- Downtown Renewal Plan (2011).
- New MBTA rail station with garage and TOD site.
- No. River Canal Neighborhood Master Plan (2012).
- Salem Harbor Power Station redevelopment plan.
- Proposed Port Expansion Plan at Salem Wharf (2008).
- Bridge Street Neck gateway revitalization.

Beverly

Refocus on downtown:
- *Downtown 2020*: City, Main Streets, business leaders.
- Beverly Depot is 2nd busiest MBTA commuter station.
- Garage and TOD project for Beverly Depot.
- Residential TIF district adopted.

Major industrial development opportunity at Route 128 Exit 19.

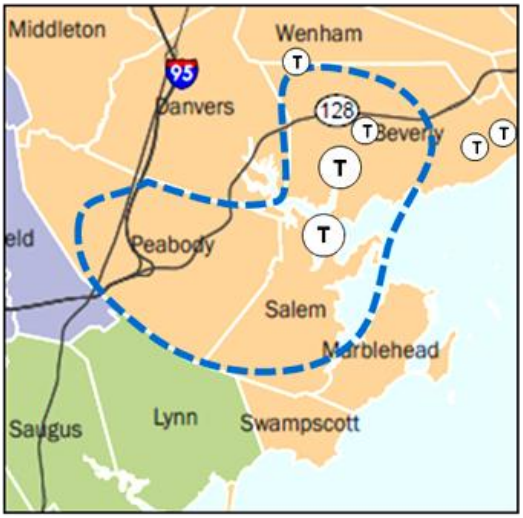
Peabody
- Both employment and housing are growing.
- Drivers: Centennial Park, Peabody Park, NS Mall
- Long-term focus:
  - downtown
  - Peabody-Salem corridor
  - industrial base

Infrastructure Needs

Salem
- MAPC typology: "Urban Gateway".
- New rail station, garage, and TOD site.
- Better connection to 128 from Peabody side:
  - Main-Boston Streets corridor (with Peabody)
- Downtown pedestrian mall improvements
- Water and land side improvements to South River
- Improved access to Power Station and Salem Wharf
- Entrance Corridors: Bridge, Canal, Boston

Beverly
- MAPC station typology: "Urban Gateway".
- Beverly Depot garage, TOD site.
- Rantoul Street improvements.
- Major roadway improvements to unlock Exit 19.

Peabody
- Major flood control issue limits downtown growth.
- Four "significant hazard" dams.
- Better connections to Salem commuter rail station:
  - Main Street corridor improvements
  - Boston Street corridor (with Salem)
  - Feeder bus and shuttle connections



Peabody-Salem Corridor (MAPC)

- http://salem.com/Pages/SalemMA_DPCD/studies:
  - *Salem Downtown Renewal Plan*, 2011
  - *Site Assessment of Salem Harbor Power Station*, 2012
  - *Salem Port Expansion Project.*
- Beverly *Downtown 2020*: http://beverlymainstreets.org/downtown-2020-37.html
- *http://www.mapc.org/subregions/nstf/salem-peabody-corridor*

C. Lynn Waterfront

Development Summary

- Opportunity at a transformative scale.
- 305 acres between Lynnway and the water.
- Adjacent to GE, downtown, Community College.
- City's 2007 Waterfront Plan:
  - residential: 4 million sf
  - commercial/retail: 1.1 million sf
  - lab/R&D: 225,000 sf
- Designated Port Area (DPA) water frontage reserved.
- Designated a state Growth District in 2008.
- Two rail stations (River Works, Downtown).
- MAPC station typology: "urban gateway".
- Big Dig expands access to Route 1A corridor.

Infrastructure Needs

- Needs resolution of No. Shore Transit Improvements.
  - Blue Line to Lynn; or
  - Enhanced commuter rail
- Redesign of Lynnway as complete urban boulevard.
- District-scale mixed-use infrastructure on-site.
- Marine infrastructure for DPA frontage.

Water and sewer:
- non-MWRA (except water for GE only)
- Aging sewer pipes will require modernization or replacement

Lynn Waterfront Growth District

2007 Waterfront Master Plan

- City of Lynn (Sasaki Associates), *Lynn Waterfront Master Plan*, 2007.
- http://www.mass.gov/hed/docs/permitting/gdi.lynn.pdf

D. North 128: Woburn, Wilmington, Reading, Burlington

Development Summary

Woburn:
- Downtown revitalization is highest priority
  - Working to introduce mixed uses, WRA Office
  - Citizens Park, new downtown open space
- Plan to build senior housing in Woburn Square •

Regional job center with more jobs than residents
  - High proportion of ed, health and social service jobs
  - Mishawum area has highest employer concentration

Wilmington:
- I-93 Tri-Town Interchange: $150 million investment
  - Create life sciences and high-tech corridor
  - Wilmington plans for employment park and hotel
- Neighborhood Activity Centers to reduce sprawl

Reading:
- Limited local job base; 80% commute out for jobs
  - Largest employer is Northrup Grumman
- 2009, completed $5.5M downtown revitalization
  - Adopted CBD Smart Growth Overlay District
  - Plans to expand CBD housing

Burlington NW Park Growth District:
- 285-acre district to be completed 2014
  - 3.6M sf office, 600,000 sf comm, 300 res, hotel
  - Adjacent Burlington mall added new wing (2006-08)
- Planned Town Center revitalization
  - CBD has low vacancy rate but aging infrastructure

Infrastructure Needs

Woburn:
- 2 rail stations, Anderson and Mishawum
  - MAPC typology: "Commerce Park" (for both)
  - Anderson is a Logan Express site
  - $1.5M grant for pkg to revitalize CBD
  - MBTA invested in TOD near Mishawum Station
    - Mixed-use: 50,000 SF office, 210 res, 596 spaces
- Rebuilding New Boston Street Bridge
- Exploring shuttle, bus routes to link jobs, transit
- $5M upgrade of wastewater equipment (2004)
- MWRA rehabbing/replacing sewer (2010)

Wilmington:
- MAPC station typologies:
  - No. Wilmington: "Undeveloped"
  - Wilmington Center: "Town & Village"
  - MBTA constructing 100+ space lot in CBD
- Desire to introduce alternatives to car infrastructure
  - Major congestion problems
- Water and stormwater constraints

Reading:
- Need to manage downtown parking
- MAPC station typology : "Town & Village"
- Corridor Study to improve multimodal trans syst
- MWRA pipeline project to improve water service

Burlington NW Park Growth District:
- MA approved $1.5M for infra improvements in GD
- MWRA sewer undergoing extensive replacement

