

Branchville



Transit Oriented Development Plan February 2017

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Acknowledgements

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Executive Summary



Introduction to the TOD Plan

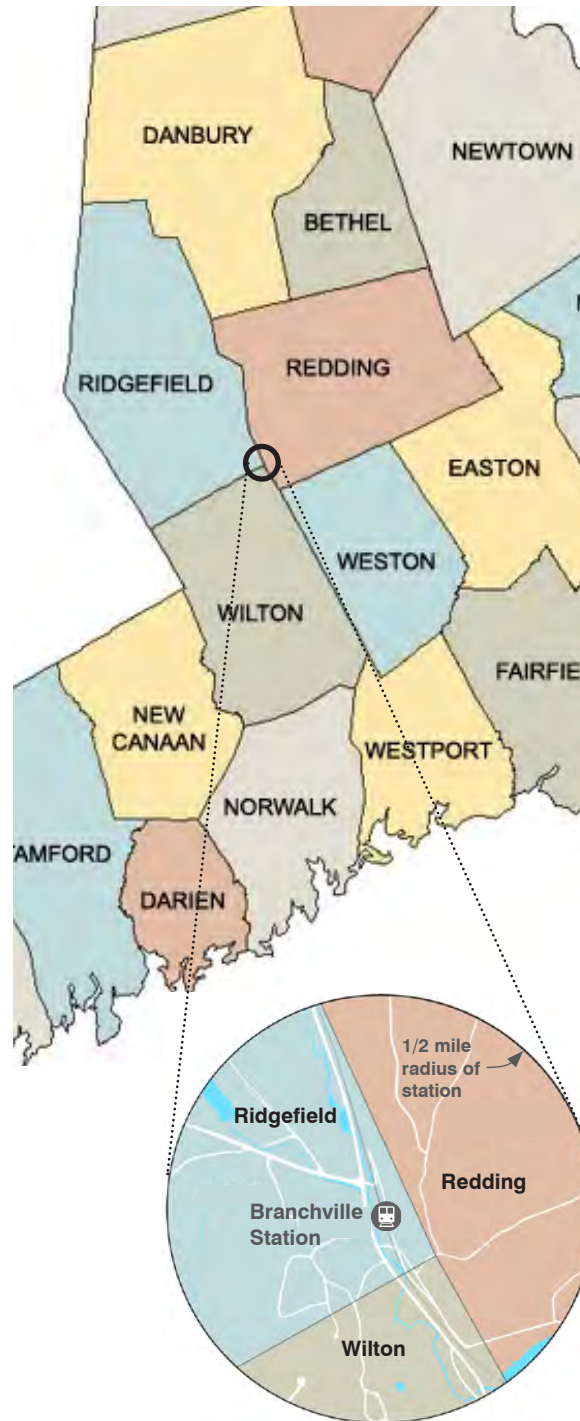
This plan was commissioned by the Western Connecticut Council of Governments (WestCOG) on behalf of the Town of Ridgefield. The goal of this plan is to identify infrastructure improvements and regulatory changes necessary to support development in the Branchville Station Area. This plan also seeks to identify measures that the Town and Region can take to encourage pedestrian and transit friendly development in the Branchville Station area. The Town seeks to ensure that future development will provide an environment that is supportive of local residents, property owners, businesses, and commuters.

Eighty percent of the project is funded by the Federal Surface Transportation Program with the balance provided by the Region (WestCOG) and the Town of Ridgefield. This project is aligned with the State's goal of encouraging development in station areas so as to maximize value of transit improvements and support local economic development.

This plan was guided by a Task Force comprised of representatives from the Town of Ridgefield, Town of Redding, Western Connecticut Council of Governments, and the Connecticut Department of Transportation as well as Branchville residents, property owners, and business owners.

The Branchville Study Area

Branchville is located in the southeast corner of Ridgefield adjacent to the Towns of Redding and Wilton. The study area for this plan is within a half-mile radius of Branchville Station, with most of the efforts being focused within Ridgefield and areas in close proximity of the station. The half-mile station radius represents a typical study area for Transit Oriented Development (TOD) plans, as this represents the area that is typically accessible within walking distance of a station. Due to the local topography and limited roadway network, the potential development area for Branchville is closer in proximity to the station than the half-mile extent.



