

JUNE 2015

# glenbrook springdale tod feasibility study **STAMFORD, CT**

# ACKNOWLEDGEMENTS

The City of Stamford thanks the many city residents and other project stakeholders who contributed their time and energy to shaping the recommendations in this study.

**Mayor David R. Martin**  
City of Stamford

**Representative Monica Di Costanzo**  
District 7

**Representative Jay Fountain**  
District 7

**Representative Frank Cerasoli**  
District 15

**Representative Joseph Coppola Jr.**  
District 15

**Representative Mary Fedeli**  
District 17

**Former Representative Arthur Layton**  
District 17

**Residents of Glenbrook**

**Residents of Springdale**

**Norman Cole**  
Stamford Land Use Bureau Chief

**Erin McKenna**  
Planner/Project Manager,  
Stamford Land Use Bureau

**David Killeen**  
Stamford Land Use Bureau

**David Woods**  
Stamford Land Use Bureau

**Roxane Fromson**  
CTDOT

**Craig Bordiere**  
CTDOT

**Sue Prosi**  
WCCOG

**Alex Karman**  
WCCOG

**Lou Casolo**  
Stamford City Engineer

**Mani Poola**  
Stamford Engineering Bureau

**Christie Fountain**  
President, Glenbrook  
Neighborhood Association

**Jennifer McKeon**  
President, Springdale  
Neighborhood Association

**Phyllis Pugliesi**  
Springdale Neighborhood  
Association

**Glenbrook Community Center**

**Springdale Elementary School**

**Tom Mills**  
Stamford Zoning Board

**Theresa Dell**  
Planning Board Chair

**Jay Tepper**  
Stamford Planning Board

**Harry Day**  
Stamford Land Use Committee

**Joe Criscuolo**  
Glenbrook

**Angela Galluzzo**  
Glenbrook

**Joe Galluzzo**  
Glenbrook

**Alex Goldblum**  
Glenbrook

**Anne Goslin**  
Glenbrook

**Rolf Maurer**  
Glenbrook

**Jerry Pia**  
Glenbrook

**Frank Policastro**  
Glenbrook

**Robin Stein**  
Glenbrook/Springdale

**Ernie Bello**  
Springdale

**Dave Campana**  
Springdale

**Joanne Carriere**  
Springdale

**Suzanne Doyle**  
Springdale

**Steve Garst**  
Springdale

**Ashlee Nestor**  
Springdale

**Jerry Silber**  
People Friendly Stamford

**Josh Lecar**  
People Friendly Stamford

**Rachel Goldberg**  
Urban Redevelopment  
Commission

**Carmine Tomas**  
Buildings by Design

**Richard Freedman**  
Garden Homes Management

**John Chafee**  
River Bend Center

**Jonathan Turner**  
River Bend Center

**Randy Salvatore**  
RMS Companies

**Pastor Blaine Edele**  
Union Memorial Church

**Bruce Sclafani**  
Gus Sclafani Corporation

**Amanda Kennedy**  
RPA

**Don Corbo**  
Real Estate Agent

## CONSULTANT TEAM:

**Goody Clancy**

**W-ZHA**

**Zimmerman/Volk Associates**

**CDM Smith**

**URS**

**WCCOG (formerly SWRPA)**

The City also wishes to thank the Connecticut Department of Transportation for their sponsorship and leadership, without which the study would not have been possible.

## CONTENTS

Executive Summary .....	i
1. Introduction .....	1
2. Analysis .....	9
3. Glenbrook Village .....	19
4. Glenbrook Architectural Sketchbook.....	49
5. Springdale Village .....	55
6. Springdale Architectural Sketchbook.....	77
7. Implementation .....	83
8. Appendix .....	93







# executive summary

---

**Introduction**

---

**Process and Findings**

---

**Glenbrook TOD Framework**

---

**Springdale TOD Framework**

---

**Implementation**

# INTRODUCTION

The Glenbrook/Springdale Transit-Oriented Development (TOD) Feasibility Study explores the opportunities and challenges of TOD in two historic and vital communities north of downtown Stamford, CT along Metro-North's New Canaan Branch Line. The study has been a collaborative effort over the course of 15 months between community stakeholders and the City and was funded by the State of Connecticut TOD Pilot Program.

- Zoning in place to support TOD and enhance the village environments
- Rail service at capacity—improvements needed
- Insufficient rail station parking at Springdale to meet current/future demand
- Development at the station sites is not financially feasible without public subsidy
- Public improvements needed to promote better access/use of stations



The study encapsulates and builds on previous planning efforts as well as the terrific momentum at the City-level, community-level, and investor-level for transit-oriented development that can enhance the villages of Glenbrook and Springdale. The findings of the study point to significant TOD opportunities and key challenges in the villages:

- Strong residential market potential in the next 5 years
- Multiple underutilized sites able to accommodate TOD

The City has also targeted public investment around transit in both villages as a first step. In Glenbrook, Crescent Street, a major pedestrian route to the station, has undergone streetscape improvements. In Springdale, Hope Street from the train station to Camp Avenue has undergone extensive streetscape transformation. These projects are serving to better connect the surrounding villages to the rail stations which serve up to 1,000 commuters on a daily basis.



## Community Process

Over the course of 15 months, residents and stakeholders in Glenbrook and Springdale worked with the City and its consultants to consider TOD alternatives for each Village Commercial District, as well as the stations themselves. The recommendations that emerged reflect the input of hundreds of citizens, officials, business owners, and stakeholders who participated through individual interviews or the six public meetings outlined below.

- **Public Meeting #1**—December 11, 2013:  
*Glenbrook analyses discussion*
- **Public Meeting #2**—December 12, 2013:  
*Springdale analyses discussion*
- **Public Meeting #3**—March 12, 2014:  
*Glenbrook alternatives discussion*
- **Public Meeting #4**—March 13, 2014:  
*Springdale alternatives discussion*
- **Public Meeting #5**—November 12, 2014:  
*Glenbrook draft recommendations*
- **Public Meeting #6**—November 13, 2014:  
*Springdale draft recommendations*



## PROCESS AND FINDINGS

The TOD Feasibility Study undertook a physical analysis of each Village Commercial District, as well as detailed residential, market, zoning, and rail analyses to understand where public investment should be focused and how much transit-oriented development is possible. Financial feasibility provided a critical test to measure the market potential against available physical space and land in each district. Lastly, the study examined the future of the rail stations themselves in terms of parking demand, current and future ridership, and how rail infrastructure could be improved in partnership with the State of CT to fully realize the promise of transit on land use and economic development.

**In both villages, the market potential would be approximately 90 to 115 new units per year over the next five years, for a potential total of 575 units in each village.**

**Land availability and financial feasibility, however, limit the actual opportunity for TOD. In Glenbrook, 140 to 190 units are possible in the next 5–7 years, while in Springdale, 220–280 units are possible.**

### Residential Market Potential

**The market analysis prepared for the TOD Feasibility Study determined there was significant potential for TOD housing of up to 575 units in each village district within the next 5 years.** These findings were derived from housing preferences, socio-economic characteristics, mobility rates, lifestyle pat-

terns, and recent construction and pricing in Stamford and specifically tailored to Glenbrook and Springdale.

In both villages, the residential market findings were consistent:

- Potential market for 90 to 115 new units per year over the next 5 years.
- Preference for the unit type is primarily rental lofts/apartments, followed by for-sale townhomes, and for-sale lofts/apartments.
- Younger singles and couples represent over 85% of the market potential, followed by traditional and non-traditional families, and empty nesters and retirees.

### Land Availability and Capacity Studies

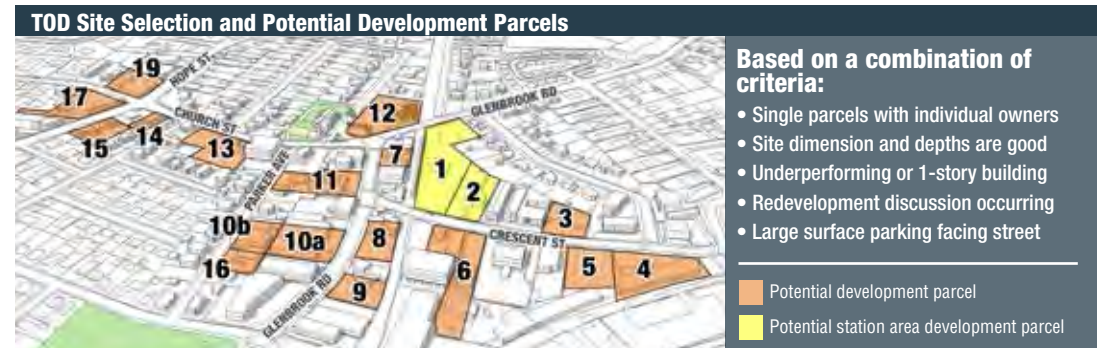
A parcel by parcel land analysis determined that only certain underutilized sites might be possible for new development or redevelopment based on a combination of criteria.

To understand the true near-term viability, the team undertook capacity studies—laying out a

conceptual building and parking arrangement on each potential TOD parcel based on the Village Commercial zoning—to determine the maximum amount of development possible on those sites, followed by financial testing on the development scenarios to see which might be feasible.

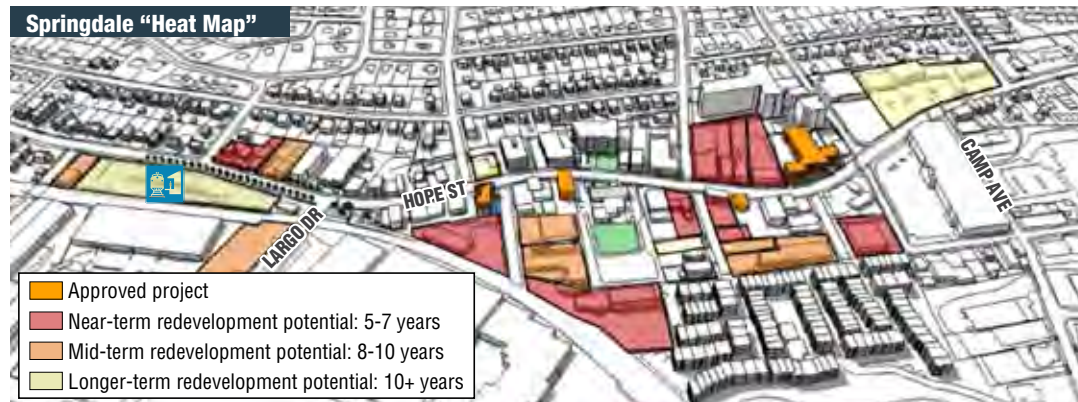
### Financial Prototype

Current assessed land values were compared with potential redevelopment value based on the capacity studies. **The financial prototype analysis showed that approximately 140 to 190 units would be feasible in Glenbrook in the next 5 to 7 years, while approximately 220 to 280 units would be feasible in Springdale in the next 5 to 7 years.** Essentially, there is not enough potential land with financial development feasibility in Glenbrook or Springdale to support the full market potential in the near term. Longer term opportunities, however, do exist to fulfill that potential.



*Glenbrook sites identified for further study.*





**Note:** The heat maps are meant as a broad overview of possible TOD potential in each village based on a series of assumptions. Refined assumptions (potential redevelopment value, land costs, etc.) could affect the near-, mid-, or long-term potential of any or all parcels.

## Zoning to Support TOD

**Certain refinements to the “Village Commercial District” zoning in Glenbrook and Springdale would enhance TOD opportunities both near-term and long-term.** These refinements include expanding the Village Commercial boundaries for connectivity and synergies; allowing a modest single-story height increase for development in Glenbrook only (to match Springdale standards), to improve development economics; allowing sidewalk and landscape setbacks to provide usable paved or green space in front of development; and allowing residential ground floor uses on certain streets.

## Public Improvements to Support TOD

**Critical public improvements would support TOD growth by making the rail stations more accessible and by continuing to beautify each village.** Streetscape improvements are in place on Hope Street in Springdale and Crescent Street in Glenbrook but more can be done on key village streets—Glenbrook Road, Church Street, Hope Street—to make the rail stations fully and safely accessible for pedestrians and bicyclists, as well as vehicles. A focus on roadway lane dieting, sidewalk standards, and crosswalk enhancements will create a transit-oriented district that emphasizes pedestrian safety and access to the stations.

## Rail Survey and Improvements

**Over 500 commuters participated in a rail survey conducted specifically for the TOD study, with results indicating that trains were at capacity during peak hours at both stations, with limited parking and a need for amenities.** Glenbrook and Springdale are operating at capacity at the peak hours with extensive waiting lists and wait times for parking permits, particularly in Springdale. CT-DOT has studied infrastructure improvements along the New Canaan Branch, although those improvements are awaiting funding. Key strategies are recommended to improve accessibility and parking in Springdale and Glenbrook:

- In Springdale, acquire adjacent land to the station, adding up to 75 surface parking spaces in the near-term with the potential for a 300-space garage in the long term if demand exists.
- In Glenbrook, remove a City maintenance facility and yard that sit in the middle of the rail station parking lot. The facility has no relation to the operation of the rail and could be replaced with surface parking.
- At both stations, implement parking lot enhancements such as landscaped islands, special pedestrian paving, pedestrian lighting, and bicycle parking.

## Rail Station Development

An initial focus of the TOD Feasibility Study was to study if transit-oriented development was feasible at the station parking lots themselves. A variety of station alternatives were explored in both locations from simple enhancements, to modest development, to more aggressive development scenarios. Although the station sites are physically capable of accommodating residential development, the cost of constructing that development with parking and replacement parking for rail use does not make economic sense without significant public subsidy. Recognizing the current and future demand for rail parking at the stations, the study recommends that the stations therefore be maintained for surface parking and that transit-oriented development occur on potential parcels around the stations.

*The full range of options with a comparative evaluation are provided in the Appendix of the report.*

### GLENBROOK STATION

#### SCENARIO 2: Limited development with small garage



*This scenario requires acquisition of two adjacent parcels to the east of the station. It would add 10–12 residential units, 166 net new commuter parking spaces, and have a public cost of approximately \$7.7 million to make the project feasible.*

#### SCENARIO 3: Development with expanded garage



*This scenario also requires acquisition of the two adjacent parcels east of the station. Providing 26 to 36 residential units, it would supply 207 net new commuter parking spaces and have a public cost of \$10.8 million to make the project feasible.*

### SPRINGDALE STATION

#### SCENARIO 2A: Limited development w/ small on-site garage



*This scenario does not require property acquisition. It shows an on-site garage with surrounding residential development providing 36 housing units, some service retail, and 82 net new commuter parking spaces, with a public cost of approximately \$7.5 million to make the project feasible.*

#### SCENARIO 2B: Development w/ off-site garage



*This scenario requires property acquisition off-site along Largo Drive and shows full development of the current rail station site. It would add 80 to 90 residential units and 70 net new commuter parking spaces with a public cost of approximately \$4.8 million to make the project feasible.*

## TOD Feasibility Findings

	GLENBROOK	SPRINGDALE
<b>Residential market potential in the next 5 years</b> <i>Only a portion of the market potential is viable in the near-term (in the next 5 to 7 years)</i>	up to 575 new units ..... 140 to 190 units	up to 575 new units ..... 220 to 280 units
<b>Zoning refinements can enhance TOD opportunities and create a cohesive village district</b>	<ul style="list-style-type: none"> <li>• expand the Village Commercial boundary,</li> <li>• allow building heights to 4 stories with a setback (as in Springdale),</li> <li>• allow sidewalk and landscape setbacks by right, and</li> <li>• clarify ground floor retail uses on Crescent Street/ Parker Avenue</li> </ul>	<ul style="list-style-type: none"> <li>• expand the Village Commercial boundary,</li> <li>• allow sidewalk and landscape setbacks by right, and</li> <li>• clarify ground floor retail uses on side streets</li> </ul>
<b>Peak capacity problems with train</b> <i>(based on rail survey of over 500 commuters)</i>	Overcrowding and seat availability—there is a need to improve transit service to support TOD.	
<b>Development on the station site itself</b>	Not financially feasible without significant public subsidy	
<b>Parking supply</b>		There is a need to increase parking supply in the near-term, with approximately 100 people on the permit waitlist and wait times up to 2 years.
<b>Public improvements</b>	Glenbrook Road in particular is critical to ensuring and improving access to the rail station for commuters who walk or bike to the station.	Hope Street at the station is critical to ensuring and improving access to the rail station for commuters who walk or bike to the station.

# GLENBROOK TOD FRAMEWORK

Recommendations for Glenbrook are focused on four key categories—public improvements, rail improvements, zoning refinements, and TOD support. These action items demonstrate public commitment by leveraging public funding to attract private investment in order to advance the ultimate goal of this study: to establish a walkable, vibrant, mixed-use, transit-oriented community that enhances the quality of life for existing and future residents.

## Public Improvements

- P1 Implement Pedestrian and Bicycle Improvements** on Glenbrook Road, Church Street, Hope Street, and Courtland Avenue to provide safe pedestrian and bicycle access to the village center and rail station.
- P2 Enhance the Station Area** by replacing the city maintenance shed with parking spaces, adding landscaped islands and pedestrian lighting throughout, and bike parking.

## Rail Improvements

- R1 Improve Rail Frequency** through infrastructure upgrades outlined in the 2010 Needs Study by CTDOT, including full digital signalization of the branch.
- R2 Improve Rail Capacity** by lengthening platforms, adding platforms, or adding sidings, also suggested as possibilities for the line in the 2010 report.
- R3 Relocate Existing Maintenance Building.** The City signal maintenance building and yard should be relocated off-site, allowing additional surface parking and better pedestrian and visual access to the station.

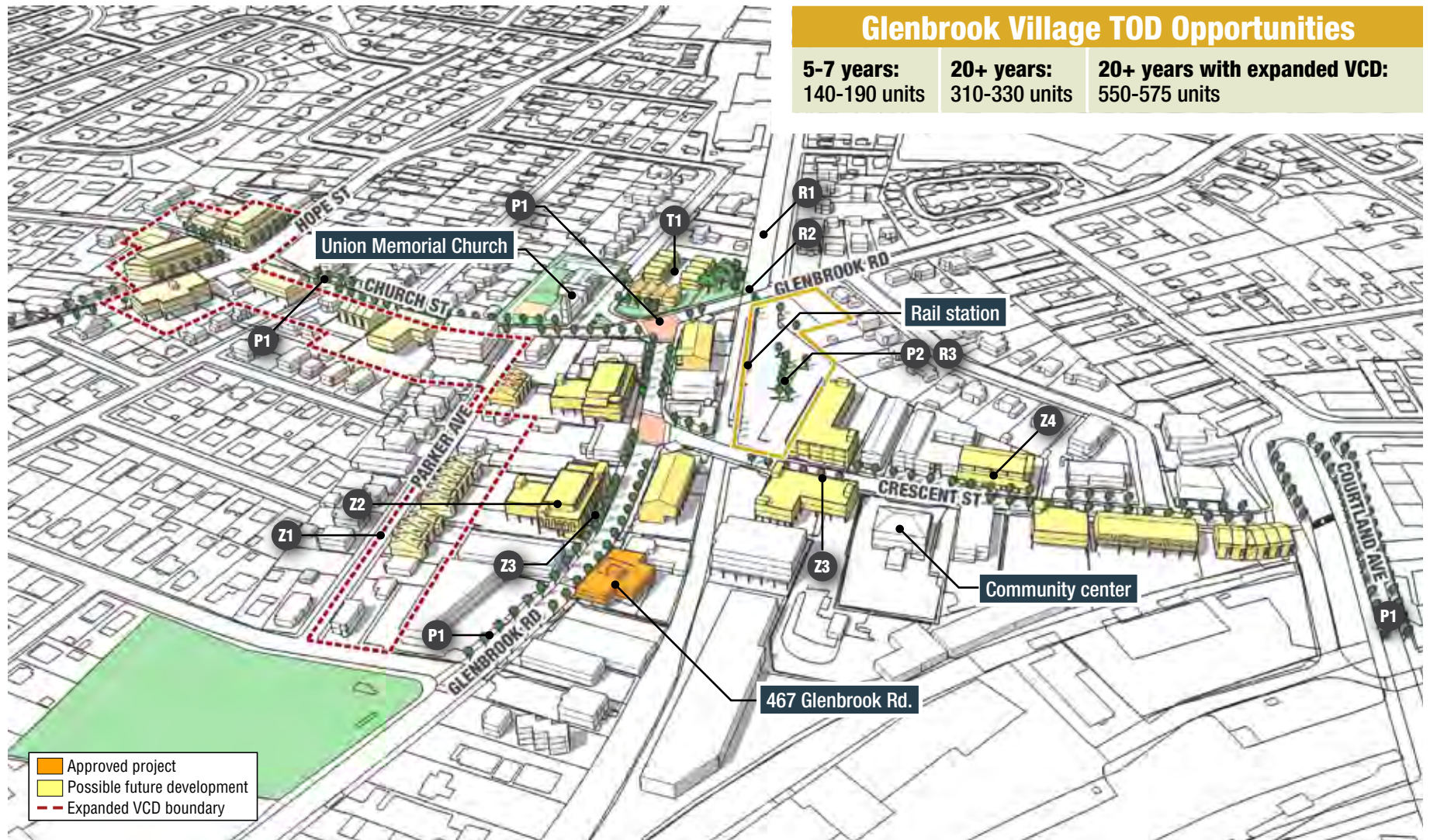
## Zoning Refinements

- Z1 Expand the Village Commercial District** to encompass Church Street and the intersection of Hope Street so that the two “centers” in Glenbrook can grow together with commercial synergies.
- Z2 Increase Allowable Building Heights from 3 to 4 Stories within the VCD;** this will improve the feasibility of development on a limited number of larger key sites.
- Z3 Allow Sidewalk and Landscape Setbacks By Right** in the zoning code to encourage additional sidewalk space on Glenbrook Road and small landscaped frontyards on Crescent Street.
- Z4 Clarify Ground Floor Retail Uses on Crescent Street/Parker Avenue** so there is more flexibility to focus the retail/services on Glenbrook Road.

## TOD Support

- T1 Continue to Support a Range of TOD Infill Projects,** to “fill the gaps” and strengthen the village center.







# GLENBROOK—PUBLIC IMPROVEMENTS

Improvements in Glenbrook focus on street, sidewalk, and bicycle improvements that build on the success of the recent Crescent Street project. Wider sidewalks, shorter crosswalk distances, safer bicycle facilities, and more distinctive gateways will greatly enhance the public realm and provide increased access to transit, based on the following priority projects:

## Glenbrook Road and Church/Crescent Intersections

Lane dieting\* and streetscape between Scofield Avenue and Church Street, and specially paved intersections at Church and Crescent Streets

## Courtland Avenue Streetscape and Stairway

Lane dieting and streetscape on the bridge, on the street to Maple Tree Avenue, and a new stairway to Taylor Reed Place

## Church Street

Lane dieting and streetscape between Glenbrook Road and Hope Street

## Hope Street

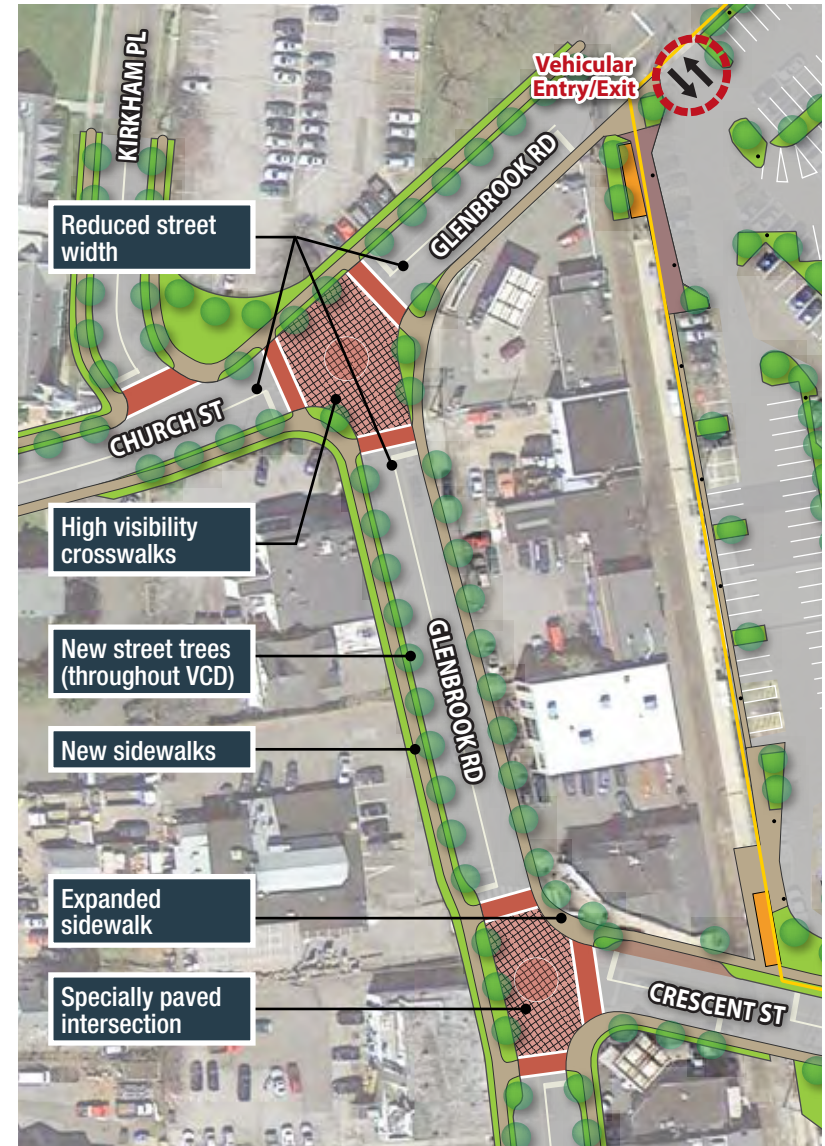
Lane dieting and streetscape between Scofield Avenue and Church Street

## Bike Improvements

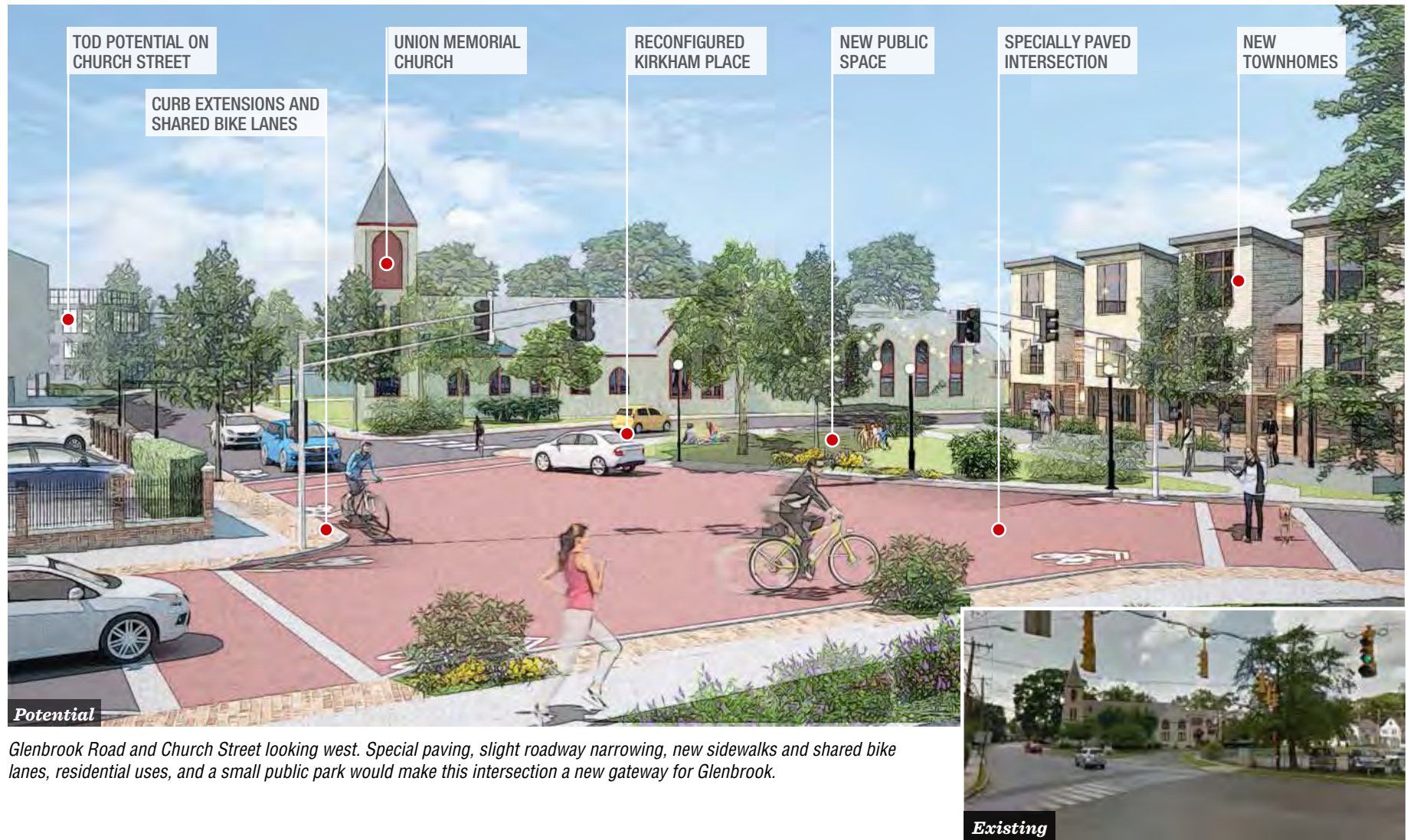
A network of shared bike lanes or “sharrows” on key streets in Glenbrook

### \*A NOTE ABOUT “LANE DIETS”

Many of the potential street improvements suggest a slight narrowing of travel lanes, also known as “lane dieting.” This strategy dictates that some portion of asphalt paving for cars be shifted to the sidewalk areas, allowing for more space and a safer environment for pedestrians. Refer to page 26 for more information.



## Glenbrook Road—Potential character at Church Street intersection





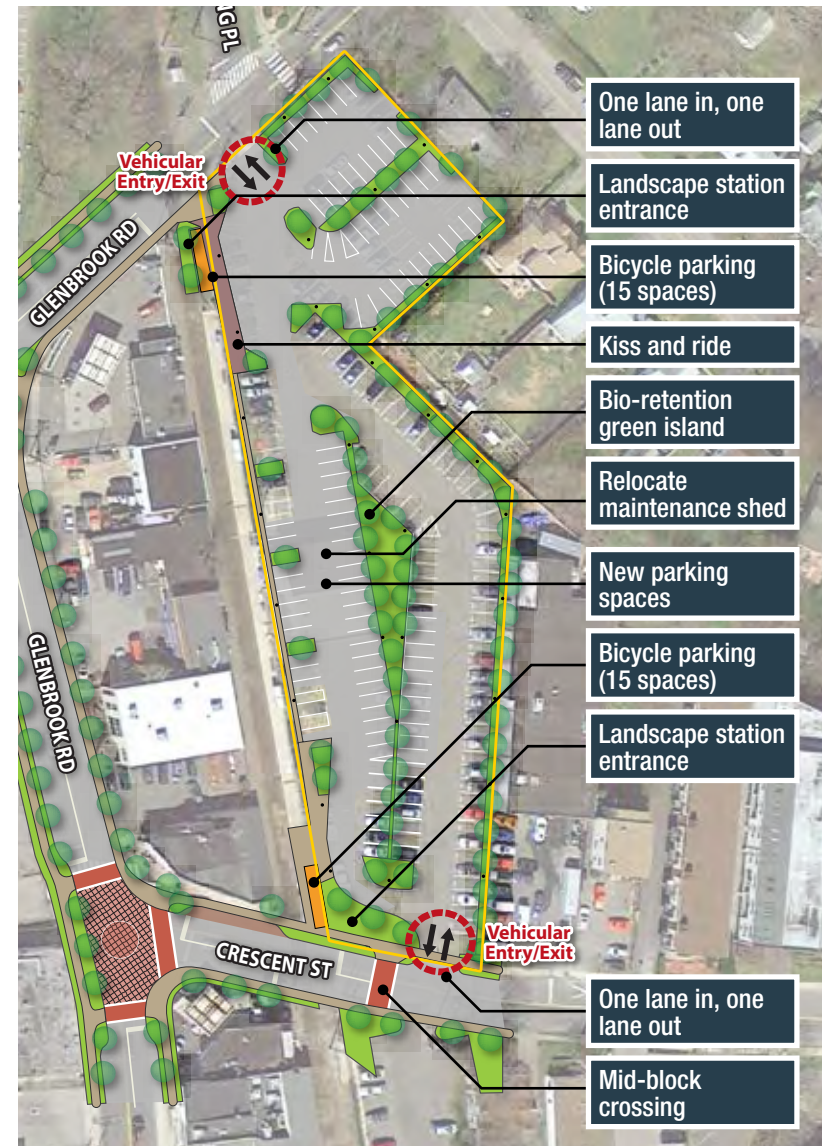
## GLENBROOK—RAIL IMPROVEMENTS

Transit-oriented development requires well-functioning, accessible, convenient transit to be successful. Enhancements are recommended at the Glenbrook station to achieve these goals, the most important being the relocation of the existing traffic signal maintenance facility and replacement with surface parking.

- **Relocated maintenance facility.** The City traffic-signal maintenance building and yard are unrelated to the commuter station and should be relocated to add approximately 10 to 20 surface parking spaces and landscape.
- **Reconfigured parking.** Reconfiguring the current parking layout would expand the number of parking spaces and improve the traffic flow at the station.
- **Landscaped islands.** Landscaped islands should be added for attractiveness and stormwater capture.
- **Improved lighting.** Pedestrian scaled lighting would contribute to a safer, more attractive, walkable environment.
- **Bicycle parking.** Approximately fifteen (15) spaces at each entry are recommended to encourage bike use at the station.

The study evaluated the possibility of development scenarios at the Glenbrook Station site and determined that such an approach would require large public subsidy to achieve financial feasibility.

*Note: Rail infrastructure improvements along the New Canaan Branch Line were explored by CTDOT in 2010 and included a range of options for improved signalization, platforms, and sidings between Stamford and New Canaan. These initiatives should be given further consideration by CTDOT to support better transit now and in the future.*



# GLENBROOK—ZONING REFINEMENTS

Refinements to the existing Village Commercial zoning in Glenbrook will encourage private investment to happen sooner while providing greater assurance that new development supports a vibrant, active public realm that improves the character of the village.

## Expand the Village Commercial District

Expanding the current Village Commercial boundary between the rail station and Hope Street and along Parker Avenue would accommodate more growth in Glenbrook and create important connections.

## Increase Allowable Building Heights from 3 to 4 Stories within the VCD

Increasing allowable building heights from 3 to 4 stories within the VCD will improve the feasibility of development on key larger sites. Four story development (as allowed in Springdale) would only be feasible on a limited number of larger sites with efficient parking layouts. Due to parcel size, most sites would develop at three stories or less.

