



# **01 INTRODUCTION**

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- **THE STUDY: PURPOSE & GOALS**
  - **THE THREE-LEGGED STOOL**
  - **REPORT STRUCTURE**
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Figure 1.1: Bird's eye view of the Golden Triangle looking north, with Route 9 near the bottom of the photo and the MassPike near the top. As defined for this Study and shown on Figure 1.6, the boundaries of The Triangle are roughly Route 126 (Concord Street) on the west, one block south of Route 9 to the south, the Cochituate Rail Trail and the MassPike to the northeast. The western boundary jogs to the east to avoid the residential neighborhood east of Route 126 on the west side of the Triangle. These boundaries encompass approximately 940 acres or 1.5 square miles.

# INTRODUCTION



*Figure 1.2: TJX recently expanded their headquarters in The Triangle.*



*Figure 1.3: The Meditech building is just off Route 30 in Framingham.*

The Golden Triangle (The Triangle) is a critical economic engine for both Framingham and Natick. Located strategically off Exit 13 of the Massachusetts Turnpike/I-90 (MassPike), The Triangle is a regional hub for businesses, shoppers, and travelers (Fig. 1.1). It is home to a dynamic mix of mature companies and emerging startups, including The TJX Companies (TJX), Meditech, IDG, Heartware, and MathWorks (Figs. 1.2 & 1.3). The Triangle is also known as New England's premier retail shopping center. Encompassing Route 9, Route 30, and Speen Street (Fig. 1.1 and Fig. 1.6), it is home to many leading retailers housed at Shoppers World, the Natick Mall, and other shopping plazas (Fig. 1.4 & 1.5). While The Triangle is largely automobile-oriented, the area is starting to accommodate multiple transportation options, with the recently expanded MassPort Logan Express facility, the inclusion of landscaped pedestrian paths through the area, and the almost finalized Cochituate Rail Trail connecting The Triangle to the historic Saxonville area of Framingham to the north (completed) and the Natick Center commuter rail station to the south (in the planning phase).

However, the successful, but largely uncoordinated, development of the area to date has created some significant challenges, including:

- Serious traffic delays, especially at the MassPike Exit 13, the Route 30/Speen Street intersection, and the Route 9 corridor;
- Superblocks and disconnected street patterns that add to traffic delays and impede circulation within The Triangle;
- The lack of effective transportation/mobility alternatives to car-based transit;
- Underutilized land defined by surface parking lots;
- Properties that straddle municipal boundaries and are split zoned; and
- Obsolete zoning which may preclude sustainable development patterns that foster transportation and mobility options, economic growth, and resiliency.

**Most recently, the national decline in retail has increased the urgency for rethinking the existing uses and development patterns in The Triangle. Shopping centers around the country are closing, leaving owners and municipalities struggling to find new uses for these aging**

properties. At the Natick Mall, J.C. Penney recently closed and Sears is downsizing. Toys R Us recently announced that they are closing the Shoppers World store. The owner of the Natick Mall (GGP Inc.) has been proactive in attracting new uses, specifically Wegmans (grocery store) and Dave & Buster's (restaurant and video arcade), to fill the J.C. Penney and Sears spaces .

At the same time, the suburban office market is seeing rising competition from urban centers. In November, 2017 Bose Corporation announced that they will be opening their first office in Boston (their headquarters will remain in Framingham). "Bose will join other suburban companies placing a flag in the city, including PTC and Reebok, which recently relocated from Needham and Canton, respectively, to the Seaport District. A number of tech and consumer-products companies, in particular, have expanded in Boston, hoping to attract more young workers." *Boston Globe*, Nov. 6, 2017.

The stakes are high. The continuing retail decline will reduce property values in The Triangle and the revenues that both municipalities depend upon. This window in time, while The Triangle has not seen more widespread closures and property values are still high, presents Natick and Framingham with the rare opportunity to plan for the future and re-envision The Triangle to adapt to 21st Century market realities.

The opportunity to continue and encourage the dynamic evolution of The Triangle into a mixed-use hub of commerce, with the inclusion of multi-modal transportation accommodations according to the Complete Streets policies of each municipality, is crucial to the future of The Triangle. At the same time, safe and efficient access to Exit 13 on the MassPike is essential to municipal and regional growth.

## THE STUDY: PURPOSE AND GOALS

In 2013, the Massachusetts Department of Transportation (MassDOT) and the Metropolitan Planning Organization (MPO) initiated steps to address traffic congestion in the area, particularly around the MassPike Exit 13/Route 30/Speen Street area.



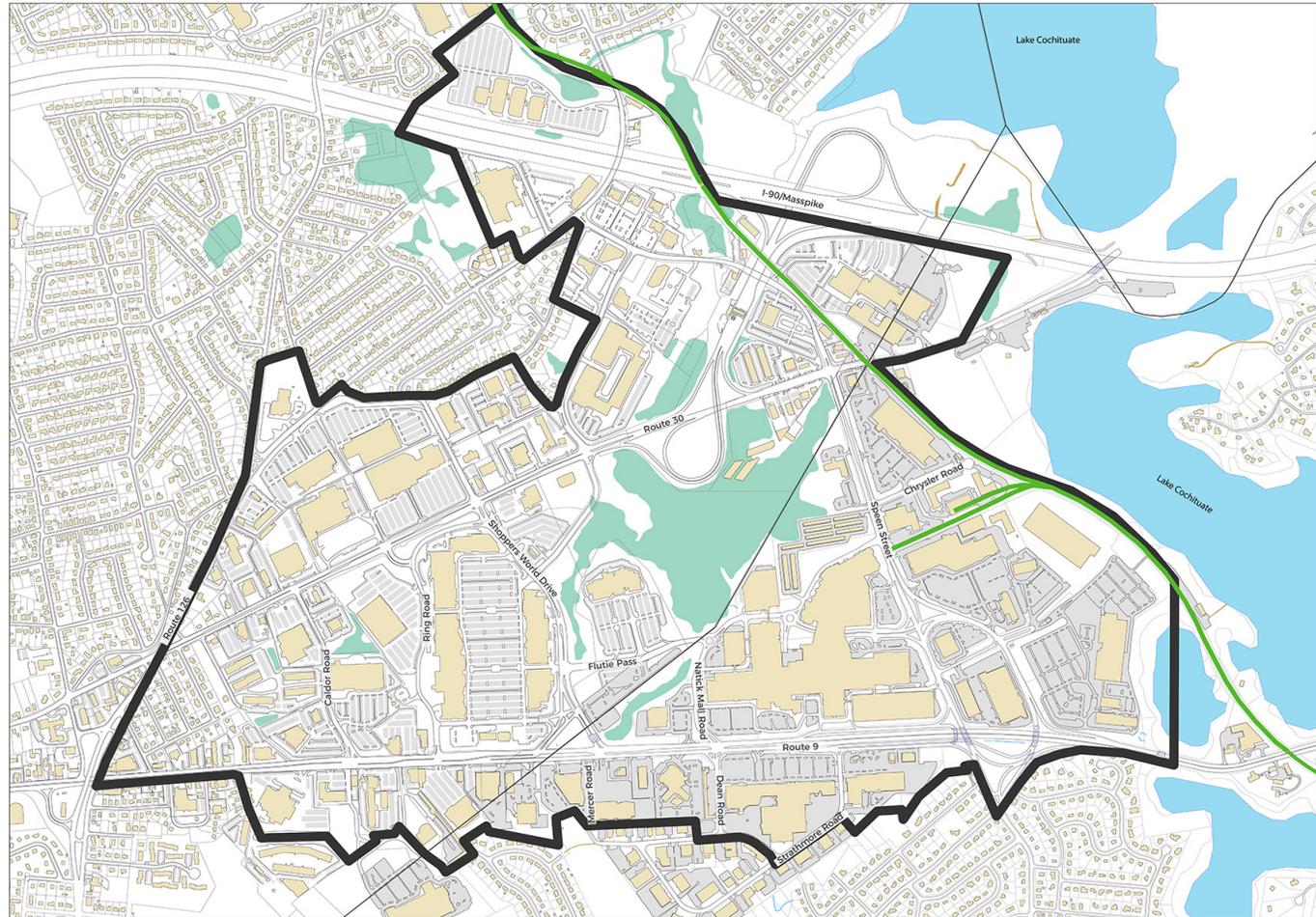
Figure 1.4: The Natick Mall is a key retail landmark within The Triangle.



Figure 1.5: Shoppers World are key retail landmarks within The Triangle.

**Legend**

-  Golden Triangle Boundary
-  Town Boundary
-  Streets
-  Parcel Boundary
-  Parking
-  Rail Trail
-  Water Bodies
-  Wetlands



*Figure 1.6: The Golden Triangle Study Area.*

This Golden Triangle Planning Study (the Study) was commissioned by Framingham and Natick to examine and understand the area’s future development potential and the transportation/mobility and infrastructure improvements necessary to support that development. Information from this Study will provide important input to the MassDOT and MPO analyses. This Report (the Report) documents the analyses conducted for the Study and the resulting recommendations for new development, and improvements to infrastructure; vehicular, pedestrian, and bicycle circulation; and zoning to support that development.

The goals of the Study included:

- Conduct joint community planning for a regional economic center.
- Set the stage for future growth in a changing economy.
- Create a shared development vision for the future.
- Provide guidance for future infrastructure investments.
- Enhance the quality of life for residents of adjacent neighborhoods. In particular, protect Framingham and Natick neighborhoods from traffic and other impacts related to existing and potential future development and improve access to The Triangle from Natick neighborhoods south of Route 9.

This Study is intended to provide Natick and Framingham with a clear and achievable future vision for The Triangle, with specific focus on the Route 30, Route 9, and Speen Street corridors, as well as access to and from Exit 13 of the MassPike. This coordinated Study will help the two municipalities realize the desired development, anticipate impacts, and pursue solutions with regard to:

- Traffic, transportation, and walkability
- Infrastructure
- Connectivity to nearby neighborhoods
- Schools
- Zoning and land use
- Cohesive development
- Tax revenues

The vision is supported by a recommended implementation action plan for the two municipalities to follow.

## THE THREE-LEGGED STOOL

The Study for The Triangle is based on a three-legged stool (Fig. 1.7) with recommendations for:

- Development Vision and Urban Design
- Transportation and Infrastructure Improvements
- Zoning and Regulatory Changes

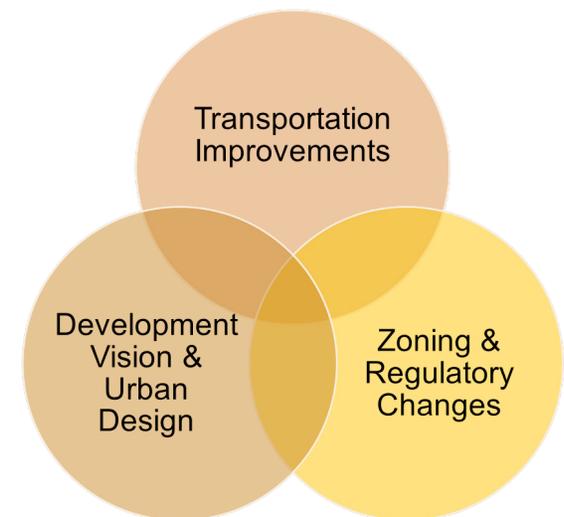


Figure 1.7: The Study and Plan are based on this 3-legged stool.