Existing Conditions

The project team conducted an extensive analysis of existing conditions within the study area. This included a review of historic resources, land use, environmental resources, zoning, infrastructure, transportation and a analysis of market conditions.

Historic Resources

As a historic village, Branchville is rich in historic resources. Of the approximately 50 buildings that lie within the project's focus area, 80 percent are greater than 50 years old. The earliest buildings within the focus area lie along West Branchville Road and Portland Avenue on the hill east of the train tracks. These buildings date from the 18th, 19th and 20th centuries and display Second Empire, Federal, Shingle, Greek Revival, Colonial Revival, and Italianate architectural forms.

There are no local historic districts within the project focus area and thus alterations to buildings within this area are not restricted, however there are specific procedures which guide demolition. In the event that federal funds are used for the implementation of the Branchville TOD Study, consultation would be required with the Connecticut State Historic Preservation Office to determine if there are adverse effects to historic properties.

Land Use and Ownership

The Branchville study area is largely comprised of low density residential development and undeveloped land in Ridgefield, Redding and Wilton. Commercial, retail and restaurant uses are primarily located along Route 7 and Branchville Road and at the northern end of West Branchville Road.

A small number of owners with more than twenty property owners holding more than one property in the station area. These ownership patterns suggest the potential for property assemblage that could facilitate development in the study area.

Environmental Resources

Branchville Station and the surrounding commercial area occupy a narrow valley along the Norwalk River. The topography to the east and west of the station is relatively steep and has consequently limited the density of development in those areas.

Much of the Route 7 and Branchville Road corridor in Branchville rests in the floodplain and/or floodway. The floodway is comprised of the channel of the Norwalk River and Cooper Pond Brook and the parts of the floodplain adjoining those channels that are reasonably required to efficiently carry and discharge the flood water or flood flow of a river or stream. There are a number of buildings and businesses in Branchville that are located within, or in close proximity to the floodway. Future development within this area will be highly restricted. The map below shows the extent of floodway and floodplain in the study area.



Legend

- Floodway
- Zone AE (100 Year Floodplain)
- 0.2% Flood Chance (500 Year Floodplain)

An environmental review of the study area revealed twenty nine hazardous material sites. These sites are scattered throughout the study area, however, the majority are located in the vicinity of Ethan Allen Highway. Of these sites, only four were identified as high-risk that require further investigation.

The project area also includes two Natural Diversity Database (NDDDB) areas. Properties located within the mapped NDDDB areas have the potential to impact the state's rare plants, animals or significant natural communities. Before starting construction on or acquiring properties within mapped NDDDB areas, a Request for NDDDB State Listed Species Review must be completed.

Zoning

Overall, the existing zoning in the study area provides only limited support for transit oriented development. The zoning districts, which vary between towns, are largely low density residential with limited commercial districts in each town. Additionally, there are very limited specific site design requirements that could regulate the overall form of development; drive the how the character of individual sites form. As such, the existing zoning districts within Branchville are not configured to promote strengthening of the sense of place that is desired for a transit oriented village.

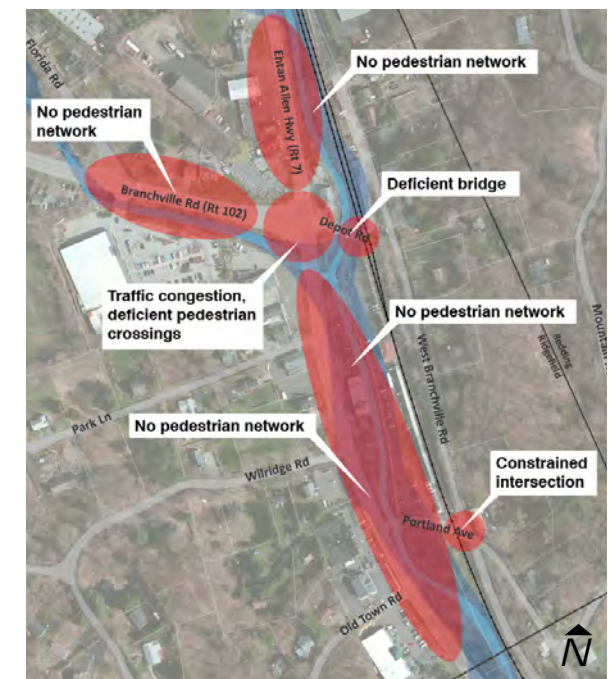
Infrastructure

As a small village in a narrow river valley, Branchville's transportation infrastructure is relatively limited. The Ethan Allen Highway (Route 7) provides a north/south connection to Danbury to the north and Wilton and Norwalk to the south. Branchville Road (Route 102) provides an east/west connection between Branchville and Ridgefield Center. The rail corridor also provides a regional connection from north to south and parallels Route 7 along much of its route between Danbury and Norwalk.