2000 Woburn Square Revitalization Plan
2011 Woburn Community Development Strategy
2001 Wilmington Master Plan
I-93 Tri-Town Interchange
2005 Reading Master Plan
2009 Reading Parking Study
2012 Reading Main Street Corridor Study
2007 Downtown Reading Market Assessment
2008 Burlington Growth District Summary

E. Waltham

Development Summary

A regional economic engine for Metro Boston
- 60,000 jobs; region's 3rd largest job center
- state's 3rd largest commercial/industrial tax base

MAPC projects 2% job growth 2010-2035
- Large student population (Brandeis and Bentley)

Build-out potential:
- 5,700 housing units
- 2.9 million sf commercial
- Rt. 128 capacity for 25 million sf new space

Member of new MetroWest Collaborative Developers
- Regional CDC to support housing prod uction plans
- Needs 1000+ affordable units to meet 10% goal

Moody St downtown revitalization began in 1990s
- Largely viewed as successful, but daytime business struggles
- Bentley study recommends invest in Main Street

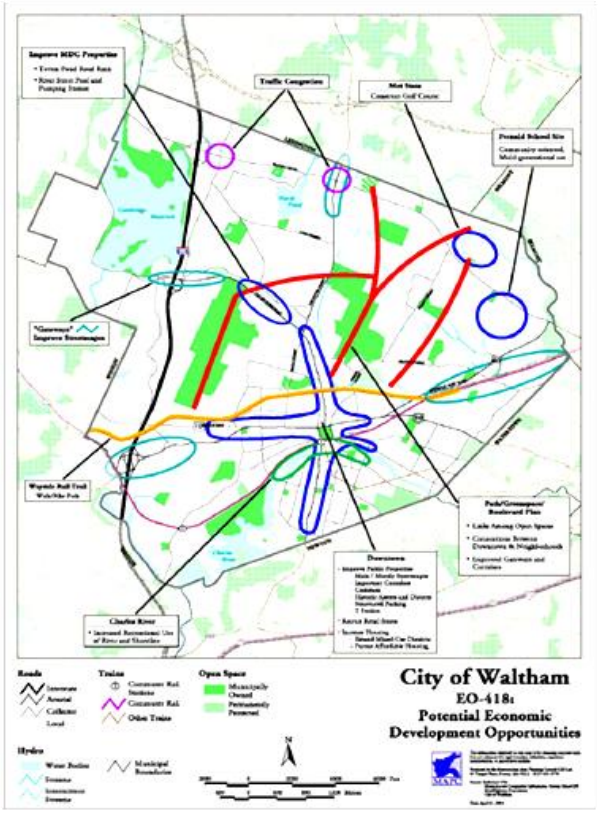
Infrastructure Needs

Transit:
- Two commuter rail stations; MAPC typologies:
  - Brandeis/Roberts: "Commerce Park"
  - Waltham: "Urban Gateway"
- MA Central Connector, 28 mi bus and bike planned
- 128 Corridor Coalition recommends transit center

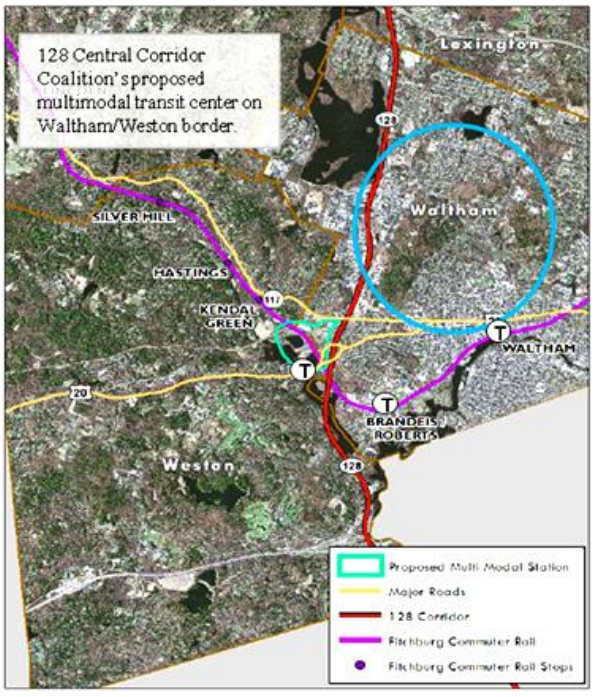
Roadway:
- 128 Coalition Plan: ease traffic, promote development
  - 5 cities, MAPC, businesses, developers, officials, TMAs
  - Winter St. Bridge over 128 reconstructed
    - $23M project added 3 lanes
  - Trapelo Rd Corridor improvements underway
    - $14.6M in state and fed funds committed

Open Space/Recreation
- Big gaps in Paul D. White Bike Path @ Moody St.

Water and Sewer
- MWRA community for both
- Cambridge owns 550 acres of Hobbs Basin
  - System provides 20+ million gpd to Cambridge



Development opportunities (Master Plan)



(Route 128 Corridor Plan)

- Bentley Moody St Research Project
- Community Development Master Plan (2007)
- Build-Out Analysis (2006)
- MetroWest Housing Production Plan
- Rt 128 Corridor Plan
- Rt 128 Business Council

F. Concord

Development Summary

Tension between character and develop
Three downtown centers:
- Concord Center, Thoreau/Depot, W. Concord Village
- Most development activity centered at WCV
  - Need better connections to Baker Ave business park
  - Streetscape improvements, new retail district underway
  - Major 350-unit 40B project off Route 62
- Concord Center is result of long-term TOD strategy

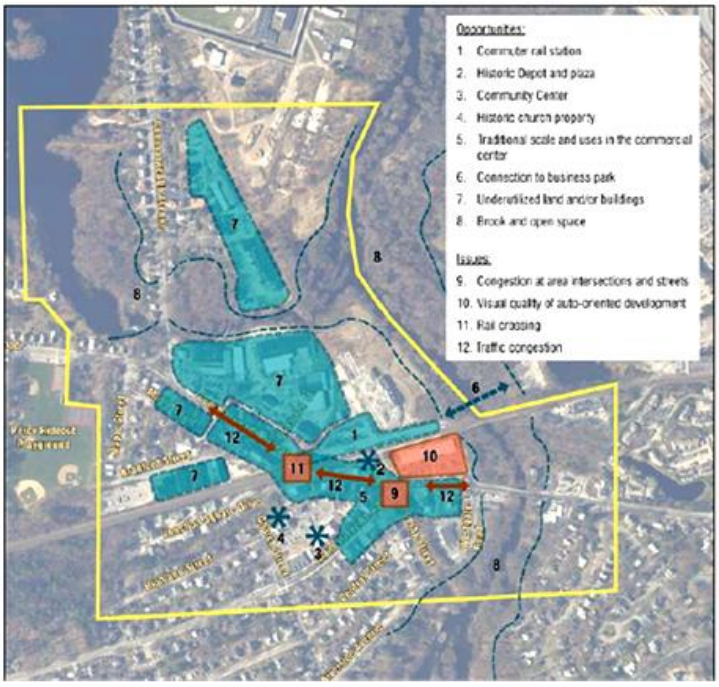
MAPC projects 8% job growth between 2010-35
- Significant increase in service sector jobs
- Tourism is important: Minuteman Park gets 1M/yr
- Hanscom AFB is important regional driver