These three components are integrally linked - the development vision and growth projections have to be realistic in terms of both market realities and the amount of development that can be accommodated with transportation improvements, as well as in terms of the amount of development the two municipalities have the capacity to absorb and serve. Similarly, the development vision and urban design recommendations have to accommodate the necessary transportation improvements by providing a framework for increased internal vehicular, pedestrian, and bicycle connections throughout The Triangle. Lastly, the zoning and regulatory changes have to support and encourage the type and scale of development envisioned.

At the same time, this is a long-term vision for The Triangle that could take up to 20 years to realize. Therefore, flexibility is key to successful implementation. The vision has to have the flexibility to adapt to the changing retail environment as well as to changes in market conditions, transportation modes and technologies, and lifestyle choices. Today's complex retail market is experiencing changes, including the rise of internet shopping and the desire for "experience retail". And, an increasingly competitive office market must serve employees who prefer urban, walkable, live/work/play environments.

**Projects successfully attracting investment today - for example, Market Street in Lynnfield, Legacy Place in Dedham, and Assembly Row in Somerville - encompass multiple uses, including retail, entertainment, office, residential, and open space. This Study focuses on creating direct pedestrian, bicycle, and vehicular connections between these multiple uses, both to create a more engaging and attractive environment and to reduce vehicular traffic on the major arterials serving The Triangle.**

## REPORT STRUCTURE

The Report structure is described below:

- Chapter 2 details the Public Process that was conducted for this Study.
- Chapter 3 examines the history of The Triangle, existing land use, urban design, infrastructure, transportation, and zoning.
- Chapter 4 describes current and projected future market conditions and assesses different potential growth scenarios.
- Chapter 5 sets out a connections and open space plan (the Framework Plan) as a framework for future development, as well as overarching design principles and examples of hypothetical/prototypical redevelopment.
- Chapter 6 details the transportation and infrastructure impacts of the proposed growth scenarios and outlines a series of short and long-term recommendations to accommodate that growth.
- Chapter 7 lays out a zoning and implementation strategy.

While these chapter topics are presented sequentially, they are, in fact, the product of an integrated and iterative process that involved assessing and modifying all of the topics simultaneously to ensure that they are mutually supportive and work together to achieve the desired outcomes.



## **02 PUBLIC PROCESS**

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- **STEERING COMMITTEE**
  - **STAKEHOLDER INTERVIEWS**
  - **ONLINE PRESENCE**
  - **COMMUNITY MEETINGS**
-

# PUBLIC PROCESS

Implementation of the Study recommendations will require public/private support and participation. The public process detailed below was designed to ensure that the public was well informed on the Study, and had the opportunity to review the Report and recommendations and comment and ask questions along the way, in order to garner broad based consensus.

## STEERING COMMITTEE

A Steering Committee (the Committee) composed of representatives from both Natick and Framingham was convened to review progress and provide guidance at key points in the Study. Members of the Committee included municipal officials and staff, as well as local property owners and businesses. The Committee met four times over the course of the Study (at least one additional meeting to review the Final Plan is anticipated). A summary of the presentation and discussion items for each meeting is shown below:

- Meeting 1 – June 27, 2017: Project introduction and interactive SWOT (Strengths/Weaknesses/Opportunities/Constraints) analysis (Fig. 2.1)
- Meeting 2 – August 23, 2017: Existing conditions, market study, existing build-out analysis, background for conceptual redevelopment plans
- Meeting 3 – October 23, 2017: Future build-out scenarios and typical municipal expenditures per capita and/or land use, potential land use subdistricts, connections and open space framework, prototypical redevelopment site plans & precedent photos, MassPike Exit 13 interchange redesign concept, and potential transit improvements
- Meeting 4 – December 12, 2017: More detailed Connections and Open Space Framework Plan, recommendations for long and short-term transportation improvements, revised growth scenarios, design principles, redevelopment concepts, and potential zoning strategy

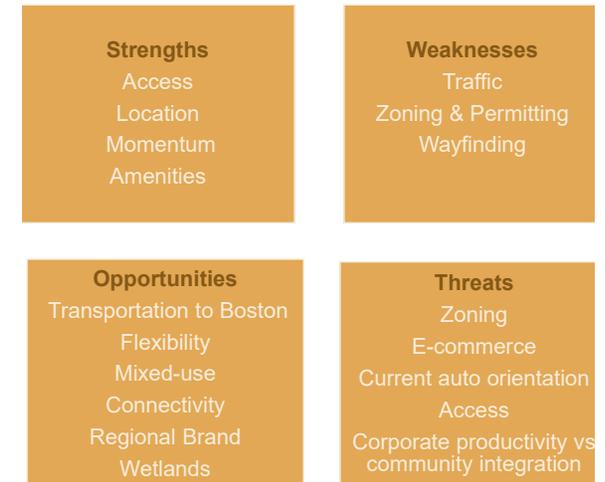


Figure 2.1: Summary of Steering Committee Meeting SWOT Analysis.

## STAKEHOLDER INTERVIEWS

Early in the process, the Consultant Team also held a series of one-on-one meetings with a number of stakeholders, including property and business owners and their representatives, as well as local realtors. These meetings provided further insight into The Triangle and an understanding of stakeholder ideas and concerns, as well as their future plans.

Stakeholders interviewed included:

- John Katzen – Cloverleaf Shopping Center
- Kyle Spellman & Peter Barbieri – Owner 323 Speen
- Garry Holmes - R.W. Homes Realty
- Katie Snyder – National Development
- Michael Brogan – The TJX Companies
- Ken Labarre – GGP (owners of The Natick Mall)
- David Cohen Pratt & Bruce Leader – Sherwood Plaza
- Tony Polimeno – Meditech
- Alex Antolino & Tyler Terhune – DDR (owners of Shoppers World)
- Craig Lizotte – MathWorks
- Jake Maliel – TA Realty
- Marc Verrault – Carruth Capitol

Key issues identified in these interviews included:

- Development of mixed-use and more residential is important for the future of The Triangle.
- All of the stakeholders intend to stay in The Triangle.
- The lack of good signage and wayfinding within The Triangle needs to be addressed.

- There has been some decline in sales but retail remains strong.
- Many of the existing stakeholders showed little interest in transit, although this seems to be a result of The Triangle not being well served by existing transit.
- Office space is aging and mostly not Class A.
- Corporate employees don't use Logan Express.
- There is interest in seeing the large central wetland become an amenity.
- Large companies experience strong competition for employees.
- There is a need for housing affordable to employees within The Triangle.

A Small Business Roundtable (the Roundtable) also was convened to provide a forum for smaller businesses to discuss their concerns and ideas for The Triangle with each other and the Consultant Team. Attendees at the Roundtable included:

- Paul Joseph - MetroWest Chamber of Commerce (convener)
- Lou Carrier – Distinctive Hospitality Group (Crowne Plaza & Hampton Inn)
- Jeremy Brandon – Avidia Bank
- Norman Gauvin – American Girl
- Anna Lockmer & Kurt Feilke – REI
- David Pratt & Bruce Leader – Sherwood Plaza
- Craig Tornifoglio & Tim Hannah, Jr. – Ken's Steakhouse

Key issues raised at the Roundtable included:

- Hotels are dependent on corporate clientele to meet occupancy goals.
- Hotel guests want to be shuttled around The Triangle because of the confusing and difficult existing circulation system.



Figure 2.2: Examples of the coUrbanize signs posing questions to pedestrians at Panera Bread, the Cochoituate Rail Trail and Shoppers World.

- Retailing today is about convenience and experience.
- Internal circulation and connections are key issues, particularly around Route 9 and Speen Street.
- Transit has not played a big role in transportation decisions to date.
- Zoning and permitting regulations are complicated, particularly for small changes.

## ONLINE PRESENCE

Framingham and Natick established an on-line platform (coUrbanize at [www.courb.co/goldentri](http://www.courb.co/goldentri)) to provide an easy way for residents and businesses to provide feedback. The on-line forum includes updates on project progress and products and allows participants to submit written comments and place site-specific comments on an area map (Fig. 2.3).

Both communities with the assistance of the coUrbanize team deployed a series of signs throughout the Golden Triangle with the goal of securing additional feedback from pedestrians (Fig. 2.2). The signs asked a variety of questions – in both English and Portuguese – to which pedestrians could text message their responses. The responses were then linked to the coUrbanize website platform and subsequent map. The signs were placed in the beginning of October and removed in the end of December.

As of the end of December, 2017, over the website had received over 4,600 visits from almost 3,400 different individuals (some visited more than once), who submitted approximately 400 comments. The full list of comments is included in the Addendum to this Report. The following is a summary:

55 percent of the comments were positive, 21 percent were neutral and 24 percent were negative.

The responses to the question “What brings you to the Exit 13/Golden Triangle area most often?” were:

- 45 percent home
- 33 percent shopping

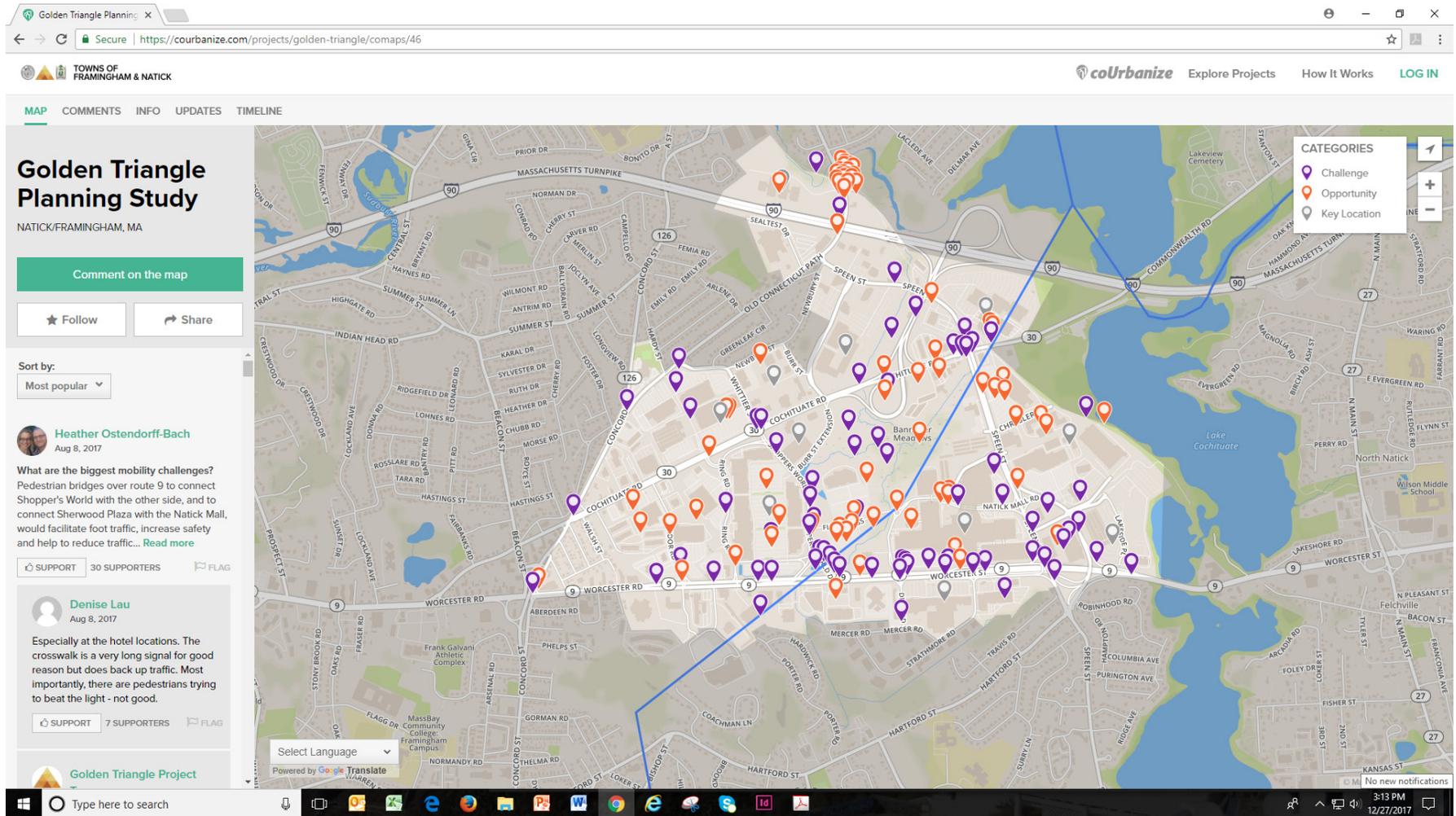


Figure 2.3: Screenshot of the coUrbanize website - the purple and orange markers indicate locations of specific comments and/or recommendations.



- 10 percent Restaurants/Entertainment
- 7 percent Work
- 4% Commute/Driving By

The approximately 400 comments are categorized below:

- Experience/Activity and Land Use (including restaurants, retail, entertainment, residential use): 9 percent
- Mobility (including traffic, transit, Cochituate Rail Trail, pedestrian and bicycle facilities, parking, and shuttles): 45 percent
- Miscellaneous (including aesthetics, maintenance, flooding, traffic-related noise, solar energy): 10 percent
- More general statements (primarily including reasons for visiting): 37 percent

A complete list of the comments submitted is included in the Public Process Addendum to this Report.



Figure 2.4: Land use map and preference board from public meeting.

## COMMUNITY MEETINGS

The municipalities, together with the Consultant Team also held a series of community meetings to familiarize the community with the project and to solicit feedback.

Framingham and Natick held a joint Community Open House on October 23, at the McCauliffe Charter School. A PowerPoint presentation introducing the project played as a continuous loop and attendees circulated at their leisure through three interactive stations (described below) where they could use stickers and written comments to indicate their preferences.

- Land Use: Attendees used dots and wrote comments to answer “Which uses would you like to see here in the future?” and put stickers indicating types of land use on a map to respond to “Where would you like to see new development?” (Fig. 2.4)

- Transportation: Attendees used dots and wrote comments to answer “Which transportation ideas are most critical?” (Fig. 2.5)
- Development Character: Attendees attached photos of different types and scale of development and wrote notes indicating what they liked and didn’t like about the images. (Fig. 2.6)

There also was a table where people could submit additional comments on any topic related to the project. Additional meeting photos are shown in Figure 2.7.

Both municipalities also held their own community meeting to solicit feedback. Framingham held a meeting on November 13, 2017 at LifeTime Fitness. A brief presentation introduced the project, and then attendees were asked to respond to the following three questions:

- “How do you use/why do you come to the Golden Triangle?”
- “What is missing from the Golden Triangle that would encourage you to come more often?”
- “What other comments/concerns/desires should be considered in planning for the Golden Triangle?”

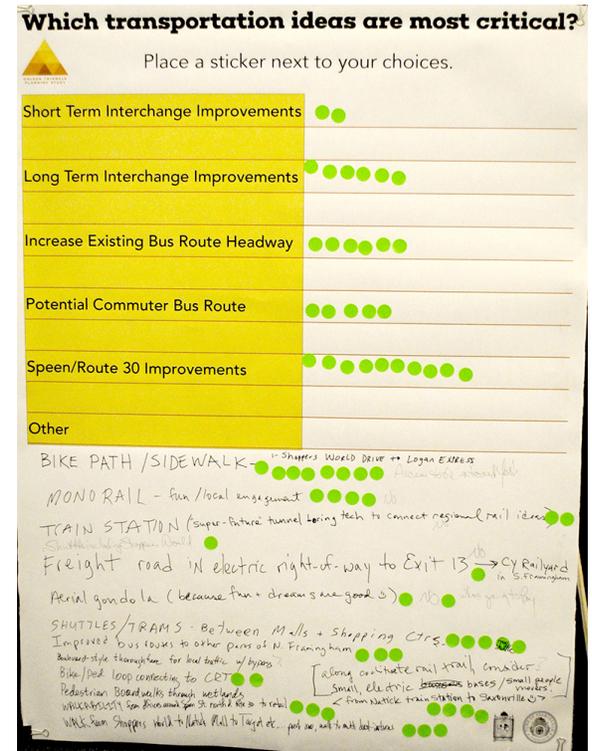


Figure 2.5: Transportation preferences board from public meeting.



Figure 2.6: Photos of development character with comments from participants



Natick held a similar meeting on December 21, 2017 at the National Guard Armory, using the same presentation and discussion questions. A second Natick meeting, with the same presentation and discussion questions, was held on January 11, 2018.



*Figure 2.7: Attendees at the Community Open House were actively engaged in responding to questions posed at the three stations.*

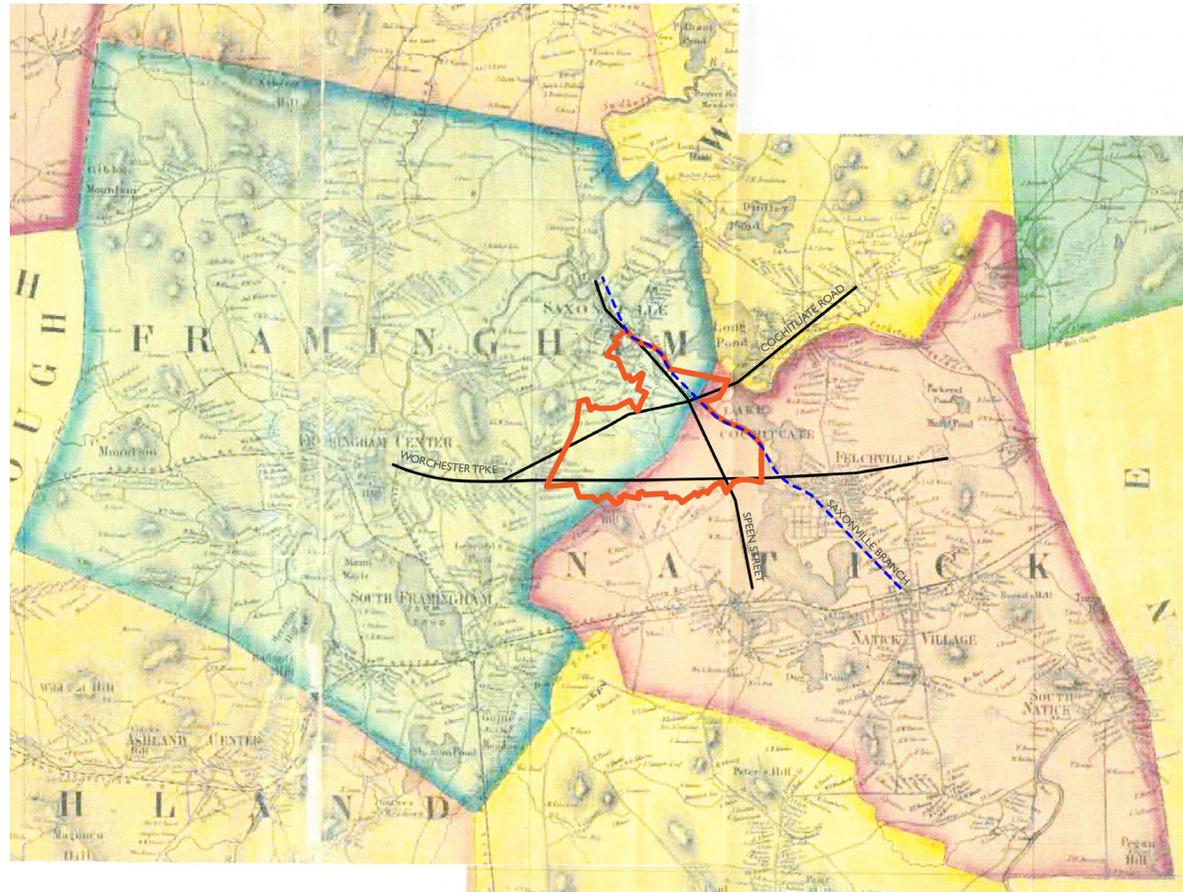
# 03 HISTORY & EXISTING CONDITIONS

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The Existing Conditions chapter provides background information on the history of The Triangle, planning and urban design; market conditions, zoning; transportation, and infrastructure. This information provided the basis for defining and analyzing alternative development scenarios.

- **HISTORICAL BACKGROUND**
  - **PLANNING & URBAN DESIGN**
  - **MARKET & ZONING ANALYSIS**
  - **TRANSPORTATION & INFRASTRUCTURE**
-

## HISTORICAL BACKGROUND



*Figure 3.1: 1856 map with The Golden Triangle boundaries highlighted in red.*

As shown on the 1856 map (Fig. 3.1), the origin of The Triangle is at least 150 years old - formed by the Worcester Turnpike (Route 9) on the south, Cochituate Road (Route 30) from the southwest corner to the northeast corner, and the Saxonville Branch (1846) and Spenn Street from the southeast corner to the northwest corner. Mostly farmland, it was bound by Framingham Center and the Villages of Felchville and Saxonville, with Framingham Center further to the west.

Unlike the villages and the post World War II housing subdivisions in other parts of the two municipalities, this area never had a street grid with small blocks and sidewalks. Large farms became large commercial (both retail and office) development sites defined in part by major arterial streets.