Rail crossings and station access are provided by Portland Avenue and Depot Road, both are local roadways with ageing and/or deficient bridges. The Depot Road Bridge is a narrow, ageing structure,

which does not allow for concurrent operation of traffic in both directions. The Connecticut DOT is currently evaluating design options for replacing bridges on both roadways and reconfiguring station access.

As a whole, the most significant transportation infrastructure deficiency in the study area is the lack of pedestrian facilities. With a few exceptions, there are almost no sidewalks in the study area. Additionally, marked crosswalks across Route 7 and Route 102 are limited and lack basic infrastructure such as curb ramps, pedestrian phases, and pedestrian signal head. The map below highlights areas where transportation infrastructure is deficient.



Water Service in the TOD area is provided by Aquarion Water Company. Aquarion reports that a 16" water main is located in Danbury Road (Route 7) which extends up to Branchville Road (Route 102). The 16" main then continues westerly up Branchville Road to provide water service to Ridgefield Center.

Three phase electrical, telephone and internet service are available within the study area. Natural gas is not available. The study area also lacks sewer service with all properties being dependant upon private septic systems. This is a significant constraint upon new development in Branchville. The provision of sewer service to Branchville would require a connection to one of three wastewater treatment plants:

- South Street Wastewater Treatment Facility
- Route 7 Wastewater Treatment Facility
- Georgetown Wastewater Treatment Facility

Of these facilities, the Georgetown facility is most proximate and a connection that facility would be the least expensive. Treatment capacity at this plant is, however, fully allocated and the facility cannot accept any new flows unless the plant is expanded or existing flow capacity reallocated to the Branchville area. Additionally, since the plant is located in Redding, an intermunicipal agreement with the Town of Redding would be required.

Transportation

Route 7, a state route and principal arterial, is the “Main Street” of Branchville, carrying an average of 17,900 to 21,300 vehicles per day. Route 102, also a state route and minor arterial, meets Route 7 in Branchville at Depot Road. This roadway carries an average of 5,400 to 6,700 vehicles per day and connects Branchville to Ridgefield Center. The Branchville area experiences significant peak hour traffic congestion at the Route 7/102 intersection. Commuting patterns in and out of the station area, shown in the graphic below, suggests that a small amount of traffic is generated or arrives locally.



Much of Branchville’s congestion is related to the lack of southbound queuing lanes for turning traffic onto Portland Avenue and issues related to station access at Depot Road.

Transit service to the area includes Metro North’s Danbury Branch Line which has approximately 28 departing trains per weekday and provides service from Danbury to South Norwalk with connecting service to New York City. The average trip length is one half hour and to South Norwalk and 1.5 hours to Grand Central Station. Branchville is also serviced by the Housatonic Area Regional Transit (HART) 7 Link route which provides weekday service along Route 7.

Market Analysis

A comprehensive market analysis of the study area was conducted so as to identify existing and potential development potential in Branchville. Three market sectors were studied in detail, these include office, retail/services/dining, and housing.

Of these three market sectors analyzed, the most conservative development scenario is projected for the office market given inactive condition of the market and constraints in future demand for the foreseeable future due to economy, though select options for small-scale legal, finance, real estate, health care related businesses is possible given how underrepresented they are in the district.

Development opportunities for retail/service/dining in the target area appear to be moderately positive. However, scale of such development will be affected by level of economic growth locally and regionally, as well as success in identifying latent demand for goods and services in an area presently underserved. It is expected that much of the retail-commercial will be in the form of convenience-based services and food services – though it was also observed the village has formed a market niche in building trades and home improvement which may represent an opportunity for further expansion.