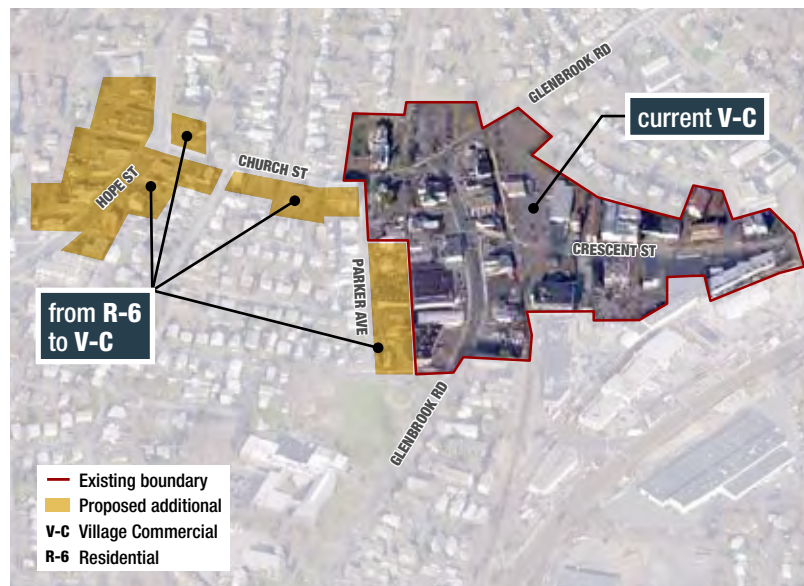
## Allow Sidewalk and Landscape Setbacks By Right

Increased front setbacks for sidewalk width and/or landscaping is currently permitted

in the VC regulations at the discretion of the Zoning Board. The TOD Study recommends that maximum 4'-6' front setbacks (minimum 14' distance from face of curb to building) be offered "by right" to developers to further encourage this important village district strategy and to streamline the approval process.

## Clarify Ground Floor Retail Uses on Crescent Street/Parker Avenue

Clarifying that ground floor retail use is not a requirement for new buildings on Crescent Street/Parker Avenue is recommended. Glenbrook Road is the strongest location for service retail in the Village District.



# SPRINGDALE TOD FRAMEWORK

Recommendations for Springdale are focused on four key categories—public improvements, rail improvements, zoning refinements, and TOD support. These action items demonstrate public commitment by leveraging public funding to attract private investment in order to advance the ultimate goal of this study: to establish a walkable, vibrant, mixed-use, transit-oriented community that enhances the quality of life for existing and future residents.

## Public Improvements

- P1 Continued Implementation of Pedestrian and Bicycle Improvements** on Hope Street and side streets to provide safe pedestrian and bicycle access to the village center and rail station.
- P2 Enhance the Station Area** by shifting the main entrance to Clearview Avenue, adding a stoplight, and improving the station lot with added landscaped islands, pedestrian lighting, and bike parking.

## Rail Improvements

- R1 Expand Parking** by acquiring the parcel east of the tracks on Largo Drive. This parcel may be considered for a garage in the future, with public subsidy.
- R2 Improve Rail Frequency** through infrastructure upgrades outlined in the 2010 Needs Study by CTDOT, including full digital signalization of the branch.
- R3 Improve Rail Capacity** by lengthening platforms, adding platforms, or adding sidings, also suggested as possibilities for the line in the 2010 report.

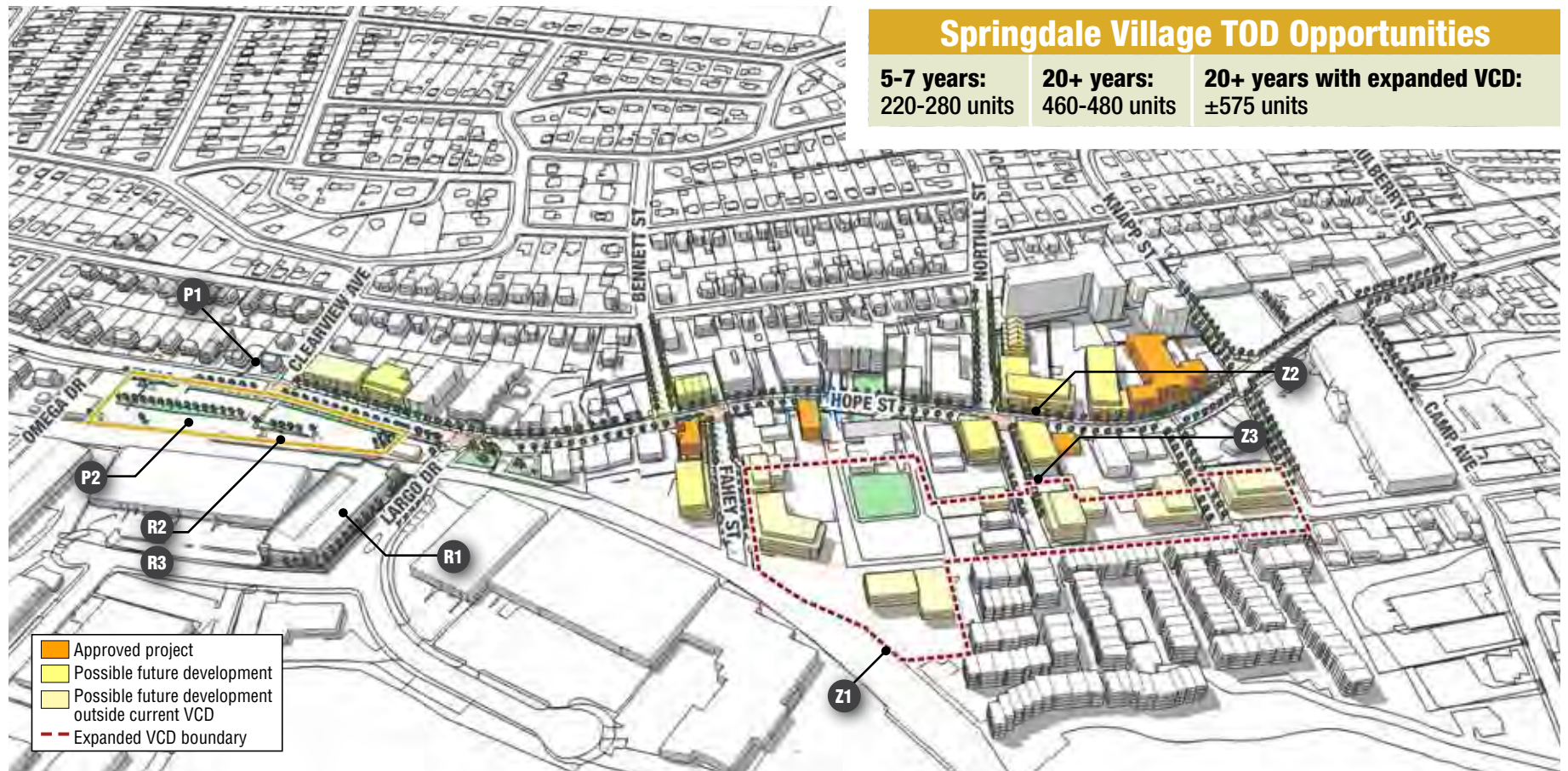
## Zoning Refinements

- Z1 Expand the Village Commercial District** to encompass land between Hope Street and the Village at River's Edge to create a cohesive TOD village and connectivity.
- Z2 Allow Sidewalk and Landscape Setbacks By Right** in the zoning code to encourage additional sidewalk and/or landscape space on side streets.
- Z3 Clarify Ground Floor Retail Uses on Side Streets** so there is more flexibility to focus the retail/services on Hope Street.

## TOD Support

- T1 Continue to Support Incremental TOD Projects**, to “fill the gaps” and strengthen the village center.





## SPRINGDALE—PUBLIC IMPROVEMENTS

Improvements in Springdale focus on street, sidewalk, and bicycle improvements directly adjacent to the station that build on the success of the recent Hope Street project. Enhancements to the station site itself are also included as a high priority, to align with streetscape improvements.

### Hope Street and Largo/Clearview Intersections

Lane dieting and streetscape between Largo Drive and Omega Drive, and two specially paved intersections at Largo Drive and Clearview Avenue

### Side Streets

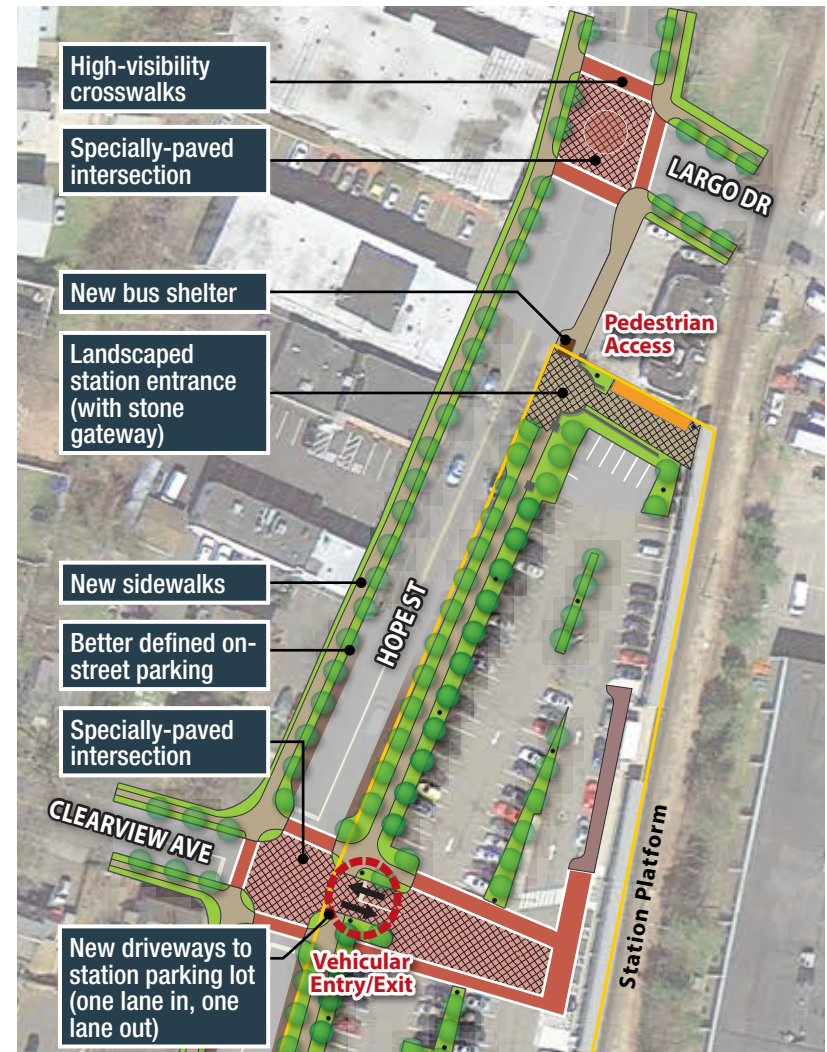
Lane dieting and streetscape on select side streets off of Hope Street

### Bike Improvements

A network of shared bike lanes or “sharrows” on key streets in Springdale

### Rail Station Enhancements

Parking lot enhancements to improve access, utilization, and attractiveness, including two new entry/exits, reconfigured parking lanes, pedestrian zones and landscaped islands, improved lighting, and bike parking.



*The intersections of Hope Street and Largo Drive and Clearview Avenue should be specially paved to enhance pedestrian connectivity to the station.*



## SPRINGDALE—RAIL IMPROVEMENTS

The most critical factor facing the Springdale rail station in the near-term is the lack of station parking to meet current demand. With 100 people on the permit waitlist and a waiting time of up to two years, **surface parking can be accommodated in the near-term through the acquisition of a .83 acre parcel on Largo Drive east of the station.**

This would add 75 surface parking spaces for rail commuters in the near-term with the potential for a parking structure of 300 spaces in the future if demand exists.

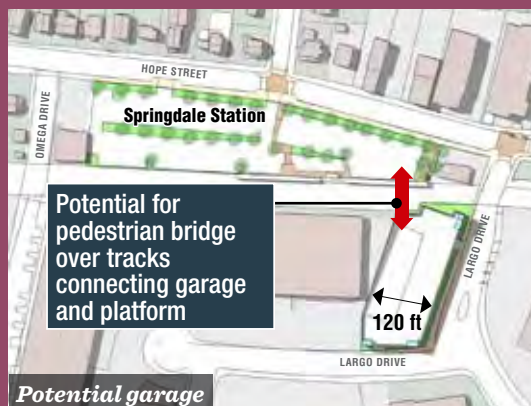
The study evaluated the possibility of development scenarios at the Springdale Station site and determined that such an approach would require large public subsidy to achieve financial feasibility.

*Note: Rail infrastructure improvements along the New Canaan Branch Line were explored by CTDOT in 2010 and included a range of options for improved signalization, platforms, and sidings between Stamford and New Canaan. These initiatives should be given further consideration by CTDOT to support better transit now and in the future.*

### Rail Station Parking Expansion

Surface parking expansion for the Springdale rail station should be pursued in the near-term to relieve pent-up demand and anticipate future demand.

The diagram at right indicates the parcel on Largo Drive that could be acquired for additional parking. The property is currently owned by a local holding company and is used for truck storage and some office parking for the nearby warehouse building. The diagram below indicates a potential site plan for a future garage on this parcel. Pedestrian improvements would need to be made between the garage and station, including a potential pedestrian bridge link at the upper floors of the garage to clear the tracks.



## SPRINGDALE—ZONING REFINEMENTS

Refinements to the existing Village Commercial zoning in Springdale will encourage village connectivity and support a vibrant, active public realm that improves the character of the village.

### Expand the Village Commercial District

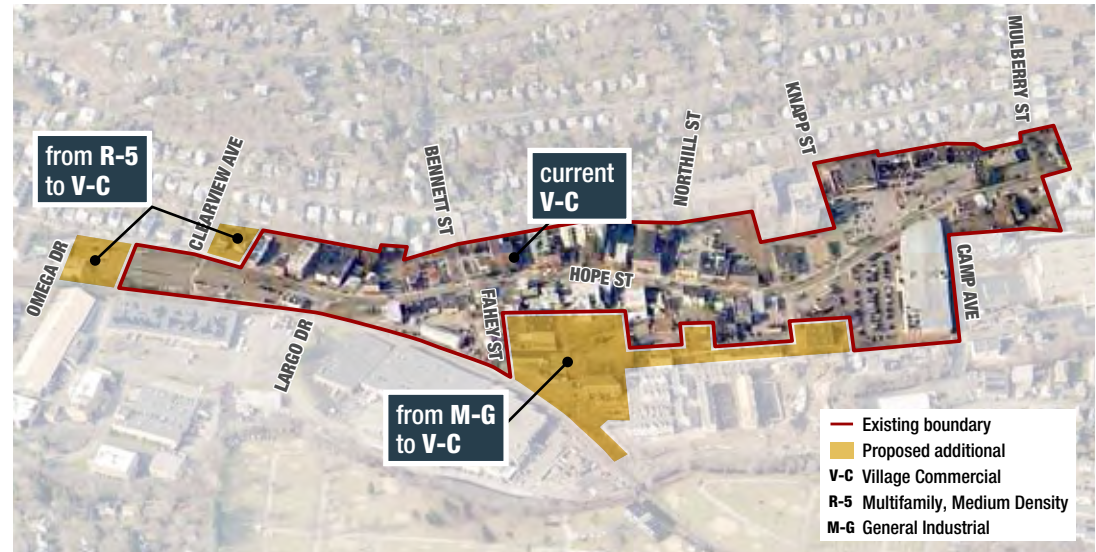
Expanding the current Village Commercial boundary between Hope Street and the Village at River's Edge would serve to change a light industrial area to more residential uses over time, connecting Springdale's commercial spine to adjacent homes.

### Allow Sidewalk and Landscape Setbacks By Right

Modifying the front setback regulation to allow a 4'-6' maximum front setback by right (minimum 14' distance from face of curb to building) for increased sidewalk and landscape areas is recommended. This would streamline the approval process and lead to wider sidewalks in areas constrained by property lines and roadway widths.

### Clarify Ground Floor Retail Uses on Side Streets

Clarify that ground floor retail use is not a requirement for new buildings on side streets (Fahey, Bennett, Northill, Cushing, Hyde, and Knapp) in Springdale. Hope Street is the strongest location for retail in the Village District.





## Hope Street—Potential Character near Station



*A potential view of Hope Street in the future, showing an inviting pedestrian-oriented intersection at Hope Street and Largo Drive. Sidewalks have been improved to the City of Stamford standard, the new City-owned park at Hope and Largo has been implemented, and elements of transit-oriented development are shown near the station. The Springdale Diner can be seen in its current location.*



# IMPLEMENTATION

The Implementation strategy identifies specific initiatives, their timing, and potential funding sources. The technical analyses and community outreach performed as part of the strategic planning process have informed the Implementation Plan. The Implementation Plan provides the steps necessary to fully capitalize on the market and transit-related opportunities present in the Glenbrook and Springdale Village Districts.

The **initiatives** in Glenbrook and Springdale are divided into three categories: Public Improvements, Rail Improvements and Zoning Refinements.

- *Public improvements* are capital initiatives designed to enhance the functionality of the commercial district; improve vehicular, bike and pedestrian access; improve safety; and enhance the commercial district's economic development potential.
- *Rail improvements* are intended to enhance the functionality and rail user's experience through improved transit and enhanced commuter-related infrastructure. To fully reap the benefits of transit as an economic development anchor, key upgrades to rail infrastructure on the New Canaan Branch line are needed.
- *Zoning refinements* consist of recommended changes to the existing Village Commercial District zoning, to better align zoning requirements with the physical, market and economic realities facing the development community in both neighborhoods.

## Sequencing

The **sequencing** to implement each initiative is a function of both its ease of implementation and the potential impact the initiative will have on the village commercial district. In some cases, initiatives are early-action items because they represent a unique, and potentially fleeting, opportunity. In other cases, the near-term implementation of an initiative is an important signal that demonstrates the public sector's commitment to fulfilling the district's promise as a transit-oriented Village. The sequencing matrix on the next page shows the priority initiatives and their timing.

## Funding

In Glenbrook and Springdale there is private redevelopment investment interest. Rather than a program designed to attract private investment via innovative gap financing approaches, the Implementation Plan for Glenbrook and Springdale targets public-sector initiatives, with potential financing from the federal government (rail service enhancements), the State (transit-oriented infrastructure enhancements), and/or the City (public improvements/streetscape).

An important source of **Federal** money for transportation improvements is the TIGER Discretionary Grant program, a highly competitive program where projects are selected on the basis of their beneficial impacts. Factors for selection include safety, economic competitiveness, state

of good repair, livability and environmental stability. Large projects receive TARGET grants (like replacing a bridge), therefore, rail service enhancements are likely to be the only initiative eligible for a TARGET grant.

The **State** has a variety of funding sources. The State's Department of Economic and Community Development (DECD) is Connecticut's lead agency responsible for strengthening Connecticut's competitive economic position. The DECD provides Connecticut communities with funding and technical support for local community and economic development projects. The DECD promotes and supports transit-oriented development.

Connecticut's Department of Transportation (CTDOT) is charged with providing a safe and efficient intermodal transportation network that improves residents' quality of life and promotes economic viability. CTDOT manages the New Canaan branch and is a potential funding source for rail improvements, streetscape improvements, and/or parking development.

The **City of Stamford's** Capital Budget is another potential source of funding. The City's Capital Budget identifies near-term City investments. Less capital-intensive projects are most appropriate for City funding.

## Glenbrook Implementation Plan

ACTION	INTENDED EFFECT	INITIATE	COMPLETE	SOURCE OF FUNDING
<b>PUBLIC IMPROVEMENTS</b>				
Glenbrook Road Streetscape with Improved Intersections at Church St. and Crescent St.	More Attractive Gateway; Pedestrian/Bike Safety; Quality Pedestrian Environment; Unlock Redevelopment Potential of Surrounding Parcels	2015	2016	State DECD; State DOT; City Capital Budget
Hope Street Streetscape between Scofield and Church Streets	Streetscape Improvements; Pedestrian/Bike Safety	2016	2017	State DECD; State DOT; City Capital Budget
Courtland/Taylor Reed Intersection Improvements and Stairs	Improve Pedestrian Connections from Points East	2016	2017	State DOT; City Capital Budget (Stairs)
Church Street Streetscape from Glenbrook to Hope Street	More Attractive Gateway; Pedestrian/Bike Safety; Quality Pedestrian Environment	2017	2018	State DECD; State DOT; City Capital Budget
Parking Lot Improvements	Landscape, Ped Lighting, Bike and Stormwater Improvements	2017	2018	State DECD; State DOT; City Capital Budget
<b>RAIL IMPROVEMENTS</b>				
Re-Locate City Maintenance Facility, Demolish Building, and Construct New Off-Site	Allow for More Commuter Parking; Increase Station Visibility	2014	2016	State Dept of Policy and Management; State DECD; State DOT; City
Rail Service Enhancements: Increase Train Frequency and Train Capacity	Satisfy Ridership Demand	2015+		State DOT; TIGER Grants
<b>ZONING REFINEMENTS</b>				
Expand Village Commercial District to Hope Street and Parker Ave	Create a Unified Glenbrook Commercial District	2015	2016	Land Use Boards
Allow 4-Story Building Height with Setback of 4th Floor Above 32' as in Springdale	Accelerate Revitalization by Enhancing Redevelopment Economics	2015	2016	Land Use Boards
Allow Sidewalk and Landscape Setbacks By Right	To Achieve Wider Sidewalks and Frontyard Landscape	2015	2016	Land Use Boards
Clarify Ground Floor Retail Uses on Crescent Street/ Parker Avenue	Concentrate Commercial Uses on Glenbrook Rd. and Church Street	2015	2016	Land Use Boards

Source: Goody Clancy; W-ZHA

## Springdale Implementation Plan

ACTION	INTENDED EFFECT	INITIATE	COMPLETE	SOURCE OF FUNDING
<b>PUBLIC IMPROVEMENTS</b>				
Streetscape: Hope St. from Largo Dr. to Omega Dr.; Improve Hope and Largo and Hope and Clearview Intersections*	Enhance Pedestrian and Bike Connections to Station; Create Village Gateways	2016	2019	State DECD; State DOT; City Capital Budget
New Vehicular Entrance to Station Pkg Lot at Clearview with Traffic Signal*	Reduce congestion and enhance traffic flow	2016	2019	State DECD; State DOT; City Capital Budget
New Vehicular Entrance to Station at the South End*	Reduce congestion and enhance traffic flow	2016	2019	State DECD; State DOT; City Capital Budget
Parking Lot Improvements*	Enhance Pedestrian and Bike Connections to Station	2016	2019	State DECD; State DOT; City Capital Budget
Largo Drive Improvements	Enhance Access	2016	2019	State DECD; State DOT; City Capital Budget
Streetscape Sidestreets: Knapp/ Greenway; Northhill/ Cushing; Bennett/ Fahey	Enhance Ped and Bike Connections to Station	2018+		Public/Private; City Capital Budget
<b>RAIL IMPROVEMENTS</b>				
Acquire Off-Site Largo Drive Property to Meet Current and Future Parking Demand*	Satisfy Commuter Parking Demand	2015	2017	State DECD; State DOT
Rail Service Enhancements: Increase Train Frequency and Train Capacity	Satisfy Ridership Demand	2015+		State DOT; TIGER Grants
<b>ZONING REFINEMENTS</b>				
Expand Village Commercial District to Incorporate Light Industrial Area East of Hope St.	Allow for Integrated Village Commercial District	2015	2016	Land Use Boards
Allow Sidewalk and Landscape Setbacks By Right	To Achieve Wider Sidewalks	2015	2016	Land Use Boards
Clarify Ground Floor Retail Uses on Side Streets	Concentrate Commercial Uses on Hope St.	2015	2016	Land Use Boards

\*In the near-term, the site could accommodate 75 surface parking spaces. Longer-term a 300 space garage could be considered.



# 1

## introduction

---

**The Project**

---

**Village Districts**

---

**The New Canaan Branch**

---

**Glenbrook and Springdale Themes**

---

**Process and Engagement**

---

**How this Report is Organized**



## THE PROJECT

The City of Stamford has completed this *Glenbrook/Springdale Transit-Oriented Development (TOD) Feasibility Study* to explore the opportunities and challenges of TOD in two historic and vital communities north of downtown Stamford along Metro-North's New Canaan Branch Line. This report represents the culmination of a 15-month community-based process that began in September 2013.

---

The purpose of the study is:

- To build on past planning efforts, including the *2002 Citywide Master Plan*, the *2006 Neighborhood Plans* and the *2009 "Village Commercial" Zoning*
- To create a series of recommendations for State and City investment that will improve access to transit, increase ridership, and enhance the quality of life in both neighborhoods
- To establish vibrant, walkable, mixed-use, transit-oriented communities in the future
- To leverage recent successes, including new streetscaping and new development
- To complement the goals of the City's updated Master Plan (2015): connected neighbor-

hoods, appropriate land uses around transit, and economic development opportunities.

Six public meetings were held in Glenbrook and Springdale over 15 months to fully engage residents of both communities in the study. Their feedback has been essential in forming the basis for the recommendations in this document.

The Glenbrook/Springdale TOD Feasibility Study has been coordinated by the City of Stamford Land Use Bureau, supported by the Western Connecticut Council of Governments (WestCOG) and a team of planning, market, and transportation consultants, and was funded by a State of Connecticut Transit-Oriented Development Pilot Program Project grant.

## The Neighborhoods

**Glenbrook** is 1.5 miles north of downtown Stamford and is comprised of approximately 10,000 people. Long a stable working and middle-class enclave of single-family and multi-family homes centered around the commuter rail station, Glenbrook features pockets of light industrial uses, small commercial areas and significant landmarks such as the Union Memorial Church and Glenbrook Community Center. Over time, the village core around the station has become fragmented, with struggling retail businesses and surface parking lots, wide roads, and narrow sidewalks. In 2009, the City created a "Village Commercial District" to encourage economic development that would "fill the gaps".

**Springdale** is 2 miles north of downtown and is comprised of approximately 10,000 people. Hope Street is the main residential and commercial spine, characterized by active retail, restaurants, institutional, and service establishments. The River Bend Center business park to the east is a primary source of employment in Springdale. To further promote a walkable, village environment, the City created a "Village Commercial District" along Hope Street in 2009 and the State implemented streetscape improvements in 2014.



# VILLAGE DISTRICTS

**Glenbrook Village Commercial District**



*Glenbrook's Village Commercial District (VCD) is centered around Crescent Street, Glenbrook Road, and part of Church Street. A pocket of retail (in blue) exists along Hope Street but is not included in the VCD.*

**Springdale Village Commercial District**

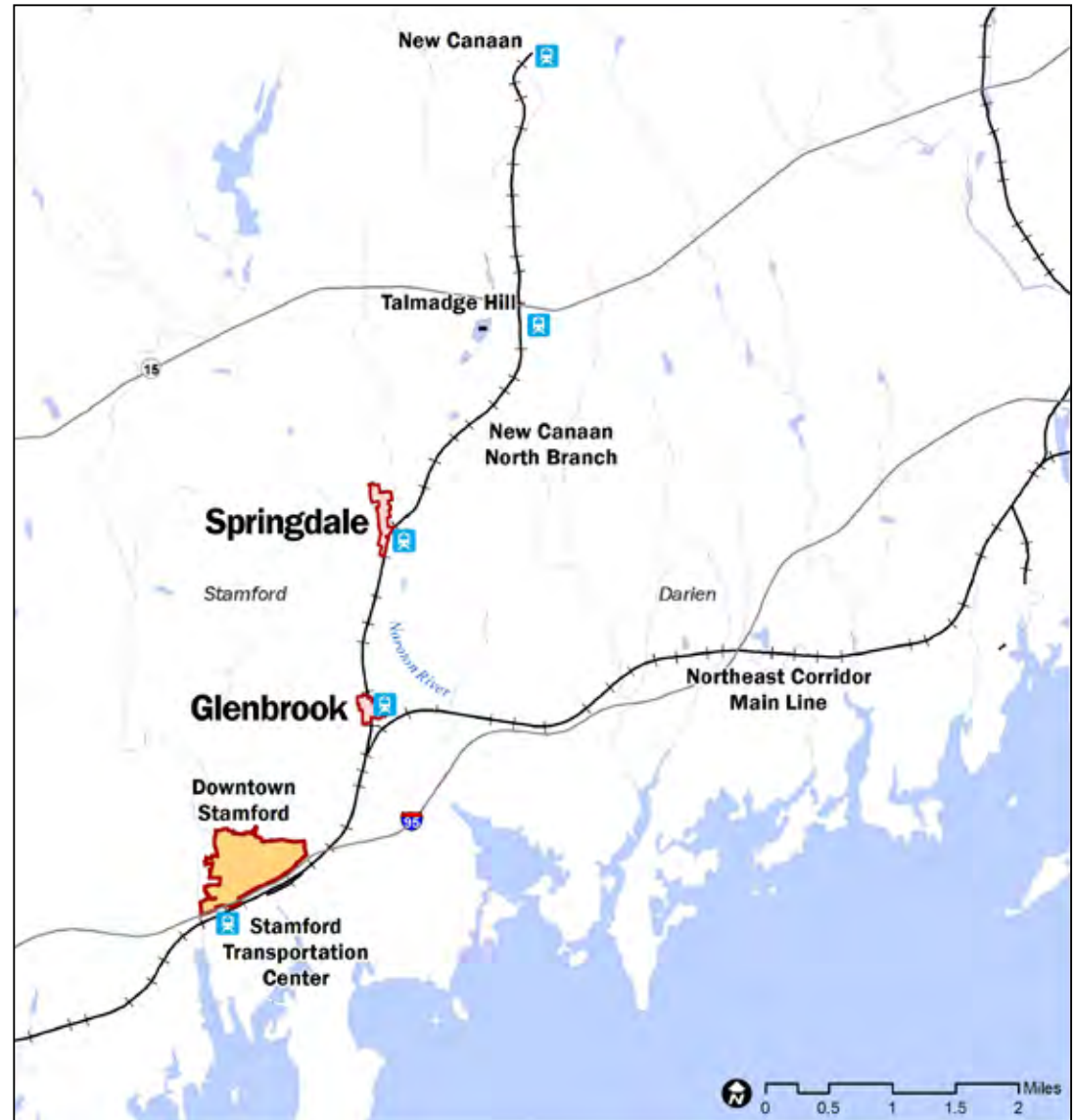


*Springdale's Village Commercial District (VCD) is located east and west of Hope Street, north of the rail station. A small area of light industrial/office (in blue) exists off of Hope Street.*

## THE NEW CANAAN BRANCH

The 8-mile New Canaan line is one of three Metro-North branch lines that extend north into Connecticut. For over 130 years, this branch has carried riders from the surrounding communities of New Canaan, Talmadge Hill, Springdale, and Glenbrook to downtown Stamford and beyond to Manhattan's Grand Central Terminal. The Glenbrook and Springdale Stations account for approximately one thousand boardings per day on the New Canaan Branch.

The State of Connecticut recognizes the value of transit-oriented development: promoting the use of transit networks to reduce local and regional traffic; improving access and walkability to transit hubs; and bringing economic development to neighborhoods. Glenbrook and Springdale have been planning and implementing TOD strategies for over 10 years and are now seeing the results of those efforts. With committed State and City funding for critical street and rail improvements in the next 5 years and beyond, these neighborhoods will continue to grow into attractive, economically sound transit-related centers.





## GLENBROOK AND SPRINGDALE THEMES

### Glenbrook

Glenbrook landmarks such as the Union Memorial Church are located near the Metro-North rail station and give identity to the village. There are numerous opportunities through public improvements and transit-oriented development to improve the automobile oriented environment and strengthen the village center.

Based on public input, Glenbrook residents are generally supportive of TOD as a vehicle to improve the village.



*Glenbrook*

### Springdale

Springdale has a strong commercial retail spine in Hope Street. Recent improvements make it even more pedestrian oriented, but connections to the rail station are weak and rail capacity and rail parking are significant challenges to transit-oriented development.

During public meetings, local residents said that Springdale is one of Stamford's "best kept secrets"—there is a strong desire to preserve its best qualities, with opportunities "to clean it up."



*Springdale*

# PROCESS AND ENGAGEMENT

## Investigations and Analysis | SEPTEMBER 2013—JANUARY 2014

- Web site development, data collection and GIS mapping
- Review previous studies
- Planning and infrastructure analysis (land use, zoning, physical conditions)
- Market analysis (economic framework, retail, residential)
- Identification of potential TOD locations and financial prototypes
- Rail survey
- Stakeholder interviews and public meetings #1 and #2
- Existing Conditions Technical Memorandum

*Note: See Chapter 2 for further details*

## Evaluation of Alternatives | FEBRUARY 2014—AUGUST 2014

- Near-term and long-term TOD approaches
- Potential locations and development data
- Rail station studies to test development feasibility
- Initial public improvement approaches and costs
- Initial zoning recommendations to encourage TOD
- Traffic and parking projections
- Ridership projections
- Stakeholder interviews and public meetings #3 and #4
- Evaluation of Alternatives Technical Memorandum

## Recommendations and Reporting | SEPTEMBER 2014—DECEMBER 2014

- Final public improvement recommendations
- Final zoning recommendations
- Capital improvements memorandum
- Mayoral briefing
- Economic benefits and funding analysis
- Executive summary
- Public meetings 5 and 6
- Draft and final report



## Public Engagement

### Stakeholder interviews:

- Individual residents
- Glenbrook and Springdale Neighborhood Associations
- Business owners
- Land owners
- Developers
- Elected officials
- Department/agency heads
- Non-profit leaders
- Institutional leaders

### Technical Advisory Committee (TAC):

- City of Stamford Land Use Bureau
- City of Stamford Engineering Bureau
- South Western Regional Planning Agency
- Connecticut Department of Transportation
- Consultant team

### Public Meetings #1 and #2

December 11 and 12, 2013

Technical Advisory Committee Meeting

January 15, 2014

Technical Advisory Committee Meeting

February 27, 2014

### Public Meetings #3 and #4

March 12 and 13, 2014

Technical Advisory Committee Meeting

September 4, 2014

Mayoral briefing

October 3, 2014

### Public Meetings #5 and #6

November 12 and 13, 2014

## HOW THIS REPORT IS ORGANIZED

This final report is a summary document of technical analyses and reporting which occurred over the course of the project and can be found in two preceding reports:

- **Task 1:** Existing Conditions Technical Memorandum
- **Task 5:** Evaluation of Alternatives Technical Memorandum

---

### Chapter 1 : **Introduction**

---

#### Chapter 2: **Analysis**

Economic Framework  
Residential Market Potential  
Retail Market Potential  
Rail Potential  
Zoning and Architectural Considerations  
TOD Feasibility  
*TOD Site Selection*  
*Test Fits*  
*Financial Prototypes*  
*TOD “Heat Maps”*

---

### Chapter 3: **Glenbrook Village**

Glenbrook Today  
Glenbrook TOD Framework  
*TOD Potential*  
*Public Improvements – Streetscape and Bike Improvements*  
*Rail Station Improvements*  
*Rail, Parking, and Traffic Impact*  
*Zoning Refinements*  
*Village Character as a Result of Zoning Refinements*

---

### Chapter 4: **Glenbrook Architectural Sketchbook**

Overview and Purpose  
Case Study #1: Glenbrook Road Infill  
Case Study #2: Glenbrook Road and Church Street Intersection (3-story townhomes)  
Case Study #3: Glenbrook Road and Church Street Intersection (4-story multi-family)  
Case Study #4: Redevelopment Near Station

---

### Chapter 5: **Springdale Village**

Springdale Today  
Springdale TOD Framework  
*TOD Potential*  
*Public Improvements – Streetscape and Bike Improvements*  
*Rail Station Improvements*  
*Large Drive Improvements*  
*Rail, Parking, and Traffic*  
*Zoning Refinements*

---

### Chapter 6: **Springdale Architectural Sketchbook**

Overview and Purpose  
Case Study #1: Hope Street and Northhill Street Intersection  
Case Study #2: Side Street Redevelopment (Fahey Street)  
Case Study #3: Small Infill Near Station (Hope Street)

---

### Chapter 7: **Implementation**

---

### Chapter 8: **Appendix**



# 2 analysis

---

## **Analysis**

*Economic Framework*

*Residential Market Potential*

*Retail Market Potential*

*Rail Potential*

---

## **Zoning and Architectural Considerations**

---

## **TOD Feasibility**

*TOD Site Selection*

*Test Fits*

*Financial Prototype*

*TOD “Heat Maps”*

## ANALYSIS

Several analyses were conducted for this study to inform the evaluation of transit-oriented development feasibility in the Glenbrook and Springdale neighborhoods. These included analyzing physical characteristics such as development capacity, the overall economic position of the neighborhoods, the strength and depth of the residential and retail markets, existing rail service capacity, and zoning regulations. The findings of these studies provide an important foundation for the report.