The first major commercial development in The Triangle was Shoppers World in Framingham, a large open air shopping center that opened in 1951 (Fig. 3.2). Shoppers World was followed by Sherwood Plaza in Natick which opened in 1959 and a variety of stand alone retail establishments along Route 9. The Natick Mall opened in 1966 (Fig. 3.3) and was expanded in 2008.

Office development, both for single and multiple users began along Speen Street north of Cochituate Road in Framingham in the late 1970s with the opening of the 1, 3, 5, 20 and 30 Speen Street buildings from 1978 to 1981 and the TJX complex on Cochituate Road in 1979 (Fig. 1.2). That was quickly followed by the opening of the SCIEX buildings on Old Connecticut Path in 1981. The 111 Speen Street building currently occupied by Ameresco opened in 1985 and was followed by the current Meditech Building on Cochituate Road in 1989 (Fig. 1.3). The MathWorks Lakeside Campus (formerly Boston Scientific), currently under construction off of Superior Drive, is the first large scale office development on the Natick side of The Triangle.

Residential development in The Triangle has been limited until recently. The Lord Chesterfield Apartments, a series of six two-story buildings on the west side of The Triangle, opened in 1972. The Natick Mall expansion in 2008 included the new 215 unit Nouvelle condominium development. The Nouvelle, together with the 183 unit Cloverleaf and 407 unit Avalon Natick apartment buildings on the east side of Speen Street, completed in 2008 and 2013, have begun to transform this area into a mixed-use district, although with the exception of the Nouvelle, residential uses are not fully integrated. The Cloverleaf and Avalon Natick apartment complexes are tucked in behind commercial plazas. Poor pedestrian access and connections to the rest of The Triangle, especially the area west of Speen Street, makes these residential developments feel more like islands than a part of The Triangle.

New housing developed around the periphery of commercial parcels, has edged The Triangle toward mixed-use without changing the “superblock” development pattern. That pattern creates a challenge to repositioning The Triangle as the retail economy continues to rapidly evolve.

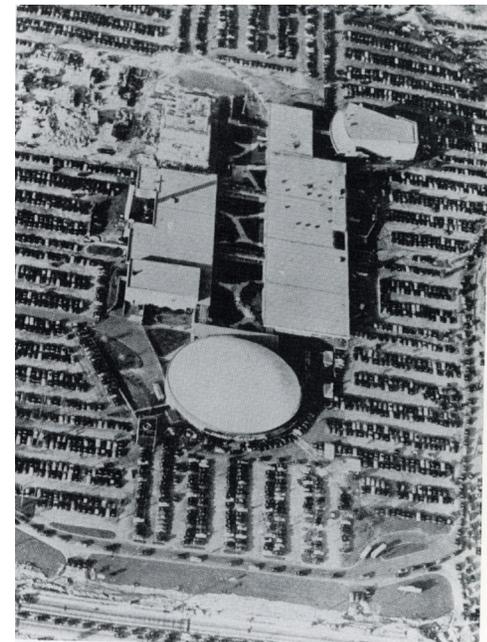


Figure 3.2: Opening day of Shoppers World, 1951.



Figure 3.3: The Golden Triangle in the early 1970s.

## PLANNING & URBAN DESIGN

This section provides a physical description of The Triangle, including district scale, building scale and placement, parcel scale and ownership, visibility, and orientation. Together, these factors contribute to the attractiveness of The Triangle to potential residents, visitors, employees, business owners, and developers, and to the ability to develop or redevelop parcels for a variety of uses.

### DISTRICT SCALE

The lack of through streets and the subsequent circuitous circulation through and around the area make the scale of The Triangle difficult to understand and maneuver for both drivers and pedestrians. To make the scale of The Triangle more understandable, and to put it into perspective, the size of The Triangle is shown relative to both the Natick and Framingham downtowns (Figs. 3.4 & 3.5) as well as to well known historic and new mixed-use districts. The mixed-use districts described on the following pages provide good illustrations of districts that have changed over time to respond to market conditions as well as to changes in lifestyle and amenity preferences.



*Figure 3.4 New streetscape improvements in Downtown Framingham.*



*Figure 3.5: View of Downtown Natick.*

## NATICK CENTER & DOWNTOWN FRAMINGHAM

Downtown Framingham and Natick Center, as outlined in blue on the aerial photographs below (Figs. 3.6 & 3.7), are approximately 147 and 80 acres, respectively. Although greatly different from The Triangle in both scale and character, they are mixed-use environments very familiar to the readers of this Report. As shown, The Triangle is several times larger than both districts.

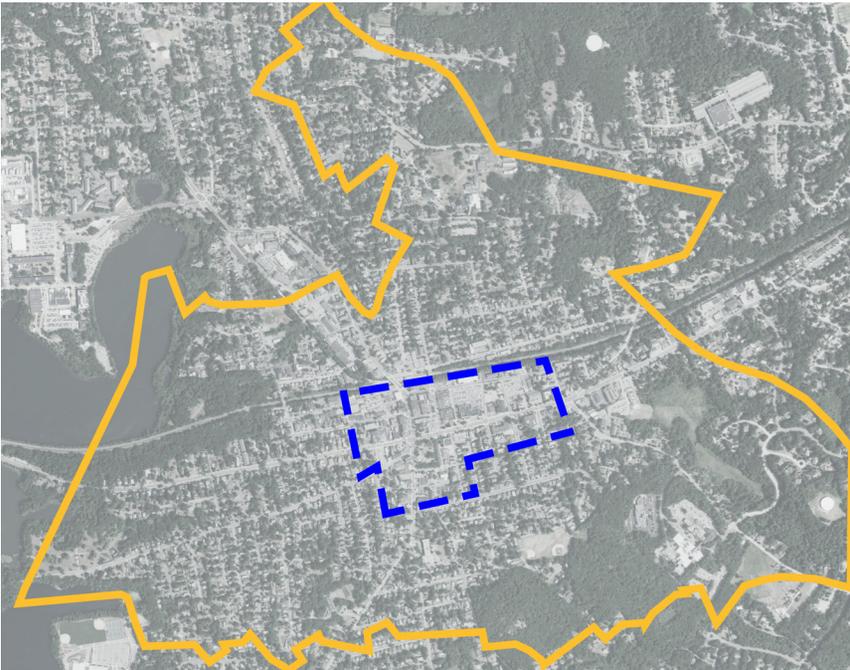


Figure 3.6: Scale comparison of The Triangle (outlined in gold) superimposed over downtown Natick (outlined in blue).

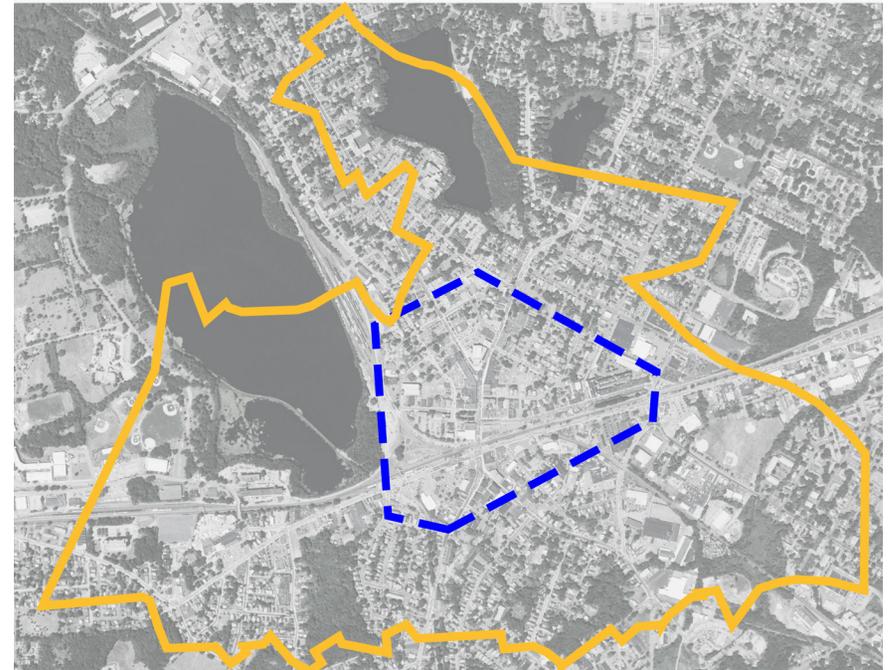
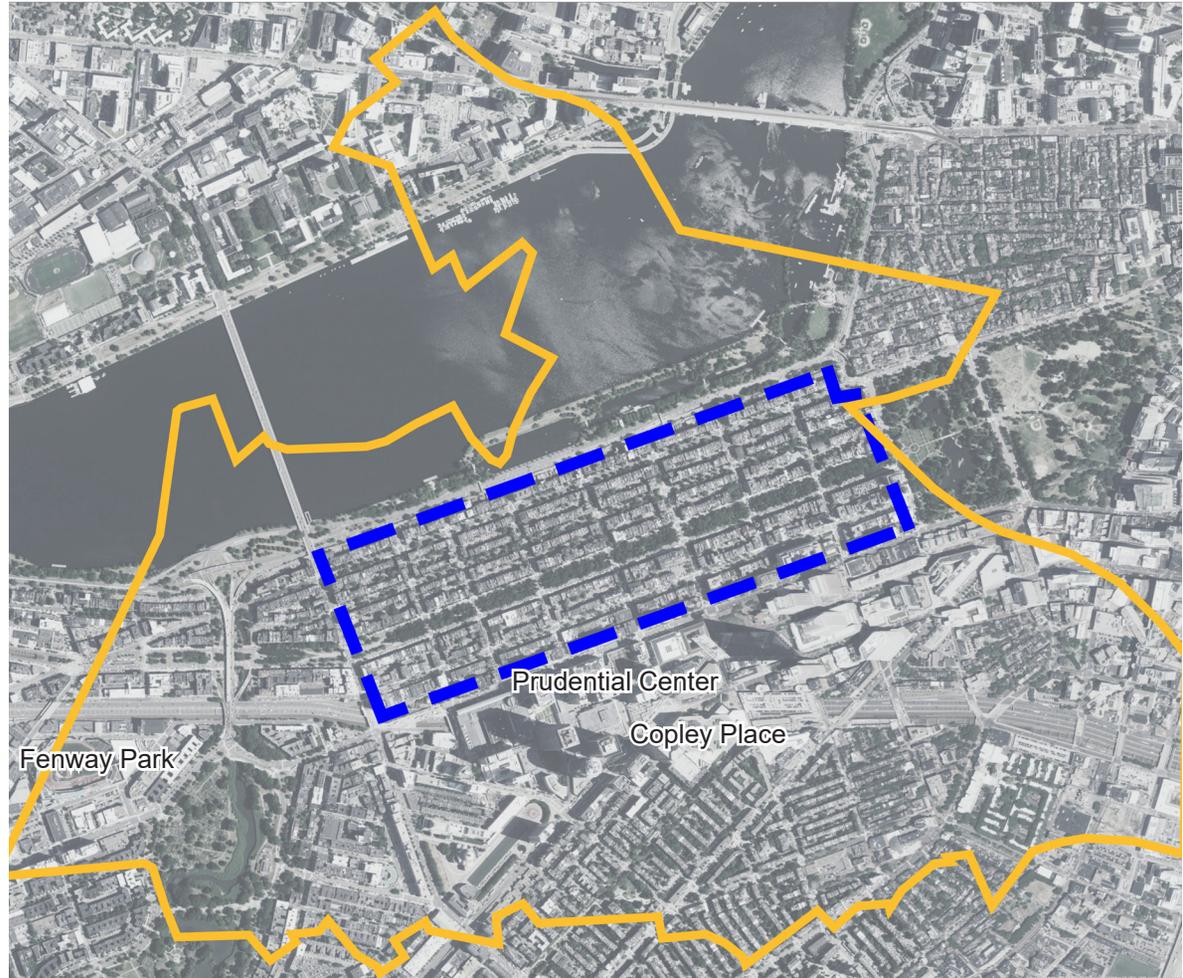


Figure 3.7: Scale comparison of The Triangle (outlined in gold) superimposed over downtown Framingham (outlined in blue).