Rental housing represents the most viable real estate sector for development in the TOD area

based on market strength and advantages inherent with proximity to train station. This sector is also seeing the strongest investment interest from local and regional developers most likely to consider Branchville. New housing in the Branchville could take the form of infill, rehab conversion or new construction and be either stand alone or mixed use. Moreover, both market-rate and mixed income scenarios could be envisioned. In either case, enhancement of conditions along Route 7 would immeasurably enhance marketability.

Below is a summary chart of development potential over a five year period targeted for the Branchville TOD area based on the forgoing analysis of market conditions and market depth within select market sectors in the region, town and targeted TOD area.

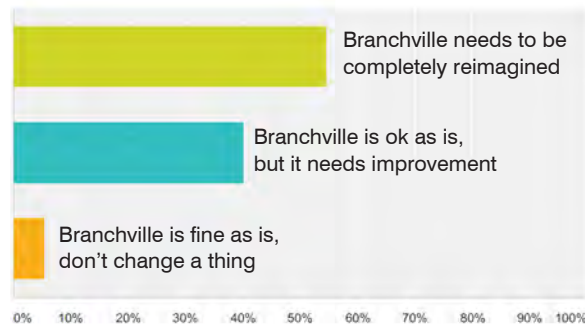
Market Sector	Development potential under existing conditions
Office	1,000-2,250 sf
Retail-Services-Food	2,500-7,500 sf
Housing (rental)	20-50 units

Public Involvement

Public involvement was a key component of the Branchville TOD planning process. As such, a three-day “charrette” was held in September, 2015. The charrette featured an evening public workshop, focus group meetings, open house sessions, and a public presentation of the charrette findings. All charrette functions were held at the Ridgefield Library.



In addition to the charrette, an online survey was conducted prior to the charrette and was held open throughout the duration of the charrette. Almost 300 responses were received from residents and stakeholders in the area. One of the requested responses was “Please select the statement below that best corresponds to your thoughts about Branchville”. A majority of respondents felt that Branchville needs to be completely reimaged or is OK as is but needs improvement. The results are demonstrated in the chart below.



A key outcome of the public involvement process was the development of a vision plan for use in guiding the study, its recommendations, and future policy decisions in Branchville. The following vision statement was developed in coordination with the study task force after soliciting public input through the charrette process.

In the future, Branchville will be a strong, cohesive mixed-use village. It will have outdoor public spaces, landscaping, and amenities that will be inviting to visitors and residents alike. Parking will be located so visitors can park once and walk throughout the village. Branchville will have well-connected small-scale developments with a mix of retail and housing. The pedestrian environment along and across Route 7 will be pleasant and safe. The train station will be well connected to the rest of the village where commuters live, shop, or dine.

Improvement Strategies for Branchville

The following strategies were developed during the charrette and represent the primary improvement concepts that were developed through the workshop and stakeholder meetings. These include:

Strategy 1: Provide pedestrian enhancements & improve key intersections

This concept seeks to establish a continuous pedestrian network on both side of Route 7, connecting the existing commercial and retail areas to the train station. This concept also incorporates the Connecticut Department of Transportation's plan for access modifications to the station site which include closing Depot Road, realigning Portland Avenue with Old Town Road, and providing a traffic signal at that location.

Strategy 2: Develop greenway and provide riverfront enhancements

This strategy seeks to connect Branchville and the station to Weir Farm, the planned Norwalk River Valley Trail, and the existing Ridgefield Rail Trail. As part of this concept, the Norwalk River riverfront area along Route 7 would be restored as open space, with pathways, landscaped seating areas, and new connections to the train station.

Pathways and/or sidewalks would extend to Florida Road so as to connect to the Ridgefield Rail Trail. A pathway would also extend from Old Town Road where an off-street pathway could potentially lead directly to Weir Farm.

Strategy 3: Provide wastewater infrastructure

As previously noted, Branchville lacks sewer service which presents a considerable constraint to new development. Options for providing wastewater disposal include the following:

Option A: Connect to existing facilities

1. Ridgefield Center
2. Route 7/35
3. The Georgetown facility in Redding (currently 100% allocated)

Option B: Dispose of wastewater locally via a community system

The community system option may be a promising alternative, but requires further investigation for feasibility and regulatory compliance.