## Economic Framework

The City of Stamford is the 4th largest City in Connecticut and the largest financial district, outside of Manhattan, in the New York Metro region, offering a base for banking, services, institutions, and Fortune 500 businesses, as well as commuters who work in Manhattan. Between 2000 and 2012, Stamford's population grew faster than all of Connecticut's large cities and had the highest rate of household growth.

The combined population of Glenbrook and Springdale is approximately 20,000 people which is 15% of Stamford's population. In the past 10 years, the neighborhoods have accounted for 25% of the city's growth in households. With increasing interest in communities with public transit and walkable neighborhoods with amenities and "things to do", this growth is expected to continue.

Both Glenbrook and Springdale are stable neighborhoods with well-educated, high income households. Springdale's median household income is \$85,750, while Glenbrook's is \$76,600 both above the City median of \$71,000. Jobs in Glenbrook and Springdale account for 9% of the City's jobs.

### Glenbrook Observations based on Analysis/Public Input

- Glenbrook Village has strong potential for multi-family residential development
- Retail potential is limited in the near-term, especially along Crescent Street
- Rail improvements are needed
- The Village Commercial zone could be extended over to Hope Street for synergies
- Buildings are limited to 3 floors in Glenbrook; which limits development feasibility in some cases

### Springdale Observations based on Analysis/Public Input

- Springdale has strong potential for multi-family residential development
- Interest in attracting new restaurants and neighborhood-serving uses that add vitality
- Rail improvements are needed (frequency and operating)
- Concern that new development could add to traffic congestion (most traffic is through traffic from outside Springdale)
- The Village Commercial Zone could be extended east of Hope St.



## Residential Market Potential

A residential market analysis was undertaken for Glenbrook and Springdale as part of the TOD feasibility study in order to determine the depth and breadth of new market-rate transit-oriented housing units—created either through adaptive re-use of existing non-residential buildings as well as through new construction.

This “target market analysis” was derived from housing preferences and socio-economic characteristics of households in Glenbrook and Springdale, as well as mobility rates, lifestyle patterns and recent construction and pricing in Stamford. The analysis allowed projections for how many new dwelling units might be possible, what types of units those would be, the general range of rents and purchase prices, and how quickly those units could be absorbed into the market.

### Glenbrook

The Glenbrook residential market potential would be approximately 90 to 115 new units per year over the next five years, for a potential total of 575 units.

- Preference for the type of unit would be primarily rental lofts/apartments (67%), for-sale lofts/apartments (13%) and for-sale rowhouses (20%).

- Rental costs could range from \$1,350 to \$3,500 per month depending on the size of units, while for-sale units could range from \$195,000 to \$365,000.
- Younger singles and couples would represent 85% of the market potential over the next 5 years, followed by traditional and non-traditional families at 13%, and empty-nesters and retirees at 2%.

### Springdale

The Springdale residential market potential would also be approximately 90 to 115 new units per year over the next five years, for a potential total of 575 units.

- Preference for the type of unit would be primarily rental lofts/apartments (64%), for-sale lofts/apartments (13%) and for-sale rowhouses (23%).
- Rental costs could range from \$1,400 to \$3,750 per month depending on the size of units, while for-sale units could range from \$225,000 to \$395,000.
- Younger singles and couples would represent 93% of the market potential over the next 5 years, followed by traditional and non-traditional families at 4%, and empty-nesters and retirees at 3%.

These projections were supplied to the planning team to determine how and where transit-oriented units might be located through the site identification and site capacity studies.

**In both villages, the market potential would be approximately 90 to 115 new units per year over the next five years, for a potential total of 575 units in each village.**

**Land availability and financial feasibility, however, limit the actual opportunity for TOD. In Glenbrook, 140 to 190 units are possible in the next 5–7 years, while in Springdale, 220–280 units are possible.**

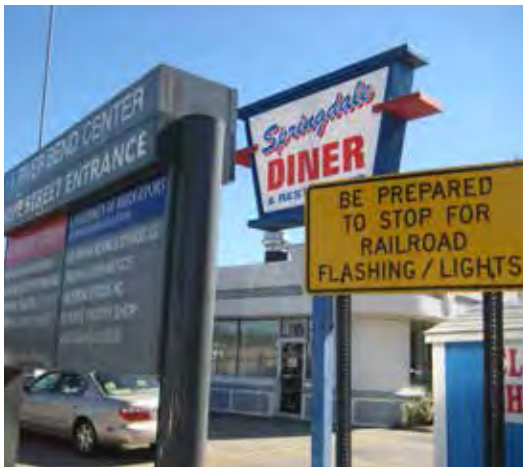
## Retail Market Potential



### Glenbrook

Glenbrook today features commercial pockets along Hope Street, at the Glenbrook Shopping Center, and near the train station. The conceptual “trade area” for the Glenbrook Village Commercial District contains approximately 4,200 households and 11,000 people but even with this critical mass, retail and eating/drinking tenants will seek visible/accessible loca-

tions on Hope Street instead of the VCD. In the near term, the VCD may be best positioned for service establishments such as yoga studios, hair salons, computer repair, and accounting, as well as convenience food such as take-out restaurants and a coffee shop. The VCD would greatly benefit by evolving as an extension of the retail along Hope Street.



### Springdale

Springdale has a critical mass of retail and restaurant establishments along Hope Street but still competes with area destinations. The conceptual “trade area” for the Springdale Village Commercial District contains approximately 7,600 households and 20,000 people. Retail sales data indicates there is an undersupply of general merchandise stores

but a sufficient supply of food/beverage and health/personal care stores. There is potential for additional unique, specialty good stores, and restaurants in the Springdale VCD, likely to be small independent tenants. Additional cafes and healthy food outlets might be opportunities to support the current supply of eating and drinking establishments.

# Rail Potential

## The Rail Today

The New Canaan Branch Line serves thousands of commuters a week. Key challenges facing the line today include:

- The New Canaan Branch branch line is a one-way north and south system which limits the frequency of trains.
- The branch line is run by analogue and digital signalization along its length.
- Ridership projections for the next 20 years show consistent annual increases from a variety of sources.

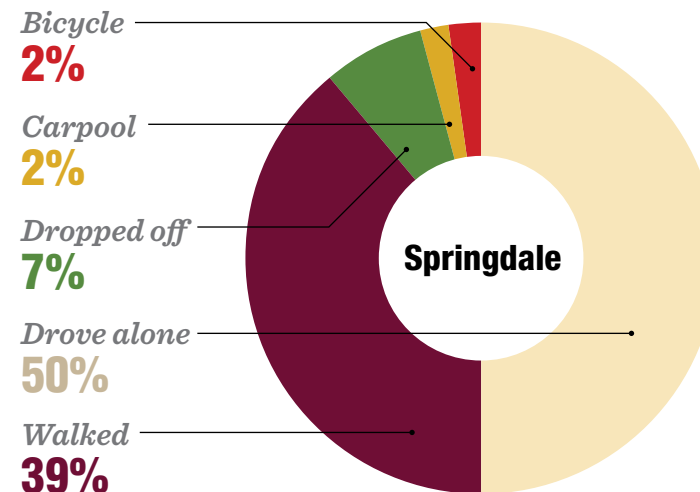
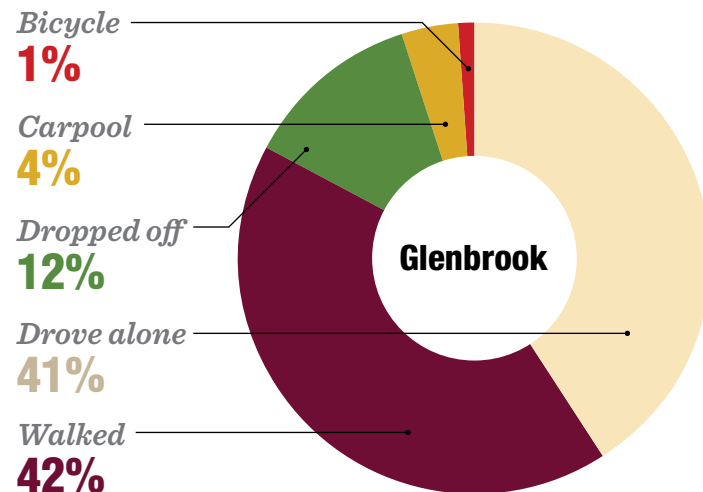
## Rail Ridership and Survey

There are 370 daily boardings at Glenbrook and 570 daily boardings at Springdale today. An on-line and in-person rail survey was undertaken as part of the TOD Feasibility Study to better understand Metro-North ridership patterns and needs. Questions in the survey included trip origin and destination, qualitative experience of trains and station areas, parking habits, and options for station improvements.

- Over 525 people took the survey, with a majority of riders traveling to Grand Central Station.

- The majority of riders at Glenbrook and Springdale are from those neighborhoods.
- A significant number of commuters walk to each station—42% at Glenbrook and 39% at Springdale.
- Peak hour trains are congested—more capacity, more frequent service, real time information, and improved pedestrian access are priorities.
- 95% of station users are Stamford residents and there is a long wait list for parking permits.

### How People Get to Glenbrook/Springdale Stations Today



## Rail Parking

### GLENBROOK

The Glenbrook rail station has 156 surface parking spaces (63 permit spots and 92 daily metered) with typical weekday utilization of 65 to 75%. Limited on-street parking exists nearby, while some commuters park in one of the 40 rented spots at the Union Memorial Church lot. There are approximately 60 people on the station permit waitlist with wait times between 6 and 9 months.

### SPRINGDALE

The Springdale rail station has 210 surface parking spaces (132 permit spots and 75 metered) with typical weekday utilization of 80 to 90%. There is on-street parking on Hope Street adjacent to the station while some commuters park on Knickerbocker Avenue nearby and walk to the station. There are approximately 100 people on the station permit waitlist with wait times from 18 to 24 months.

These findings combined with results from the rail survey indicate an existing pent-up demand for parking, particularly at the Springdale Station.





## ZONING AND ARCHITECTURAL CONSIDERATIONS

### Village Commercial Zoning

The Village Commercial zoning regulations that guide new development in Glenbrook and Springdale are designed to create walkable, attractive village environments. The zoning analysis sought to identify any unintended barriers to good development or omissions that could negatively impact the built environment.

The zoning requires that buildings be constructed with a zero setback from the front property line or street, with parking located at the rear of the building.

In Glenbrook, height is restricted to 3 stories and 35 feet. In Springdale, the maximum height is 4 stories and 45 feet subject to a 12-foot stepback of the building frontage above 32 feet. Storefront and sidewalk level facades must “enliven the street and provide a continuous border of interest for pedestrians”.

Based on financial and physical analyses, there are potential zoning modifications that could benefit the villages of Glenbrook and Springdale related to building heights, building frontage setbacks, ground floor uses, and the VCD boundary.



*Minimized curb cuts promote pedestrian safety while allowing parking access*



*A wider setback supports sidewalk dining and other activities*



*Building variations and smaller-scale components reduce the perception of bulk and height*



*947 Hope Street in October 2014. It is the first project completed in Springdale under the new Village Commercial zoning.*



*Proposed 467 Glenbrook Road front elevation. The building will include ground floor housing when constructed, but will remain flexible to be converted to service retail in the future.*



# TOD FEASIBILITY

## TOD Site Selection

In the analysis stage, the planning team identified sites in Glenbrook and Springdale for possible transit-oriented development. This included vacant parcels, parking lots, under-utilized parcels, and parcels with single story buildings. This also included possible sites outside the Village Commercial boundary but important to the larger neighborhood character.



Glenbrook sites identified for further study.



Springdale sites identified for further study.

### Based on a combination of criteria:

- Single parcels with individual owners
- Site dimension and depths are good
- Underperforming or 1-story building
- Redevelopment discussion occurring
- Large surface parking facing street

- Potential development parcel
- Potential station area development parcel

## Test Fits

A “test fit”—laying out a conceptual building and parking arrangement—was undertaken for each potential TOD parcel based on current zoning. The goal of the test fits was to determine the maximum amount of development allowed on each site. This number was then compared to the Residential Market Study capacity to understand overall feasibility.

### Glenbrook Test Fits

Representative small site: Site 7

- 26 parking spaces
- 21 units



### Springdale Test Fits

Hope St and Northhill St: Sites 10 & 22

Site 10:

- 102 parking spaces
- 82 units

Site 22:

- 54 parking spaces
- 43 units



## Financial Prototype

The purpose of the financial prototype analysis was to determine whether the test fits made economic sense—would a landholder or private investor consider it financially feasible to redevelop per the test fits (i.e. zoning)? The financial analysis identified those properties where the VC zoning has the greatest potential to unlock near-term and mid-term/long term redevelopment.

### Preliminary Redevelopment Economics Illustrative Property in Village Commercial District

Existing Buildings (Sq Ft)	6,000	
Owner's Property Value	\$1,100,000	
Redevelopment Potential to Developer		
Multi-Family Residential Units	25	25
Land Value /Unit @	\$45,000	\$50,000
Value for Redevelopment	\$1,125,000	\$1,250,000
Less: Existing Bldg Demolition Cost <sup>1</sup>	(30,000)	(30,000)
Prospective Purchase Price	\$1,095,000	\$1,220,000
Difference Owner's Value vs Prospective Purchase Price	(\$5,000)	\$120,000
Redevelopment Potential	Mid-Term	Near Term

<sup>1</sup>. Demolition cost assumed to be \$5.00 per square foot of existing buildings on-site.

Source: W-ZHA

## TOD “Heat Maps”

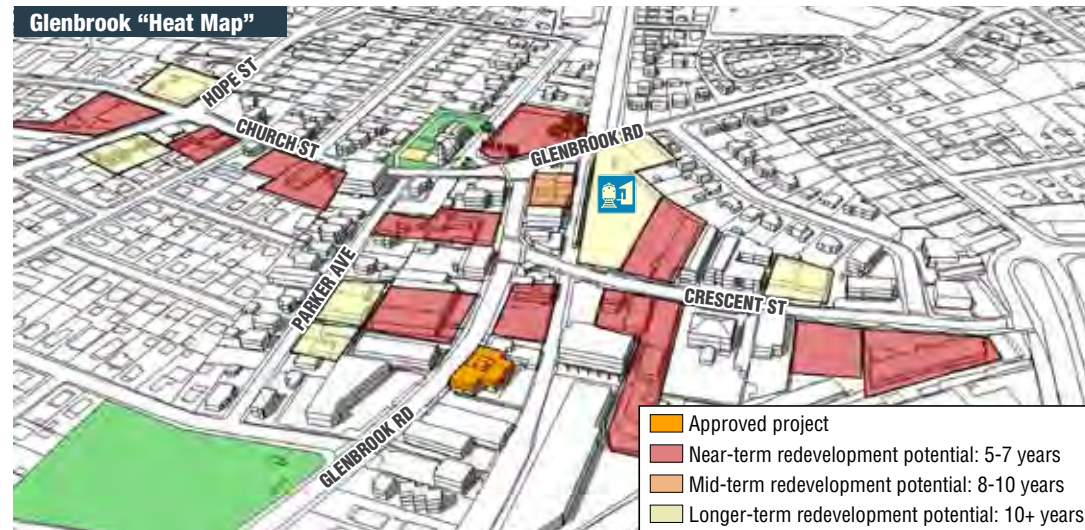
The site studies and financial prototypes described on the previous page provide a sense of the overall TOD opportunities in each village district. The following “heat maps” indicate areas of near-term, mid-term, and longer-term redevelopment potential.

### Glenbrook

- There are a variety of near-term opportunities for redevelopment in Glenbrook
- Most of the near-term opportunities are located within the Village Commercial District
- They are evenly distributed along Crescent Street and Glenbrook Road
- Some are located on Church Street and closer to Hope Street outside the VCD

### Springdale

- There are a limited number of near-term opportunities for redevelopment in Springdale
- Most of the near-term opportunities are along Hope Street in high visibility locations
- Some are located outside the VCD



**Note:** The heat maps are meant as a broad overview of possible TOD potential in each village based on a series of assumptions. Refined assumptions (potential redevelopment value, land costs, etc.) could affect the near-, mid-, or long-term potential of any or all parcels.





# glenbrook village

---

## Glenbrook Today

---

### Glenbrook TOD Framework

*TOD Potential*

*Public Improvements – Glenbrook*

*Glenbrook Road—Between Scofield Avenue and Church Street*

*Glenbrook Road—Church and Crescent Intersections and  
Kirkham Place*

*Courtland Avenue—Bridge, Streetscape, and Staircase*

*Church Street—Between Glenbrook Road and Hope Street*

*Hope Street—Between Scofield Avenue and Church Street*

*Bike Improvements*

*Rail Station Improvements*

*Rail, Parking, and Traffic Impact*

*Zoning Refinements*

*Village Character as a Result of Zoning Refinements*



## GLENBROOK TODAY

### Fragmented Commercial District

The Village Commercial District in Glenbrook is separate from the retail activity along Hope Street. Wayfinding to the train station from Hope Street is difficult and there is little pedestrian activity between the two realms.

### Auto-Oriented

The village is auto-oriented, with large expanses of surface parking and buildings set back off the street edge. The area is not particularly pedestrian or bike friendly with narrow sidewalks in poor condition, limiting access to the rail station and to area businesses. Crescent Street has recently been improved.

### Zoning Challenges

The Village Commercial zoning in Glenbrook mandates a height limit of 3-stories or 35 feet. In a few cases—particularly on larger parcels—the 3-story limit serves to minimize development opportunity by decreasing the potential redevelopment value. The zoning calls for a “continued border of interest” with “storefront windows occupying 75 percent of the building’s street frontage” which impacts redevelopment potential. The zero front yard setback requirement limits the potential for increased sidewalk space and landscape.

### Rail Service at Capacity

On-site observation and the rail survey indicate that train crowding is a significant issue at peak hours in Glenbrook with few or no seats available. Parking at the station is limited and the wait time for a parking permit can be up to one year. Future increases in ridership will create increased demand for more effective rail service and parking.







# GLENBROOK TOD FRAMEWORK

Recommendations for Glenbrook are focused on four key categories—public improvements, rail improvements, zoning refinements, and TOD support. These action items demonstrate public commitment by leveraging public funding to attract private investment in order to advance the ultimate goal of this study: to establish a walkable, vibrant, mixed-use, transit-oriented community that enhances the quality life for existing and future residents.

## Public Improvements

- P1 Implement Pedestrian and Bicycle Improvements** on Glenbrook Road, Church Street, Hope Street, and Courtland Avenue to provide safe pedestrian and bicycle access to the village center and rail station.
- P2 Enhance the Station Area** by replacing the city maintenance shed with parking spaces, adding landscaped islands and pedestrian lighting throughout, and bike parking.

## Rail Improvements

- R1 Improve Rail Frequency** through infrastructure upgrades outlined in the 2010 Needs Study by CTDOT, including full digital signalization of the branch.
- R2 Improve Rail Capacity** by lengthening platforms, adding platforms, or adding sidings, also suggested as possibilities for the line in the 2010 report.
- R3 Relocate Existing Maintenance Building.** The City signal maintenance building and yard should be relocated off-site, allowing additional surface parking and better pedestrian and visual access to the station.

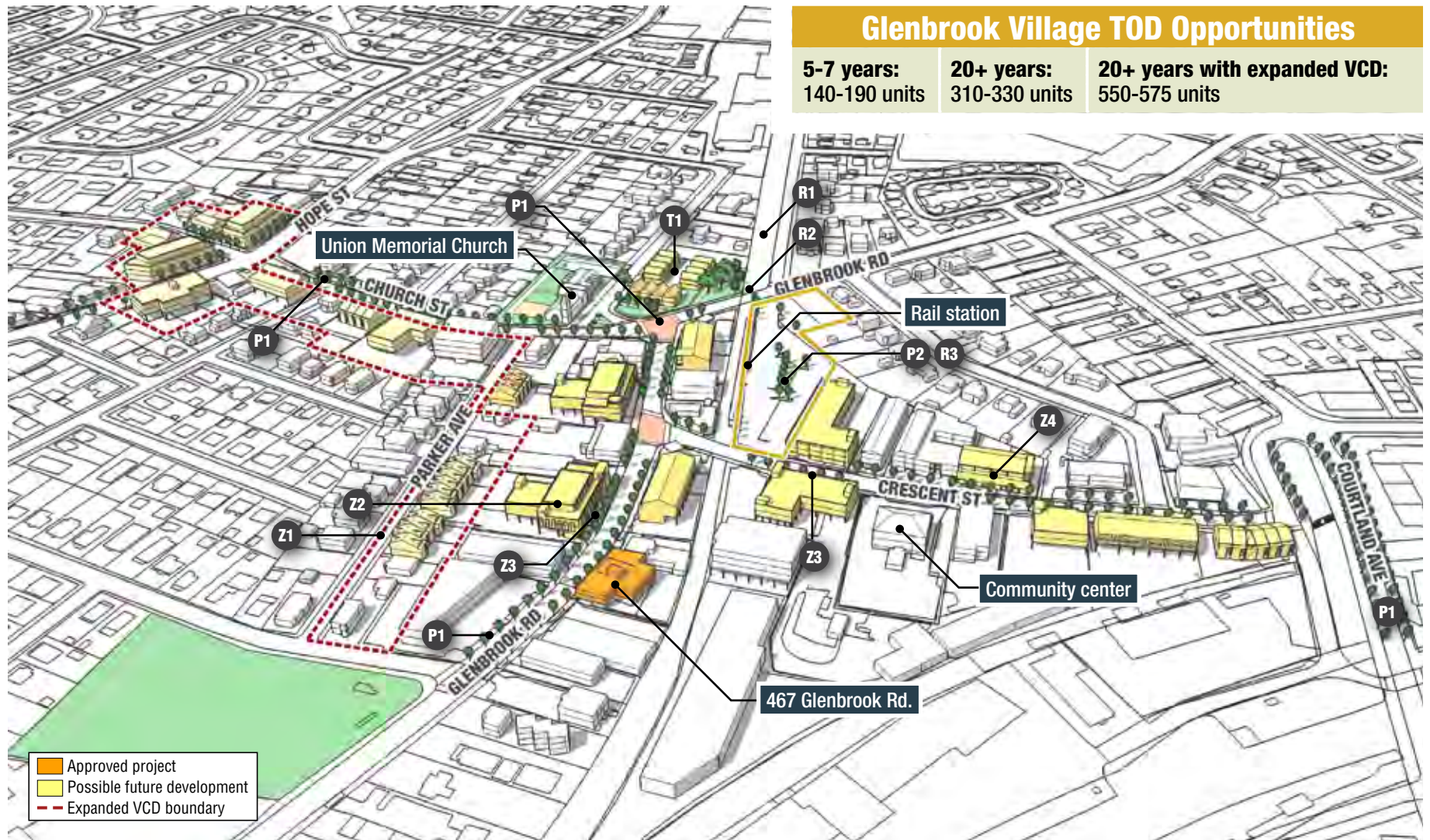
## Zoning Refinements

- Z1 Expand the Village Commercial District** to encompass Church Street and the intersection of Hope Street so that the two “centers” in Glenbrook can grow together with commercial synergies.
- Z2 Increase Allowable Building Heights from 3 to 4 Stories within the VCD;** this will improve the feasibility of development on a limited number of larger key sites.
- Z3 Allow Sidewalk and Landscape Setbacks By Right** in the zoning code to encourage additional sidewalk space on Glenbrook Road and small landscaped frontyards on Crescent Street.
- Z4 Clarify Ground Floor Retail Uses on Crescent Street/ Parker Avenue** so there is more flexibility to focus the retail/services on Glenbrook Road.

## TOD Support

- T1 Continue to Support a Range of TOD Infill Projects,** to “fill the gaps” and strengthen the village center.





## TOD POTENTIAL

The residential market analysis indicated a potential for up to 575 units in the next 5 to 7 years in Glenbrook. In order to understand the feasibility of this development as TOD within the Village District, the planning team completed a parcel by parcel analysis of sites and development capacity as follows:

- **TOD Site Selection**—potential sites were identified based on an analysis of underutilized parcels, vacant parcels, and parcels with large surface parking
- **“Test Fits” and Capacity Studies**—a conceptual building footprint, parking lot, and building massing scheme were designed for every site to determine how many units were possible based on the Village Commercial zoning
- **Financial Prototype**—the financial prototype analysis determined the financial viability of each conceptual design scheme and parcel layout to determine where the greatest potential existed for near-term and mid- to longer-term redevelopment

The chart and plan diagram on these pages reflect the methodology above, with building and parking layouts and data for every identified TOD parcel in Glenbrook in the vicinity of the station. The layouts are conceptual in nature and present one among many scenarios for TOD in Glenbrook.

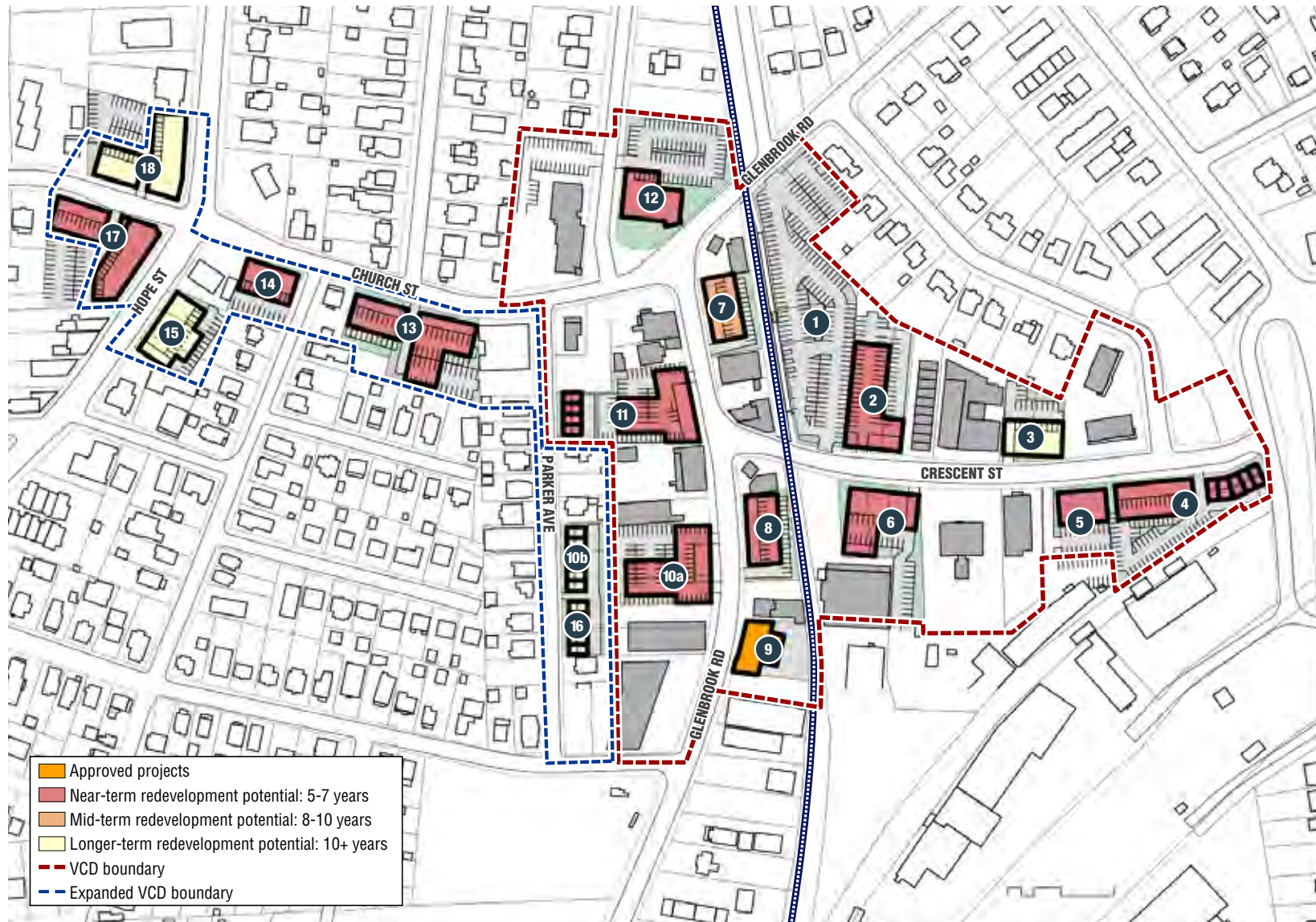
Buildings are color-coded to demonstrate near, mid and long term potential. Near-term potential within the Village Commercial boundary is approximately 140 to 190 units in the next 5 to 7 years. Mid- to longer-term potential could see 310 to 330 units total over 20 years, while additional units with an expanded Village District would achieve the 575 units anticipated in the residential market potential analysis.

*Note: Additional development opportunities may exist within the half-mile radius of the station and therefore qualify as TOD, although the Village Commercial District should be the focus of new multi-family buildings and services/retail.*

	PARCEL SIZE (SQ FT)	UNITS	PARKING SPACES	FLOOR AREA RATIO (FAR)
SITE				
1	100,796	N/A	170	N/A
2	30,479	50	62	1.1
3	15,974	16	20	1.2
4	36,088	50-59	67	0.8-1.2
5	12,825	16	20	1.2
6	38,193	29	36	0.9
7	14,621	21	26	1.2
8	15,918	25	31	1.1
9*	13,580	17	23	1.25
10a	27,620	53-62	78	1.0-1.4
10b	27,620	6	8	0.6
11	31,856	40-53	61	1.1-1.4
12	42,708	0-28	varies	varies
13	37,106	42	52	0.8
14	13,014	18	22	1.2
15	19,587	21	26	1.2
16	10,182	4	6	0.6
17	38,285	54	68	1.4
18	31,217	39	49	1.6

\*Project under construction December 2014







## PUBLIC IMPROVEMENTS—GLENBROOK

The following street, sidewalk, and bicycle improvements will build on the recent success of the Crescent Street streetscape project. Wider sidewalks, shorter crosswalk distances, safer bicycle facilities, and more distinctive gateways will greatly enhance the public realm and benefit existing residents. This investment demonstrates a public commitment to the area which will help attract new private development that can continue to strengthen the village character and provide new amenities.

### **Glenbrook Road and Church/Crescent Intersections**

Lane dieting and streetscape between Scofield Avenue and Church Street, and specially paved intersections at Church and Crescent Streets

### **Courtland Avenue Streetscape and Stairway**

Lane dieting and streetscape on the bridge, on the street to Maple Tree Avenue, and a new stairway to Taylor Reed Place

### **Church Street**

Lane dieting and streetscape between Glenbrook Road and Hope Street

### **Hope Street**

Lane dieting and streetscape between Scofield Avenue and Church Street

### **Bike Improvements**

A network of shared bike lanes or “sharrows” on key streets in Glenbrook

### **Rail Station Enhancements**

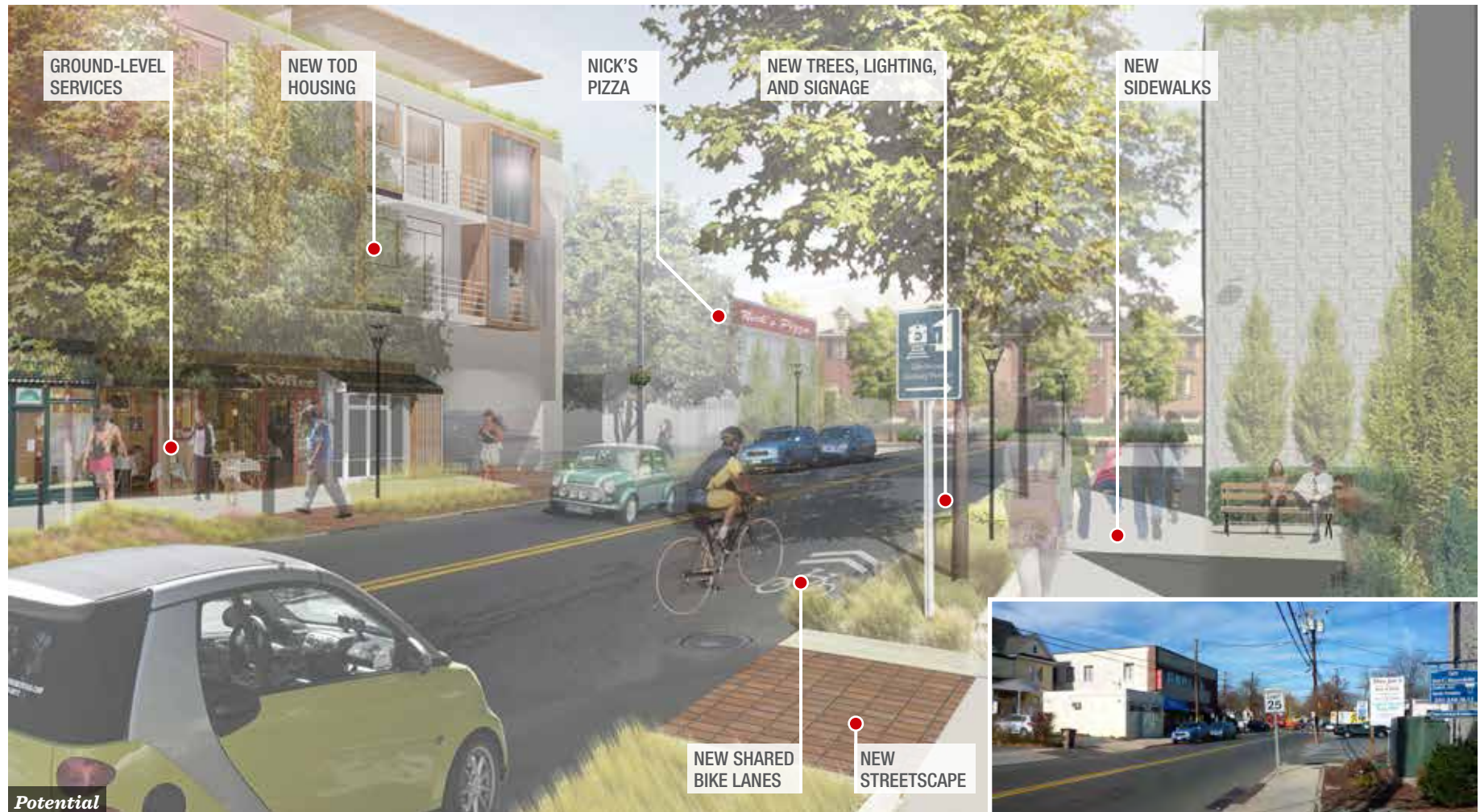
Parking lot enhancements to improve access, utilization, and attractiveness



### **A NOTE ABOUT “LANE DIETS”**

Many of the potential street improvements suggest a slight narrowing of travel lanes, also known as “lane dieting.” This strategy dictates that some portion of asphalt paving for cars be shifted to the sidewalk areas, allowing for more space and a safer environment for pedestrians. At the same time, the slightly narrowed roadway is able to maintain its purpose of moving cars. This concept and all potential street sections in this report have been reviewed and approved by the City of Stamford Engineering Bureau and are based on current city standards.