*Figure 3.8: Wide sidewalks, ground floor cafes and interesting storefronts create an attractive pedestrian environment along Boylston Street.*



*Figure 3.9: Scale comparison of The Golden Triangle (outlined in gold) superimposed over Boston's Back Bay (outlined in blue).*

Boston's Back Bay is approximately 188 acres (Fig. 3.9). It was selected for comparison because it is a very pedestrian-friendly environment familiar to many people. Back Bay includes primarily residential development, but has retail and office uses along Newbury and Boylston Streets and is adjacent to the large mixed-use Prudential Center and Copley Place Malls. The distance from Massachusetts Avenue to Arlington Street (the farthest extent of the area outlined in blue), is considered

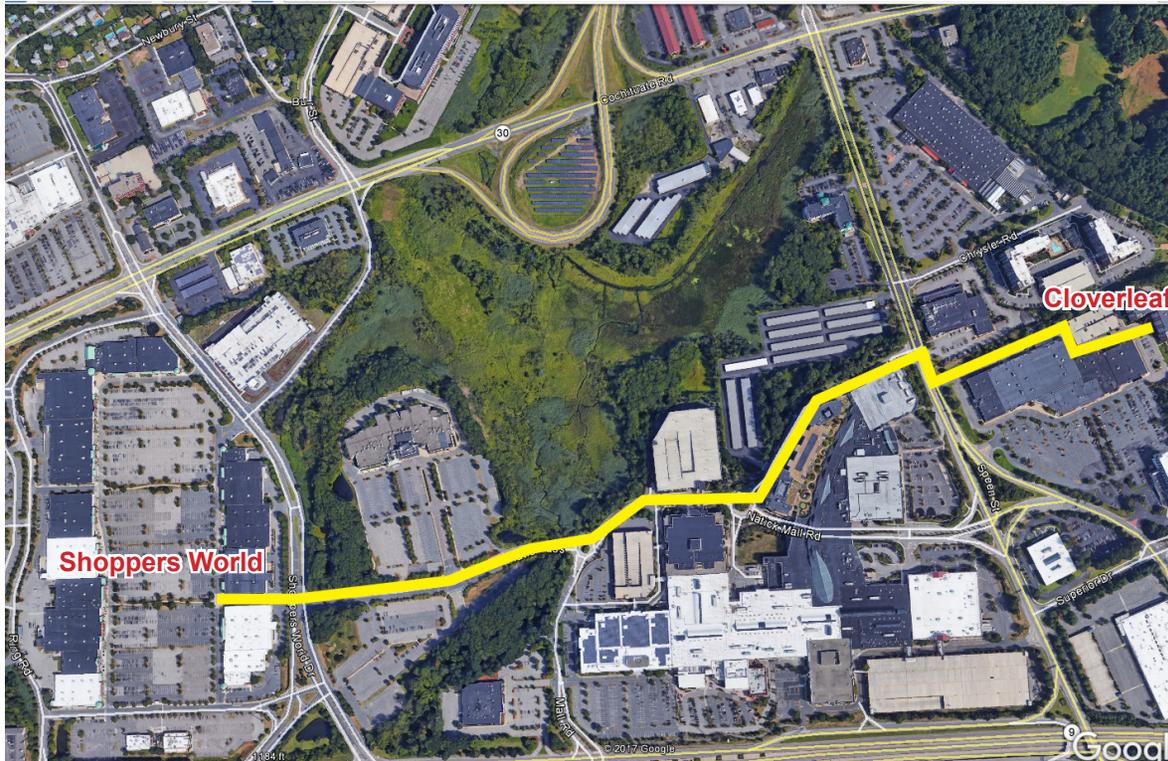


Figure 3.10: Pedestrian path (highlighted in yellow) from the Cloverleaf Apartments (on the right) to the front of Shoppers World stores is approximately 0.93 miles. The pedestrian path includes the path around the Natick Mall.

very walkable and is approximately 0.93 miles. The attractive streetscape (Fig. 3.8) enhances that walkability. As shown in Fig. 3.10, that same 0.93 miles would take a pedestrian in The Triangle from the Cloverleaf Apartments to the front of the eastern Shoppers World stores via Nouvelle Way (Fig. 3.11) and Flutie Pass (Fig. 3.12). By contrast, Route 9 from Lake Cochituate on the east to Route 126 on the west is approximately 1.83 miles, almost twice the distance (Fig. 3.13). As shown in the aerial on the facing page (Fig.3.9), the scale of The Triangle encompasses not only all of Back Bay, but also Fenway Park to the west, Prudential Center, Copley Place, much of the South End, and a small portion of Cambridge across the Charles River.



Figure 3.11: The Speen Street entrance to the Natick Mall pedestrian path and Nouvelle Way.



Figure 3.12: The Flutie Pass/ Shoppers World Drive intersection provides an uninviting pedestrian entrance to Shoppers World.



Figure 3.13: Route 9 (highlighted in yellow) from . Lake Cochituate on the east to Route 126 on the west is approximately 1.83 miles.

## ASSEMBLY SQUARE



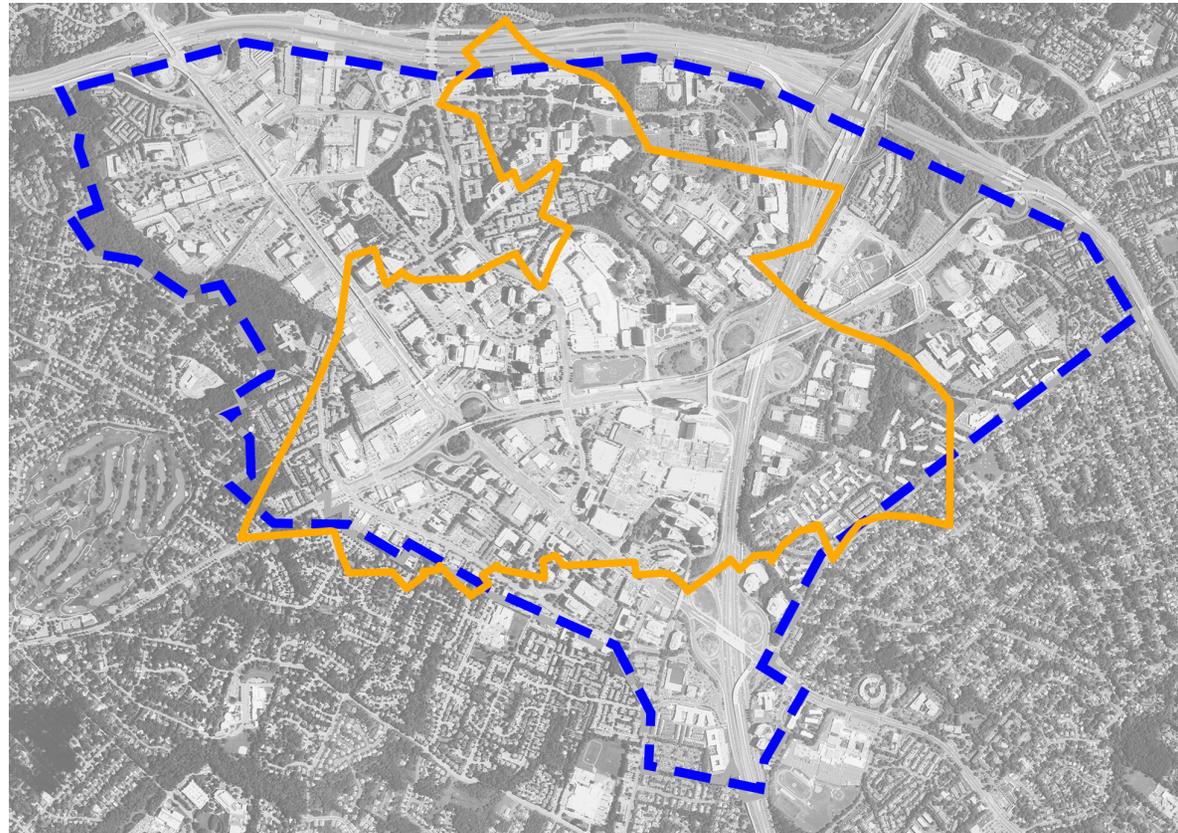
*Figure 3.14: Scale comparison of The Triangle (outlined in gold) superimposed over Assembly Square (outlined in blue). The newer development, Assembly Row, is highlighted in green, while the older development is highlighted in orange.*

Assembly Square (Fig. 3.14) is the home of a large new mixed-use redevelopment project in Somerville that includes high density commercial, office, and residential uses. The new development replaces primarily older industrial uses and vacant parcels. The older portion of the development is strip retail with surface parking (shown in orange on Fig. 3.14). The newly developed portion of the site has been

designed to create a walkable mixed-use environment known as Assembly Row (shown in green on Fig. 3.14). Assembly Row was designed with pedestrian scaled streets (Fig. 3.15), ground floor retail, restaurants, and entertainment uses with housing and office space above, and parking mostly in garages and behind buildings. The development also includes new open space to serve residents and shoppers as well as the broader community. While Assembly Square is only 139 acres, the approved Master Plan for the area includes approximately 5.7 million square feet of total development encompassing 2.8 million square feet of commercial space; 637,000 square feet of retail space including restaurants, cinema, and health club; 1,840 residential units; and up to a 170-room hotel, as well as the existing Assembly Square Marketplace and approximately 10,066 parking spaces. The plan allows a Floor Area Ratio of up to 10, served by the new Massachusetts Bay Transportation Authority (MBTA) Assembly Square Orange Line Station.



Figure 3.15: Pedestrian oriented street at Assembly Row.