Strategy 4: Encourage infill development and redevelopment

This strategy would integrate new development with the existing development on the west side of Route 7 to establish a more complete street front and consolidate parking to the rear of buildings. Infill development could be mixed-use in nature with lower level retail or office and upper level residential units.

Strategy 5: Create a new “Main Street”

The “Main Street” concept seeks to develop a new pedestrian friendly street west of Route 7. The street would connect the CVS/Ancona's parking area to Wildridge Road, with the potential for expansion to Old Town Road. Development would occur on both sides of the street with parking provided on-street and in small lots. New development could be mixed-use in nature with lower level retail or office and upper level residential units.

Strategy 6: Encourage residential development

West Branchville Road holds promise for residential redevelopment and infill development. The area has a low density of housing due to the existing wastewater disposal constraints. The provision of wastewater disposal infrastructure would allow greater housing densities in that area. While the topography is also a development constraint, there are multiple prototypes for hillside residential development that could be introduced to this area.

Recommended Development Plan

Based upon the previously identified development strategies, and the results of a build-out analysis, a recommended development plan (shown in graphic at right) was developed for Branchville. The development plan provides a framework for the type of development and features of development that are possible in Branchville.

Actual development in Branchville will likely vary from this plan. Implementation of this plan will be contingent upon the participation of property owners in assembling and redeveloping properties so as to enable this vision.

The design objectives of the recommended development plan are as follows:

- Provide strong multi-modal connections to Branchville Station
- Provide pedestrian facilities throughout the study area
- Improve off-street connections between commercial properties
- Provide usable open space
- Preserve historically significant structures
- Direct new development and redevelopment towards vacant and underutilized properties
- Provide a vision for development that is complementary to existing land uses
- Expand opportunities for retail and service businesses
- Provide a range of housing types
- Provide a level of density that is supportive of the implementation of and Incentive Housing Zone (IHZ)
- Allow for phased development
- Provide adequate parking while reducing existing parking requirements through the use of shared parking resources
- Orient development towards streets

The recommended development plan anticipates the potential for a total of 68,000 sf of commercial space, 189 apartment units and 260 townhouse units if fully built out (see table below).

Town	Commercial (sf)	Apartments (units)	Townhouses (units)	Parking (spaces)
Ridgefield	38,000	189	192	1,022
Redding	0	0	12	24
Wilton	30,000	0	56	210
Total	68,000	189	260	1,256



Recommended Mobility Enhancements

A number of mobility enhancements are recommended within the project area, with most of those improvements recommended in the proximity of Branchville Station. These improvements include:

1. Realignment of Route 102/Route 7 intersection

Realignment of this intersection will shorten pedestrian crossing distances and slow turning movements while still providing ample operating space for large vehicles such as trucks and buses.

2. New signalized intersection at Old Town Road

The provision of a signalized intersection at Old Town Road would provide access to a realigned Portland Avenue. This would allow for protected left turns onto Portland Avenue and a protected pedestrian crossing.

3. Realignment of Portland Avenue

This would allow for the alignment of Portland Avenue directly across from Old Town Road and would require construction of a new bridge over the Norwalk River.

4. Improvement of Portland Avenue/West Branchville Road intersection

An improved intersection would allow turning movements for large vehicles such as fire trucks that is not accommodated by the current alignment.

5. Pedestrian Bridges across Norwalk River and Cooper Pond Brook

Existing bridge crossings at the Route 102/Route 7 intersection do not have sufficient width to accommodate sidewalks. The provision of pedestrian bridges would provide safe and attractive pedestrian crossings.

6. Greenway Path along the Norwalk River

This pathway would parallel and cross the Norwalk River at multiple locations and could provide a connection to Florida Road where an on-street connection can be made to the Ridgfield Rail Trail. This enhancement assumes a future reuse of the

existing service station site on the east side of Route 7.

7. Pathway connection to West Branchville Road

The pathway would replace the existing roadway rail crossing which CT DOT plans on closing if and when improvements are made to Portland Avenue. The pathway would maintain a pedestrian crossing at this location and access to the train station from West Branchville Road.

8. Sidewalk network throughout project area

Sidewalks should be provided on at least one side of every street in the project area. Sidewalks in commercial areas should be sufficiently wide to accommodate higher volumes of pedestrian traffic, street furniture, and storefront displays. Marked crosswalks should be provided at all intersection crossings.