Infrastructure Needs

Transportation:
- Two MBTA stations:
  - Concord & West Concord ("Town & Village")
- Extreme parking needs in centers and recreation areas
  - Comprehensive parking study underway
- Crosby's Corner Improvement Project to widen Rt. 2 is one of MassDOT's few capacity enhancements
  - Part of 3-year Cambridge Turnpike Reconstruction
  - Adds bridge, service roads, on/off ramps
  - Allows local and regional traffic to separate
  - $80M project addresses major safety problems

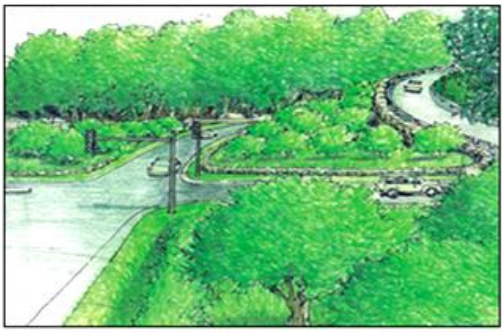
Open Space/Recreation:
- Freeman Rail Trail, Phase 1 done, Phase 2 underway

Water and Sewer:--a non-MWRA community for both:
- Water: 6 groundwater and 1 surface supply
  - Limited drinking water sources
- Sewer: central facility, 2 pump stations, 6 lift stations
  - Serves 35% of town
  - Insufficient capacity for future development



West Concord Village Issues / Opportunities (Village Center Study)

Crosby's Corner Improvements (Berger)



- West Concord Village Master Plan (2010)
- West Concord Village Master Plan Presentation (2009)
- Concord Center Suburban TOD Case Study
- Comprehensive Long-Range Plan (2005)
- Housing Production Plan (2010)
- Comprehensive Parking Study Press Release (2012)
- Bruce Freeman Rail Trail
- Village Center Study (2007)
- West Concord Design Guidelines (2011)

G. Maynard

Development Summary

State PDAs: Clock Tower and Downtown
Clock Tower Place Rezoning
- Part of downtown revitalization strategy
- iconic1.1M sf development in 12 mill buildings (former Digital HQ, now now 50% vacant)
- Will create zoning overlay to promote mixed-use
  - Add 300 residential units
  - Dedicate portion to restaurants
  - Town would increase shuttles

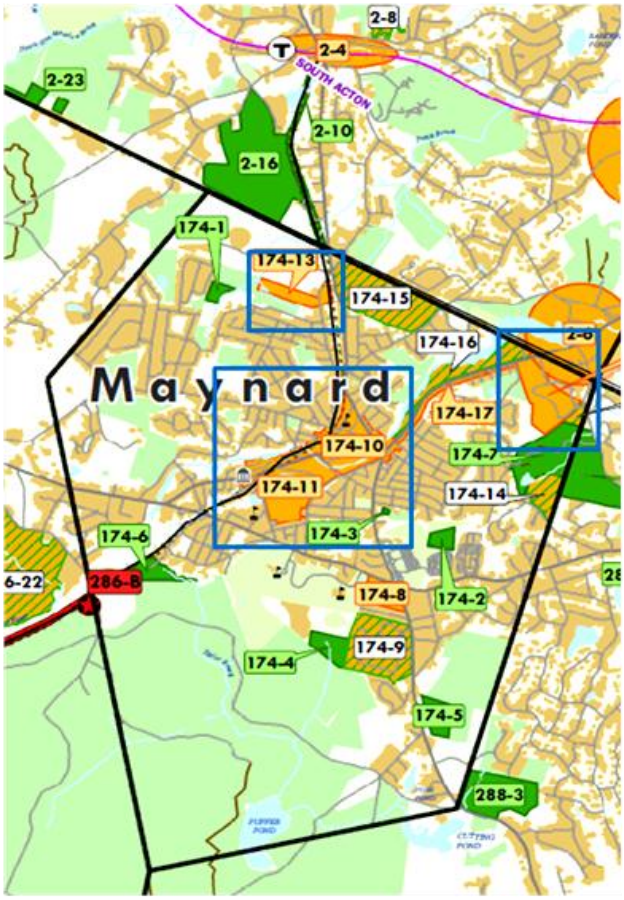
MAPC projects 4% employment growth, 2010-35
One of 7 towns exploring regional housing services office

Infrastructure Needs

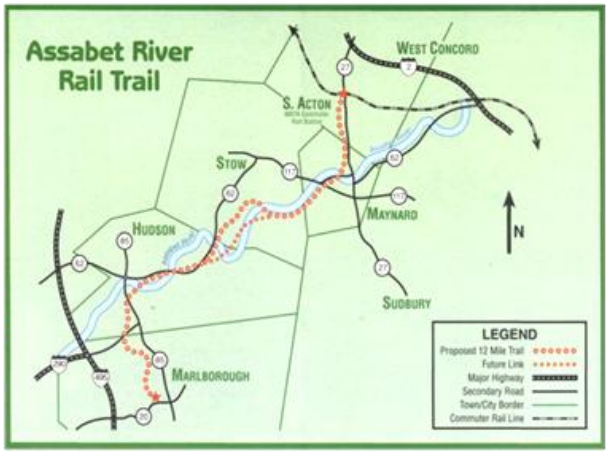
Transportation:
- Closest commuter rail is South Acton
- Shuttles between South Acton and Clock Tower Place
  - With CTP rezoning, town exploring new transit needs
- Sidewalk improvements project underway on 3 streets

Open Space/Recreation:
- Assabet River Rail Trail (ARRT)
  - Links CBD and rec areas, several towns
  - Construction starts 2016

Water and Sewer—a non-MWRA community for both:
- Aging water delivery system
- 5 water main breaks since 2007
- Investing $10M in wastewater treatment plant upgrade
- 2011 study IDs 3 potential water source alternatives



Priority Development Areas (MAPC)



ARRT and excerpt of proposed design (ARRT, 2007)