## Glenbrook Road—Potential character near station



A potential view of Glenbrook Road in the future. Note that proposed buildings front directly onto the street per the zoning ordinance (with parking behind) and sidewalks have been upgraded to the City of Stamford standard. Nick's Pizza is seen at the corner of Glenbrook Road and Church Street.



# GLENBROOK ROAD— BETWEEN SCOFIELD AVENUE AND CHURCH STREET

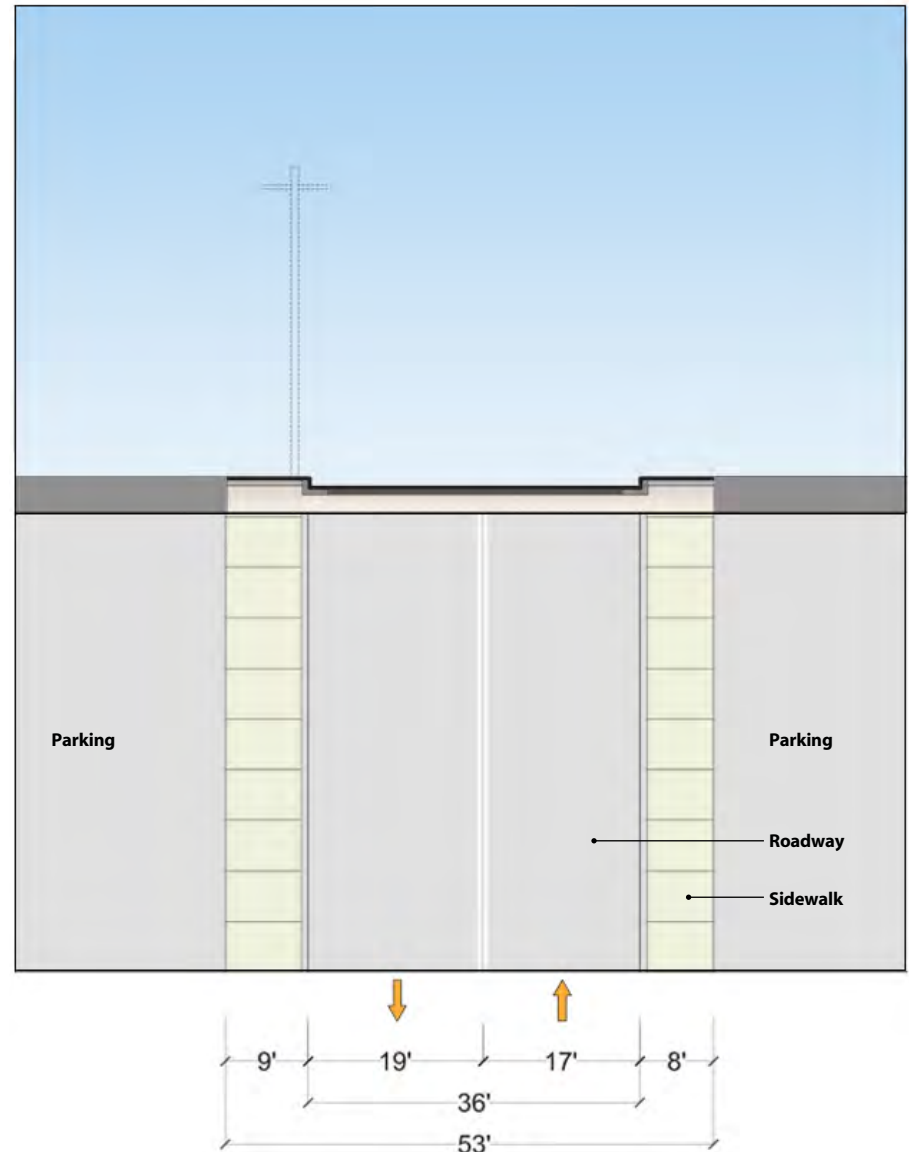
Glenbrook Road between Scofield Avenue and Church Street requires curb “bump-outs”, crosswalks, sidewalks, trees, signage, pedestrian lighting, and painted bike markings. Lane dieting is required to implement the 10’ wide City sidewalk standard with a 5’ sidewalk and 5’ amenity strip. Small setbacks of new development would contribute additional sidewalk space in front of service retail or shops.

## Notes

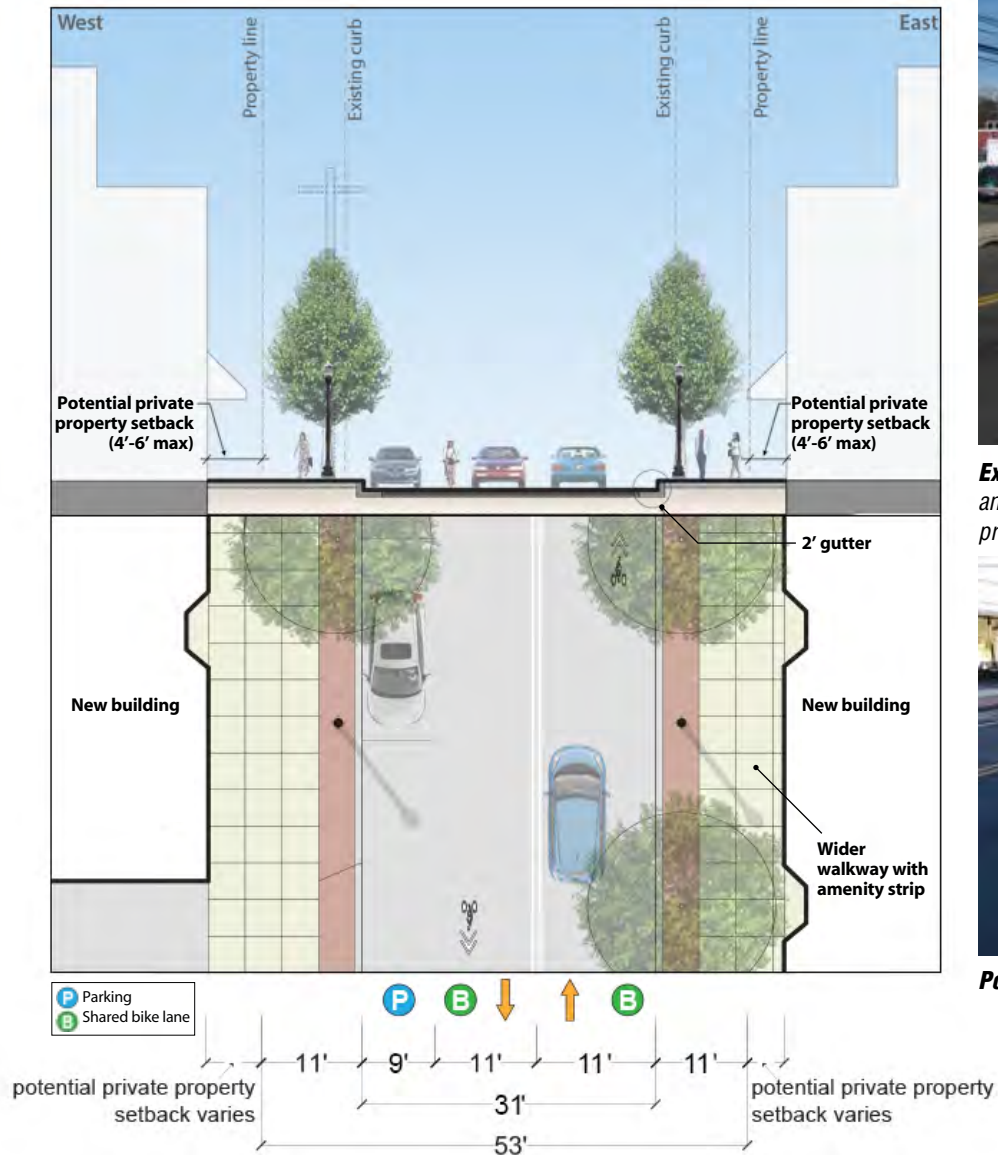
- The distance of the Glenbrook Road improvements is approximately 900 linear feet
- Estimated cost is \$1,500,000 based on recent Crescent Street improvements
- Two specially paved intersections would be approximately \$500,000 of overall cost



## Existing section and plan



### Potential section and plan



**Existing conditions—Glenbrook Road.** Wide streets, frequent curb cuts, and lack of streetscape elements create an environment that does not promote walking.



**Potential concept**

*Note: All potential sections and plans have been reviewed/ approved by the City of Stamford Engineering Bureau.*



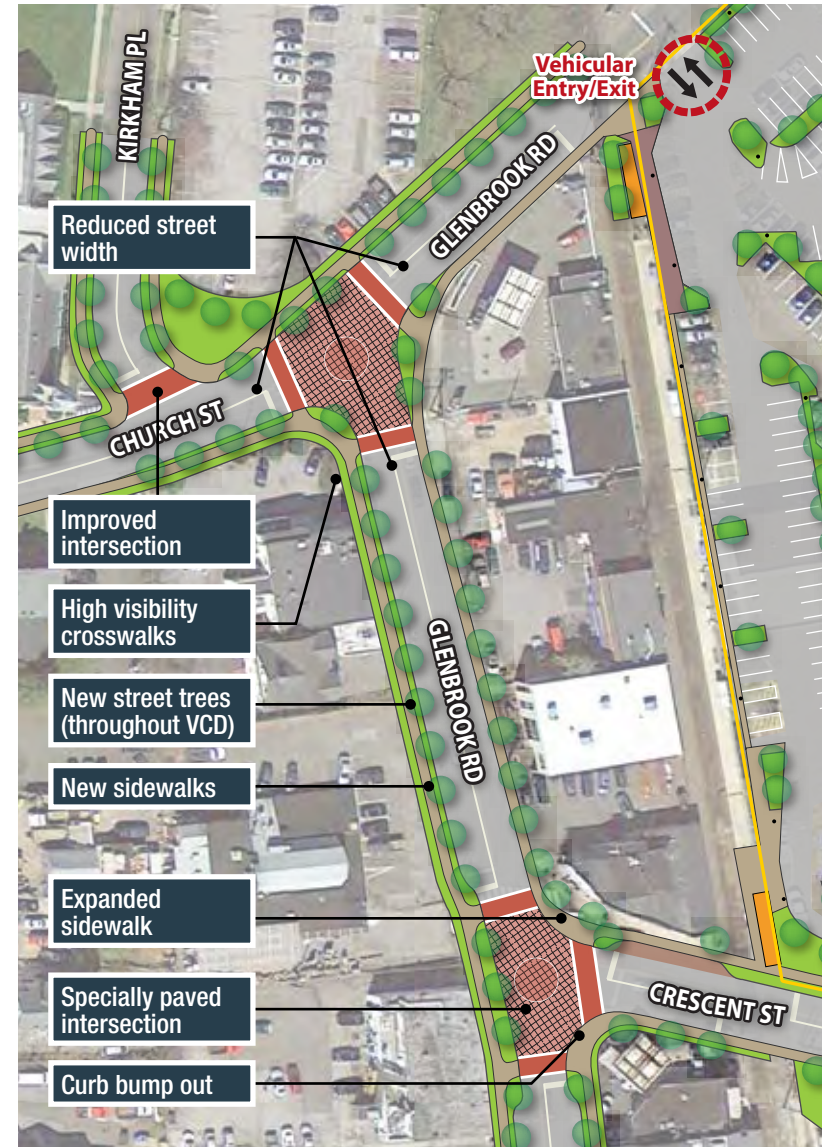
## GLENBROOK ROAD— CHURCH AND CRESCENT INTERSECTIONS AND KIRKHAM PLACE

The intersections of Glenbrook Road and Church Street and Glenbrook Road and Crescent Street are two key “gateways” and deserve special treatment to promote village character and emphasize pedestrian use over vehicular use. Specially paved intersections would slow traffic, improve pedestrian safety, and be a transformative public improvement.

The intersection of Kirkham Place and Glenbrook Road is a related improvement. By removing the unnecessary free-flow westbound right turn lane for cars, additional land is provided next to Union Memorial Church while the small planted median can be incorporated as a small public park at the corner of the Church parking lot. This would provide a visual focal point and usable amenity should the parking lot be developed over time.

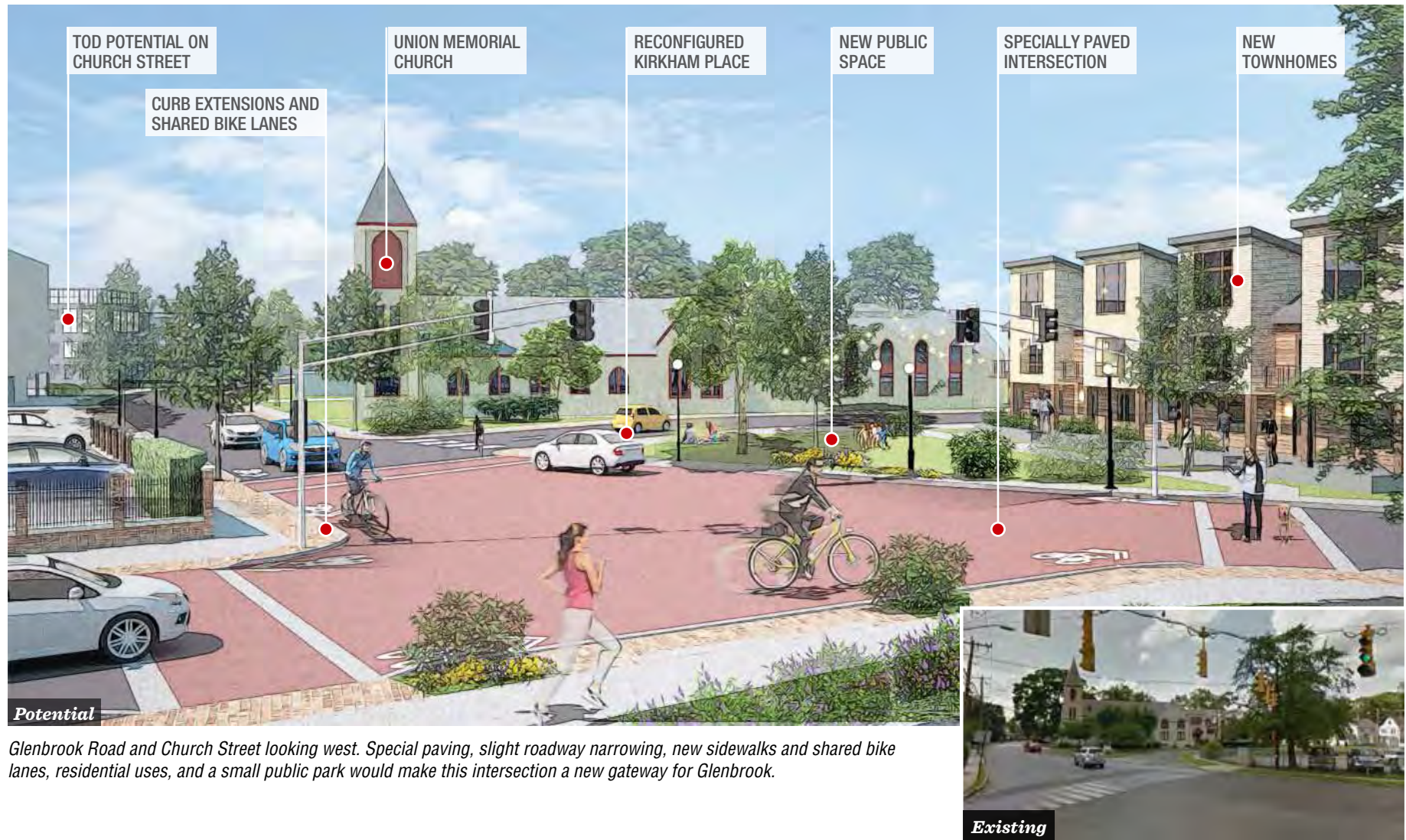


Sketch of potential Kirkham Place improvement to eliminate the slip lane coming from Glenbrook Road to enhance the safety of the pedestrians crossing. See plan at right.





## Glenbrook Road—Potential character at Church Street intersection



## COURTLAND AVENUE— BRIDGE, STREETScape, AND STAIRCASE

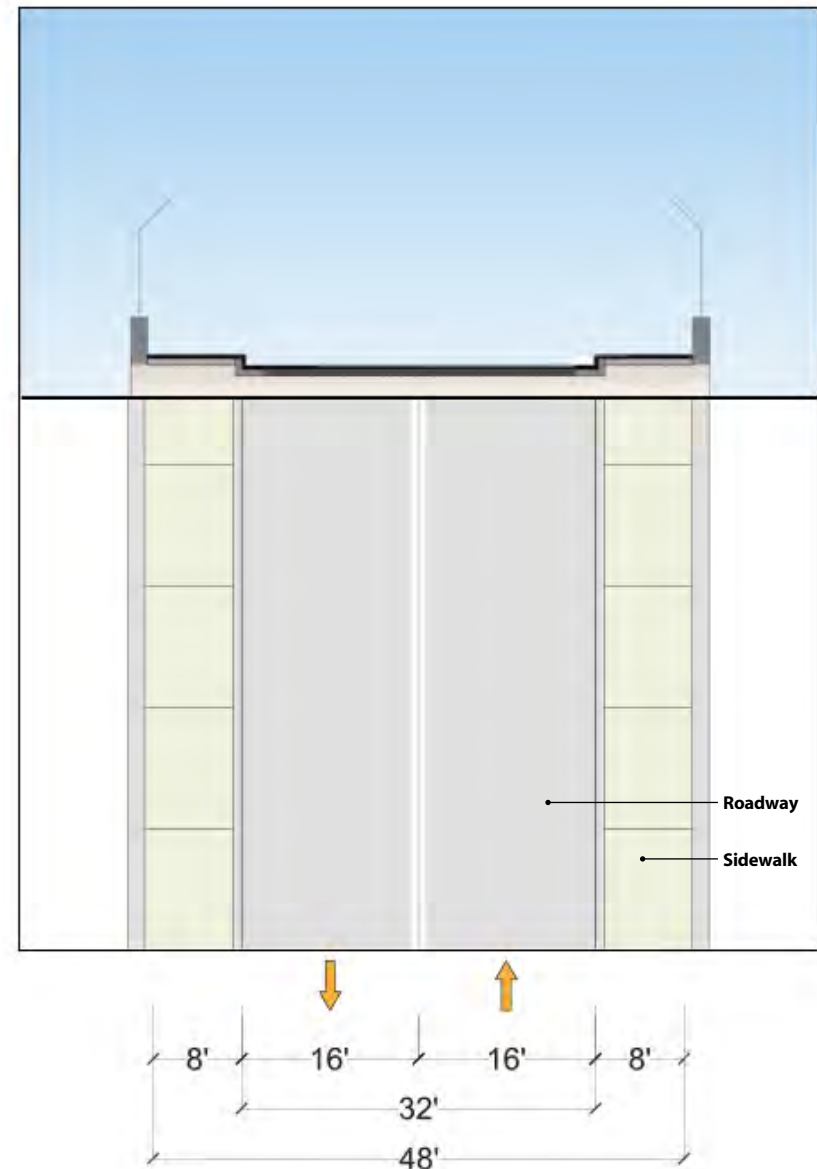
The Courtland Avenue neighborhood south of the rail line generates a large number of commuters walking to the station. Pedestrian quality suffers at the rail bridge and it should be improved with ornamental fencing, sidewalks, amenity strips, lighting, and landscaping. New streetscape should extend north to the intersection of Maple Tree Avenue. A new staircase with landscape should be installed on the slope from Courtland Avenue to Taylor Reed Place, connecting to Crescent Street.

### Notes

- The distance of improvements on Courtland Avenue is approximately 750 linear feet
- Estimated cost for the bridge and streetscape work is \$750,000
- Estimated cost for the stairway between Courtland Avenue and Taylor Reed Place is \$100,000

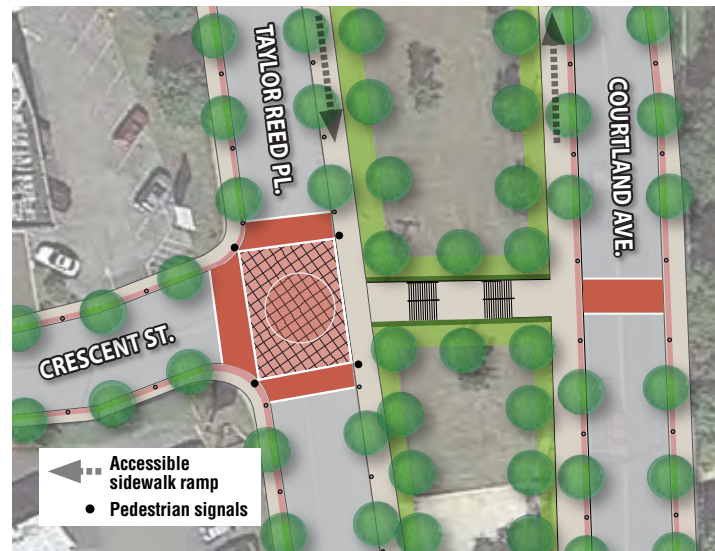
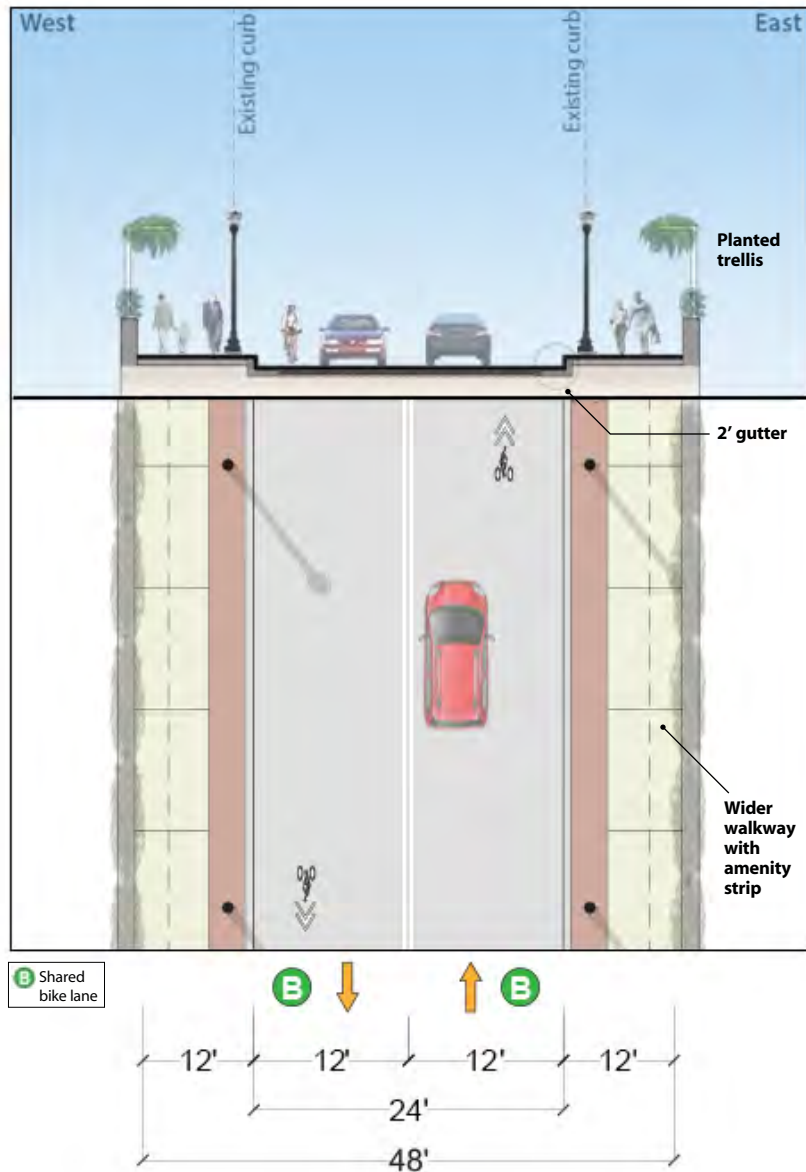


### Existing section and plan





**Potential section and plan**



Stair concept between Courtland Avenue and Crescent Street. Note that an ADA-accessible ramp would need to be created down Courtland Avenue to Taylor Reed Place to Crescent Street.



## CHURCH STREET— BETWEEN GLENBROOK ROAD AND HOPE STREET

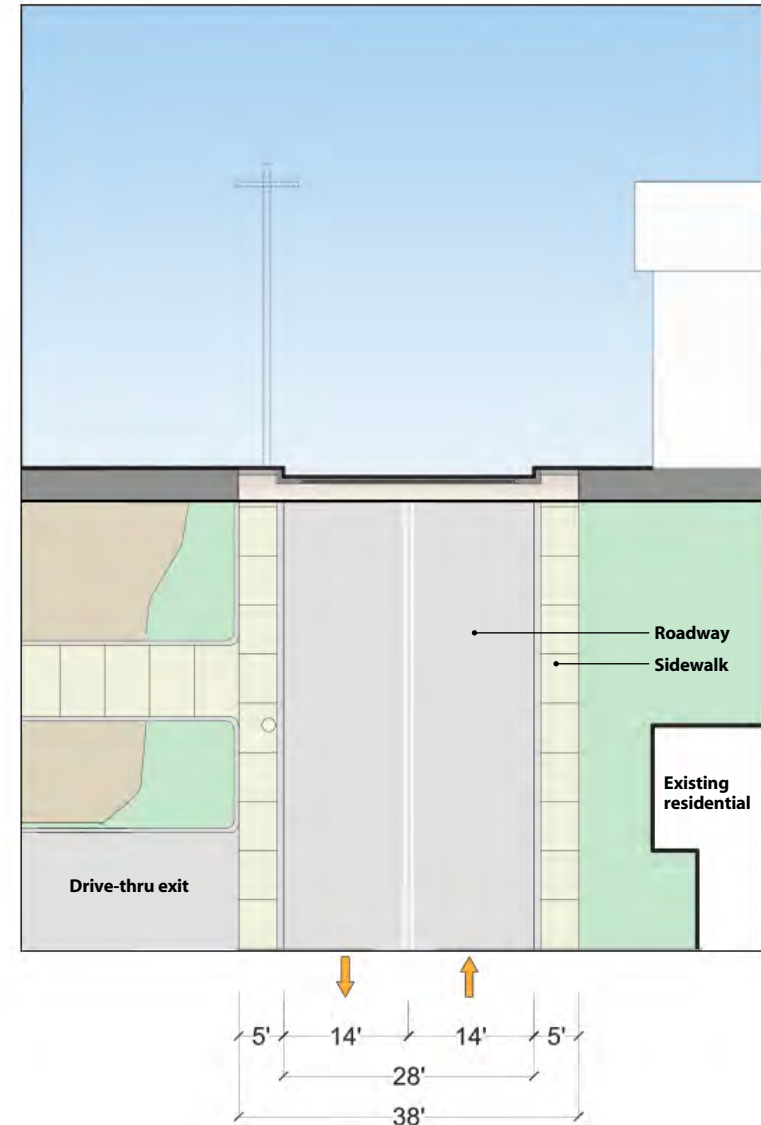
Church Street between Glenbrook Road and Hope Street needs streetscape improvements to accommodate pedestrians and to connect Hope Street to the village district around the rail station. Sidewalks exist but are narrow and exposed directly to the roadway. Curb “bump-outs”, crosswalks, sidewalks, trees, pedestrian lighting, and painted bike markings in the roadway are recommended. Lane narrowing is required to provide more sidewalk space (approximately 2’) on both sides.

### Notes

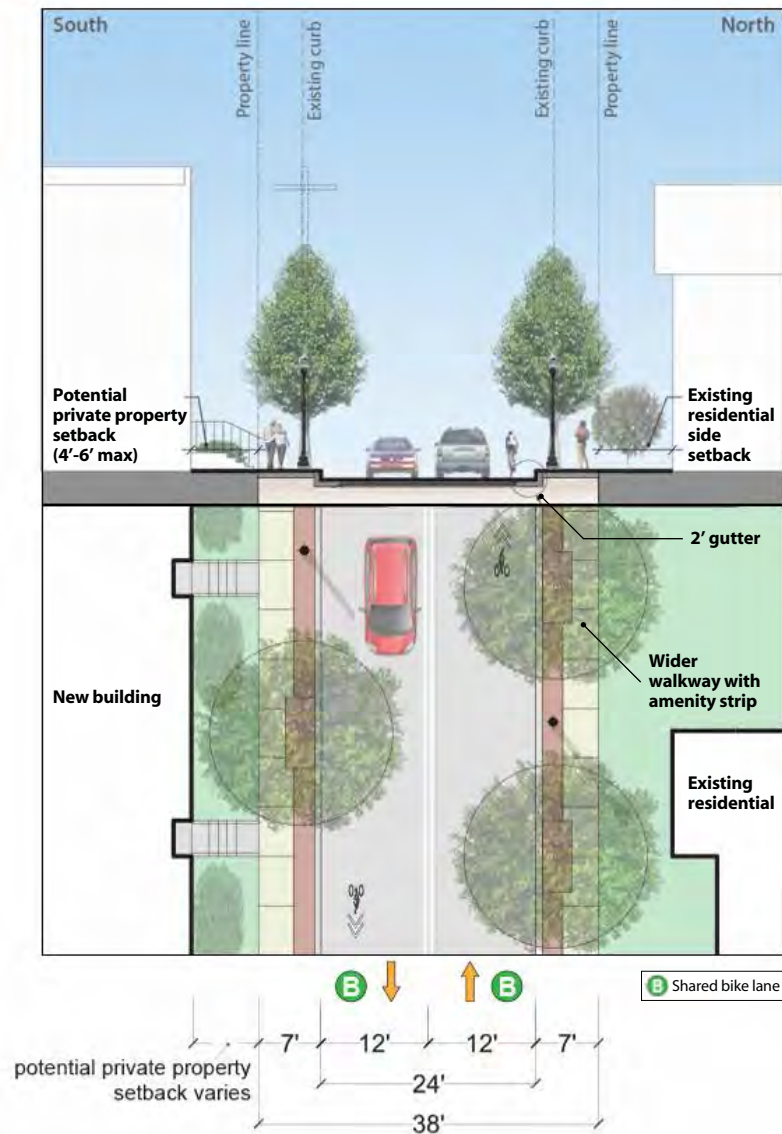
- The distance of the Church Street improvements is approximately 900 linear feet
- Estimated cost is \$1,000,000 based on recent Crescent Street improvements



### Existing section and plan



**Potential section and plan**



**Existing conditions—Church Street.** Very narrow sidewalks, surface parking, and a busy roadway do not promote pedestrian activity.

## HOPE STREET — BETWEEN SCOFIELD AVENUE AND CHURCH STREET

Hope Street between Scofield Avenue and Church Street is a challenging pedestrian environment. Except for the area in front of Trips Restaurant, sidewalks are narrow, have no landscape buffer, no trees, and no pedestrian lighting. Improvements along Hope Street would complement recent improvements on Hope Street further north in Springdale. Recommended improvements include lane dieting, curb extensions, sidewalks, crosswalks, signage, trees, and pedestrian lighting.