*Figure 3.16: Scale comparison of The Golden Triangle (outlined in gold) superimposed over Tysons Corner (outlined in blue).*

Although the 2000 acre Tysons Corner (Fairfax County Virginia) mixed-use district is larger and more densely developed than The Triangle (Fig. 3.16), it has several similarities and is a good example of how these older commercial districts can change over time. Tysons Corner was developed in 1968 for primarily non-residential uses and designed for a car-oriented culture. In 2014, Tysons Corner was the 12th largest central business district<sup>01</sup> in the country, with 49 million square feet of development, including office, residential, retail, hotel, and industrial uses.

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<sup>01</sup> A Central Business District is the commercial and business center of a municipality. Tysons Corner is an example of what is referred to as an “edge city” - a concentration of business, shopping, and entertainment outside of a traditional downtown in what had previously been a residential or rural area.

Office use accounted for almost 60 percent of the square footage. The district had 105,000 jobs and only 17,000 residents, 167,000 parking spaces, a lack of parks, public facilities, and an auto-oriented single use pattern of development.

A 2010 expansion and redevelopment plan for Tysons Corner centered on creating “a livable urban center” with:

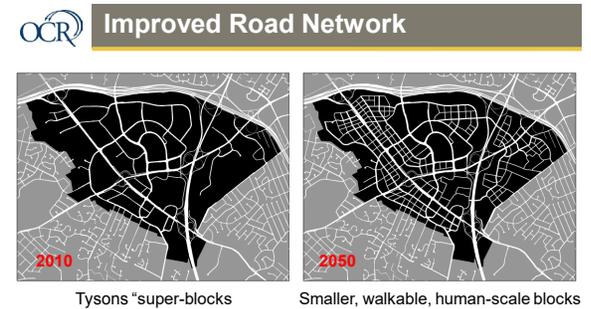
- Multi-modal transportation options with growth focused at Metro transit stations (the Metro Silverline opened in 2014)
- A focus on urban design and the pedestrian realm
- Transportation infrastructure coordinated with development
- Improved jobs/housing balance with a goal of 200,000 jobs and 100,000 residents

Designed as a “place where people want to live, work and play” the plan includes:

- A new grid of streets to break up superblocks into pedestrian scale and intersection improvements in surrounding neighborhoods (Fig. 3.17)
- Urban standards for buildings, services, roads, public facilities, and infrastructure (Fig. 3.18)
- Incorporation of parks, public facilities, cultural, and institutional uses

At full build-out, the plan will result in:

- 93 million sq. ft. of total development
- An increase of over 23,600 residential units
- An increase in the ratio of non-residential to residential from 3:1 to 3:2

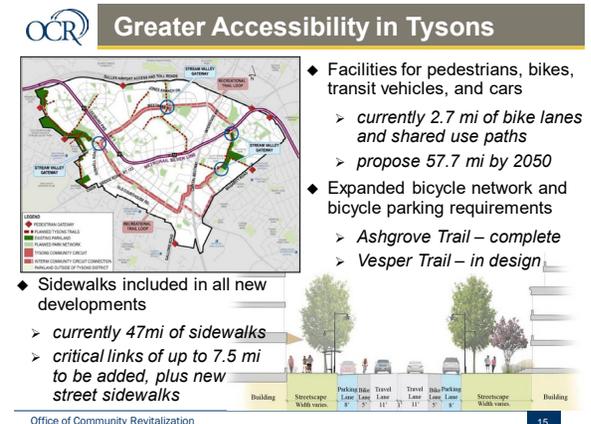


- ◆ An urban street grid = pedestrian scale, more choices for vehicles, bicycles and pedestrians
- ◆ Intersection improvements in surrounding neighborhoods

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Figure 3.17: Slide from Transforming Tysons, a 2014 presentation on plans for Tysons Corner, illustrates a plan for breaking up some of the early super blocks. (Source: Fairfax County, VA Office of Community Revitalization)



- ◆ Facilities for pedestrians, bikes, transit vehicles, and cars
  - currently 2.7 mi of bike lanes and shared use paths
  - propose 57.7 mi by 2050
- ◆ Expanded bicycle network and bicycle parking requirements
  - Ashgrove Trail – complete
  - Vesper Trail – in design
- ◆ Sidewalks included in all new developments
  - currently 47mi of sidewalks
  - critical links of up to 7.5 mi to be added, plus new street sidewalks

Office of Community Revitalization

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Figure 3.18: Slide from Transforming Tysons, a 2014 presentation on plans for Tysons Corner, illustrates a plan for creating a more pedestrian and bicycle friendly district. (Source: Fairfax County, VA Office of Community Revitalization)



*Figure 3.19: Scale comparison of The Golden Triangle (outlined in gold) superimposed over the King of Prussia district (outlined in blue).*

The 1700 acre King of Prussia (Pennsylvania) district, is larger than The Triangle (Fig. 3.19), but has a similar development history. Development began in 1963 with an open air shopping mall known as The Plaza at King of Prussia (The Plaza). The Plaza prospered and by the late 1970s had become a partially enclosed super-regional mall anchored by department stores. A more upscale fully-enclosed

mall, The Court at King of Prussia (The Court), opened across the street in 1981. The Plaza was almost completely rebuilt as a fully enclosed two-story mall in the early 1990s with a pedestrian bridge connecting it to The Court. A 155,000 square foot retail connector and parking garage was opened in 2016.

The King of Prussia Mall is surrounded by several big-box stores, restaurants, hotels, and other businesses, including a United Artists Theatres and an iFLY indoor skydiving center. The new King of Prussia Town Center (Town Center) opened in 2016 as a lifestyle center that consists of Wegmans, LA Fitness, multiple big-box retailers, and a downtown area with dining, retail, and service establishments and a Town Square (Fig. 3.20). The Town Center is part of the Village at Valley Forge, a 122-acre mixed-use development under construction that will include retail, seven full-service restaurants, 1,000,000 square feet of commercial space (office and hotel) and up to 3,000 apartments and 132 townhouses, and the Children's Hospital of Philadelphia's "Specialty Care and Surgery Center".

The King of Prussia Rail Coalition (Coalition) was formed in 2015 by the King of Prussia district and Greater Valley Forge Transportation Management Association to garner regional support for the proposed extension of the Southeast Pennsylvania Transit Authority (SEPTA) Norristown High speed Rail Line to provide direct rail service from Philadelphia into King of Prussia. The Coalition seeks to build support from residents, commercial property owners, elected officials, employees, visitors, regional economic development and job growth agencies, chambers of commerce, and more to move the King of Prussia Rail proposal forward.

The King of Prussia mall represents another example of a mixed-use district reinventing itself to include more housing, a wider variety of uses, more transit, and a more walkable environment.



*Figure 3.20: Model of the new King of Prussia Town Center with a public gathering space shown near the middle.*

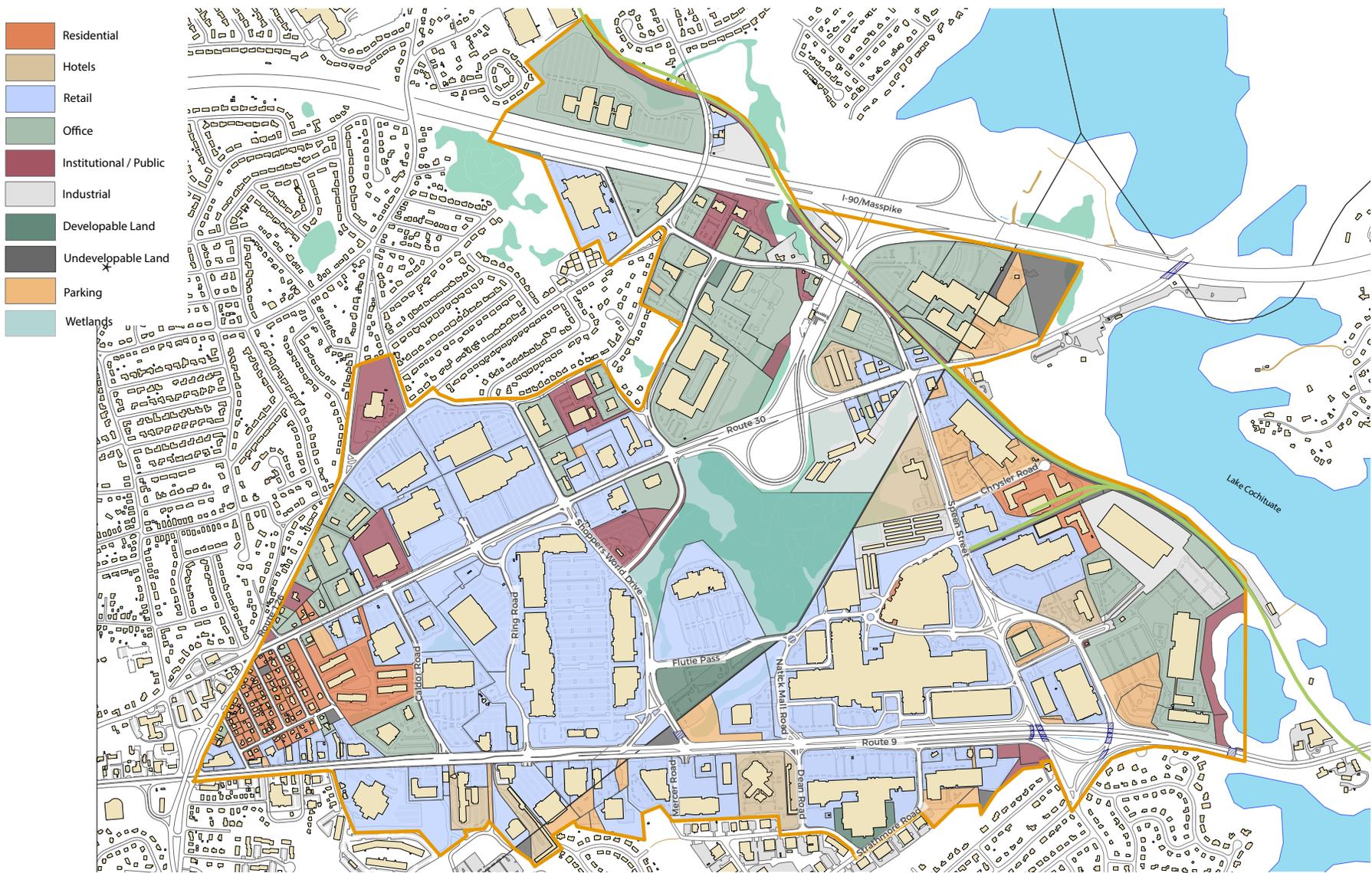


Figure 3.21: Land Use Map

*\*Note: Because land use was identified by parcel from Assessor's data, the parking category refers to parcels that contain only parking. Parcels that have parking to support another land use on the same parcel are categorized by the other land use.*

Figure 3.21 illustrates the existing land use throughout The Triangle. As is clear from the map, commercial uses are clustered in the middle of the The Triangle, extending from south of Route 9 to north of Route 30. Office uses are focused around Speen Street and the Exit 13 interchange, primarily north of Route 30, with the exception of the new MathWorks Lakeside Campus at Speen Street and Route 9. A cluster of smaller office buildings is located at the western end of Route 30, near Route 126.