- 2007 Comprehensive Preservation Plan
- Community Development Principles
- Mill Revitalization District Case Study
- 2011 Assessment of Water Resources
- 2011 Clock Tower Rezoning Traffic and Financial Impact
- 2007 Assabet River Rail Trail

H. Northwest 495: Littleton, Boxboro

Development Summary

Littleton

Two 43D Priority Development Sites:

- Sam Park & Co buys ex-Cisco site 2011 (also state PDA)
  - 90 acres on 495, Exit 31 (also access to Route 119)
  - 640,000 sf office space permitted (2011)
  - Located w/in Littleton Village Overlay District (MU)
- IBM MassLab software campus/550 King St
  - Access to Routes 2, 495, commuter rail
  - Located w/in Littleton Common Village District (MU)
- Town wants to focus on enhance dCBD:
  - Major priority is area between Great Rd and King St

Boxboro

State PDAs along 495:

- Gutierrez land 40B approved for 244 rental units (2011)
  - Controversial in town, demolish historic property
- Adam's Place: Holiday Inn and part of Cisco campus
  - Cisco create on-site water/wastewater treatment
  - Site expands to contain 1.4M SF space, employ 4,000

Infrastructure Needs

Littleton

Transportation

- Littleton/Rt 495 MBTA station on Fitchburg line
  - MAPC station type: "Undeveloped"
  - Extensive upgrades: new platform, ped bridge, parking
  - Double track rail added, schedule improved
  - Focus on connect res-jobs, create regional station

Roadway:

- $1.8M Massworks grant to improve safety/capacity
- Focus on Rt .119/Great Rd and 495 interchange
- Widen road, rebuild sidewalk,
- Grant will add new water main

Infrastructure:

- 43D sites lack amenities, sewer limits, not walkable
- Town searching to expand water supplies

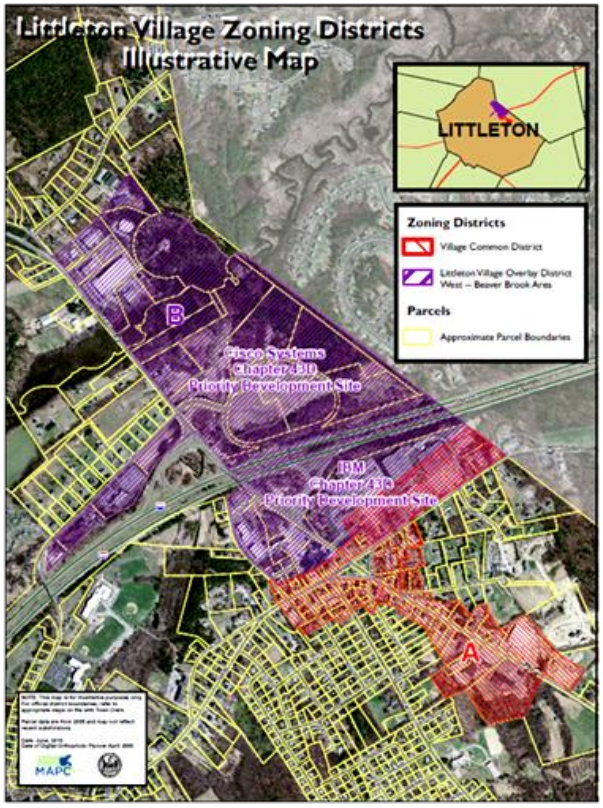
Boxboro

Traffic and Circulation:

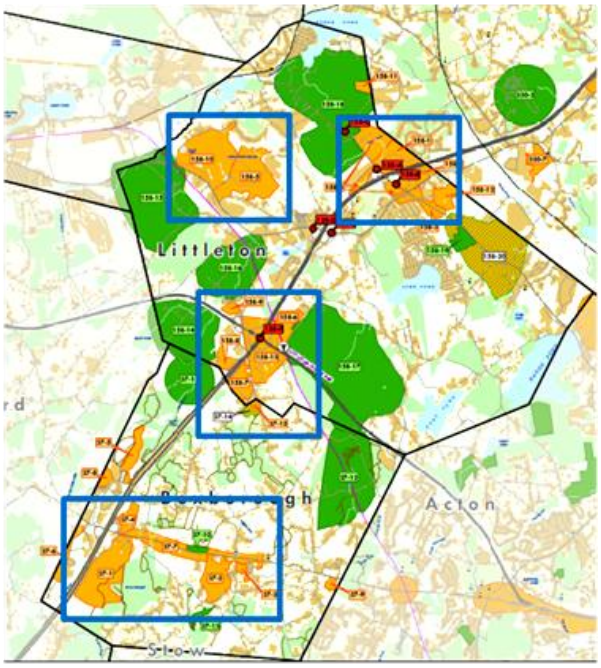
- No MBTA rail (nearest stations: So. Acton, Littleton)
- Limited by lack of parking
- Potential corporate shuttle service to Cisco campus

Infrastructure:

- No public water or sewer system
- Small wastewater treatment facilities



Littleton Zoning Districts



Boxborough/Littleton PDAs (MAPC)

- Littleton Chapter 43D PD Site
- 2010 Little Village Zoning
- 2012 Littleton Sewer Feasibility Study
- 2002 Boxborough Master Plan

I. MetroWest 495: Marlborough, Southborough, Hudson

Development Summary

Marlborough
- Comprehensive plans for redeveloping target areas: Downtown, Lincoln Street
- 4 Marlborough EDC priority development sites: 362 Elm, 417 South, Chestnut Ridge, Devonshire
- 2 state priority development sites:
  - Southwest Quadrant Simarano Dr, HP/Fidelity
- Disparity res-com tax rates is disadvantage
- No significant new space built until vacancies reduced:
  - 2M SF office vacant in 2011
  - 2.1M SF office permitted but unbuilt

Southborough
- Major Route 128 job centers
- Some projects just permitted, under review:
  - EMC SB/Westborough Campus (R&D/off): 2.2M SF
  - SB Place (office): 100,000/200,000 SF
  - Capital Grp Properties (office): 20,000-50,000 SF
  - Southville Rd Business Park