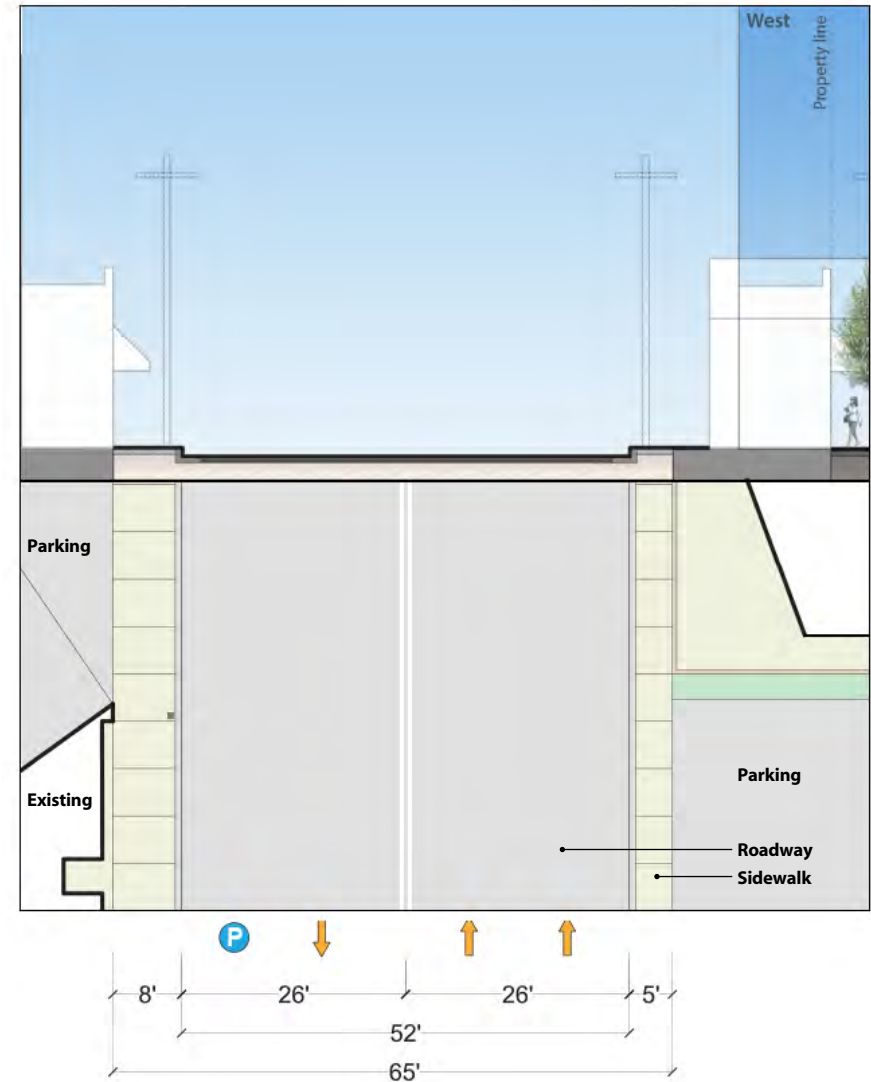
### Notes

- The distance of the Church Street improvements is approximately 900 linear feet
- Estimated cost is \$1,000,000 based on recent Crescent Street improvements

Section location—Hope Street

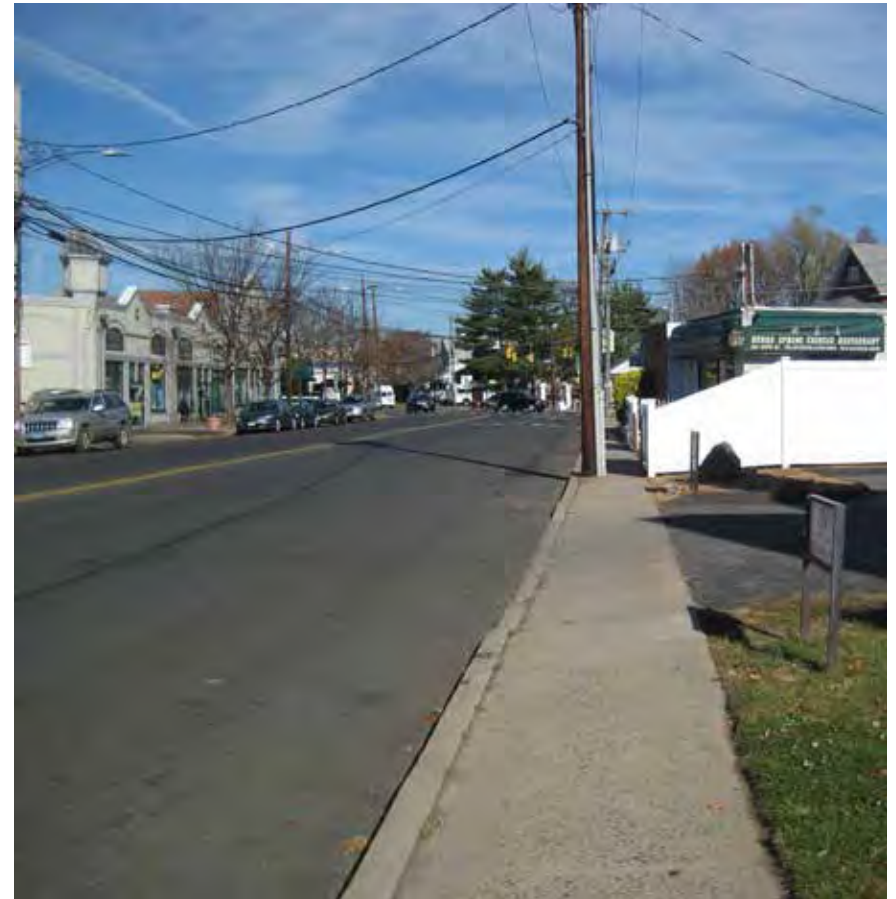
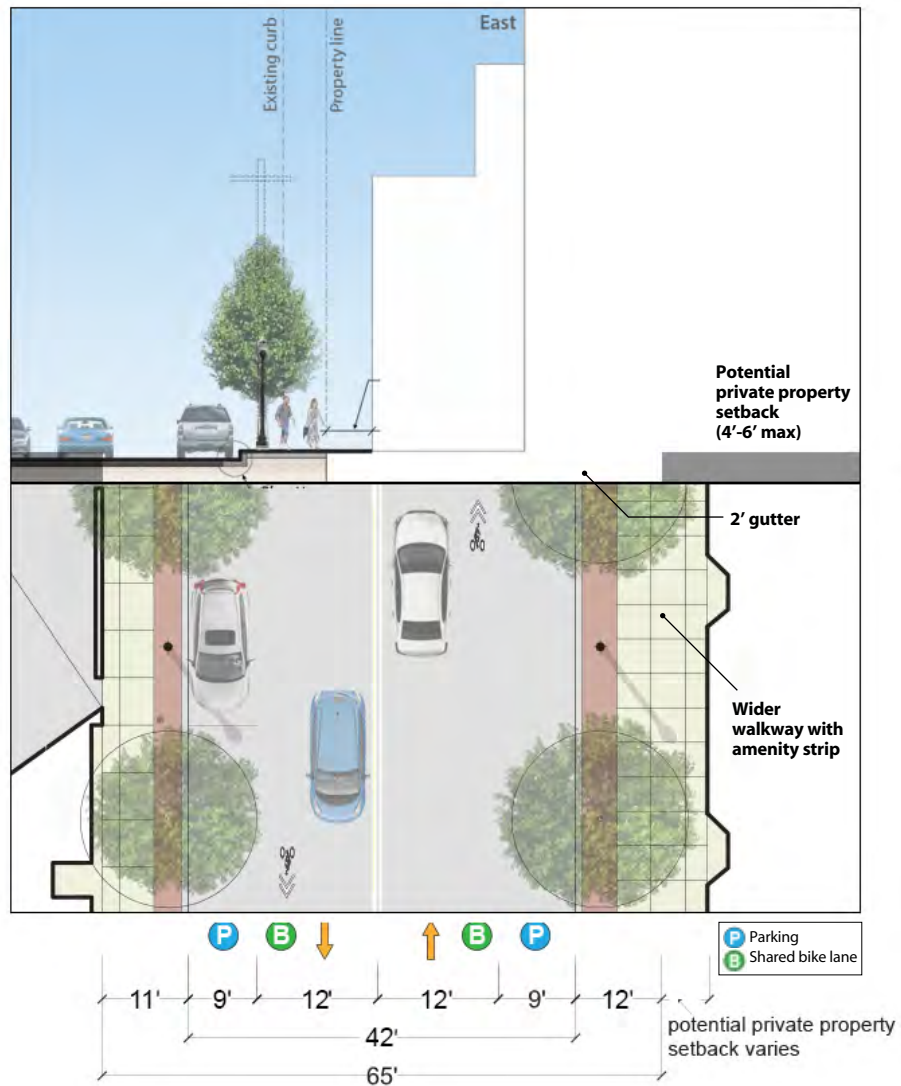


Existing section and plan





**Potential section and plan**



**Existing conditions—Hope Street.** This section of Hope Street in Glenbrook requires similar upgrades to those completed in Springdale.



## BIKE IMPROVEMENTS

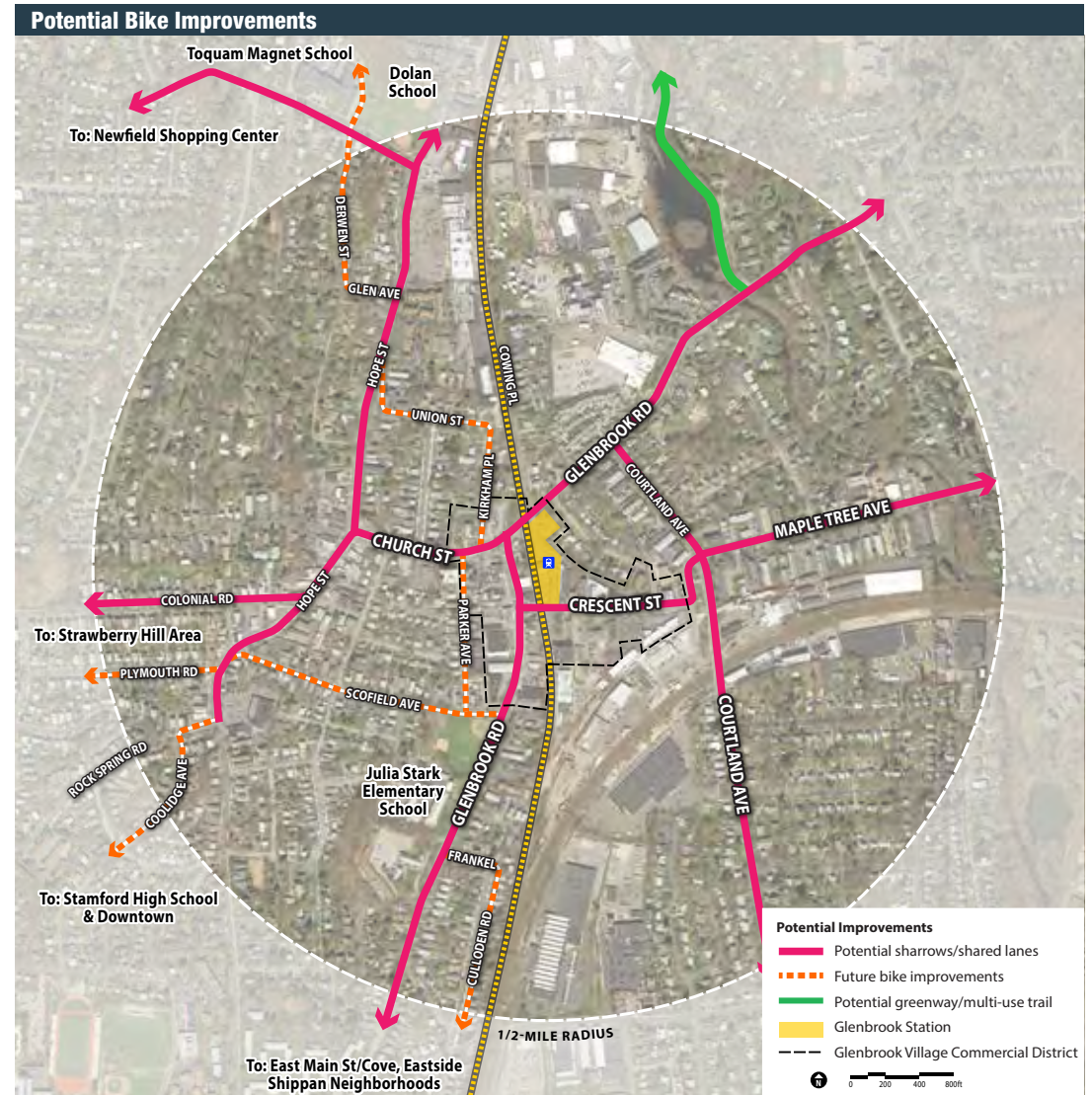
Well-marked routes for bicyclists are an important part of creating a multi-modal village environment. Creating an attractive alternative to driving can moderate traffic growth and is an important amenity that more and more people are seeking. Bike sharrows, also known as “shared lanes,” are recommended on primary streets as roadways in Glenbrook are too narrow to implement dedicated bikeways.

- Hope Street
- Church Street
- Glenbrook Road
- Crescent Street
- Courtland Avenue
- Maple Tree Avenue

*Note* “Future bike improvements” in the diagram at right refer to potential additional sharrows over time.



*Painted symbols indicate shared lanes, also known as “bike sharrows”  
(image courtesy of [www.pedbikeimages.com](http://www.pedbikeimages.com))*





## BIKES IN THE VILLAGE



**Glenbrook Road.** Bike sharrows and signage offer a well-marked route for cyclists to the rail station.



**Glenbrook Road and Church Street Intersection.** Bike sharrows and a special intersection promote cycling activity.



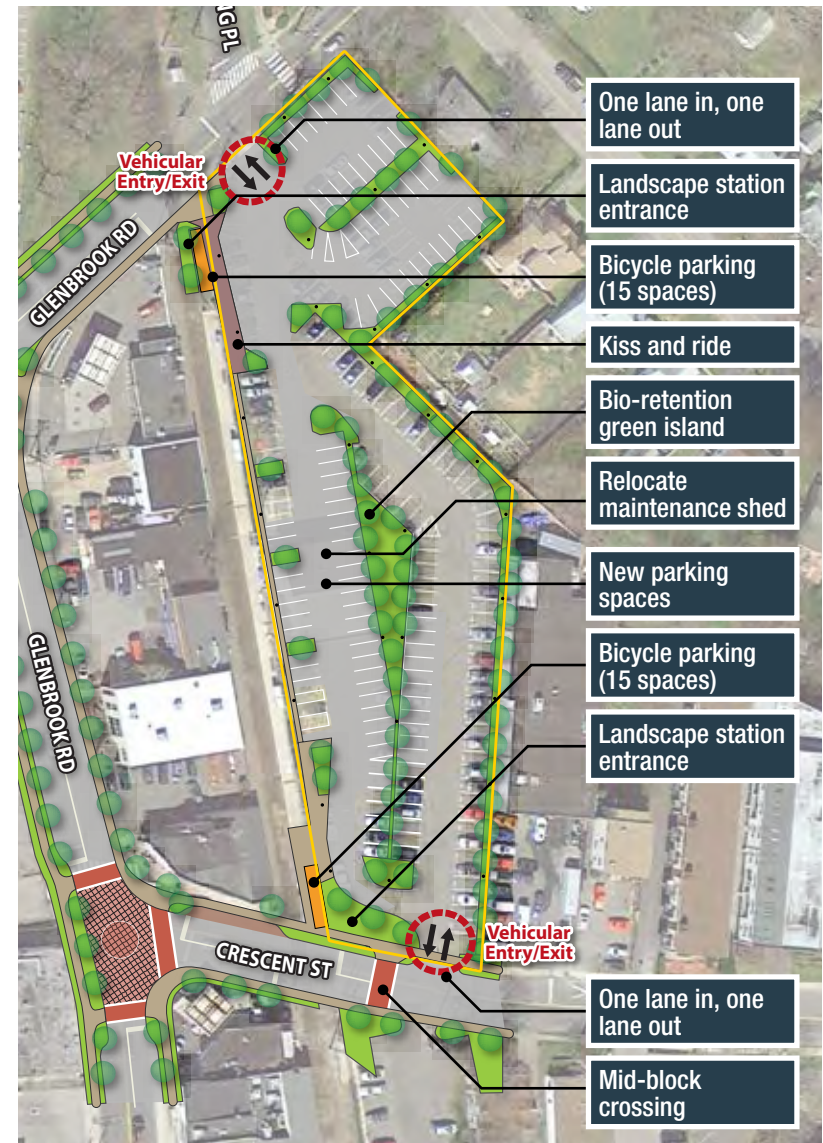
**Crescent Street.** Bike sharrows on Crescent and in front of the Community Center activate this street for cyclists.

## RAIL STATION IMPROVEMENTS

Transit-oriented development requires well-functioning, convenient transit to be successful and the physical station environment is an important component. Public meetings and the recent rail survey identified inconveniences that can be overcome to improve the function and attractiveness of the station for current and potential future riders. A variety of enhancements to the Glenbrook station parking lot are recommended:

- **Relocate the maintenance building.** The City traffic-signal maintenance shop is unrelated to the function of the commuter station and should be relocated to add approximately 10 to 20 surface parking spaces and landscape.
- **Reconfigure the parking.** Reconfiguring the current parking layout would expand the number of parking spaces and improve the traffic flow at the station.
- **Add landscaped islands.** Landscaped islands should be added for attractiveness and stormwater capture.
- **Add pedestrian lighting.** Pedestrian scaled lighting would contribute to a safer, more attractive, walkable environment.
- **Add bicycle parking.** Approximately fifteen (15) spaces at each entry are recommended to encourage bike use at the station.

Costs for station enhancements will depend on the extent and detail of the improvements. Overall costs might be expected between \$500,000 and \$1,000,000 for a full renovation. Demolition costs for removing the maintenance shed are approximately \$10/square foot while new surface parking spaces would cost approximately \$5,000 per space.





## Glenbrook Station: Relocate the Maintenance Building

The existing building and yard are used for traffic signal maintenance in the City of Stamford and are not related the function of the commuter rail station. Relocating the maintenance operations to another city location and replacing it with surface parking and landscape would provide additional parking spaces and better physical and visual access.

Approximate costs for demolition of the existing maintenance building are \$28,000 (\$7 per square foot for a 4,000 square foot building) while replacement parking would be approximately \$75,000 (15 spaces at \$5,000 per space). A new structure could cost approximately \$100,000 but would depend on specific programmatic requirements.

Additional landscape, bike parking, signage, restriping, stormwater drainage, and lighting in the station area itself could range between \$300,000 and \$700,000 depending on the scope of work and level of design.

*The City traffic signal maintenance building is located in the middle of the Glenbrook Station parking lot and should be relocated.*





# RAIL, PARKING, AND TRAFFIC IMPACT

Projections for rail ridership, parking demand, and traffic over a 20-year time horizon were analyzed for Glenbrook. Essential methodologies and findings are outlined below:

## Rail ridership methodology

The analysis looked at a combination of boarding projections without TOD as well as projections from TOD alone. Ridership projections were obtained from CTDOT, while TOD projections were based on number of anticipated units, estimated population, and an estimated percentage who might be considered potential commuters.

## Rail ridership findings

Beyond CTDOT projections, it is estimated that transit-oriented development in Glenbrook would generate approximately 50 additional riders in the near-term and 90 riders in the 20+ year scenario. Approximately 150 new riders might be generated if the village commercial district were expanded to Hope Street and residential development was allowed.

## Parking demand methodology

Demand for parking was based on the ridership projections. Estimates were made on the way future riders would get to the stations, either driving alone, walking, being dropped off, carpooling, biking, or by transit. Percentages for each of these options were applied, using “status quo” and “best case” scenarios to understand a possible range of parking needs.



## Parking demand findings

Future mode split is difficult to predict and depends on a variety of physical and behavioral factors over time. Should current automobile use standards apply, it is anticipated that the high end of the parking demand range (the “status quo”) would apply, with up to 200 new parking spaces for rail required in Glenbrook. However, TOD is defined by pedestrian and bicycle use, so the expected future demand will likely be lower.

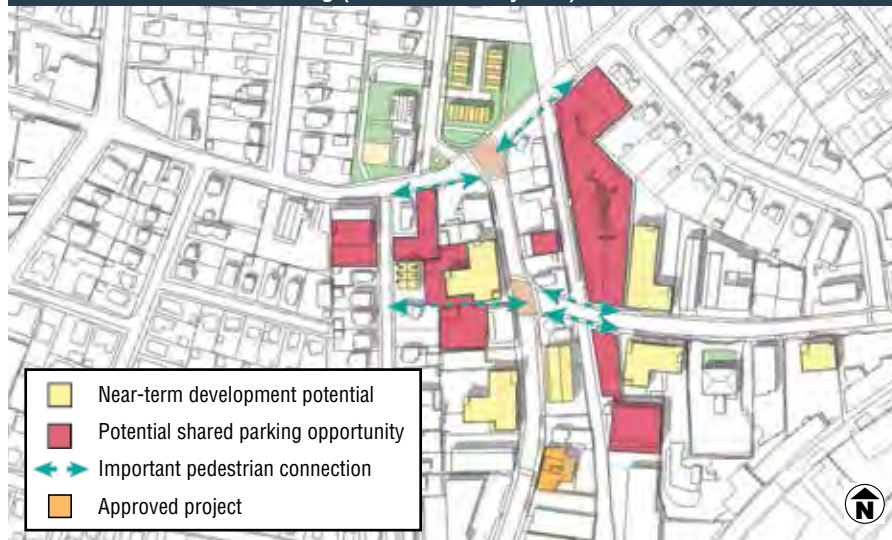
## Shared parking

In addition to increasing the amount of on-street parking where possible in Glenbrook and Springdale, the notion of “shared” off-street parking should also be closely considered. Shared off-street parking is primarily a City policy issue, although some physical improvements would prove useful (particularly signage) to implement the strategy effectively.

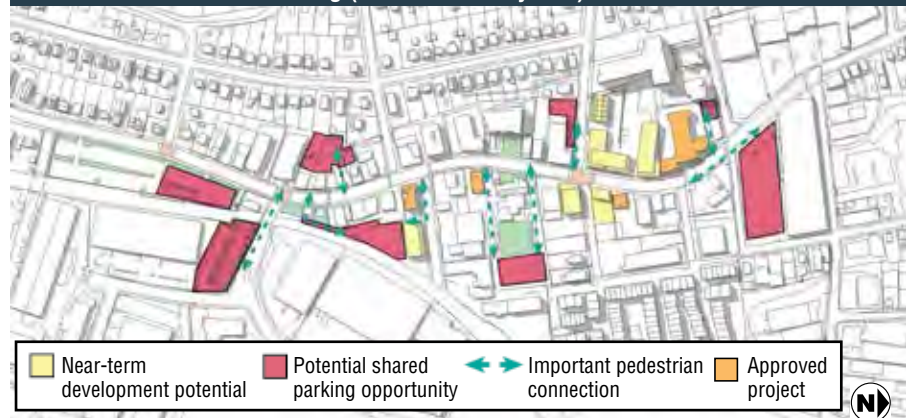
A shared parking policy would encourage businesses, commercial property owners, and

developers to share parking among neighboring parcels, reducing the overall amount of parking without compromising residential or business activities. Each space located in a shared lot can be used by more vehicles per day given the variable times that space is needed (i.e. office parking lots are used during the week but not at night or on weekends, which is good for retail and dining). The diagrams below suggest potential shared parking lots in Glenbrook and Springdale.

**GLENBROOK: Shared Parking (near term 5–7 years)**



**SPRINGDALE: Shared Parking (near term 5–7 years)**



*Potential shared parking arrangements are possible in Glenbrook and Springdale that would maximize utilization on surface lots that are not at capacity. Incentives for property and business owners, and mutually agreeable operating arrangements, would be required.*

## Overall Traffic methodology

Traffic was examined on an order of magnitude basis, looking at current levels of average daily traffic (ADT) on Glenbrook Road, and then calculating the number of potential cars added by TOD. General traffic projections were obtained from CTDOT, while TOD projections were based on number of units and estimated trips. Case studies were also conducted to examine the comparative amount of traffic generated by new TOD uses.

## Overall Traffic findings

Traffic in Glenbrook is primarily influenced by peak hour vehicles traveling to downtown or other destinations. While the roads are at moderate to high capacity, TOD development would not significantly increase traffic in Glenbrook.

**Recognizing that most of Glenbrook and Springdale's peak hour traffic is "through traffic" generated from outside the neighborhoods, the addition of a modest amount of new "transit-oriented" residential units would not significantly increase traffic in the neighborhoods.**

**A regional city-wide traffic plan is recommended to fully analyze traffic congestion, while offering feasible and effective strategies in all Stamford neighborhoods impacted by traffic.**

Conversely, studies have shown that increased residential density can lead to an increased use of transit with less reliance on cars. In some cases, TOD generates less traffic than the use it replaces (i.e. a mixed-use residential/retail project generates less trips per day than stand-alone retail).

## The Impact of Through Traffic and TOD

A review of state, regional, and municipal traffic data and observations of local traffic patterns suggest that traffic issues in Glenbrook and Springdale can be attributed to a complexity of factors, including:

- a) Primarily, increased through traffic traveling between downtown Stamford or interchanges on I-95 and adjacent residential communities (Darien, New Canaan, etc.)

- b) To a lesser degree, traffic generated by facilities or uses within the neighborhoods.
- c) Lastly to traffic generated by commuter parking lots at the rail stations.

Approximately 14,000 vehicles per day use Glenbrook Road, while approximately 12,000 use Hope Street in Springdale. Studying and implementing alternatives for through traffic (better transit, alternative local and regional routing, provision of walking/biking routes) would serve to alleviate this traffic congestion. Phased in construction of transit-oriented development over 5 to 10 years and beyond would have only a minor impact on the traffic network (approximately 1% per year). Within the larger context of existing volumes, these additions would be minimal.

## Traffic Impacts of Modifying Zoning to VCD

The TOD Study recommends modification of the VCD boundary in both Glenbrook and Springdale to capture areas that would strengthen the transit districts and make them more cohesive. Certain light industrial or office uses would be replaced (on Parker Avenue in Glenbrook; east of Hope Street in Springdale) by a limited number of residential uses. Analysis shows that for weekday peak hours in the morning and late afternoon the amount



of traffic generated by the new residential uses would essentially be the same as the previous land uses. That said, weekend volumes would logically go up given the residential nature of the new uses. However, that traffic would importantly be distributed throughout the weekend days and not subject to the high peak hour demands of regional commuters passing through Glenbrook and Springdale during the week. Therefore, modifying the zoning to VCD in these areas does not translate into significant traffic increases.

## Truck Traffic

Given the replacement of some light industrial uses over time in both neighborhoods, a reduction in truck traffic is anticipated. However, nearby uses with trucking (City Carting and Recycling in Glenbrook and River Bend Center in Springdale) are expected to remain. There are two potential ways to mitigate the impact of large trucks on local streets:

1. Implement physical improvements to certain local streets to discourage through truck traffic such as roundabouts, curb extensions, speed tables, and medians.
2. Encourage the redevelopment/reuse of industrial sites where feasible.

*Note: A “No Thru Truck” regulation can be implemented when the City initiates a request*

*and it is approved by the Office of the State Traffic Administration (OSTA). A through truck is one that passes through a town without having an origin or destination in that town. If a truck originates or has a scheduled stop within that town, it would not be affected by a through truck prohibition. Trucks may be prohibited by weight class on town-maintained roads by a town ordinance. In such cases, signs bearing the legend “No Thru Trucks” or “Thru Trucks Prohibited” shall not be used. Since the facilities in Glenbrook use the street network to access their property, a “No Thru Truck” regulation is inappropriate for this area of concern. The City of Stamford Engineering Bureau should be consulted for future discussions regarding truck traffic.*

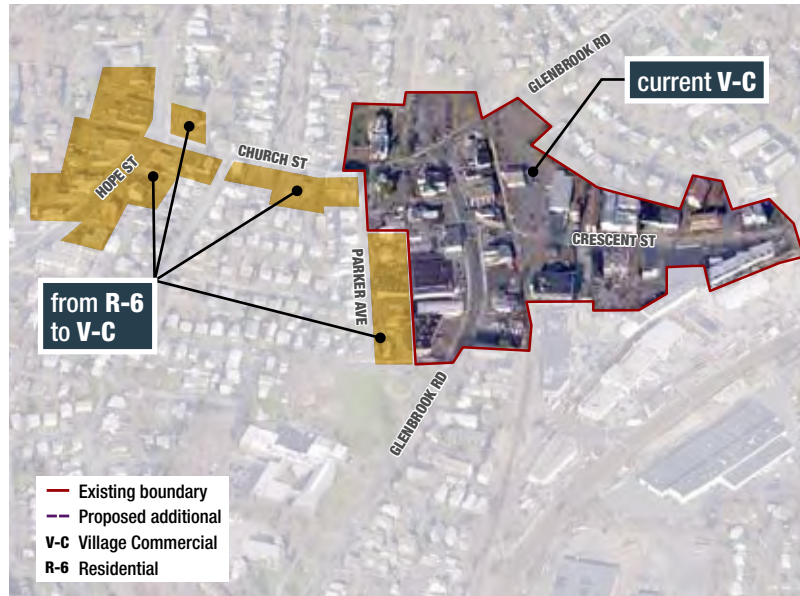
## Traffic Impacts of Acquiring Land for Parking (Springdale)

Acquiring land for additional rail station parking in Springdale is a key recommendation in the TOD Study (see page 73). The study anticipates that approximately 75 new surface parking spaces could be created in this location. AASHTO traffic standards dictate that 35% of those spaces would translate into peak hour trips, therefore it can be expected that 30 additional car trips would be added to the system (15 entering and 15 exiting). The 15 cars entering the parking area would further be divided into those coming from the north and those from the south, resulting in 7 cars +/- from each

direction. Should a 300-car garage be warranted in the future in Springdale, an additional 90 car trips would be added at the peak hour.

## ZONING REFINEMENTS

Zoning regulations greatly influence the character of the physical environment and the economics of private development. Several refinements to the existing Village Commercial zoning district will encourage private investment to happen sooner while providing greater assurance that new development supports a vibrant, active public realm that improves the character of Glenbrook village.



### Expand the Village Commercial District

Expanding the current Village Commercial zoning boundary would accommodate more growth in Glenbrook and create important connections, particularly between the Hope Street retail area and the Glenbrook rail station. This would be accomplished by incorporating Church Street and its intersection at Hope within the VCD boundary. Expanding the VCD to the east side of Parker Avenue would allow multi-family residential or townhomes to replace incompatible commercial uses that exist today.



### Increase Allowable Building Heights from 3 to 4 Stories

Allowing building heights up to 4-stories, as in Springdale, would enhance near-term development opportunities in Glenbrook without significant impact on the village character. Increasing the allowable height to 4-stories or 45 feet with a 12' façade setback above 32' would improve the feasibility of development on key larger sites. Four story development would only be feasible on a limited number of larger sites with efficient parking layouts. Due to parcel size, most sites would develop at three stories or less.



### **Allow Sidewalk and Landscape Setbacks By Right**

Increased front setbacks for sidewalk width and/or landscaping is currently permitted in the VC regulations at the discretion of the Zoning Board. The TOD Study recommends that maximum 4'-6' front setbacks (minimum 14' distance from face of curb to building) be offered "by right" to developers to further encourage this important village district strategy. The goal is to ensure strategic increases in sidewalk widths in areas constrained by property lines and roadway widths as well as to streamline the approval process.



### **Clarify Ground Floor Retail Uses on Crescent Street on Crescent Street/Parker Avenue**

Clarifying that ground floor retail use is not a requirement for new buildings on Crescent Street/Parker Avenue is recommended. Glenbrook Road is the strongest location for service retail in the Village District while Crescent Street should evolve as a residential street. Furthermore, in some cases on Glenbrook Road (as done with the recently approved 467 Glenbrook Road project), the ground floor could initially be allowed as residential units with the flexibility to replace them with a retail use in the future.



# VILLAGE CHARACTER AS A RESULT OF ZONING REFINEMENTS

## Glenbrook Road—Potential Future Character



**Crescent Street—Potential Future Character**



*Crescent Street near the Community Center looking west. Shared bike lanes, buildings with the 4th story set back, residential ground floor uses, and landscape setbacks create a welcoming residential street near the Glenbrook rail station.*





# 4

## glenbrook architectural sketchbook

---

Overview and Purpose

---

Case Study #1: Glenbrook Road Infill

---

Case Study #2: Glenbrook Road and Church Street Intersection  
(3-story townhome)

---

Case Study #3: Glenbrook Road and Church Street Intersection  
(4-story multi-family)

---

Case Study #4: Redevelopment near Station

---

## OVERVIEW AND PURPOSE

### Architectural Sketchbook

The Architectural Sketchbook provides additional guidance by illustrating representative development projects in more detail, giving the City, residents, and private entities a clear pathway for implementation of future TOD in Glenbrook based on village zoning.

Three prototypical sites have been selected in Glenbrook and a potential redevelopment concept is shown. The concepts are not proposals by the planning team, but rather capacity and volumetric studies for how TOD might be applied.

- The 3D “SketchUp” diagram shows the site layout, building massing, parking, and entry points
- The development table lists potential program in terms of number of floors, units, parking, and FAR
- A street-level perspective highlights the character of the street in relation to the development
- Precedent images depict relevant built examples in terms of architecture, materials, and building elements



*The project at 467 Glenbrook Road is the first example of a residential construction project in Glenbrook under the Village Commercial District zoning. The intent of the Architectural Sketchbook is to define and encourage similar initiatives.*

# CASE STUDY #1: GLENBROOK ROAD INFILL

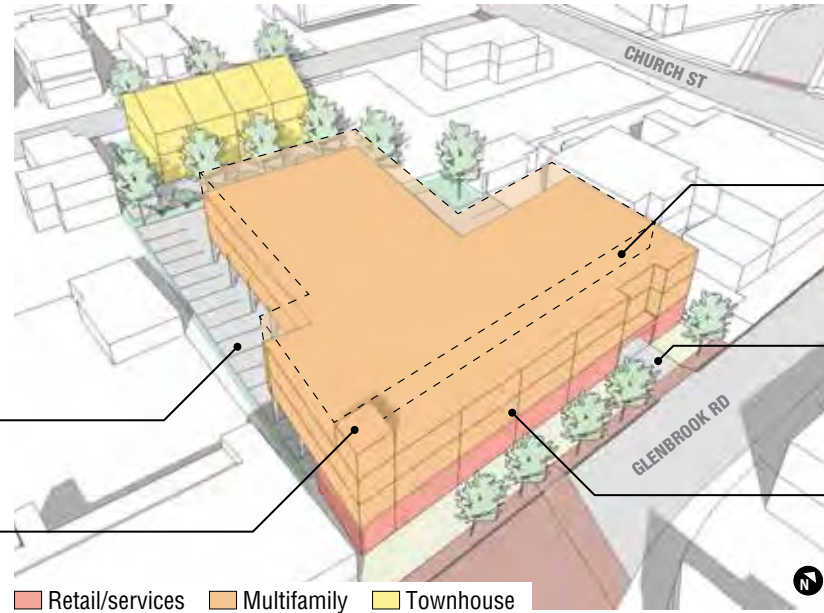
<b>Site area</b>	31,856 sq ft
<b>GFA</b>	34,500 sq ft (at 3 floors) 46,000 sq ft (at 4 floors) • Residential: 36 multifamily (at 3 floors), 49 multifamily (at 4 floors), 4 townhouse • Retail: 2,750 sq ft
<b>FAR</b>	1.1 (3 floors); 1.4 (4 floors)
<b>Parking required</b>	45 spaces (3 floors); 61 spaces (4 floors)
<b>Parking provided</b>	45 spaces (3 floors); 61 spaces (4 floors)

## Surface parking

Located behind building and screened from sidewalk view; landscaped edges

## Facade articulation

Corner element relates to context by marking intersection with Crescent St



## Building form

Potential fourth floor is setback 12' from the front facade to maintain village scale

## Parking access

Limited to one curb cut less than 20 feet wide to maximize active ground level uses along sidewalk

## Facade articulation

Vertical bays up to 30 feet wide preserve village scale



**Potential future condition**

Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.



**Precedent**

Vertical bays create a visual rhythm along the sidewalk; corner element marks an important intersection.



## CASE STUDY #2: GLENBROOK RD. AND CHURCH ST. INTERSECTION (3-STORY TOWNHOMES)

Site area	42,708 sq ft
GFA	25,250 sq ft <ul style="list-style-type: none"> <li>Residential: 12 townhouses</li> </ul>
FAR	0.6
Parking required	18 spaces
Parking provided	18 spaces



**Parking access**  
Single curb cuts provides access to rear-loading garages

**Public space**  
Maintains view corridor to church and provides beneficial green space

Potential new church parking

**Open space**  
Existing trees and green space maintained along railroad tracks

**Facade articulation**  
Townhouse entries face public streets and sidewalks



Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.