Newer, multi-family housing is concentrated in Natick east Speen Street, between Route 9 and Route 30. The older, smaller scale housing is in Framingham on the western end of The Triangle, also between Route 9 and Route 30.

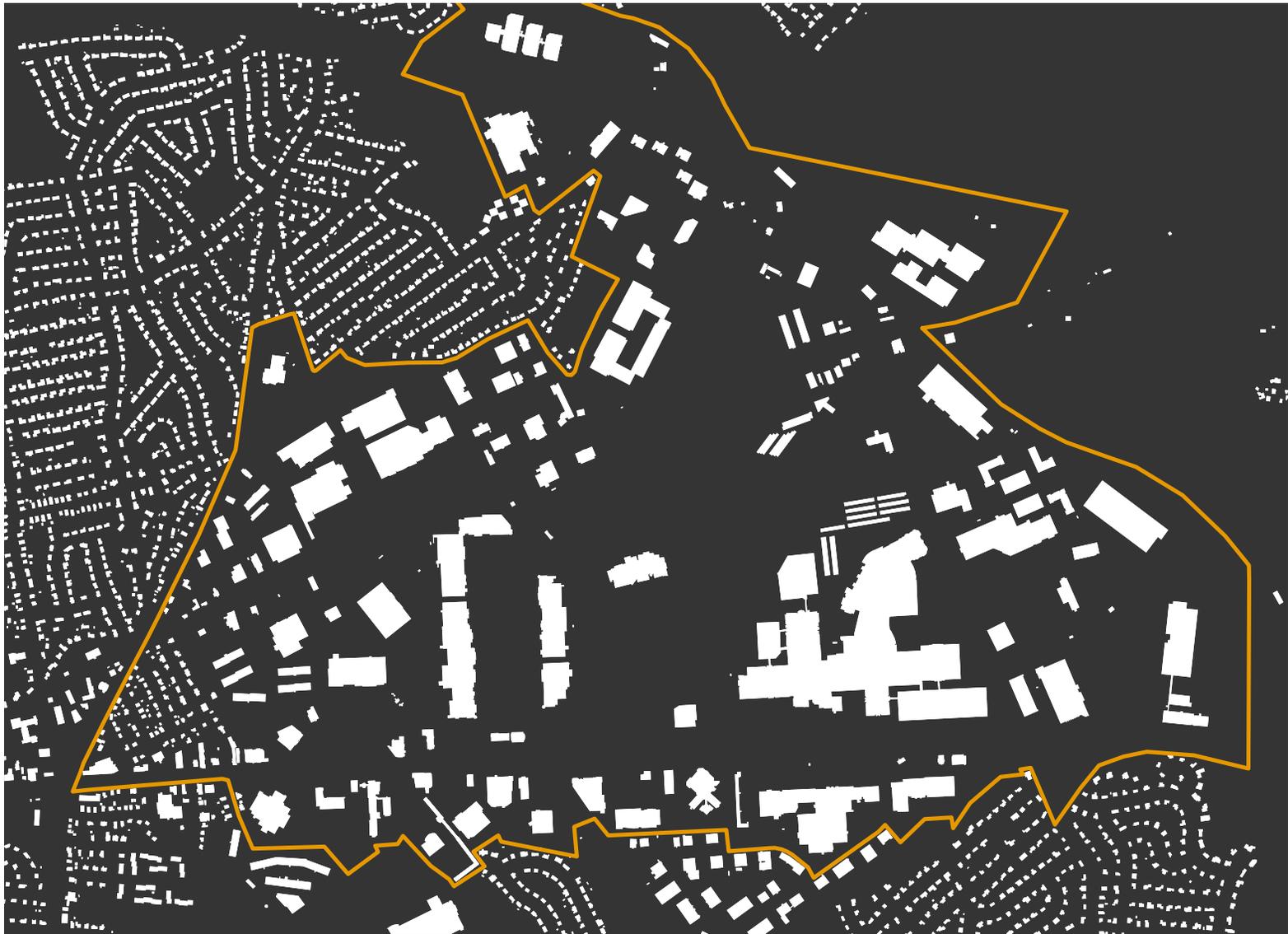
Hotels and institutional uses are scattered around The Triangle. A large wetland occupies the center of The Triangle (Figs. 3.22 & 3.23). Boardwalks through the wetland could be developed to provide pedestrian and bicycle connections across The Triangle and the wetland could provide a passive recreation amenity for adjacent uses.



*Figure 3.22: View of the large wetland in the center of The Triangle.*



*Figure 3.23: View of the large wetland in the center of The Triangle.*



**Legend**

 Golden Triangle Boundary

Figure 3.24: The Figure Ground diagram, with buildings shown in white, illustrates the irregular building pattern.

Figure 3.24 defines all of the buildings in white and all of the ground plane in black. The ground plane includes streets, sidewalks, parking lots, lawns, water, wetlands, woodlands, and all other forms of open space. The graphic is instructive in several respects:

- Parking dominates land use in the project area. In typical urban areas, streets are prominent in a figure ground graphic because they are well defined by adjacent buildings parallel to the street with consistent setbacks. In this image, the streets are barely discernible due to the multiple building setbacks to accommodate parking.
- The Triangle's edge conditions are graphically illustrated by the fine grained pattern of adjacent residential neighborhoods in Framingham to the northwest and Natick to the southeast juxtaposed against the large buildings and parking lots in The Triangle.
- It also is a graphic depiction of the history of mid-20th century to late 20th century retail: older commercial strip retail complexes along Route 9, the iconic Shoppers World open-air shopping mall, big box stores, and Natick Mall - an enclosed mall with large anchor tenants.
- The difficulty of developing east-west vehicular or pedestrian/bicycle routes through The Triangle is underscored by the juxtaposition of large building forms (e.g., Shoppers World and the Natick Mall) with large parking lots and the central wetlands area.

While these conditions can be appreciated from land use and ownership maps, the figure ground illustration in Figure 3.24 highlights the spatial layout of The Triangle and its surrounding environment.

**BUILDING SCALE & DESIGN**

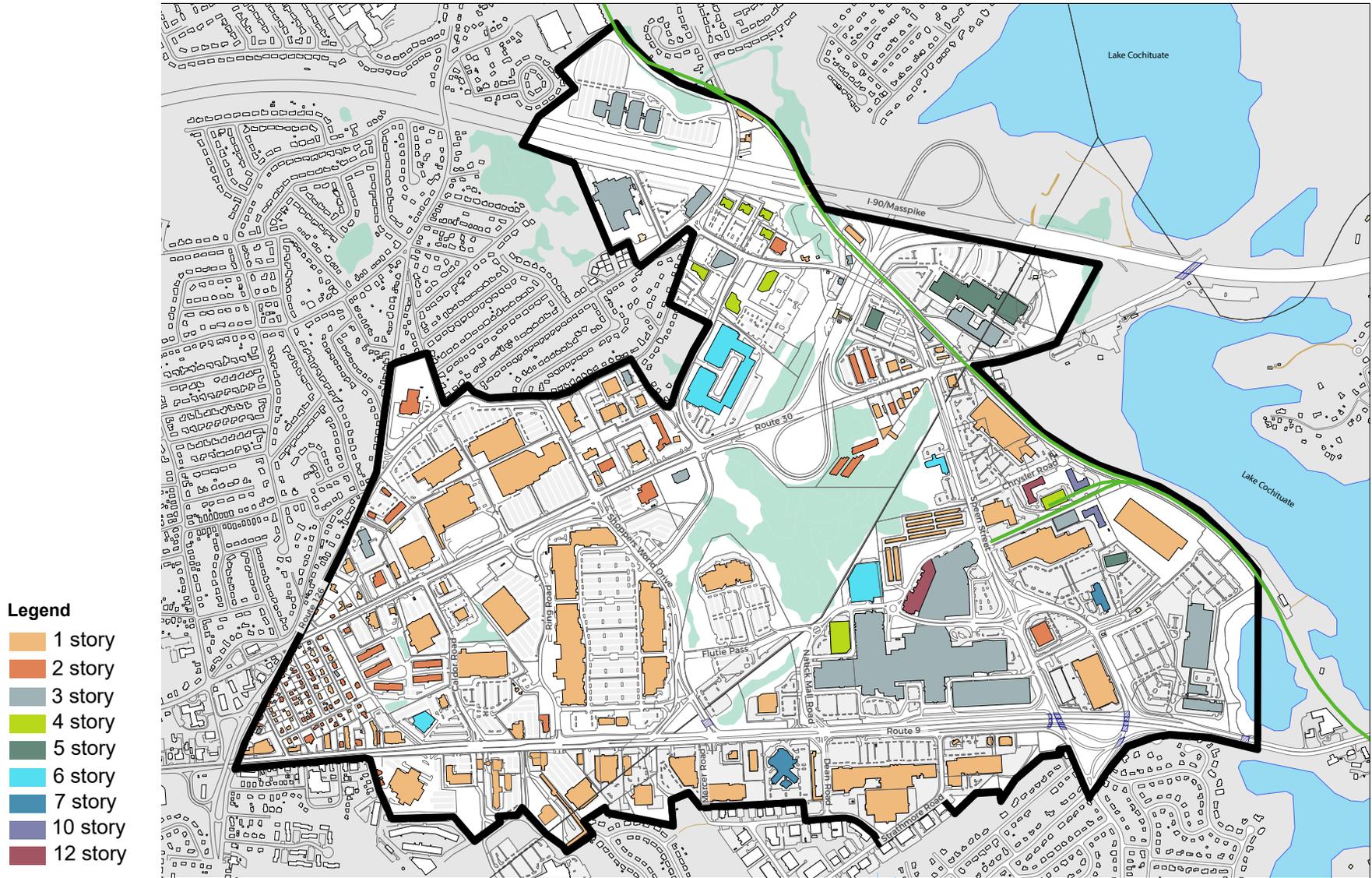


Figure 3.25: Plan of Building Heights.

There are a number of factors that define the scale and design of the existing buildings in The Triangle: height, footprint, massing, spatial relationship to the nearest street and to each other, building materials, and fenestration or visual permeability. In general, The Triangle is characterized by inconsistent building forms ranging from smaller single-use one story retail structures, to larger single story big box retail structures and associated single story retail mall complexes, to free standing mid-rise housing and office buildings. The majority of the lower buildings are clustered in the western sector of The Triangle, and the taller buildings are located along the Speen Street corridor and in the north-eastern sector north of Route 30 and east of Speen Street (Figs. 3.25, 3.28 & 3.29).