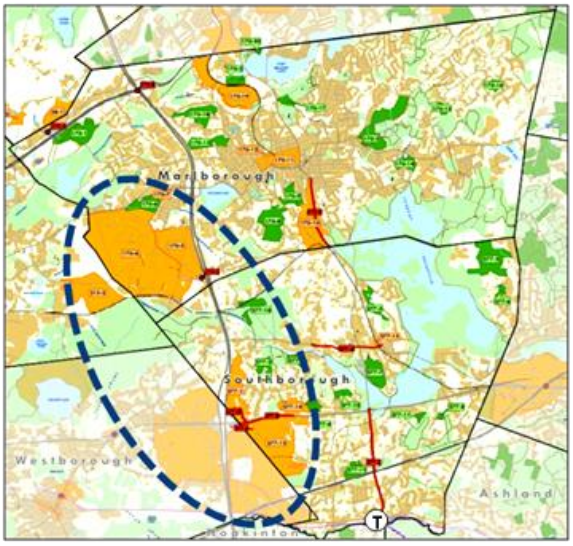
Hudson
- 2012: Town encourages smart growth, adopted CPA
- Important clusters: Intel, CBD, Rt. 62/495, Tech Park
- Adaptive Reuse Overlay District to promote mixed use
- CBD revitalization: includes infr. and façade investment
- 495 State PDA: Tower Street Mill
- 4 PDAs: 185-205 and 173 Wash St, 75 Reed, Cabot Rd

Infrastructure Needs

Marlborough
- 495 traffic projected to grow 20% by 2030
  - Significant transportation investment points/corridors:
    - Bridge widening over Assabet River
    - 290/495 and Simarano/495 interchanges
    - Rt. 85 south corridor improvements
- New CSX freight terminal will reduce truck traffic
- No direct commuter rail
- Water: MWRA provides 64% water, can provide more
- Sewer: Westerley Plant getting upgrade, Easterly needs
- Electricity: problem of frequent power outages

Southborough
- No sewer system; exploring sewage/septic options
- Water system has undersized pipes, many dead ends
  - Demand outpacing growth, can't meet max need
  - No usable storage for fire flows, etc.
- Commuters clog arterials. esp. Rt. 9
  - Need to focus on 495/90, 495/9 interchange, Oak Hill
  - Severe parking issues need to be addressed
- SB station is "Undeveloped" typology (MAPC)

Hudson
- Washington St/Rt. 85 construction widens, multimodal
- 495/290/85 interchange: critical hub needs investment
- Cherry St. Extension will foster CBD development
- No direct commuter rail
- Hudson not w/in MBTA service area, and no RTA
  - Transit limited to single Senior Center shuttle bus
  - Density could support fixed route transit
- Sewers serve 60% of population
- Water supply meets avg day demand but not peak



I-495 Priority Development Areas: Marlborough and Southborough (MAPC)

Priority Development Areas: Hudson (MAPC)

- Marlborough Economic Development Corporation Master Plan
- 495/MetroWest Partnership
- 2008 Southborough Master Plan
- 2004 Hudson Community Economic Development Plan
- Washington St/Rt 85 Construction
- 2012 Hudson RFP for Master Plan
- 2012 Hudson CD Strategy

J. MetroWest Core Towns: Framingham, Natick, Ashland

Development Summary

Framingham

- Regional employment center: 41% of MetroWest jobs.
- Downtown, 9/90, Golden Triangle are PDAs.
- Genzyme expansion at 9/90 a major success.
- Traditional downtown separate from highway nodes.
- Downtown revitalization:
  - MAPC station typology: "urban gateway".
  - Downtown Framingham Renaissance, Inc. (501c3).
  - 2009 state-funded plan (Beta Group, Cecil Group).
  - Three mixed-reuse projects underway (Dennison).
- Other goals of 2004 Community Development Plan:
  - Mixed-use redevelopment of old industrial sites.
  - Affordable housing,: inclusionary, "friendly 40B".

Ashland

- Commuter rail station since 2002.
- MAPC typology: "suburban transformation".
- Economic Vision Plan/Economic Policy Plan (2010)
- Ramping up economic development capacity
- Explicit focus on mixed-use nodes and corridors:
  - Downtown Urban Renewal District / Megunko Rd.
  - Rail Transit District / Megunko Hill / Nyanza
  - Route 135 Corridor (partly parallels rail corridor)
  - Route 126 Corridor (Pond Street Mixed Use Area)

Natick

- Traditional downtown separate from highway nodes.
- Natick Center a MetroWest PDA.

Infrastructure Needs

Framingham

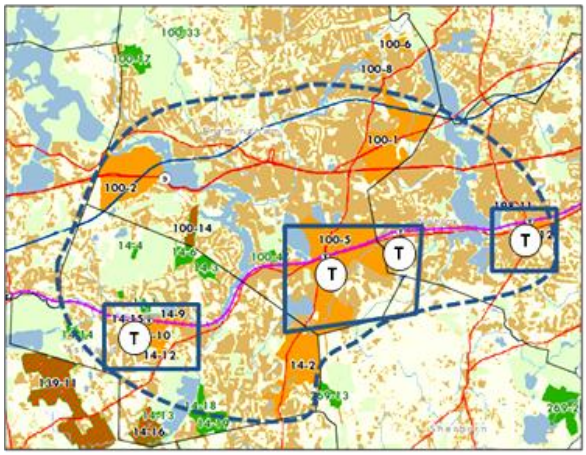
- 126/135/railroad grade crossing at core of downtown.
- Traffic pattern and street makeover in downtown.
- Water: MWRA; may also reactivate Town system.
- Sewer: MWRA; $120 million local system upgrade.
- Genzyme required water and sewer upgrades.
- Six high-hazard dams in Framingham.

Ashland

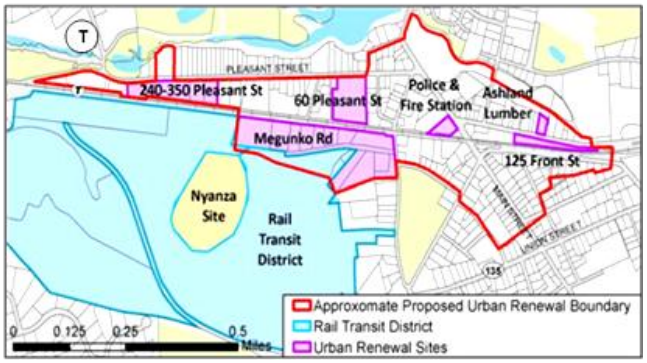
- Downtown parking.
- Grade crossings at Main Street and Cherry Street.
- District-scale infrastructure in Renewal, Rail Transit.
  - Impacted by EPA/DEP cleanup/reuse requirements.
- Sewer system improvements (local feed to MWRA).
- Four high-hazard dams in Ashland.

All Three Towns

- South Station capacity expansion, more trains.
- More local bus transit (T, MWRTA, private shuttles)
- Intra-regional job commuting on commuter rail.
- Maintenance and improvement of rail freight service.