Two- to three-story townhouses

## CASE STUDY #3: GLENBROOK RD. AND CHURCH ST. INTERSECTION (4-STORY MULTI-FAMILY)

Site area	42,708 sq ft
GFA	31,400 sq ft • Residential: 28 multifamily
FAR	0.75
Parking required	35 spaces
Parking provided	66 spaces (remainder for church)



**Public space**  
*Maintains view corridor to church and provides beneficial green space*

**Surface parking**  
*Located behind building and screened from sidewalk view with perimeter wall*

**Building form**  
*Additional 4th floor is setback 12' from the front facade to maintain village scale*

**Facade articulation**  
*Corner element relates to context by marking intersection of Glenbrook and Church*



**Potential future condition**

*Public improvements such as new green space at Church and Kirkham can help create an identity for the village and provide beneficial open space.*



**Precedent**

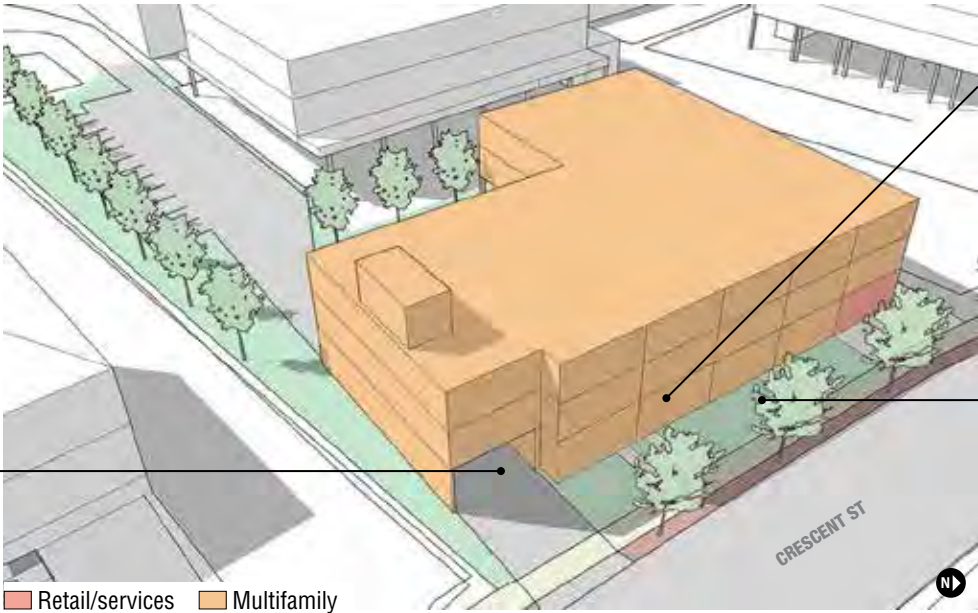
*Multiple entrances along the sidewalk create aesthetic variety and encourage pedestrian activity as residents come and go.*



# CASE STUDY #4: REDEVELOPMENT NEAR STATION

Site area	38,193 sq ft
GFA	26,600 sq ft <ul style="list-style-type: none"> <li>Residential: 29 multifamily</li> </ul>
FAR	0.70
Parking required	36 spaces
Parking provided	36 spaces

**Parking access**  
Entrance to rear parking setback from main facade



**Continuous border of interest**  
Potential corner retail across from train station and individual residential entries along sidewalk

**Ground floor setback**  
Allow modest setback for landscaping and front stoops for residential ground floor uses



**Potential future condition**  
Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.



**Precedent**  
Vertical bays, individual ground floor entrances, and residential scale create an attractive neighborhood street.



# 5

## springdale village

---

### Springdale Today

---

### Springdale TOD Framework

*TOD Potential*

*Public Improvements—Springdale*

*Hope Street and Largo/Clearview Intersections*

*Side Streets—Northhill Avenue Example*

*Bike Improvements*

*Rail Station Improvements*

*Rail, Parking, and Traffic*

*Zoning Refinements*

## SPRINGDALE TODAY

### Main Street Character But Auto-Oriented

Springdale has a “main street” feel with buildings fronting onto Hope Street in the Village Commercial District, creating a pedestrian friendly environment. Hope Street’s role as a main arterial with regional through-traffic and auto-related anchors at either end suggest there is room for incremental TOD to enhance village character.

### Streetscape Improvements but More Needed

Streetscape improvements on Hope Street have just been completed. Additional streetscape is needed to strongly connect the station to Hope Street and on substandard side streets that feed into Hope Street.

### Rail Service and Parking at Capacity

Train crowding is a significant issue at peak hours in Springdale with few or no seats available. There are approximately 100 people on the parking permit waitlist with wait times from 18 to 24 months for a lot with 210 spaces and typical weekday utilization of 80 to 90%. Future increases in ridership will create increased demand for more effective rail service and parking.

### Zoning Challenges

The Village Commercial boundary encompasses parcels along Hope Street but not the light industrial/office area to the east. The zoning calls for a “continued border of interest” with “storefront windows occupying 75 percent of the building’s street frontage” which impacts redevelopment potential. The zero front yard setback requirement limits the potential for increased sidewalk space and landscape.



*Existing—Hope St.*





# SPRINGDALE TOD FRAMEWORK

Recommendations for Springdale are focused on four key categories—public improvements, rail improvements, zoning refinements, and TOD support. These action items demonstrate public commitment by leveraging public funding to attract private investment in order to advance the ultimate goal of this study: to establish a walkable, vibrant, mixed-use, transit-oriented community that enhances the quality of life for existing and future residents.

## Public Improvements

- P1 Continued Implementation of Pedestrian and Bicycle Improvements** on Hope Street and side streets to provide safe pedestrian and bicycle access to the village center and rail station.
- P2 Enhance the Station Area** by shifting the main entrance to Clearview Avenue, adding a stoplight, and improving the station lot with added landscaped islands, pedestrian lighting, and bike parking.

## Rail Improvements

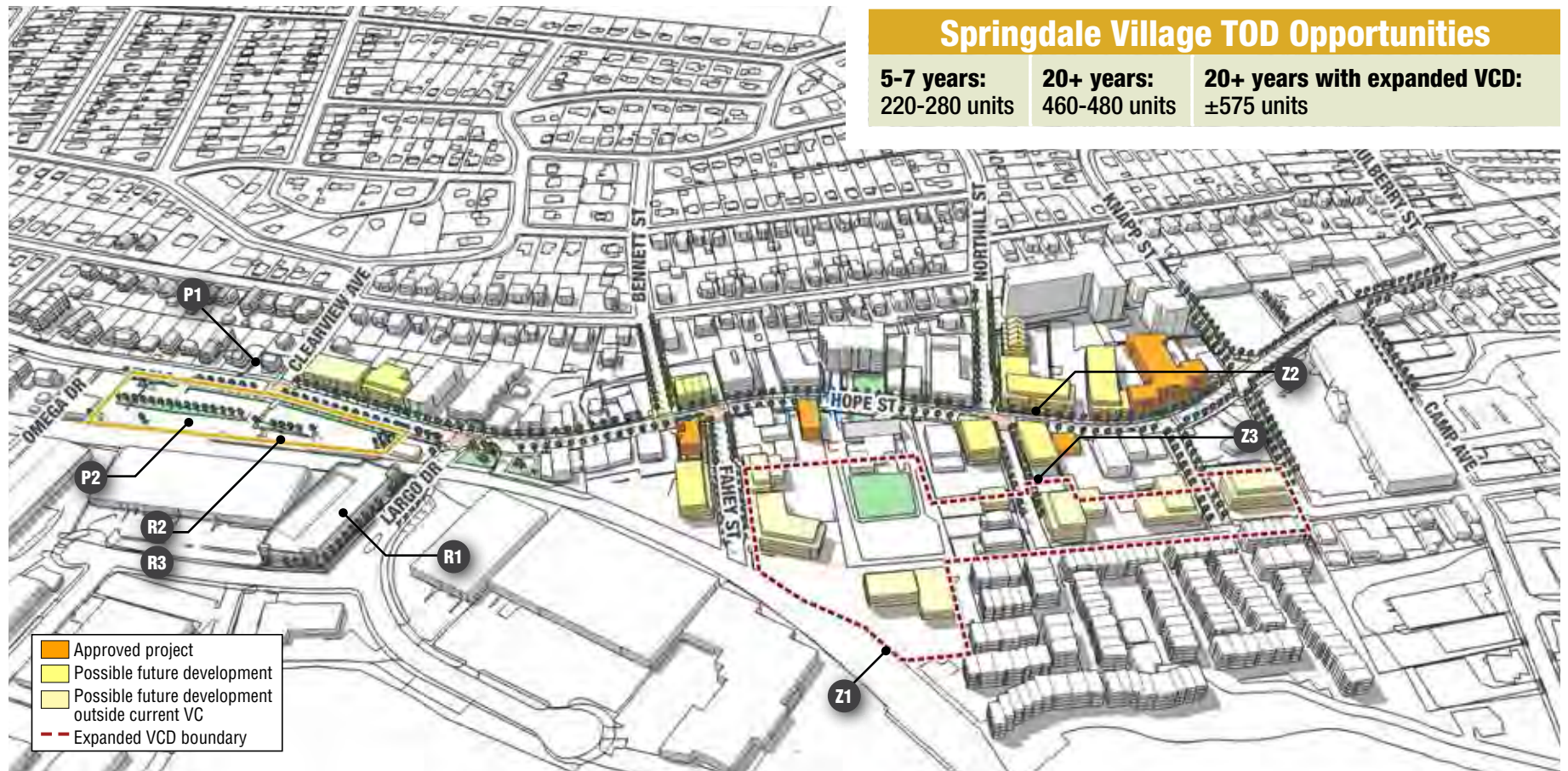
- R1 Expand Parking** by acquiring the parcel east of the tracks on Largo Drive. This parcel may be considered for a garage in the future, with public subsidy.
- R2 Improve Rail Frequency** through infrastructure upgrades outlined in the 2010 Needs Study by CTDOT, including full digital signalization of the branch.
- R3 Improve Rail Capacity** by lengthening platforms, adding platforms, or adding sidings, also suggested as possibilities for the line in the 2010 report.

## Zoning Refinements

- Z1 Expand the Village Commercial District** to encompass land between Hope Street and the Village at River's Edge to create a cohesive TOD village and connectivity.
- Z2 Allow Sidewalk and Landscape Setbacks By Right** in the zoning code to encourage additional sidewalk and/or landscape space on side streets.
- Z3 Clarify Ground Floor Retail Uses on Side Streets** so there is more flexibility to focus the retail/services on Hope Street.

## TOD Support

- T1 Continue to Support Incremental TOD Projects**, to “fill the gaps” and strengthen the village center.



## TOD POTENTIAL

The residential market analysis indicated a potential for up to 575 units in the next 5 to 7 years in Springdale. In order to understand the feasibility of this development as TOD within the Village District, the planning team completed a parcel by parcel analysis of sites and development capacity as follows:

- **TOD Site Selection**—potential sites were identified based on an analysis of underutilized parcels, vacant parcels, and parcels with large surface parking
- **“Test Fits” and Capacity Studies**—a conceptual building footprint, parking lot, and building massing scheme were designed for every site to determine how many units were possible based on the Village Commercial zoning
- **Financial Prototype**—the financial prototype analysis determined the financial viability of each conceptual design scheme and parcel layout to determine where the greatest potential existed for near-term and mid- to longer-term redevelopment

The chart and plan diagram on these pages reflect the methodology above, with building and parking layouts and data for every identified TOD parcel in Springdale in the vicinity of the station. The layouts are conceptual in nature and present one among many scenarios for TOD in Springdale.

Buildings are color-coded to demonstrate near, mid and long term potential. Near-term potential within the Village Commercial boundary is approximately 220 to 280 units in the next 5 to 7 years. Mid- to longer-term potential could see 460 to 480 units total over 20 years, while additional units with an expanded Village District would achieve the 575 units anticipated in the residential market potential analysis.

*Note: Additional development opportunities may exist within the half-mile radius of the station and therefore qualify as TOD, although the Village Commercial District should be the focus of new multi-family buildings and services/retail.*

	PARCEL SIZE (SQ FT)	UNITS	PARKING SPACES	FLOOR AREA RATIO (FAR)
SITE				
1	84,065	N/A	207	N/A
2	<i>Existing rail parking to remain</i>			
3	35,743	N/A	75-300	N/A
4a	19,726	26	33	1.1
4b	20,794	29	36	1.0
5	33,750	29	40	0.8
6	8,132	4	8	1.1
7	9,458	14	18	1.0
8	14,956	23	29	1.5
9	8,057	14	17	1.2
10	55,818	82	102	1.3
11	116,844	131	175	1.0
12	<i>Ice rink to remain</i>			
13	21,194	31	39	1.2
14	27,366	30	37	1.2
15	9,299	8	10	0.8
16	5,475	2	2	0.2
17	8,564	2	2	0.3
18	57,337	54	67	0.6
19	27,814	35	44	1.4
20	18,551	25	31	1.0
21	<i>River Bend Center use to remain</i>			
22	27,111	43	54	1.5





## PUBLIC IMPROVEMENTS—SPRINGDALE

Hope Street improvements are complete in Springdale with new sidewalks and streetscape between Camp Avenue and Largo Drive. Connecting these “complete street” improvements to the station and implementing key station enhancements are the next steps to promote:

### Hope Street and Largo/Clearview Intersections

Lane dieting and streetscape between Largo Drive and Omega Drive, and two specially paved intersections at Largo Drive and Clearview Avenue

### Side Streets

Lane dieting and streetscape on select side streets off of Hope Street

### Bike Improvements

A network of shared bike lanes or “sharrows” on key streets in Springdale

### Rail Station Enhancements

Parking lot enhancements to improve access, utilization, and attractiveness

### Rail Station Parking Expansion

Land acquisition to support increased surface parking in the near-term and a potential parking garage in the long-term



### A NOTE ABOUT “LANE DIETS”

Many of the potential street improvements suggest a slight narrowing of travel lanes, also known as “lane dieting.” This strategy dictates that some portion of asphalt paving for cars be shifted to the sidewalk areas, allowing for more space and a safer environment for pedestrians. At the same time, the slightly narrowed roadway is able to maintain its purpose of moving cars. This concept and all potential street sections in this report have been reviewed and approved by the City of Stamford Engineering Bureau and are based on current city standards.



## Hope Street—Potential Character near Station



*A potential view of Hope Street in the future, showing an inviting pedestrian-oriented intersection at Hope Street and Largo Drive. Sidewalks have been improved to the City of Stamford standard, the new City-owned park at Hope and Largo has been implemented, and elements of transit-oriented development are shown near the station. The Springdale Diner can be seen in its current location.*





# HOPE STREET AND LARGO/CLEARVIEW INTERSECTIONS

Streetscape improvements on Hope Street north of Largo Drive should be extended south to Omega Drive to enhance the pedestrian and bicycling environment in front of the rail station. Lane dieting to match Hope Street improvements north of Largo would provide additional sidewalk space (approximately 3' on the rail station side). Other improvements include lighting on both sides of the street, trees, and specially paved intersections at Hope and Largo and Hope and Clearview to slow traffic and allow better and safer pedestrian circulation to the rail station.

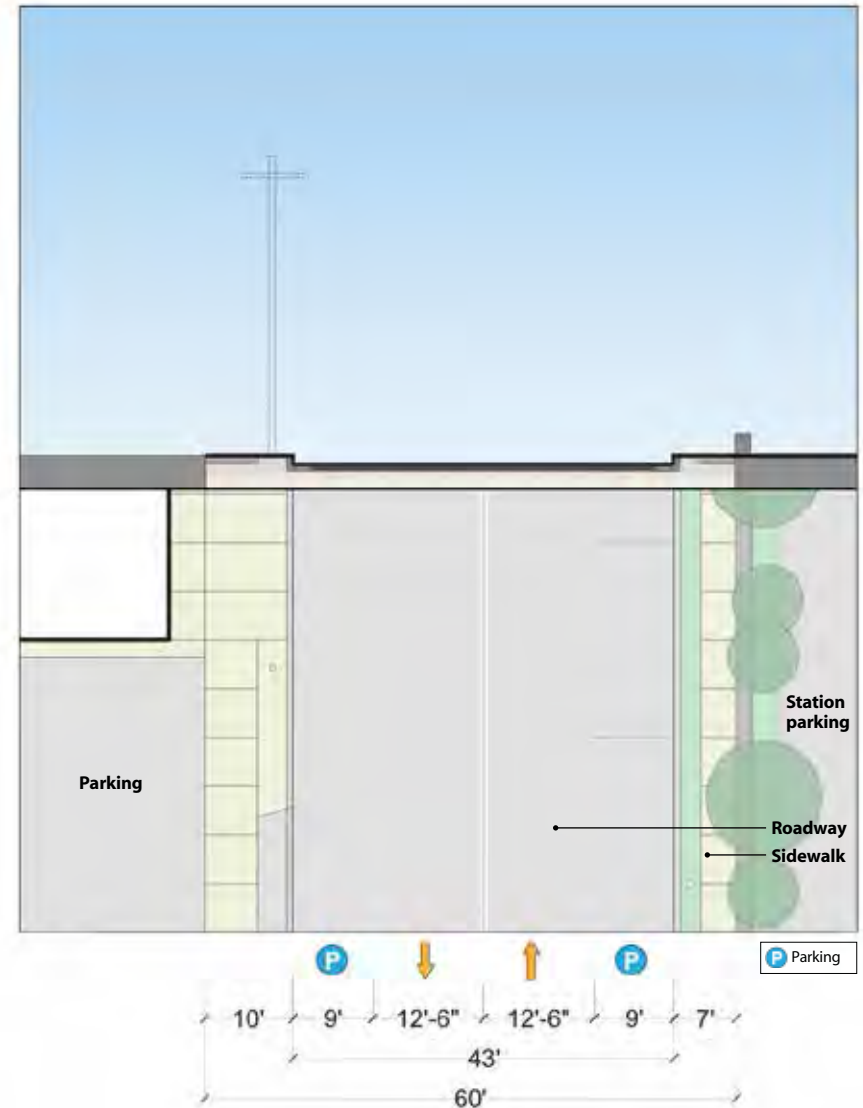
## Notes:

- The distance of the Hope Street improvements is approximately 900 linear feet
- Estimated cost is \$1,500,000 based on recent Crescent Street improvements
- Two specially paved intersections would be approximately \$500,000 of overall cost
- The Hope and Clearview special intersection requires a new entry to the station parking lot.

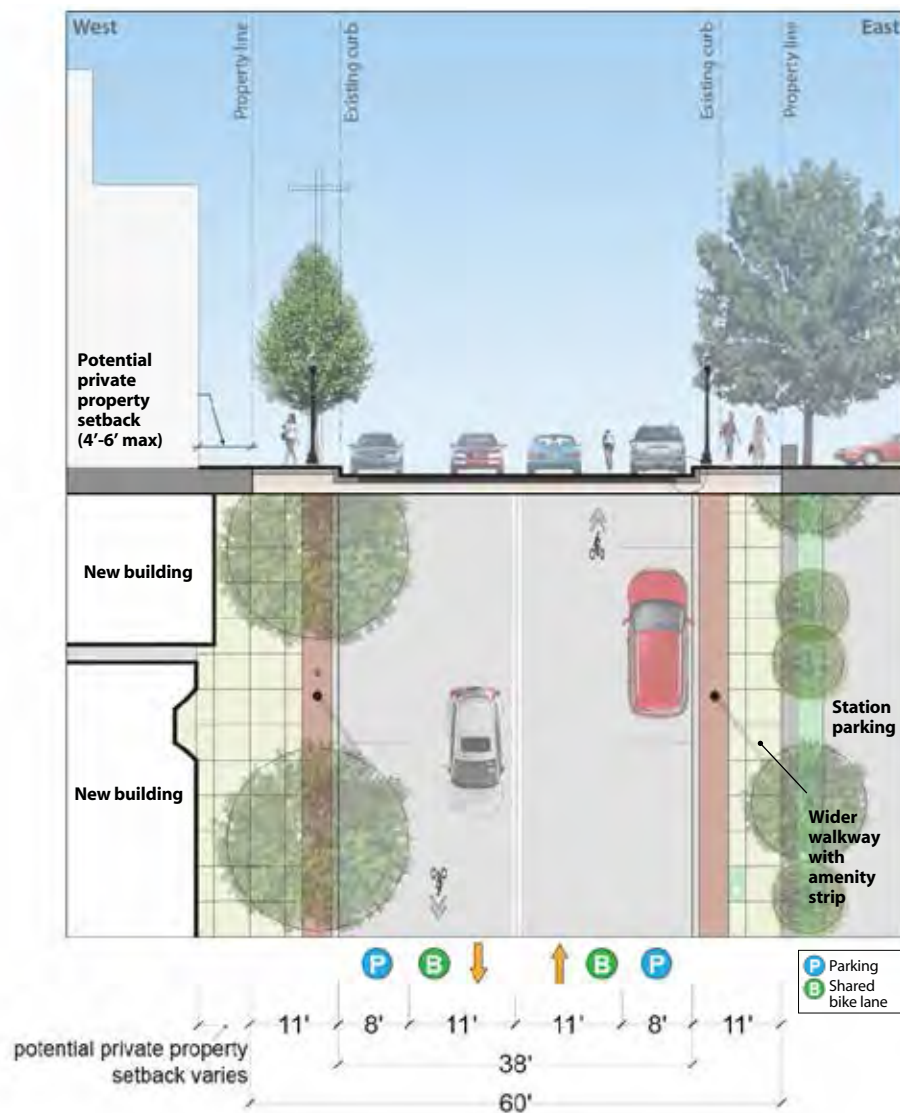
## Section location—Side streets



## Existing section and plan



## Potential section and plan



The intersections of Hope Street and Largo Drive and Clearview Avenue should be specially paved to enhance pedestrian connectivity to the station.

## SIDE STREETS—NORTHILL AVENUE EXAMPLE

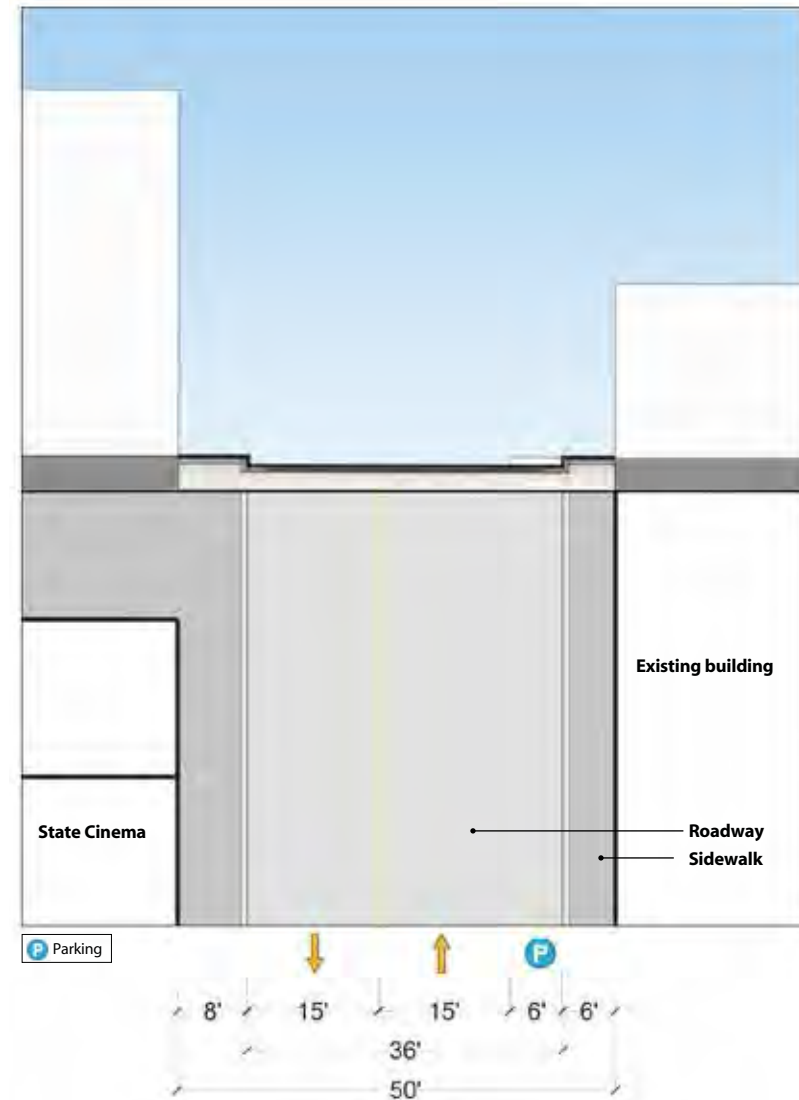
Several east/west side streets connect Hope Street commercial to adjacent Springdale neighborhoods and warrant strategic streetscape investments to contribute to a walkable, inviting village district. Wider sidewalks, amenity strips, trees, and pedestrian lighting should be implemented on a case by case basis and extend approximately a half-block from Hope Street towards the boundary of the Village Commercial District. An example is Northhill Street next to the State Cinema building, where wider sidewalks and travel lane narrowing are possible.

### Notes:

- *Eligible streets include Bennett (both sides); Fahey (north side); Northhill (both sides); Cushing (north side); Hyde (north side); and Knapp (both sides)*
- *Approximate typical distance is 200' to 300' per side street*
- *Estimated cost per side street is ±\$300,000 to \$400,000 depending on length, design, and materials*

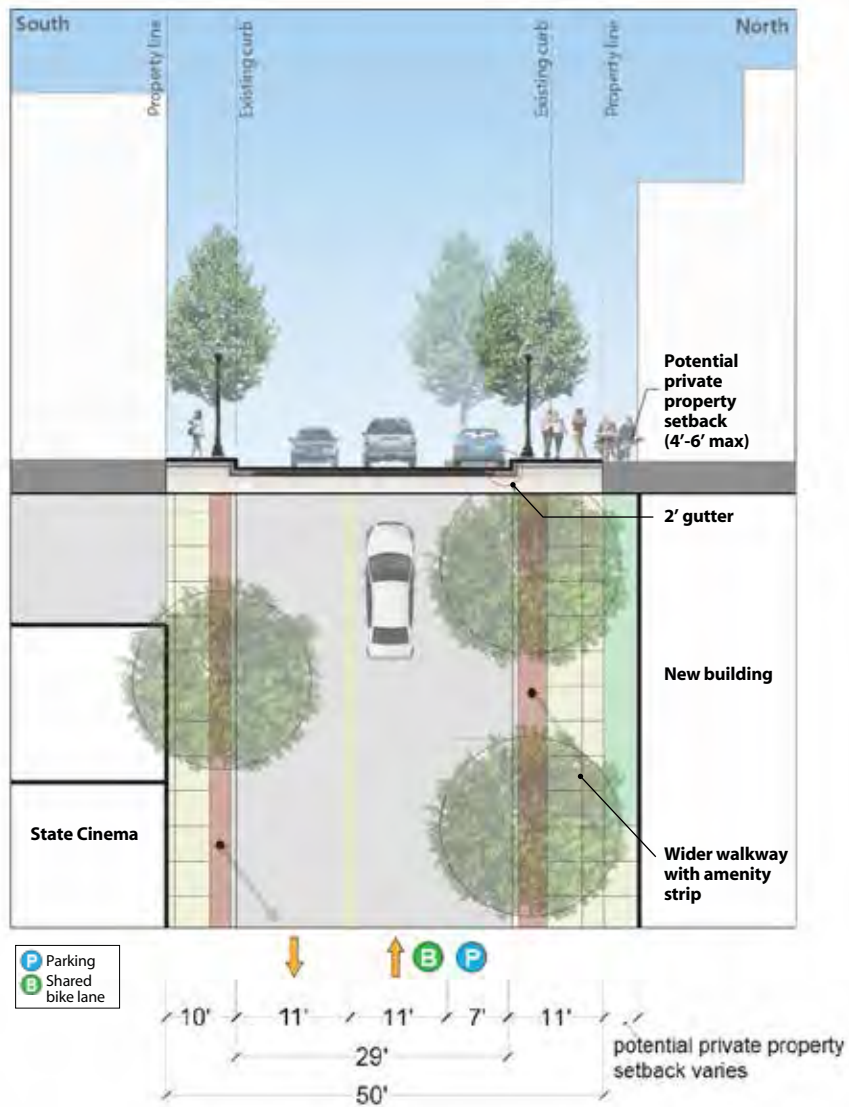


### Existing section and plan



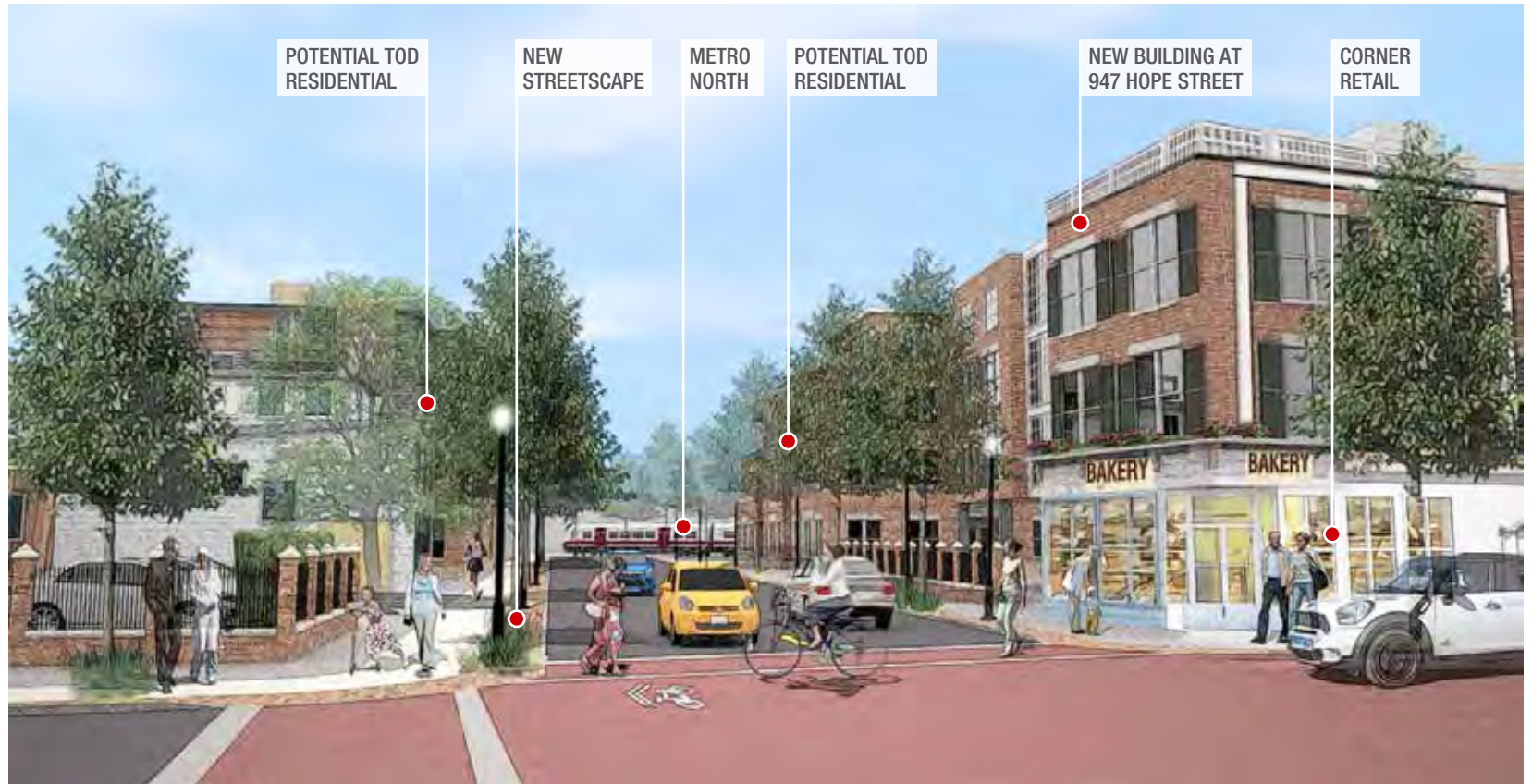


### Potential section and plan



Although some improvements have been made, select side streets off of Hope Street remain in need of upgrading with new sidewalks, trees, and lighting, such as shown in this image of Cushing Street.