The buildings don't define the street edge, and the parking lots between buildings and the street edge create an uninviting pedestrian environment (Fig. 3.27). In some locations, buildings are sited at odd angles, rather than parallel, to the street edge. This arrangement can be disorienting for both drivers and pedestrians who use building façade alignments as a visual clue to the location and direction of streets and sidewalks. The scale, placement, and orientation of new structures should be considered from the point of view of district legibility as well as district connectivity and walkability.

In addition to the height, scale, and orientation of buildings in The Triangle, visual permeability or transparency (especially at the ground level pedestrian environment) is an important factor in the creation of safe, pedestrian-friendly environments. Many buildings in The Triangle are internally focused with largely blank walls on the exterior (Fig. 3.26); others feature large glass windows in the front but are separated from the street by large parking lots. The ideal condition is continuous sidewalks lined with facades that have a high degree of transparency providing "eyes on the street", light spill onto the sidewalks at night, and a visually interesting panorama for pedestrians passing by (see the Boylston Street photo (Fig. 3.8)).



Figure 3.26: The view from Shoppers World Drive is of the backs of stores, with no windows to create interest.



Figure 3.27: View of large building setbacks with one story buildings along Route 30.



Figures 3.28: View of three, four and five story buildings along the northern portion of Speen Street.



Figure 3.29: View of 3 and 4 story buildings along Old Connecticut Path.



The Ownership and Parcel Scale Plans (Figs. 3.30 & 3.31) illustrate similar conditions in slightly different ways. The ownership varies from larger single ownership parcels - The TJX Companies, DDR at Shoppers World, General Growth Properties at the Natick Mall, MathWorks, and others - to small single ownership parcels such as those clustered at the western end of Routes 9 and 30, and at the intersection of Route 30 and Speen Street. Mixed throughout The Triangle there are mid-sized parcels supporting various uses including big box retail outlets and office parks. The Parcel Scale Plan (Fig. 3.31) summarizes these scale differences in four categories: superblock, large parcel, medium parcel and small parcel.

The pattern of parcel size within The Triangle raises several issues to consider as the redevelopment potential is evaluated:

- The small parcels may be difficult to consolidate in order to create a parcel of sufficient size to accommodate desired new uses. Equally important is the geometry of the potential consolidations; many of them would result in triangular or irregular shapes difficult to develop efficiently.
- Many of the large and superblock parcels contain multiple businesses and it is unclear when and in what sequence current land uses might change. Flexibility is the key - potential redevelopment scenarios should be defined with the ability to be realized in different sequences within various access and circulation schemes.
- The superblocks, including the central wetland, are largely physically and visually impenetrable. Developing circulation and visual corridors through these parcels will be a guiding principle in considering near-term and long range redevelopment.
- Potential modification to the MassPike access ramps and feeder roads could, if feasible, contribute to future redevelopment opportunities or potential.

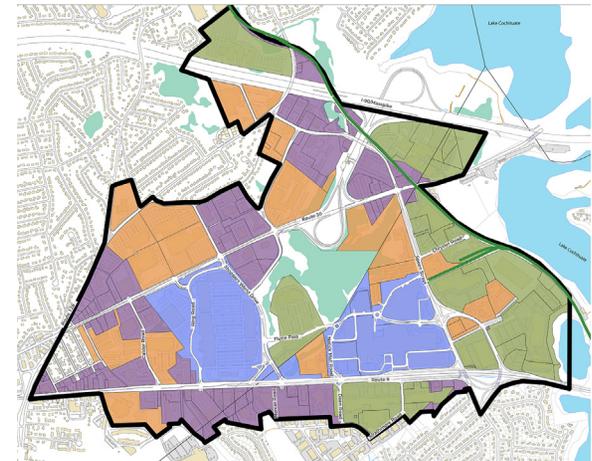


Figure 3.31: Parcel Scale Plan.



**VISIBILITY & ORIENTATION**

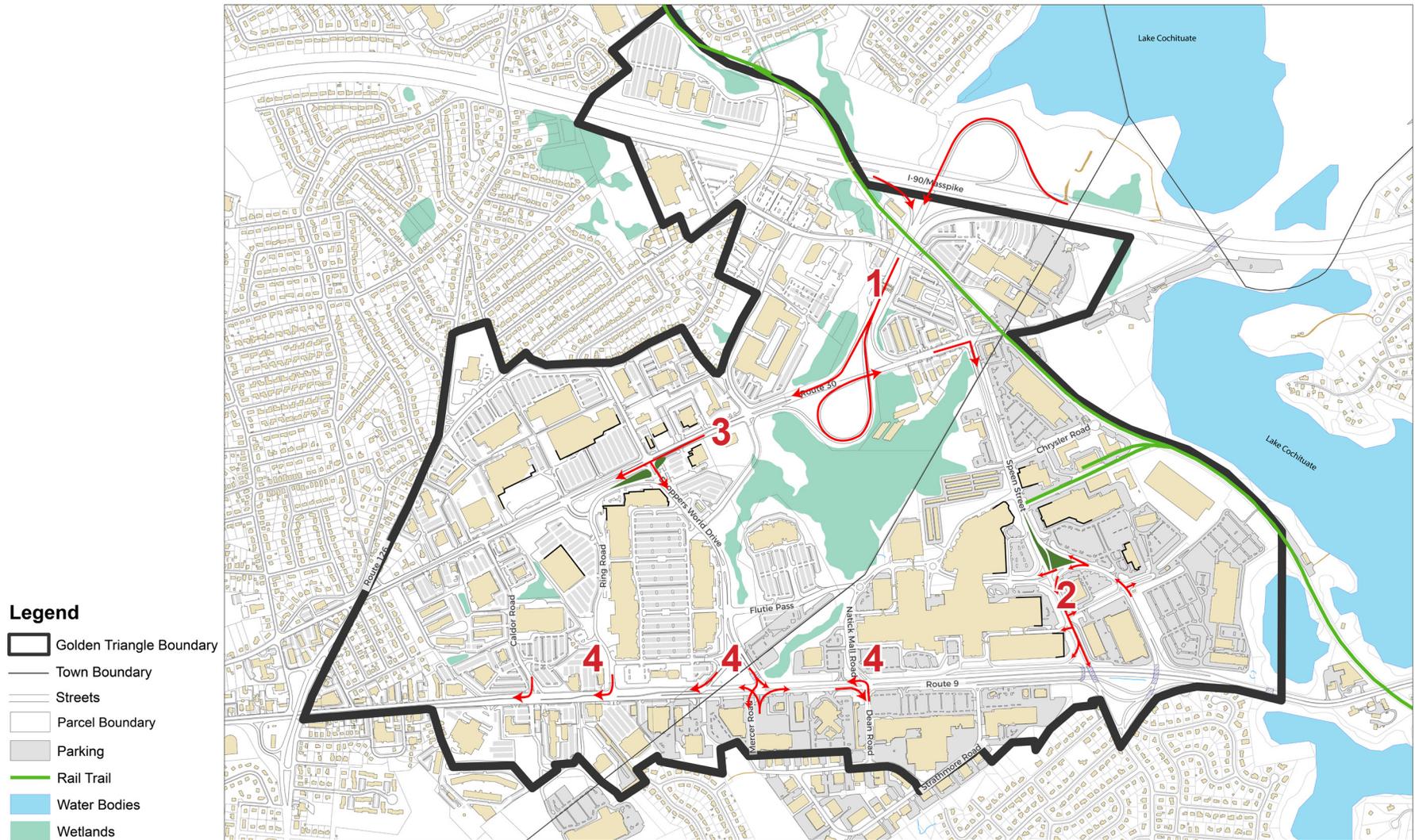


Figure 3.32: Wayfinding and Orientation Diagram: the red arrows indicate routes of travel. The numbers correspond to the numbered points on the page at right.

The Wayfinding and Orientation Diagram (Fig. 3.32) illustrates several obstacles to driver orientation upon entering The Triangle (the numbers below refer to the numbers on the map on page 42).

1. Leaving the MassPike at Exit 13 and proceeding to Speen Street is a bewildering experience involving a pair of loop ramps to a connection with Route 30 eastbound. For westbound MassPike drivers, that is 180 degrees from the original line of travel on the MassPike. At the fork on the ramp just north of Route 30, there is a large overhead highway sign, but the ground-mounted sign identifying the direction to either town is small and too close to the driver's decision point to be useful.
2. Heading north on Speen Street from Route 9 involves multiple closely spaced decision points and, as in point 1 above, the few directional signs are too small and too close to the decision points to be effective. Earth berms and landscaping that obscure destinations create an additional complicating factor in orientation (Figs. 3.33 and 3.34). The large Cloverleaf sign is one of the more visible signs (Fig. 3.35).
3. Approaching Shoppers World from the east on Route 30, the combination of building setbacks and dense foliage on low hanging branches obscure the entrance and entrance sign to the retail complex (Fig. 3.36).
4. Constraints to turning onto Route 9 from development on both the north and south sides frequently require drivers to turn in the opposite direction of their destination, and then make a U-turn.



Figure 3.33: Heading north on Speen Street from Route 9, with the Cloverleaf Marketplace on the right: overhead signs identify major roadways but not destinations.



Figure 3.34: Further north on Speen Street a small sign directing drivers to Natick Mall Road on the left is barely visible until the last second for making a decision.



Figure 3.35: A business listing sign directs customers into the Cloverleaf Marketplace on the right.



*Figure 3.36: Heading east on Route 30 from Speen Street and MassPike Exit 13 with Shoppers World in the distance on the left.*

The examples of poor wayfinding signage on the previous page are only three of many throughout The Triangle. A number of examples have been identified through the coUrbanize platform. A more detailed mapping and analysis of the points where information and improved sightlines can aid driver and pedestrian orientation should become the basis for a wayfinding program developed as a follow on to this Study.

The combination of large, irregular building setbacks, dense low foliage, topography, insufficient wayfinding signage for specific destinations, and lack of a comprehensive signage hierarchy make orientation to and within The Triangle a challenging experience. Specifying trees with higher canopies (allowing better views under the branches) and siting surface parking behind buildings would help with orientation.

## SUMMARY PLANNING AND URBAN DESIGN FINDINGS

The following findings will provide important guidance to the development of potential development scenarios:

- The existing superblocks are to a great extent physically and visually impenetrable. The need for circulation and visual corridors through the blocks will guide redevelopment plans.
- The numerous small and irregularly shaped parcels would require consolidation in order for redevelopment to be possible.
- The existing buildings don't define the street edge, and the parking lots between buildings and the street edge, create an uninviting pedestrian environment. The scale, placement, and orientation of new structures should be considered from the point of view of district legibility as well as district connectivity and walkability.
- Many buildings in The Triangle are internally focused with largely blank walls on the exterior; others feature large glass windows in the front but are separated from the street by large parking lots. To create a more pedestrian friendly mixed-use district, redevelopment concepts should be designed with continuous sidewalks lined with facades that have a high degree of transparency providing "eyes on the street", light spill onto the sidewalks at night and a visually interesting panorama for pedestrians.
- Care should be given to improving wayfinding and orientation through building placement and signage.