Priority Development Areas; Downtown Framingham, Ashland Rail District, Natick Center



Ashland's Rail Transit District, Downtown Renewal Area

- Framingham 2004 CD Plan: http://www.framinghamma.gov/DocumentView.aspx?DID=204
- Downtown Framingham Renewal Plan (1998): http://ma-framingham.civicplus.com/DocumentView.aspx?DID=202
- Downtown Framingham (2009): http://downtownframingham.com/index.php/business-community/downtown-studies
- Ashland: http://documentcenter.ashlandmass.com/economic-development
  - Economic Devt. Vision and Action Plan (2010, Larry Koff Associates)
  - 2003 Comprehensive Plan

K. Southwest 495: Milford, Hopkinton

Development Summary

Milford

- Part of MetroWest/495 Compact Region
- Approved 40R district zoning
- Several PDAs:
  - Downtown, focus of revitalization effort
  - Granite Industrial Park: 2M sf officeind/warehouse
  - Milford Regional Hospital: $40M expansion
    - Adds 60,000 SF along Rt 16
  - Planned Stone Ridge Business Park: 625,000 sf
  - Planned Platinum Park: 150,000 sf office
- 2003 vision: regional "Tech Town" center
  - 70% growth in business and jobs, 1990-2000
  - 40% growth in health/education services
    - Health care sees as best hope for growth

Hopkinton South Street PDA

- Reflects efforts to enhance town's industrial base
- Contains most of industrial land in town
- South St Industrial Zone, incentives to attract jobs
- South St area is site of town's biggest employers:
  - EMC, A123 Systems, Barry Controls, Lonza
  - Lonza got TIF to expand; others also seek TIF
- Just enlarged industrial zoning, reduced ag zone
- Since 2008, significant inc increase in commercial

Infrastructure Needs

Milford

Transportation:

- Limited transit access to this regional job center
- Commuter line extension considered (2011)
- Congestion is a major problem, esp. w/new dev.
  - Rt 16 intersection improvements in the works
  - Veteran's Memorial Drive ROW extension

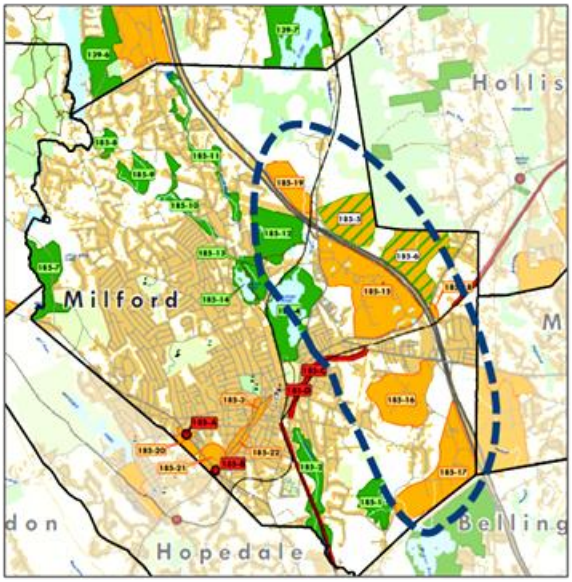
Water and Sewer:

- Water supply and quality issues
- Wastewater treatment near discharge limit
- Over 50% of pipes are 70+ years old, deteriorating
- $3.5M need for investment in sewer repairs (2012)

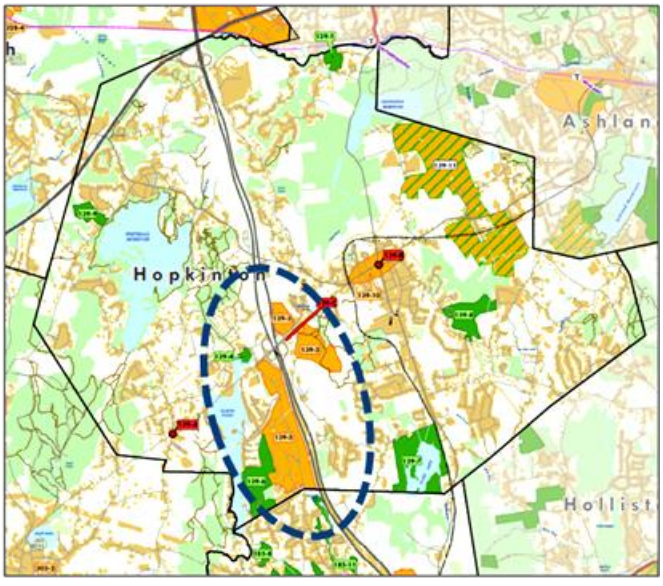
Stormwater: with Franklin and Bellingham, part of EPA/DEP Charles River Watershed Pilot Program; potentially significant capital and operating costs.

Hopkinton's South Street PDA

- Adjacent to 495
- Major sewer capacity issues affect development
  - Lacks its own wastewater treatment facilities
  - Some businesses served by septic systems
  - Fruit St plant: relieve businesses and serve residents
- Bought land to build 350K gals/day treatment plant
  - Purpose: allow business expansion along 495



Milford I-495 PDAs (MAPC)



Hopkinton South Street PDA (MAPC)

- 2003 Comprehensive Plan
- 495/MetroWest Compact Development Plan
- 2011 Scope of Work Milford Commuter Rail Feasibility Study
- 2009 South St Infrastructure Needs

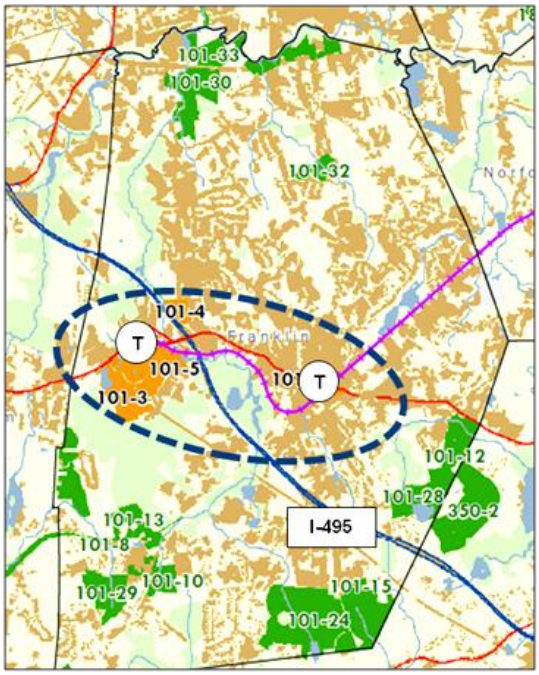
L. Franklin

Development Summary

- Forge Park:
  - 260-acre private industrial park at 495 Exit 17
  - served by rail: commuter and freight
  - opportunity for intensification:
  - 4 large undeveloped parcels
  - many developed parcels have additional land
  - Town promoting biotech, renewable energy uses
- Adjoining Town-owned Pond St. PDA: .
  - 33 acres; could support 500,000 sf of commercial
- Franklin Industrial Park:
  - local Priority Development Site
  - 250-acre private industrial park at 495 Exit 16
- Downtown:
  - Franklin Center Plan: 2002/3
  - Town, Downtown Franklin Partnership, Dean Col.
  - Street, traffic, pedestrian improvements to begin.