## Fahey Street—Potential Future Character



*The new 4-story residential building at the corner of Fahey and Hope features a ground level commercial space that meets the sidewalk. Opportunities exist on both sides of Fahey to the east for additional Village Commercial residential uses that would make the entire street welcoming for pedestrians near the rail station.*



## Hope Street at Northhill—Potential Future Character



*The State Cinema is a well-known commercial use on Hope Street bringing a unique sense of identity to the community. Northhill Street next to the cinema could be improved and nearby parcels redeveloped under Village Commercial zoning to create a vibrant intersection of TOD uses at this location.*



## BIKE IMPROVEMENTS

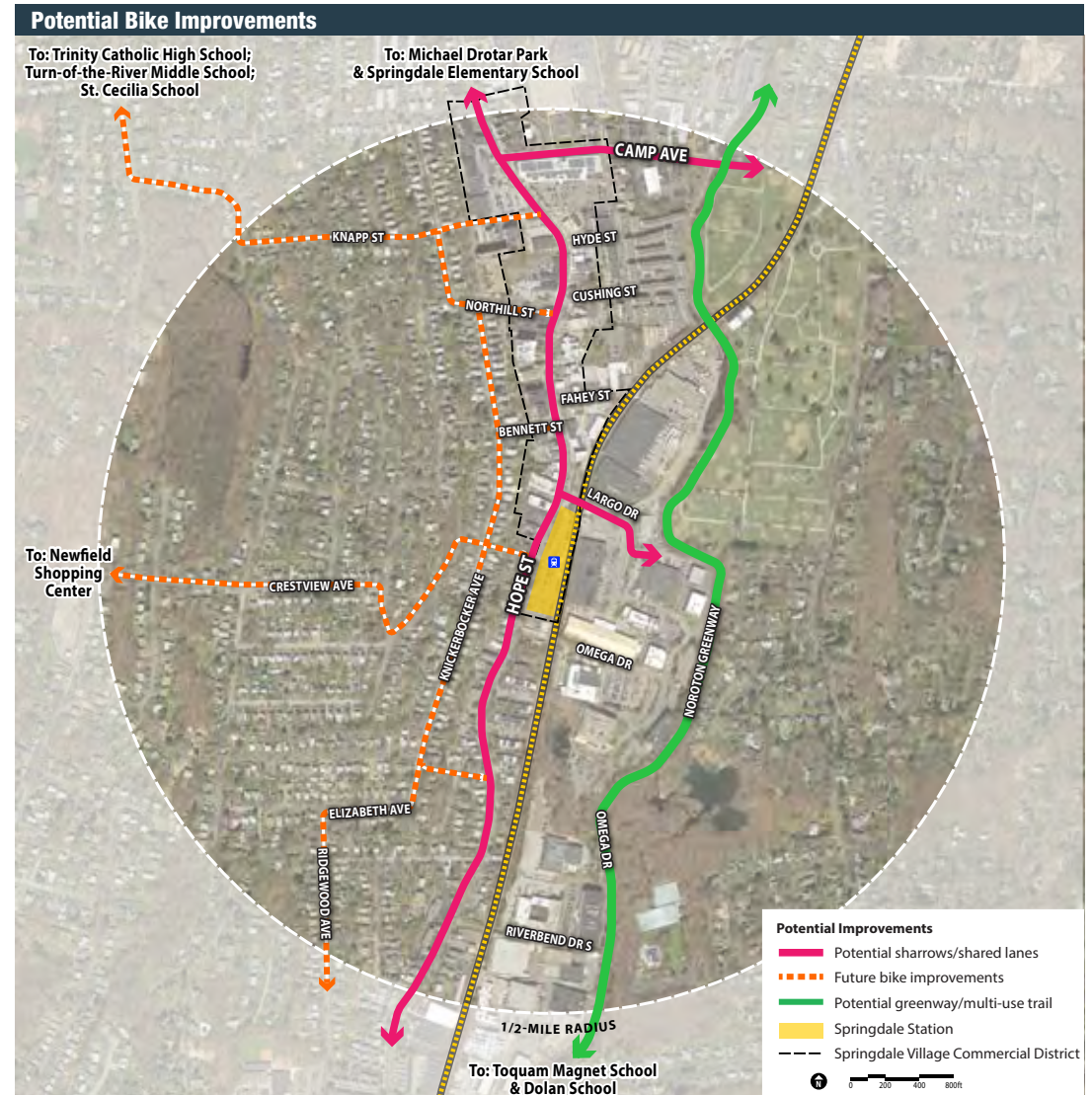
Well-marked routes for bicyclists are an important part of creating a multi-modal village environment. Creating an attractive alternative to driving can moderate traffic growth and is an important amenity that more and more people are seeking. Bike sharrows, also known as “shared lanes”, are recommended on primary streets. Frequently spaced street markings—typically a large white bicycle icon with arrows in the direction of travel—are installed in a travel lane which assist motorists and cyclists with maintaining a safe position in a shared lane. Bike sharrows are recommended on:

- Hope Street
- Camp Avenue
- Largo Drive

*Note: “Future Bike Improvements” in the diagram at right refer to potential additional sharrows over time.*

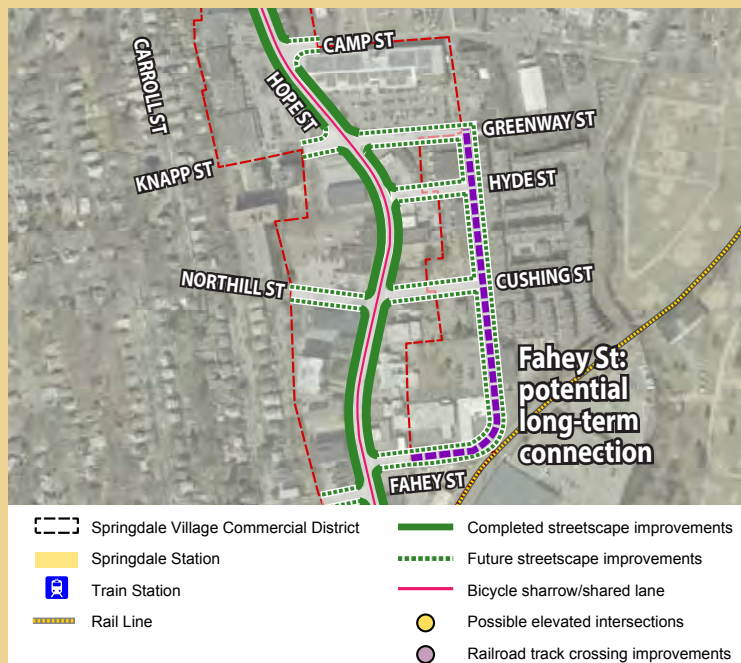


*Painted symbols indicate shared lanes, also known as “bike sharrows”  
(image courtesy of [www.pedbikeimages.com](http://www.pedbikeimages.com))*



## Fahey Street Extension—Long Term

Extending Fahey Street to the north to connect with Greenway Street and Camp Avenue is a long-term idea that would improve connectivity in Springdale. This is not a new idea—originally proposed in the *2006 Neighborhood Plan for Springdale*—and it should be given consideration over time, particularly if the parcels in this vicinity were re-zoned to Village Commercial. An extended Fahey Street would provide pedestrian, bicycle, and vehicular options for an evolving residential district off of Hope Street. Close coordination and collaboration with adjacent property owners would be required.



## Noroton Greenway

The diagram on the facing page shows a potential greenway/multi-use trail (in green) along the Noroton River. With limited parks and open space in Springdale, a “Noroton Greenway” would add a valuable recreational amenity and a new, publicly accessible greenspace for pedestrians and cyclists. A semi-private park has been implemented along the river as part of the Village at River’s Edge development—a public/private partnership with the River Bend Office Park would be required to allow improvements and accessibility between the Village at River’s Edge and points farther south.



**Existing**—Noroton River behind River Bend Center.

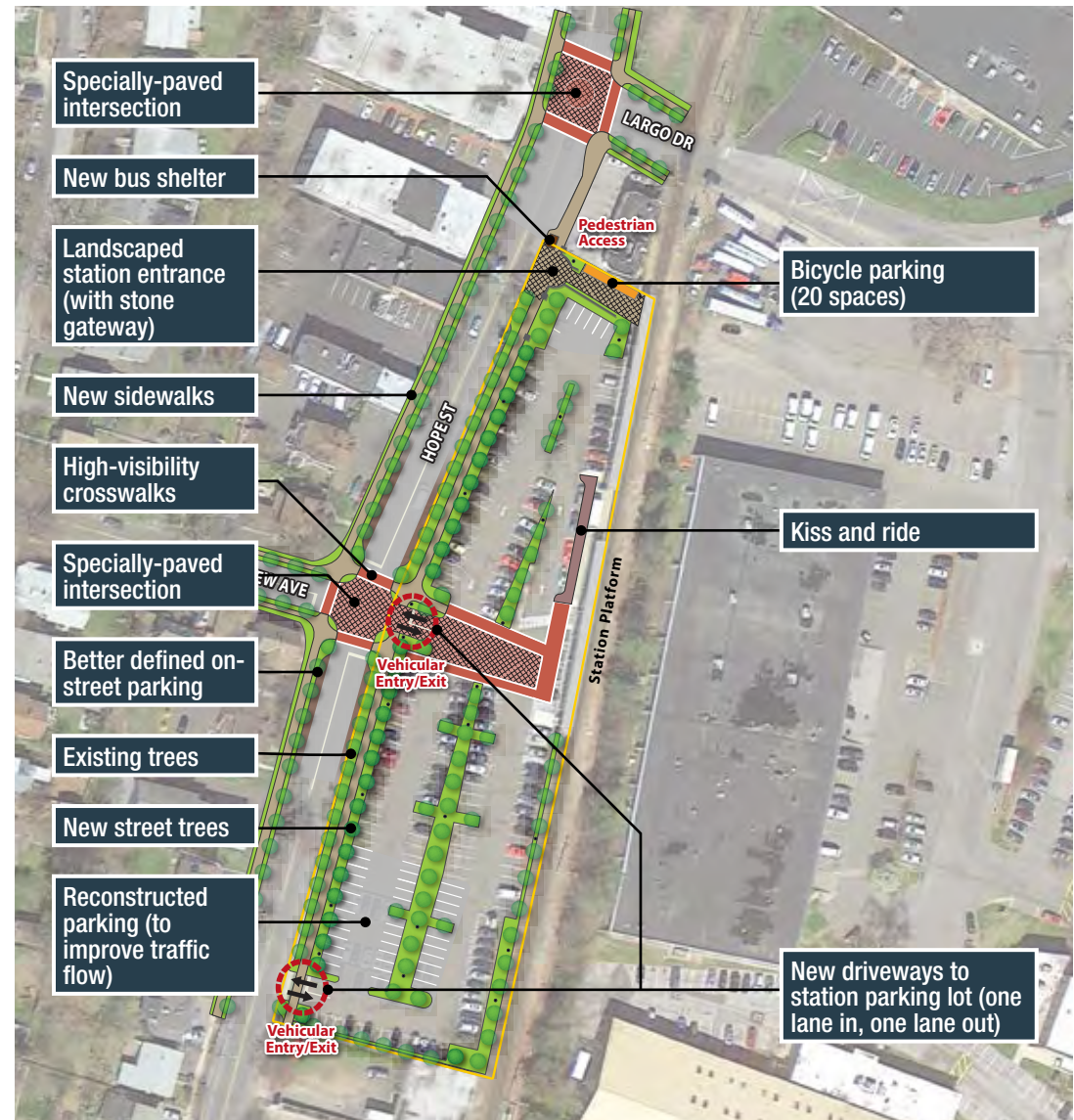


## RAIL STATION IMPROVEMENTS

A variety of enhancements to the Springdale station parking lot are recommended:

- **New entries/exits.** Two new entry/exit locations—one at Clearview Avenue with a new stoplight and one to the south without a stoplight—would improve the efficiency and flow of the lot.
- **Reconfigured parking.** Reconfiguring the current parking layout in coordination with the new entries would improve traffic circulation.
- **Pedestrian zones and landscaped islands.** Specially paved sidewalks, pedestrian zones, and landscaped islands should be added for safety, attractiveness, and stormwater capture.
- **Improved lighting.** Pedestrian scaled lighting would contribute to a safer, more attractive, walkable environment.
- **Bicycle parking.** Approximately twenty new bike parking spaces at the north entry are recommended as part of a new small waiting plaza with benches and lighting.

Costs for station enhancements would depend on the extent and detail of the improvements. As reflected in the illustrative drawing, overall costs may be expected between \$750,000 and \$1,500,000.

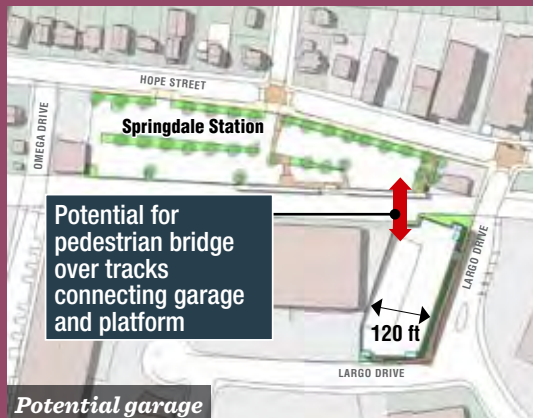




## Rail Station Parking Expansion

Surface parking expansion for the Springdale rail station should be pursued in the near-term to relieve pent-up demand and anticipate future demand.

Expansion is recommended on the privately-owned .83-acre parcel along Largo Drive in the River Bend Office Park east of the station. In the near term, this parcel would accommodate 75 new surface parking spaces for the rail station. The parcel could also accommodate a 300-space parking garage in the long-term if future demand exists and public subsidies are available.



## New Canaan Branch Line—Needs and Feasibility Study (CTDOT 2010)

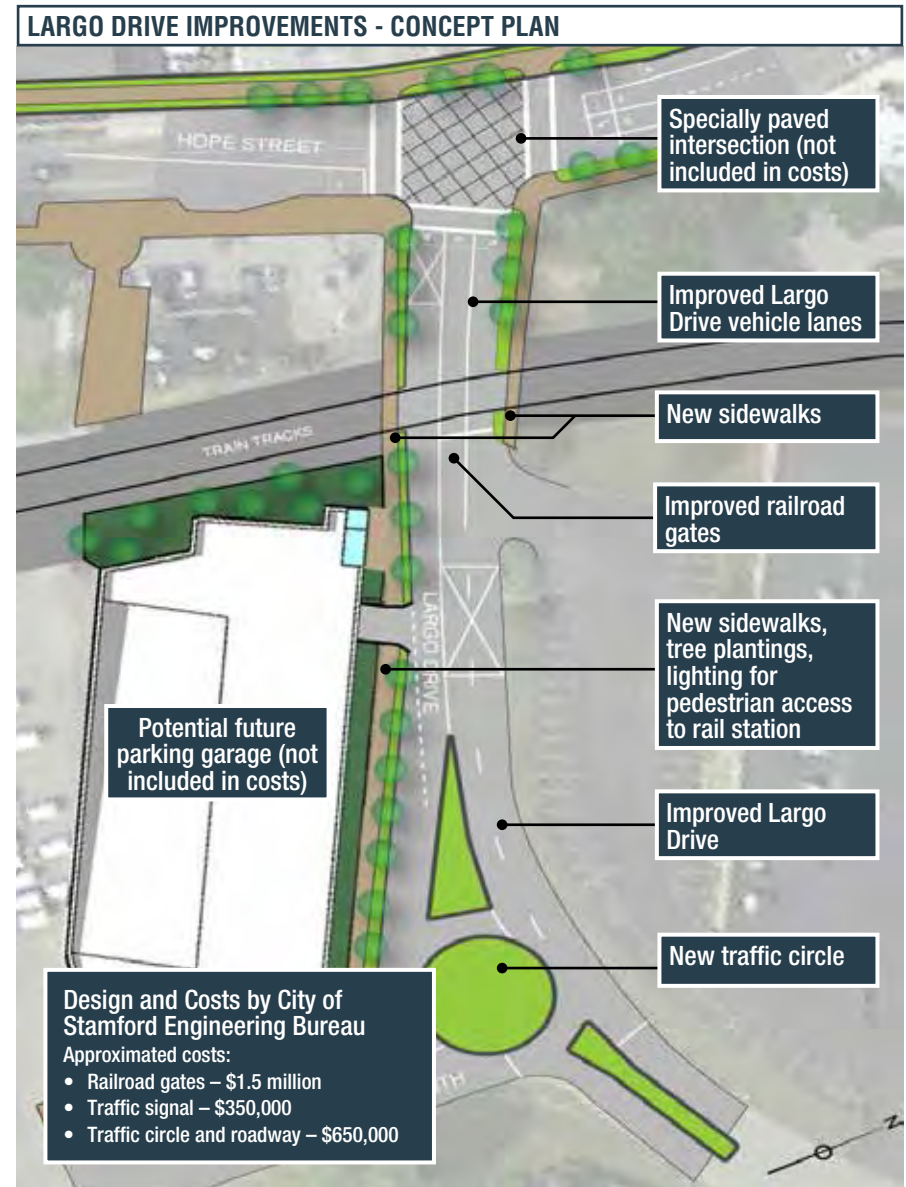
This 2010 study examined potential improvements along the Waterbury and New Canaan Branch Line to address local needs and to understand how the corridors fit into an overall statewide transportation strategy that balances needs and funding ability. Findings for the New Canaan Branch—though never implemented—remain particularly relevant today given increased ridership projections and recent and future growth from transit-oriented development, and should be critically reconsidered:

- Adding a Springdale siding of approximately 4,000 feet, allowing multiple trains to operate on the branch at the same time
- Possibility of a second platform at the New Canaan Station, Springdale Station, or both
- Full signalization of the branch which could allow increased service frequency
- Lengthening platforms

## LARGO DRIVE IMPROVEMENTS (2014 INITIATIVE)

**A separate study has been done by the City of Stamford Engineering Bureau for improvements to Largo Drive at Hope Street and across the tracks into River Bend Center. The TOD Feasibility Study recommends the funding and implementation of these improvements to complement and support the potential new surface parking on Largo Drive.**

- History of vehicles being trapped on the tracks as they travel toward Hope Street
- Tracks are higher than surrounding roadway, forming a vertical “hump” that trucks have trouble negotiating
- Proposed redesign provides a left turn lane on Hope Street to allow vehicles to queue when the crossing is closed for a passing train
- Westbound traffic approaching the crossing will have signal control eliminating or greatly reducing the potential for trapped vehicles
- Public hearing process completed in 2013 and 2014—coordination is under way with the railroad for required modifications
- Estimated order-of-magnitude cost approximately \$2,500,000 (not including future garage or garage property)



# RAIL, PARKING, AND TRAFFIC

## Rail ridership

### METHODOLOGY

The analysis looked at a combination of boarding projections over the next 20 years without TOD as well as projections from TOD alone. Ridership projections were obtained from CTDOT, while TOD projections were based on the number of anticipated units, estimated population, and an estimated percentage of people who might be considered potential commuters.

### FINDINGS

Beyond CTDOT projections, it is estimated that transit-oriented development in Springdale would generate approximately 75 additional riders per day in the near-term and 120 riders in the 20+ year scenario. Approximately 210 new riders per day might be generated if the village commercial district were expanded to areas east of Hope Street and residential development was allowed.

## Parking demand

### METHODOLOGY

Demand for parking was based on the ridership projections. Estimates were made on the way future riders would get to the stations, either driving alone, walking, being dropped off, carpooling, biking, or by transit. Percentages for each of these options were applied, using “status quo” and “best case” scenarios to understand a possible range of parking needs.

### FINDINGS

Future mode split is difficult to predict and depends on a variety of physical and behavioral factors over time. Should current automobile use standards apply, it is anticipated that the high end of the parking demand range (the “status quo”) would apply, with up to 280 new parking spaces for rail required in Springdale. However, TOD is defined by pedestrian and bicycle use, so the expected future demand would likely be lower.

## Traffic

### METHODOLOGY

Traffic was examined on an order of magnitude basis, looking at current levels of average daily traffic (ADT) on Hope Street, and then calculating the number of potential cars added by TOD. General traffic projections were obtained from CTDOT, while TOD projections were based on number of units and estimated trips. Case studies were also conducted to examine the comparative amount of traffic generated by new TOD uses.

### FINDINGS

Traffic in Springdale is primarily influenced by peak hour vehicles traveling to downtown or other destinations. While the roads are at moderate to high capacity, TOD development would not significantly increase traffic in Springdale. Conversely, studies have shown that increased residential density can lead to an increased use of transit with less reliance on cars. In some cases—in particular the replacement of the former Rite-Aid on Hope Street with an 88-unit apartment building and ground floor retail—TOD generates less traffic than the use it replaces (i.e. a mixed-use residential/retail project generates less trips per day than stand-alone retail).

*For further discussion on traffic impacts, see pages 44–45.*



## ZONING REFINEMENTS

### Expand the Village Commercial District

Expanding the current Village Commercial zoning boundary would increase connectivity and promote a cohesive, walkable Village District in Springdale. This would be accomplished by incorporating “General Industrial” zoned parcels on Fahey Street, Cushing Street, Hyde Street, and Greenway Street between Hope Street and the Village at River’s Edge.

### Allow Sidewalk and Landscape Setbacks By Right

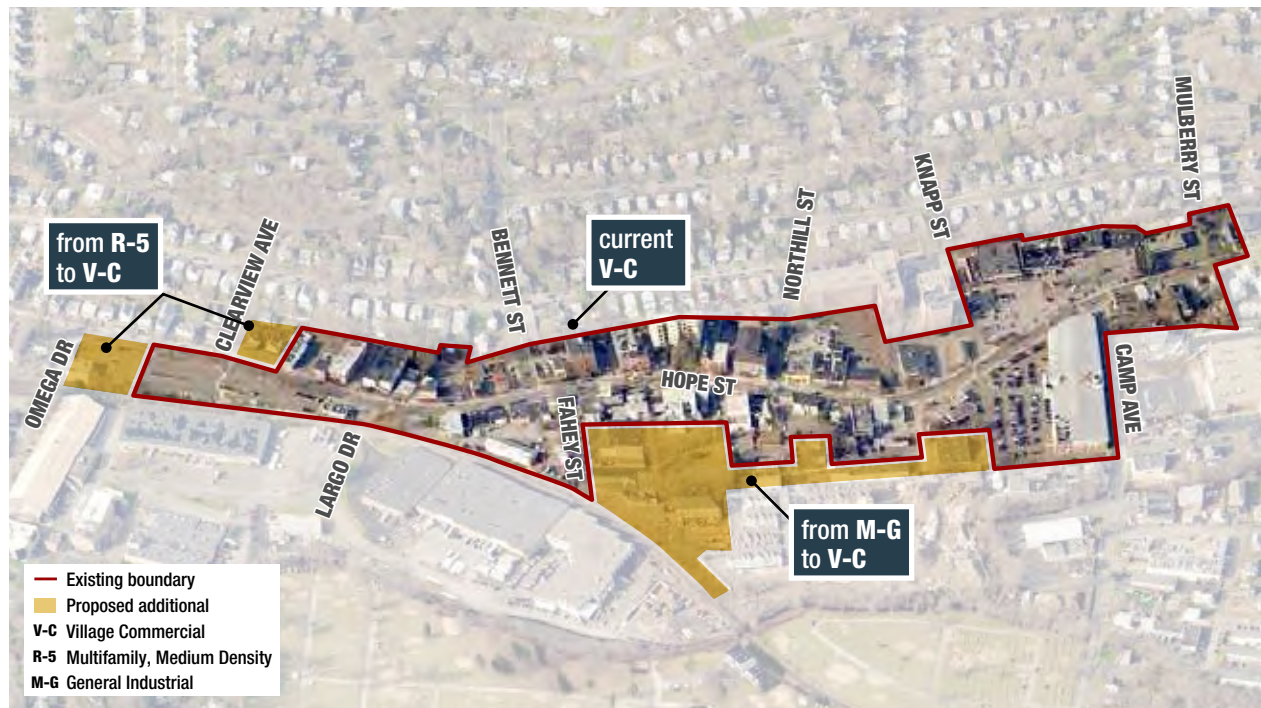
Increased front setbacks for sidewalk width and/or landscaping is currently permitted in the VC regulations at the discretion of the Zoning Board. The TOD Study recommends that maximum 4’-6’ front setbacks (minimum 14’ distance from face of curb to building) be offered “by right” to developers to further encourage this important village district strategy. The goal is to ensure strategic increases in sidewalk

widths in areas constrained by property lines and roadway widths, particularly for supplemental zones on retail streets like Hope Street and landscape zones for residential side streets, as well as to streamline the approval process.

### Clarify Ground Floor Retail Uses on Side Streets

Clarifying that ground floor retail use is not a requirement for new buildings on side streets (Fahey, Bennett, Northhill, Cushing, Hyde, and Knapp)

in Springdale is recommended. Hope Street is the strongest location for retail in the Village District while side streets should evolve as residential only. Therefore the “borders of interest” language in the zoning code should be clarified by allowing flexibility of ground floors to be residential only on side streets.



# 6

## springdale architectural sketchbook

---

Overview and Purpose

---

Case Study #1: Hope Street and Northhill Street Intersection

---

Case Study #2: Side Street Redevelopment (Fahey Street)

---

Case Study #3: Small Infill Near Station (Hope Street)

## OVERVIEW AND PURPOSE

The Architectural Sketchbook offers additional guidance by illustrating representative development projects in more detail, giving the City, residents, and private entities a clear pathway for implementation of future TOD in Springdale based on village zoning.

Three prototypical sites have been selected in Springdale and a potential redevelopment concept is shown. The concepts are not proposals by the planning team, but rather capacity and volumetric studies for how TOD might be applied.

- The 3D “SketchUp” diagram shows the site layout, building massing, parking, and entry points.
- The development table lists potential program in terms of number of floors, units, parking, and FAR.
- A street-level perspective highlights the character of the street in relation to the development.
- Precedent images depict relevant built examples in terms of architecture, materials, and building elements.



*Projects at 947 Hope Street (13 apartments with ground floor retail) and 1032 Hope Street (88 units with ground floor retail) are the first examples in Springdale under the Village Commercial District zoning.*



# CASE STUDY #1: HOPE STREET AND NORTHILL STREET INTERSECTION

Site area	55,815 sq ft
GFA	73,500 sq ft <ul style="list-style-type: none"> <li>• Residential: 82 multifamily</li> <li>• Retail: 7,000 sq ft</li> </ul>
FAR	1.3
Parking required	102 spaces
Parking provided	102 spaces

## Neighborhood transition

Townhouses reflect residential scale of existing neighborhood



## Surface parking

Located behind building with landscaped edges

## Facade articulation

Vertical bays and recessed facade planes create visual interest



**Potential future condition**

Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.



**Precedent**

Facade articulation and active ground floor uses complement the existing village district.

# CASE STUDY #2: SIDE STREET REDEVELOPMENT (FAHEY STREET)

Site area	33,750 sq ft
GFA	27,700 sq ft <ul style="list-style-type: none"> <li>• Residential: 29 multifamily</li> </ul>
FAR	0.75
Parking required	36 spaces
Parking provided	40 spaces



**Surface parking**  
Located behind building with landscaped edges

**Ground floor setback**  
Allow modest setback from sidewalk for landscaping and residential stoops



Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.

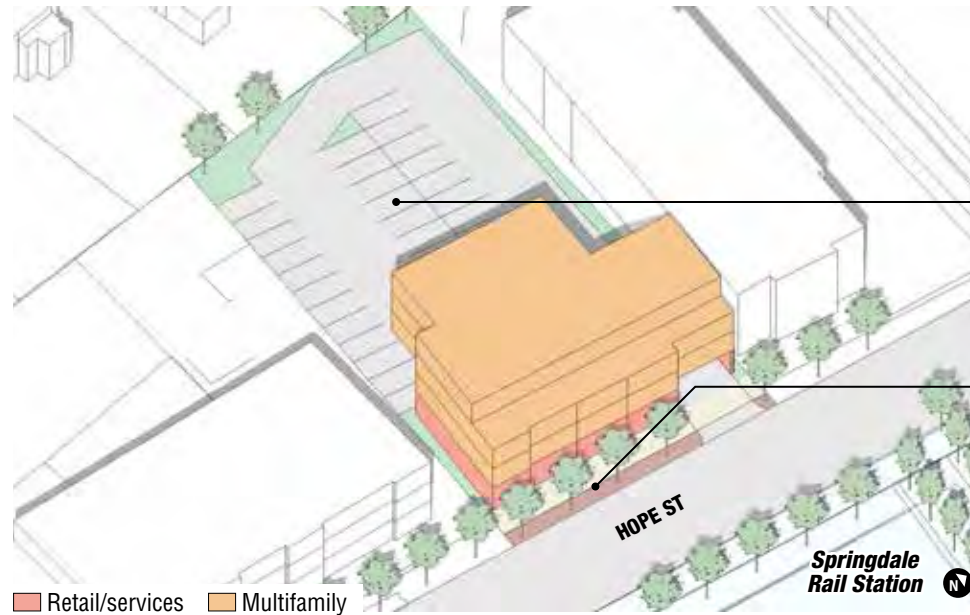


Multiple entrances along the sidewalk create aesthetic variety and encourage pedestrian activity as residents come and go.



## CASE STUDY #3: SMALL INFILL NEAR STATION (HOPE STREET)

Site area	19,726 sq ft
GFA	20,800 sq ft <ul style="list-style-type: none"> <li>• Residential: 26 multifamily</li> <li>• Retail: 3,200 sq ft</li> </ul>
FAR	1.1
Parking required	33 spaces
Parking provided	36 spaces



### Surface parking

*Located behind building with landscaped edges*

### Border of interest

*Ground floor retail and services located across from train station provide an amenity for riders*



*Public improvements such as widened sidewalks with planted amenity strips create a more comfortable and inviting pedestrian environment for residents.*



*Community-serving ground floor retail provides valuable services across from the rail station.*







# implementation

---

**Introduction**

---

**Funding**

---

**Next Steps in Glenbrook**

---

**Next Steps in Springdale**

# INTRODUCTION

The Implementation Plan identifies specific initiatives, their timing, and potential funding sources. The technical analyses and community outreach performed as part of the strategic planning process have informed the Implementation Plan. The Implementation Plan details the steps necessary to fully capitalize on the market and transit-related opportunities present in the Glenbrook and Springdale Village Districts.

## Initiatives and Sequencing

As described in the report, the **initiatives** in both Glenbrook and Springdale are divided into three categories: Public Improvements, Rail Improvements and Regulatory Changes.

- Public improvements are capital improvements designed to enhance the functionality

of the commercial district. Public improvements generally improve vehicular, bike and pedestrian access to improve safety and enhance the commercial district's economic development potential. These improvements benefit not only transit riders and local businesses, but local residents' quality of life.

- Rail improvement initiatives are generally intended to enhance the rail user's experience through improved transit and enhanced commuter-related infrastructure. To fully reap the benefits of transit as an economic development anchor, key upgrades to rail infrastructure on the New Canaan Branch line are needed.
- Regulatory initiatives consist of recommended changes to the existing Village Commercial District zoning. These zoning

refinements are intended to better align zoning requirements with the physical, market and economic realities facing the development community in both neighborhoods.

The **sequencing** to implement each initiative is a function of both its ease of implementation and the potential impact the initiative will have on the village commercial district's functionality and economic development. In some cases, initiatives are early-action items because they represent a unique, and potentially fleeting, opportunity. In other cases, the near-term implementation of an initiative is an important signal that demonstrates the public sector's commitment to fulfilling the district's promise as a transit-oriented Village.



## Glenbrook Implementation Plan

ACTION	INTENDED EFFECT	INITIATE	COMPLETE	EST. COST*	SOURCE OF FUNDING
<b>PUBLIC IMPROVEMENTS</b>					
Glenbrook Road Streetscape with Improved Intersections at Church and Crescent Streets	More Attractive Gateway; Pedestrian/Bike Safety; Quality Pedestrian Environment; Unlock Redevelopment Potential of Surrounding Parcels	2015	2016	\$1,500,000	State DECD; State DOT; City Capital Budget
Hope Street Streetscape between Scofield and Church Streets	Streetscape Improvements; Pedestrian/Bike Safety	2016	2017	\$1,500,000	State DECD; State DOT; City Capital Budget
Courtland/Taylor Reed Intersection Improvements and Stairs	Improve Pedestrian Connections from Points East	2016	2017	\$750,000	State DOT; City Capital Budget (Stairs)
Church Street Streetscape from Glenbrook to Hope Street	More Attractive Gateway; Pedestrian/Bike Safety; Quality Pedestrian Environment	2017	2018	\$1,000,000	State DECD; State DOT; City Capital Budget
Parking Lot Improvements	Landscape, Ped Lighting, Bike and Stormwater Improvements	2017	2018	\$300,000–\$700,000	State DECD; State DOT; City Capital Budget
<b>RAIL IMPROVEMENTS</b>					
Re-Locate City Maintenance Facility, Demolish Building, and Construct New Off-Site	Allow for More Commuter Parking; Increase Station Visibility	2014	2016	\$200,000 to \$300,000	State Dept of Policy and Management; State DECD; State DOT; City
Rail Service Enhancements: Increase Train Frequency and Train Capacity	Satisfy Ridership Demand	2015+		tbd	State DOT; TIGER Grants
<b>ZONING REFINEMENTS</b>					
Expand Village Commercial District to Hope Street and Parker Ave	Create a Unified Glenbrook Commercial District	2015	2016		Land Use Boards
Allow 4-Story Building Height with Setback of 4th Floor Above 32' as in Springdale	Accelerate Revitalization by Enhancing Redevelopment Economics	2015	2016		Land Use Boards
Allow Sidewalk and Landscape Setbacks By Right	To Achieve Wider Sidewalks and Frontyard Landscape	2015	2016		Land Use Boards
Clarify Ground Floor Retail Uses on Crescent Street/Parker Avenue	Clarifying the ground floor retail requirement for new buildings on Crescent Street/Parker Avenue is recommended.	2015	2016		Land Use Boards

\* Costs are order-of-magnitude only and dependent on extent of work, design details, and timing of initiative | Source: Goody Clancy; W-ZHA

## Springdale Implementation Plan

ACTION	INTENDED EFFECT	INITIATE	COMPLETE	EST. COST**	SOURCE OF FUNDING
<b>PUBLIC IMPROVEMENTS</b>					
Streetscape: Hope St. from Largo Dr. to Omega Dr.; Improve Hope and Largo and Hope and Clearview Intersections*	Enhance Pedestrian and Bike Connections to Station; Create Village Gateways	2016	2019	\$1.5 million	State DECD; State DOT; City Capital Budget
New Vehicular Entrance to Station Parking Lot at Clearview with Traffic Signal*	Reduce Congestion and Enhance Traffic Flow	2016	2019	\$200,000 to \$300,000	State DECD; State DOT; City Capital Budget
New Vehicular Entrance to Station at the South End*	Reduce Congestion and Enhance Traffic Flow	2016	2019	\$100,000 to \$200,000	State DECD; State DOT; City Capital Budget
Parking Lot Improvements*	Enhance Pedestrian and Bike Connections to Station	2016	2019	\$500,000 to \$1,000,000	State DECD; State DOT; City Capital Budget
Largo Drive Improvements	Enhanced Access to River Bend and Future Parking	2016	2019	\$2,500,000	State DECD; State DOT; City Capital Budget
Streetscape Sidestreets: Knapp/Greenway; Northhill/Cushing; Bennett/Fahey	Enhance Pedestrian and Bike Connections to Station	2018+		\$300,000 to \$400,000 per side street	Public/Private; City Capital Budget
<b>RAIL IMPROVEMENTS</b>					
Acquire Off-Site Property to Meet Current and Future Parking Demand***	Satisfy Commuter Parking Demand	2015	2017	\$800,000 to \$1,600,000	State DECD; State DOT
Rail Service Enhancements: Increase Train Frequency and Train Capacity	Satisfy Ridership Demand	2015+		tbd	State DOT; TIGER Grants
<b>ZONING REFINEMENTS</b>					
Expand Village Commercial District to Incorporate Light Industrial Area East of Hope St.	Allow for Integrated Village Commercial District	2015	2016		Land Use Boards
Allow Sidewalk and Landscape Setbacks By Right	To Achieve Wider Sidewalks and Landscaped Areas	2015	2016		Land Use Boards
Clarify Ground Floor Retail Uses on Side Streets	Concentrate Commercial Uses on Hope Street	2015	2016		Land Use Boards

\* These initiatives will likely be implemented together as a single capital improvement project.

\*\* Costs are order-of-magnitude only and dependent on extent of work, design details, and timing of initiative

\*\*\* In the near-term, the site could accommodate 75 surface parking spaces. Longer-term a 300 space garage could be considered.

## FUNDING

Unlike many locations with transit infrastructure, in Glenbrook and Springdale there is private redevelopment investment interest. Thus, rather than an implementation program designed to attract private investment via innovative gap financing approaches, the Implementation Plan targets public-sector initiatives designed to improve access, walkability, and bikeability in both villages. Depending on the initiative, financing can potentially come from the federal government (rail service enhancements), the State (transit-oriented infrastructure enhancements), and/or the City (streetscape).

An important source of **Federal** money for transportation improvements is the TIGER Discretionary Grant program. This is a highly competitive program and projects are selected on the basis of their beneficial impacts. Factors considered include safety, economic competitiveness, state of good repair, livability and environmental stability. Large projects receive TARGET grants (like replacing a bridge), therefore, rail service enhancements are likely be the only initiative eligible for a TARGET grant.