Infrastructure Needs

- Good regional access in place:
  - Two I-495 exits
  - Downtown rail station (173 park-and-ride spaces)
  - Forge Park Station (716 spaces)
  - MAPC station typology: Downtown "Town & Village); Forge "Commerce Park".
- Forge Park and vicinity: "last-mile" walkways, shuttle
- Downtown improvements funded by state, FHWA.
- Town water supply system uses 12 Town wells.
- Sewer system feeds Charles River Medway Plant.
- Sustainable stormwater:
  - Franklin, Bellingham, Milford in EPA pilot plan
  - could result in major capital investment mandate
  - potentially impacts Town system and private lands



Regional PDAs: Forge Park, Pond St., Downtown

Downtown Street Improvements (funded)

- http://town.franklin.ma.us/Pages/FranklinMA_Economic/documents/fppds.pdf
- http://town.franklin.ma.us/Pages/FranklinMA_Economic/documents/pondpds.pdf
- http://town.franklin.ma.us/Pages/FranklinMA_Economic/documents/fippds.pdf
- http://town.franklin.ma.us/Pages/FranklinMA_Planning/dtimprovement
- http://town.franklin.ma.us/Pages/FranklinMA_DPW/water_sewer
- http://www.epa.gov/region1/npdes/charlesriver/pdfs/20111019-UtilityProjectGPFactSheet.pdf

M. Foxborough Route 1 Corridor

Development Summary

- Encompasses 500 acres of land owned mostly by Kraft
  - Includes Patriot Place : $350M with 1.4M SF retail
  - Includes 6,800-space game day parking lot
- Rt. 1 Econ Development Overlay District created 2008
- State Growth District designated same year
  - Planned build-out: 1.5M sf lab/office, 150,000 sf retail
  - Potential for 1,000 homes
  - 70,000 visitors on game day
  - Town wants to attract tech companies; casino rejected

MAPC projects 26% job growth, 2010-2035

- 2012: Town began preparation of full Master Plan
  - strong emphasis on downtown to complement Route 1

.

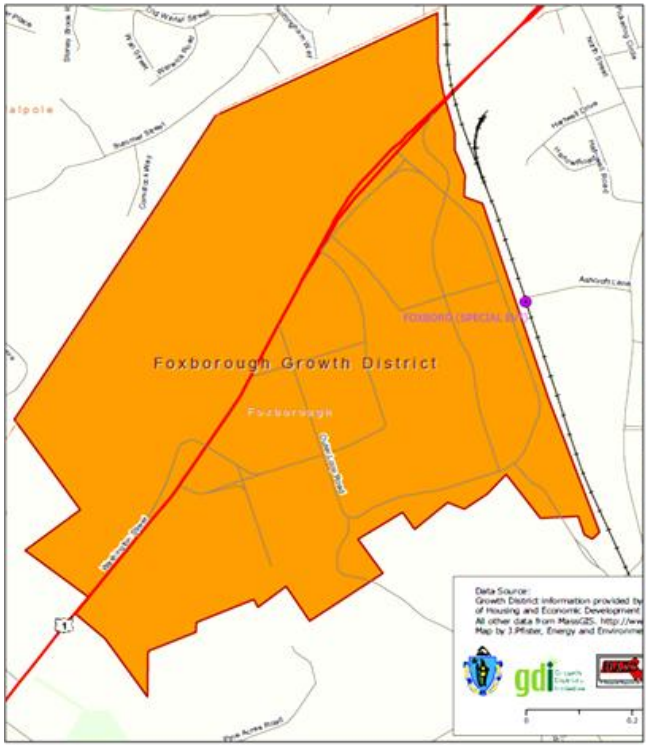
Infrastructure Needs

Transportation:

- State advancing fed rally funded maintenance on I-95
  - Roadway in dire need of repairs
  - Town says it needs $1M/year to maintain roadways
  - Game day Route1 traffic a big problem
- Lack of transit options in town
- Freight line thru town used for special events
  - MAPC station type: "Commerce Park"
  - 2010 MBTA studies feasibility of full rail service
  - Would enhance regional accessibility
  - Would share parking with stadium

Water and Sewer:

- Town has standing sewer moratorium; downtown revitalization dependent on CBD being sewer d
- Gillette and Patriot Place have own wastewater plants
  - Town has considered take over/expand Gillette plant
  - Other option: participate in Mansfield's expansion
  - Considering a Route 1 WW Management District
- Water capacity may become issue for 2030 growth



Foxborough Growth District (MAPC)

- Downtown Foxborough Economic Development Master Plan
- 2012 Downtown Workshop
- Foxborough Commuter Rail Feasibility Study 2010
- Wastewater_White_Paper_130206.pdf
- 2012 Townwide Development Scenarios

N. South 128: Norwood, Canton, University Station

Development Summary

Norwood

- Encourage knowledge-based industries
- 2011 Cecil Group plan for downtown revitalization
  - 2012 state funds to pursue dev elopment strategy
  - Town zoned for high-density mixed use near rail
  - New steering committee to guide development
- MA's first 40R smart-growth district,

University Station

130-acre site at Route 128 Amtrak/MBTA station. One of largest TOD sites in region.

In Westwood, but economic footprint covers Canton, Norwood, whole 128/Route 1 nexus.

Bought in 2012 by consortium of New England Development, National Development, Charles River Realty Investors, Clarion Partners.

New program contains ~2 million sf:

- 750,000 square feet retail, incl. supermarket
- 350,000 square feet of office space.
- 600 residential units (mix of rental and condo)
- 100 rental units for senior citizens
- a 150-room hotel

Infrastructure Needs

Norwood

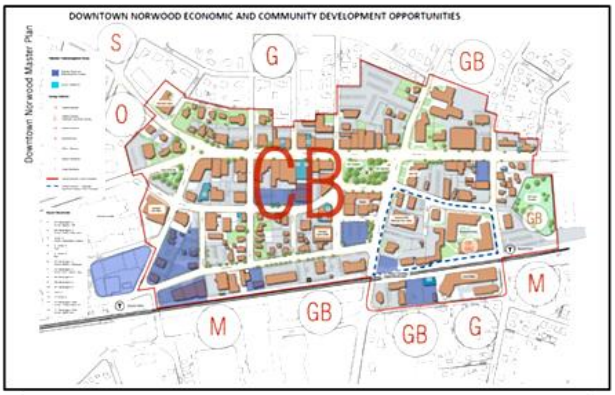
- 3 commuter rail stations; MAPC typologies:
  - Norwood Central: "Urban Gateway"
  - Norwood Depot: "Town & Village"
  - Windsor Gardens: "Undeveloped"
- Streets + Sidewalks Improvement Project (2010)
  - Reconstruct 4,010 ft roadway, 7,500 ft sidewalks
- Traffic calming, parking management plans downtown
- Norwood is full MWRA water and sewer
- Stormwater management deficiencies need to be fixed

University Station

Station and 3500-car garage in place; MAPC station typology: "suburban transformation"

Need:

- Off-ramp from Rt. 128 at Blue Hill Drive.
- Off-ramp for I-95 at Dedham Street.
- Expanding bridge over I-95 from two lanes to five.
- These projects are also part of the larger I-95/I-93 interchange project.
- State committed $55 M in 2010 for highway work.



Norwood: 2011 Downtown Revitalization Plan

University Station

Norwood: 2011 Downtown Master Plan; 2010-2017 Open Space & Recreation Plan
http://www.townhall.westwood.ma.us/index.cfm/page/University-Station-Documents/pid/28368

O. Quincy Center TOD

Development Summary

Major privately-driven redevelopment of Quincy Center including and south of the MBTA Station:

Nationally recognized as potential P3 and TOD breakthrough

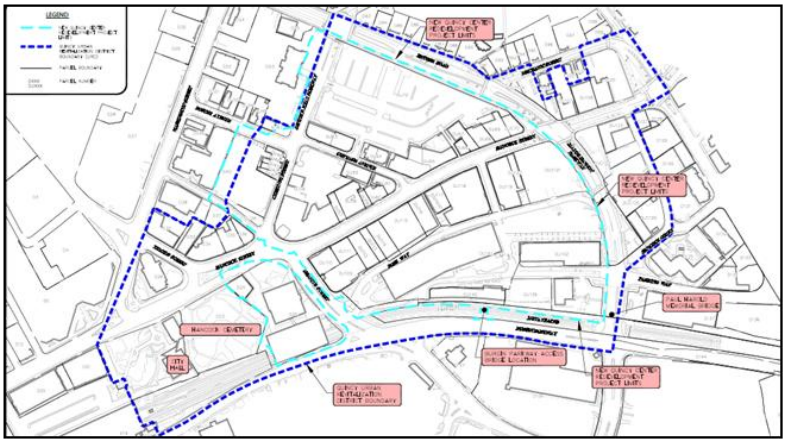
- 40 acres, 20 city blocks.
- Master developer team led by Beal and StreetWorks.
- Planned build-out (estimated TDC $1.33 billion):
  - Residential 1,400 units
  - Office: 1,055k sf
  - Retail: 710k sf
  - Hotel: 250 keys
  - Parking: 5,000 (up to 8 mid-size garages)

Infrastructure Needs

Quincy Center Station: MAPC typology : "Urban Gateway"

$330 million of district infrastructure:

- $289 million municipal bond authorized
- $40 million I-Cubed award (Adams Green, Town Brook, new Burgin Parkway Access Bridge)
- $10 MM MassWorks for Town Brook Culvert (groundbreaking with Governor 2012)
- Water and sewer mitigation (I/I removal, water conservation)



http://www.quincytime.com/#
http://www.quincyma.gov/Government/PLANNING/DowntownRevitalization.cfm

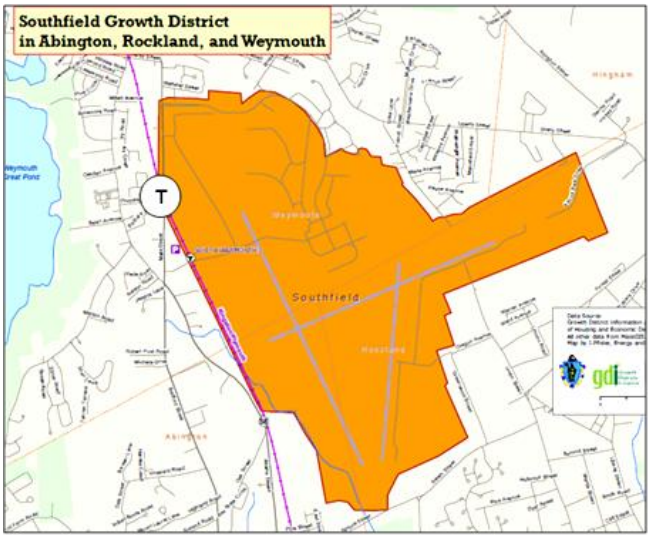
P. SouthField (South Weymouth Naval Air Station)

Development Summary

- Redevelopment of So. Weymouth Naval Air Station.
- Designated a Growth District in 2008.
- Mostly in Weymouth, partly Rockland and Abington.
- South Shore Tri-Town Development Corp.
  - Local Redevelopment Authority for BRAC
  - Created by 1998 Enabling Act
  - Bought land from Navy for $43 million.
  - Has Town zoning powers on the whole site.
  - LNR Properties designated master developer 2002.
- A 1400-acre site; development program:
  - 2,855 housing units (first 500 largely complete)
    - mandatory 10% affordable (<80% AMI)
    - mandatory 10% workforce (80-120% AMI)
  - Up to 1.7 million sf of commercial development.
  - 81-acre campus known as Shea Science Park
    - up to 1.5 million sf
  - Proposed movie studio
  - 45-acre recreational facility, 18-hole golf course
- Compact development:
  - 1,000 acres left undeveloped.
  - Core feature is Village Center
  - Transit Village next to commuter rail station
  - East Village, Golf Village, North Village Center.

Infrastructure Needs

- Transit:
  - Encompasses existing So. Weymouth station.
  - MAPC station type: "suburban transformation"
  - Planned Multi-Modal Transportation Center.
  - Shuttle connecting whole site to station.
  - Long-term need: South Station capacity expansion.
- Roadway:
  - Widening Route 18
  - New 3.5 mile East-West Parkway underway
  - Will connect Route 18 with Route 3 thru the site
  - State committed $42.5 million funding.
- District infrastructure:
  - East Village street grid
  - Trail network
- Water supply:
  - need 1.3 million gpd; all 3 towns are non-MWRA
  - initial phases supplied by Weymouth
  - full buildout solution still TBD; may use MWRA
- Wastewater collection system to feed MWRA.



- http://www.southfield.com
- http://ssttdc.com/corpnews.asp
- http://www.mass.gov/hed/docs/permitting/gdi_southfield.pdf