The **State** has a variety of funding sources. The State's Department of Economic and Community Development (DECD) is Connecticut's lead agency responsible for strengthening Connecticut's competitive economic position. The DECD provides Connecticut communities with

funding and technical support for local community and economic development projects. The DECD promotes and supports transit-oriented development.

Connecticut's Department of Transportation (CTDOT) is charged with providing a safe and efficient intermodal transportation network that improves residents' quality of life and promotes economic viability. CTDOT manages the New Canaan branch that passes through Glenbrook/Springdale. CTDOT is a potential funding source for rail improvements, streetscape improvements, and/or parking development.

The State has a variety of options for federal, state, and local grants for transportation related initiatives. The most well-known and often used of these resources include the Congestion Mitigation and Air Quality (CMAQ) program, Safe Routes to School (SRTS), Local Transportation Capital Improvement Project (LOTICIP), and Surface Transportation Program (STP) funds. There are several other possibilities which may apply to recommended public improvements in Glenbrook and Springdale and these can be found on the Connecticut Regional Council of Governments website ([http://www.crcog.org/transportation/tip\\_proj/project.html](http://www.crcog.org/transportation/tip_proj/project.html)) as well as through their "Guide to Transportation Funding Sources for Municipalities". That document can be found in the appendix of this study on pages 103-104. Specific funding

streams and other grants and their applicable deadlines should be vetted, coordinated and managed by the Stamford City of Engineering Bureau.

The **City of Stamford's** Capital Budget is another potential source of funding. The City's Capital Budget identifies near-term City investments. Less capital-intensive projects are most appropriate for City funding.



## NEXT STEPS IN GLENBROOK

### Public Improvements

Glenbrook Road is the signature street within the Glenbrook Village Commercial District. Today, Glenbrook Road is unattractive with broken sidewalks and curb cuts that make for a hostile pedestrian and bike environment. To improve safety and better link transit with surrounding land uses, a near-term priority initiative is to streetscape Glenbrook Road with intersection enhancements at Church and Crescent Streets. Programmed streetscape design would commence in 2015 with streetscape completion recommended in 2016.

Rail commuters from points east, cross the Courtland Avenue bridge and, as a shortcut, walk down a grassy hill to Crescent Street. The hill is treacherous. There is funding currently committed to improving the intersection of Courtland and Taylor Reed Street for truck traffic. As a second public improvement priority, the Plan calls for the development of a staircase to link Crescent Street and Courtland Avenue. Because this is a small project, the City is the likely source of funding for this project.

As the streetscape progresses on Glenbrook Road, the Plan calls for streetscape design and, ultimately, construction on Hope Street between Scofield and Church Streets. The design is programmed for 2016 with streetscape

completion in 2017. Once again, the streetscape is intended to brand the District and improve pedestrian and bike safety.

The final public improvement initiative is streetscaping Church Street from Glenbrook Road to Hope Street. Design is programmed for 2017 with streetscape completion in 2018. With this last streetscape initiatives complete, the Glenbrook Village Commercial District will offer an attractive public realm and safe pedestrian and bike connections to the train station.

### Rail Improvements

The City owns a maintenance building adjacent to the Glenbrook station platform. The maintenance facility's location makes the station hard to see from the Crescent Street and Church Street entrances. The maintenance facility also complicates automobile circulation within the parking lot. The Plan recommends that the City re-locate the users of the maintenance building and demolish the maintenance building. Without the maintenance building the parking lot can be made more efficient and attractive to commuters. Because this initiative benefits rail operations, State and City funding may help to fund building demolition and parking lot improvements. This initiative can be started immediately by identifying an alternative location for users of the maintenance facility.

The transit-oriented development potential of Glenbrook is not constrained by market demand or redevelopment economics; it is constrained by the rail service. Today, peak period trains are close to capacity. Future redevelopment will make the capacity issues even more acute. Rail service enhancements must be made. This is a long term initiative likely funded by the state and federal government.

### Zoning Refinements

Changes to the Village Commercial District zoning are implemented by the City. The community outreach process undertaken as part of this Study addressed the pros and cons of various regulatory changes. Thus, the process has commenced. The Plan envisions regulatory changes to be in place in 2015.

Continued dialogue and engagement between the City of Stamford Land Use Bureau and Glenbrook Neighborhood Association, residents, businesses, property owners, developers, and stakeholders will remain critical throughout all initiatives.

## NEXT STEPS IN SPRINGDALE

### Public Improvements

Priority public improvement initiatives are improving the auto, pedestrian and bike circulation in and out of the Springdale rail station parking lot. Likely to happen as a single project, these improvements include a new signalized parking lot entrance at the intersection of Clearview Avenue and Hope Street, a new parking lot entrance to the south, a continuation of the Hope Street streetscape from Largo Drive to Omega Drive as well as station parking lot improvements. These initiatives are programmed to take place between 2016 and 2019.

To better connect the Village Commercial District, it is recommended that the side streets that cross Hope Street also be improved with better sidewalks. These initiatives would likely commence after 2018.

### Rail Improvements

There is a shortage of parking at the Springdale train station today. The opportunity to provide additional parking on the east side of the tracks off of Largo Drive is a recommendation in the Study. Uses in this area east of the tracks are light industrial in character and there appears to be under-utilized land at this location. Thus, the first initiative to improve rail service is to acquire property on the east side of the tracks and develop additional parking for the station.

Because this initiative is designed to improve rail operations, the state would be the likely funding agency for this initiative.

The transit-oriented development potential of Springdale is not constrained by market demand or redevelopment economics; it is constrained by the rail service. Today, peak period trains are close to capacity. Future redevelopment will make the capacity issues even more acute. Rail service enhancements must be made. This is a long term initiative likely funded by the state and federal government.

### Zoning Refinements

Changes to the Village Commercial District zoning are implemented by the City. The community outreach process undertaken as part of this Study addressed the pros and cons of various regulatory changes. Thus, the process has commenced. Outreach sessions with the Springdale community revealed that while supportive of mixed-use, transit-oriented development, the community's greatest concern is its impact on traffic. See pages 44–45 for more information.

Continued dialogue and engagement between the City of Stamford Land Use Bureau and the Springdale Neighborhood Association, residents, businesses, property owners, developers,

and stakeholders will remain critical throughout all initiatives.





# 8

## appendix

---

**A. Economic and Fiscal Impacts**

---

**B. Glenbrook Station Alternatives**

---

**C. Springdale Station Alternatives**

---

**D. Transportation Funding Sources for Municipalities**

## APPENDIX A ECONOMIC AND FISCAL IMPACTS

### Glenbrook

Transit-oriented development in Glenbrook and Springdale will generate net new property tax revenues to the City of Stamford as well as jobs. As part of the analytic process, properties were identified in Glenbrook where redevelopment could potentially be financially feasible within the next 5 to 7 years. Six properties were identified.

Together the six identified properties in Glenbrook have the potential to support 190 multi-family residential units, 12 townhouses, and 7,550 square feet of retail. This translates into approximately 185,000 square feet of new development. At a market value of approximately \$300,000 per multi-family residential unit (including land), \$347,000 for a townhouse unit, and \$150 per square foot of retail, redevelopment will have a market value of \$62.3 million.<sup>1</sup>

Applying the City's current property tax rate and assessment procedures, this redevelopment program will generate approximately \$1 million in property tax revenues to the City. Today, the six properties pay \$164,000 per year in property taxes. Glenbrook's redevelopment has

the potential to generate \$873,500 of net new City property tax revenue per year at build-out. Within the next 5 to 7 years, the potential retail and eating and drinking establishments will support between 13 and 17 jobs in the Glenbrook Village Commercial District. Assuming an average sales volume of \$250 per square foot, the retail will generate \$120,000 per year in sales tax revenue for the State of Connecticut. The City does not receive sales tax revenue. Over the longer term, there is the potential for additional redevelopment in Glenbrook. Eleven additional sites were identified as having long term redevelopment potential when infill housing becomes even more valuable after 7 years.

Over the long term there is potential for 472 apartment units, 27 townhouses and 32,750 square feet of retail and eating/drinking space in the expanded Glenbrook Village Commercial District. The redevelopment of these sites in the long term will generate an additional \$2.16 million (2014 dollars) of net new annual property tax revenue to the City. Over the long term, the potential retail and eating and drinking space in the Glenbrook Village Commercial District will generate approximately 55 to 70 additional jobs and \$520,000 in annual retail sales tax revenue for the State.

**Market Value of Potential Development in Glenbrook Village Commercial District (2014 dollars)**

	MULTI-FAMILY RENTAL	TOWNHOUSE	RETAIL & EAT/DRINK	TOTAL
<b>WITHIN 5 TO 7 YEARS</b>				
Program	190 units	12 units	7,550 sf ft	
Market Value	\$300,000	\$347,000	\$150	
<b>Total</b>	<b>\$57,000,000</b>	<b>\$4,164,000</b>	<b>\$1,132,500</b>	<b>\$62,296,500</b>
<b>LONG TERM</b>				
Program	472 units	27 units	32,750 sf ft	
Market Value	\$300,000	\$347,000	\$150	
<b>Total</b>	<b>\$141,600,000</b>	<b>\$9,369,000</b>	<b>\$4,912,500</b>	<b>\$155,881,500</b>

Source: W-ZHA

<sup>1</sup> The multi-family average market value was provided by the City's Tax Assessor. The townhouse market value is based on the Zimmerman/Volk Associates' residential market analysis. The retail value per square foot is based on a computation that assumes negligible retail rental income.

# Springdale

In Springdale, five properties were identified as being potentially feasible redevelopment sites within the next 5 to 7 years.

Together the four properties have the potential to support approximately 177 multi-family residential units and 12,650 square feet of retail. This translates into approximately 159,500 square feet of new development. At a market value of approximately \$300,000 per multi-family residential unit (including land), \$347,000 for a townhouse unit, and \$150 per square foot of retail, redevelopment will have a market value of \$54.9 million.

Applying the City’s current property tax rate and assessment procedures, this redevelopment program will generate approximately \$915,000 in property tax revenues to the City. Today, the six properties pay \$110,400 per year in property taxes. Springdale’s redevelopment has the potential to generate \$804,000 of net new City property tax revenue per year by year 7.

Within the next 5 to 7 years, the potential retail and eating and drinking space will support 21 to 28 employees. Assuming an average sales volume of \$250 per square foot, this retail will generate \$201,000 per year in sales tax revenue for the State of Connecticut. Over the longer term, there is the potential for additional redevelopment in Springdale.

Approximately 11 additional sites were identified as having long term redevelopment potential when infill housing becomes even more valuable after 7 years.

Over the long term, Springdale has the potential to support 470 housing units, 6 townhouses and 22,500 square feet of retail space. This level of redevelopment will generate an additional \$2.1 million (2014 dollars) of net new annual property tax revenue to the City. The potential retail and eating and drinking space will generate approximately 35 to 50 additional jobs and \$350,000 in annual sales tax revenue for the State.

## Market Value of Potential Development in Springdale Village Commercial District (2014 dollars)

	MULTI-FAMILY RENTAL	TOWNHOUSE	RETAIL & EAT/DRINK	TOTAL
<b>WITHIN 5 TO 7 YEARS</b>				
Program	177 units	0 units	12,650 sf ft	
Market Value	\$300,000	\$347,000	\$150	
<b>Total</b>	<b>\$53,040,000</b>	<b>\$0</b>	<b>\$1,897,500</b>	<b>\$54,937,500</b>
<b>LONG TERM</b>				
Program	470 units	6 units	22,250 sf ft	
Market Value	\$300,000	\$347,000	\$150	
<b>Total</b>	<b>\$140,940,000</b>	<b>\$2,082,000</b>	<b>\$3,337,500</b>	<b>\$146,359,500</b>

Source: W-ZHA



## APPENDIX B GLENBROOK STATION ALTERNATIVES

### methodology

A variety of Glenbrook station alternatives were explored from baseline enhancements to full development to test feasibility and capacity. The alternatives—**possible enhancements, enlarged surface parking, and development**—provide options for thinking about accommodating increased parking demand over time, and the costs associated with each option.

#### BASELINE: Possible Enhancements



Stakeholders and others suggested several enhancements to the station area. The most significant suggestions were the relocation of the existing maintenance facility, adding landscape islands and pedestrian lighting, and adding ticket machines on the platform.

#### SCENARIO 1: Enlarged surface parking



Scenario 1 requires acquisition of two adjacent parcels to the east of the station in order to expand the surface parking area. The current southern driveway would be moved further to the east away from the railroad crossing which could reduce vehicle queuing at peak times.

**Note:** One consideration for assessing parking options in Glenbrook and Springdale is the future supply at the downtown Stamford station. If the future demand downtown cannot be accommodated over time, then Glenbrook and Springdale might be able to supply those needed spaces.

### SCENARIO 2: Limited development with small garage

- Adds 10 to 12 residential units
- Builds 216-car parking structure that adds 166 net new commuter spaces
- Estimated public cost is approximately \$7.7 million



Scenario 2 also requires acquisition of the two adjacent parcels east of the station. A small parking structure could be built on this additional land and could be screened from Crescent Street with a residential liner building providing 10-12 housing units on three floors.

### SCENARIO 3: Development with expanded garage

- Adds 30 to 40 residential units
- Builds 386-car parking structure that adds 207 net new commuter spaces
- Estimated public cost is approximately \$10.8 million



Scenario 3 requires acquisition of the two adjacent parcels east of the station to accommodate a larger parking structure and residential building providing 26 to 36 units on three floors. The ground floor could include a community or small retail space on Crescent Street. Additional housing units are shown on the north end of the site to improve Glenbrook Rd.

**Note:** One consideration for assessing parking options in Glenbrook and Springdale is the future supply at the downtown Stamford station. If the future demand downtown cannot be accommodated over time, then Glenbrook and Springdale might be able to supply those needed spaces.

## Glenbrook Station assessment matrix

The assessment matrix below compares the various options for the station. Criteria were discussed with the city and include property acquisition, neighborhood compatibility, net parking increase, total subsidy required, and cost per additional commuter parking space. Neighborhood compatibility considerations include aesthetics, relationship to the existing

context and desired character, and public input from the meetings.

To estimate the total subsidy required to attract a private developer, the costs and development value were determined first. The acquisition cost was assumed to be the assessed value of the parcel. Parking construction costs were assumed to be \$5,000 for a surface space and

\$30,000 for a structured space. Potential new housing development was valued at \$50,000 per unit. The value of potential new development was then subtracted from the cost of land acquisition and parking construction to estimate the total subsidy required. The cost per additional commuter parking space was found by dividing the estimated public subsidy by the net new number of commuter parking spaces.

ADDITIONAL PROPERTY ACQUISITION	NEIGHBORHOOD COMPATIBILITY	NET PARKING INCREASE AT STATION		TOTAL SUBSIDY REQUIRED	COST PER ADDITIONAL COMMUTER PARKING SPACE	ASSESSMENT (GOOD, FAIR, POOR)*	OTHER COMMENTS
		BY NUMBER OF SPACES	BY PERCENTAGE				
BASELINE: <b>NO CHANGE</b>							
No	<b>N/A;</b> station remains as is today with surface parking along Glenbrook and Crescent, new canopy, etc	0	N/A	None	N/A	Poor	No public cost but no improvements
BASELINE: <b>POSSIBLE ENHANCEMENTS</b>							
No	<b>High compatibility;</b> addresses community concerns and existing commuters desire for improved safety, access, and aesthetics	12 spaces (surface)	8%	\$400,000—\$1,000,000**	to be determined	Fair/Good	Maintains the existing parking lot footprint; recommends relocation of city maintenance building; no new development; however cost per commuter space could be high
SCENARIO 1: <b>ENLARGE SURFACE PARKING</b>							
Yes	<b>Low compatibility;</b> improves station safety, access, and aesthetics but increases surface parking which was not supported at public meetings	75 spaces (surface)	48%	\$2,200,000	\$29,500	Poor	Allows for Crescent St. entry to be pushed farther to the east away from at-grade rail crossing
SCENARIO 2: <b>LIMITED DEVELOPMENT WITH SMALL GARAGE</b>							
Yes	<b>Very low compatibility;</b> contradicts community input regarding the desirability of a parking structure at the station	166 spaces (garage)	107%	\$7,700,000	\$46,500	Poor	Includes a small 3-story development component of 10 to 12 housing units facing Crescent St.
SCENARIO 3: <b>DEVELOPMENT WITH EXPANDED GARAGE</b>							
Yes	<b>Very low compatibility;</b> contradicts community input regarding the desirability of a parking structure at the station	207 spaces (garage)	134%	\$10,800,000	\$56,500	Poor	Includes more extensive 3-story development components with 30 to 40 housing units and small, ground level, commuter-oriented service retail on Crescent St.

\* Assessment refers to the relative pros and cons from a cost standpoint and public perception as described in the public meetings.

\*\* Comprised of \$200,000–\$300,000 for Maintenance Building relocation and \$300,000–\$700,000 for other potential station improvements.



## APPENDIX C SPRINGDALE STATION ALTERNATIVES

## methodology

A variety of Springdale station alternatives were explored from baseline enhancements to full development to test feasibility and capacity. The alternatives—**possible enhancements, enlarged surface parking, and development**—provide options for thinking about accommodating increased parking demand over time, and the costs associated with each option.

## BASELINE: Possible Enhancements



*Stakeholders and others suggested several enhancements to the station area. The most significant suggestions were reconfiguring the entries and exits to the station, creating a landscape plaza amenity, and adding a ticket machine and real-time arrival information on the platform.*

### Illustrative of Possible Enhancements



*The illustration shows reconfigured entries and parking bays at the Springdale station lot, additional landscaped islands, and a small northern plaza, as well as key improvements to Hope Street adjacent to the station itself.*

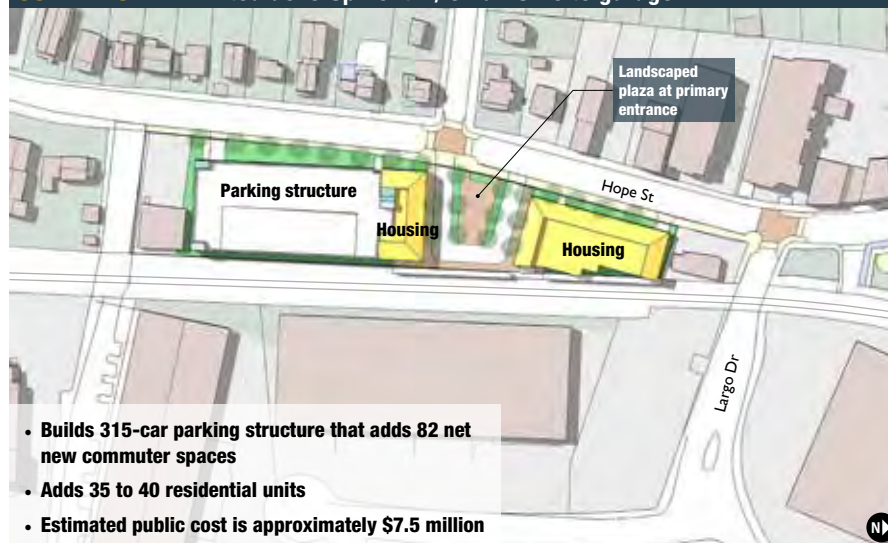
**Note:** One consideration for assessing parking options in Glenbrook and Springdale is the future supply at the downtown Stamford station. If the future demand downtown cannot be accommodated over time, then Glenbrook and Springdale might be able to supply those needed spaces.

### SCENARIO 1: Enlarged Surface Parking



Scenario 1 requires leasing or purchasing one nearby parcel across the tracks along Largo Drive. This parcel could be used for surface parking to serve increased demand at the rail station. The Largo Drive parcel might be considered for structured parking in the future.

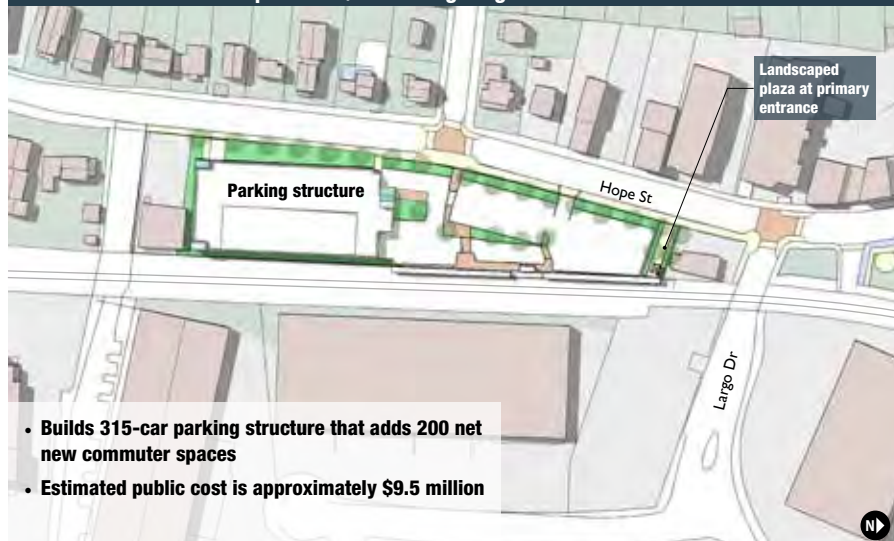
### SCENARIO 2A: Limited development w/ small on-site garage



Scenario 2A does not require property acquisition. It shows a parking garage on the south end of the existing station with a modest amount of mixed-use development to the north providing 36 housing units and service retail.

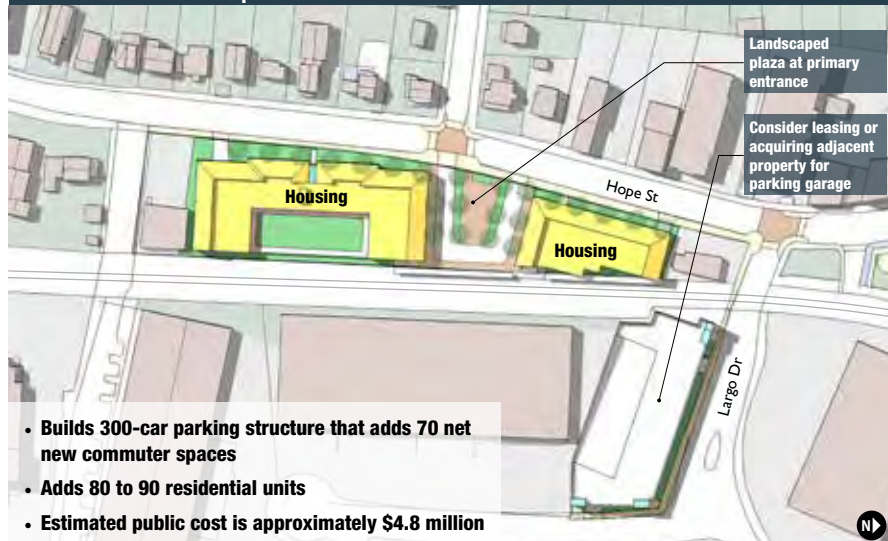
**Note:** One consideration for assessing parking options in Glenbrook and Springdale is the future supply at the downtown Stamford station. If the future demand downtown cannot be accommodated over time, then Glenbrook and Springdale might be able to supply those needed spaces.

### SCENARIO 2B: Development w/ off-site garage



Scenario 2B is similar to scenario 2A by including the same garage layout, but without additional development. This option would retain more surface parking than scenario 2A.

### SCENARIO 3: Development



Scenario 3 requires the lease or purchase of the Largo Drive parcel to construct a larger parking garage (approximately 300 spaces). The current station site would then be redeveloped as multi-family housing with ground level retail or services around a new Clearview Avenue drop-off plaza.

**Note:** One consideration for assessing parking options in Glenbrook and Springdale is the future supply at the downtown Stamford station. If the future demand downtown cannot be accommodated over time, then Glenbrook and Springdale might be able to supply those needed spaces.



## Springdale Station assessment matrix

The assessment matrix below compares the various options for the station. Criteria were discussed with the city and include property acquisition, neighborhood compatibility, net parking increase, total subsidy required, and cost per additional commuter parking space. Neighborhood compatibility considerations include aesthetics, relationship to the existing

context and desired character, and public input from the meetings.

To estimate the total subsidy required to attract a private developer, the costs and development value were determined first. The acquisition cost was assumed to be the assessed value of the parcel. Parking construction costs were assumed to be \$5,000 for a surface space and

\$30,000 for a structured space. Potential new housing development was valued at \$50,000 per unit. The value of potential new development was then subtracted from the cost of land acquisition and parking construction to estimate the total subsidy required. The cost per additional commuter parking space was found by dividing the estimated public subsidy by the net new number of commuter parking spaces.

ADDITIONAL PROPERTY ACQUISITION	NEIGHBORHOOD COMPATIBILITY	NET PARKING INCREASE AT STATION		TOTAL SUBSIDY REQUIRED	COST PER ADDITIONAL COMMUTER PARKING SPACE	ASSESSMENT (GOOD, FAIR, POOR)*	OTHER COMMENTS
		BY NUMBER OF SPACES	BY PERCENTAGE				
BASELINE: <b>NO CHANGE</b>							
No	<b>N/A</b> ; station remains as is today with surface parking along Hope St, single entrance, etc	0	N/A	None	N/A	Poor/Fair	No public cost but also no improvement; general reluctance about garage on station site
BASELINE: <b>POSSIBLE ENHANCEMENTS</b>							
No	<b>High compatibility</b> ; addresses community concerns and existing commuters desire for improved safety, access, and aesthetics	-10 to 15 spaces (surface)	5% decrease	\$750,000–\$1,500,000	to be determined	Poor/Fair	Maintains the existing parking lot footprint but reduces parking; recommends relocation of main entry and addition of second entry; no new development; costs are high
SCENARIO 1: <b>ENLARGE SURFACE PARKING</b>							
Yes	<b>High compatibility</b> ; improves station safety, access, and aesthetics and increases surface parking on Largo Dr. (possibility of structured parking in the future)	75 spaces (surface)	35%	\$800,000–\$1,600,000	\$13,500	Good	Expands parking across tracks to Largo Drive parcel; also expands to the south along Hope Street; relocates main entry and adds second entry/exit point; reasonable cost per space
SCENARIO 1A: <b>GARAGE PARKING ON LARGO DRIVE</b>							
Yes		300 spaces (garage)	100%	\$11,000,000	\$37,000	Fair	High expense but has potential if needed
SCENARIO 2A: <b>LIMITED DEVELOPMENT WITH SMALL ON-SITE GARAGE</b>							
No	<b>Low compatibility</b> ; contradicts community input regarding the desirability of a parking structure at the station	82 spaces (garage)	39%	\$7,500,000	\$91,500	Poor	Includes 4-story residential development primarily on northern half of existing parking lot, with 36 units and ground-level retail
SCENARIO 2B: <b>NO DEVELOPMENT WITH SMALL ON-SITE GARAGE</b>							
No	<b>Very low compatibility</b> ; contradicts community input regarding the desirability of a parking structure at the station	200 spaces (garage)	95%	\$9,500,000	\$47,500	Poor	No development included; costs do not include other surface upgrades
SCENARIO 3: <b>DEVELOPMENT WITH LARGE OFF-SITE GARAGE</b>							
Yes	<b>Low compatibility</b> ; contradicts community input regarding the desirability of development on the station site	70 spaces (garage)	33%	\$4,800,000	\$68,500	Poor	Includes extensive 4-story residential development on station parking (85 housing units) with off-site parking garage on Largo Drive parcel

\* Assessment refers to the relative pros and cons from a cost standpoint and public perception as described in the public meetings.

## APPENDIX D TRANSPORTATION FUNDING SOURCES FOR MUNICIPALITIES, NOVEMBER 2011

This table represents a current interpretation of funding source policy. Funding policy is continually subject to revision by Regional, State, and/or Federal Agencies

(Note: This matrix is dated 2011 and represents the latest available information from the CRCOG website. Current programs and deadlines should be confirmed by the City of Stamford Engineering department.)

	PROGRAM	TYPICAL FUNDING SPLITS (FED/STATE/LOCAL)	AMOUNT AVAILABLE	DESCRIPTION AND ELIGIBILITY	FOR MORE INFORMATION
<b>STP-Urban Program</b>	Roadway and Bridge	Design: 80/10/10 * ROW: 80/10/10 * Const: 80/10/10 *	\$17,000,000 (approx.) for 2011 CRCOG solicitation representing two years of regional funds	Roadway and Bridge improvements for projects along Federal-aid roadways (Arterials, Urban Collectors, Rural Major Collectors). Applications will be rated by CRCOG based on CRCOG's Selection Policy criteria and rating system. Eligible project costs range from \$100,000 to \$2,500,000 (\$3,500,000 max. for City of Hartford)	<a href="http://www.crcog.org/transportation/tip_proj/project.html">www.crcog.org/transportation/tip_proj/project.html</a>
	Pavement Rehabilitation/ Stand Alone Sidewalk	Design: 0/0/100 Const: 80/0/20 Const: 80/0/20	up to \$3,375,000 for 2011 CRCOG solicitation representing two years of regional funds	Pavement Rehabilitation for structural integrity of 15 years, or Stand-Alone Sidewalk projects limited to new sidewalk. All projects must be on Federal-aid roadways (Arterials, Urban Collectors, Rural Major Collectors). Limit \$845,000 per project. Significant ROW and utility impacts are non-participating	
	Bicycle and Pedestrian	Design: 0/0/100 ** ROW: 80/0/20 Const: 80/0/20	up to \$1,125,000 for 2011 CRCOG solicitation representing two years of regional funds	Bike and Pedestrian improvements along Federal-aid roadways (Arterials, Urban Collectors, Rural Major Collectors). Off road trails are also eligible. Streetscape and sidewalk rehabilitation projects are not eligible. Limit \$560,000 per project	
	Non-Traditional	Typically 80% Federal, State & Local shares varies	up to \$1,000,000 for 2011 CRCOG solicitation representing two years of funding	Examples of nontraditional projects are: transit capital improvements; planning studies; technology transfer projects; research projects; fringe and corridor parking; carpool projects; management systems; and wetland mitigation and banking. Typical funding is \$100,000 to \$300,000 per project	
<b>Transportation Enhancement (STP-E)</b>		Design: 0/0/100 ** ROW: 80/0/20 Const: 80/0/20	\$3,070,000 for 2011 CRCOG solicitation representing four years of regional funds	There are 12 eligible Transportation Enhancement categories related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation. Anticipated \$300,000 minimum total costs	<a href="http://www.crcog.org/transportation/tip_proj/project.html">www.crcog.org/transportation/tip_proj/project.html</a> <a href="http://www.fhwa.dot.gov/environment/te/">www.fhwa.dot.gov/environment/te/</a>
<b>Congestion Mitigation and Air Quality (CMAQ)</b>		Design: 80/0/20 ROW: 80/0/20 Const: 80/0/20	\$10,000,000 statewide annually	This program addresses congestion and air quality problems. Funds must be used for projects that reduce congestion and/or vehicular emissions and are intended to help achieve the goal of the 1990 Federal Clean Air Act Amendments (e.g. traffic signalization, incident management, and rail/bus transit)	Additional solicitation information will be posted to the CRCOG website when available

\* 80/20/0 possible for some projects on State Owned Roadways | \*\* 80/0/20 possible for some projects | \*\*\* No Federal Participation. State Grants available for up to 33% of project cost; State loans available at 6% interest for up to 50% of project cost

\*\*\*\* No State Participation. Federal Share up to 80%, remainder Local Share

PROGRAM		TYPICAL FUNDING SPLITS (FED/STATE/LOCAL)	AMOUNT AVAILABLE	DESCRIPTION AND ELIGIBILITY	FOR MORE INFORMATION
<b>Safe Routes to School</b>		Design: 0/0/100 ROW: 0/0/100 Const: 100/0/0	\$2,000,000 for 2011 solicitation representing two years of statewide funds	New sidewalks and pedestrian and bicycle improvements within 1 mile of a primary or middle school that provides safety for and/or encourages biking and walking. To be eligible, the applicant (municipality or school district) must have a safe routes to school plan in place, and projects must be between \$150,000 and \$500,000. Additional SRTS funds cannot be received for a school until previous SRTS projects for that school are completed and evaluated	<a href="http://www.ct.gov/dot/cwp/view.asp?A=1373&amp;Q=475354">www.ct.gov/dot/cwp/view.asp?A=1373&amp;Q=475354</a>
<b>Local Road Accident Reduction</b>		Const: 90/0/10 Design: 0/0/100 ROW: 0/0/100	Annually as available	Projects that address safety problems on roadways off the Federal-aid highway system. Eligible projects construction costs from \$50,000 to \$280,000 construction, with a total project cost of \$375,000 (unforeseen cost increases allowed to \$430,000, however costs beyond \$375,000 are sole responsibility of the municipality). Projects that employ a systematic approach for many locations are also eligible	<a href="http://www.crcog.org/transportation/tip_proj/project.html">www.crcog.org/transportation/tip_proj/project.html</a> <a href="http://www.ct.gov/dot/cwp/view.asp?a=2303&amp;q=260798">www.ct.gov/dot/cwp/view.asp?a=2303&amp;q=260798</a>
<b>Local Bridge Program</b>	State Program	Design: 0/0/100 ROW & Const: ***	As of 7/6/2011, funding is only available for projects already underway	Bridge repair/replacement projects. The bridge must carry a certified public road, be municipally owned and/or maintained, be structurally deficient according to criteria developed by the Federal Highway Administration in the Coding Guide, and not have a pre-existing commitment to fund the project. Bridges must span more than 6' and must not have received state funds within last 20 years.	ConnDOT contact: Stanley C. Juber (860) 594-3213 <a href="http://www.ct.gov/dot/cwp/view.asp?a=3197&amp;q=300022">www.ct.gov/dot/cwp/view.asp?a=3197&amp;q=300022</a>
	Federal Program	Design: 0/0/100 ROW & Const: ****	Approximately \$10,000,000 to \$20,000,000 statewide annually	Bridge repair/replacement projects. The bridge must be listed on the National Bridge Inventory (NBI); be municipally owned and/or maintained; be structurally deficient, functionally obsolete, or scour-critical; have a sufficiency rating less than 80 (except for approved systematic maintenance program projects); must carry a public road classified by Federal guidelines as being either an "urban local" road, a "rural local" road, or a "rural minor collector"; and must not have received Federal funding within the last 10 years. Sufficiency ratings less than 60% typically are required for bridge replacement	ConnDOT contact: Joseph A. Scalise (860) 594-3389 <a href="http://www.ct.gov/dot/cwp/view.asp?a=3197&amp;q=300022">www.ct.gov/dot/cwp/view.asp?a=3197&amp;q=300022</a> <a href="http://www.crcog.org/publications/Transportation-Docs/FedLocalBridge-Program.pdf">www.crcog.org/publications/Transportation-Docs/FedLocalBridge-Program.pdf</a>

\* 80/20/0 possible for some projects on State Owned Roadways | \*\* 80/0/20 possible for some projects | \*\*\* No Federal Participation. State Grants available for up to 33% of project cost; State loans available at 6% interest for up to 50% of project cost

\*\*\*\* No State Participation. Federal Share up to 80%, remainder Local Share