9. Bus stops and shelters

Bus stops should be located to the “far side” of the Route 102/Route 7 intersection to minimize delay to traffic moving through the intersection. This concept also provides sufficient pull-out space for buses to allow for stopping outside of the travel lane. Other enhancements would include bus shelters and waiting areas.

Recommended Zoning Modifications

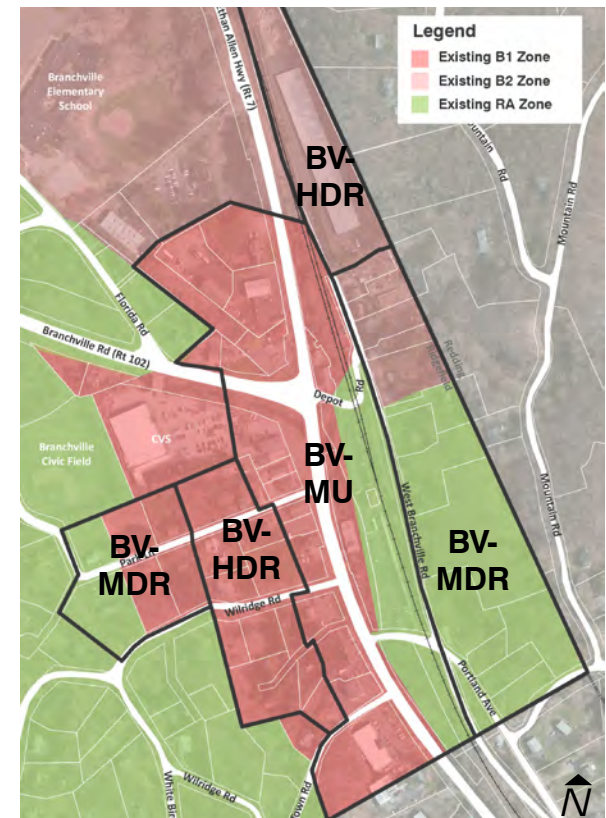
Because the recommended development plan is not supported by existing zoning in the project area, new zoning is proposed for Branchville. These recommendations do not include proposed changes to zoning for the Towns of Redding or Wilton. If those communities choose to encourage development pursuant to the proposed development scenario presented within this plan, their respective Planning and Zoning Commissions should consider the adoption of zoning similar to that proposed here.

In support of the preferred development plan, three new zones are proposed, these are:

- Branchville Village Mixed-Use District (BV-MU)
- Branchville Village Medium Residential Density District (BV-MRD)

- Branchville Village High Residential Density District (BV-HRD)

The Branchville Village Medium Residential Density District (BV-MRD) and Branchville Village High Residential Density District (BV-HRD) are residential in nature with an emphasis on being pedestrian friendly and easily walkable to the Branchville Metro-North train station. The Branchville Village Mixed-Use District (BV-MU) is meant to promote mixed-use retail of limited size with apartments on the upper floors. The permitted uses recommended for this district are similar to the already existing B1 zone. Both the B1 and the BV-MU are meant to promote mixed-use retail of limited size with apartments on the upper floors. The Branchville Village Mixed-Use District (BV-MU) has the same small retail permitted uses as the B1 district. See map below for proposed zoning district boundaries.



Fiscal Impact of Preferred Development Concept

A fiscal analysis of the preferred development concept was conducted so as to compare the existing conditions against the full build-out. The total existing appraised value of the study area is currently \$21,118,211 (\$14,782,748 assessed value), which generates \$394,909 in property tax revenue for the Towns of Ridgefield, Redding, and Wilton.

The total potential appraised value of the full build out is \$192,995,029, which represents an increase of \$171,876,818 in total appraised value. This development would create an additional \$3,214,661 in property tax revenue per year. The share of this revenue per town, based upon the location of development would be as follows:

- Ridgefield: \$2,209,109
- Redding: \$337,414
- Wilton: \$668,138

Implication for Transit Ridership

A full build-out of the proposed development would introduce between 412 and 449 residential dwelling units. Townwide, Ridgefield has 1.1 workers per household. Assuming an average of 1.1 commuting workers per dwelling unit, a full build out of the project area could introduce between 453 and 494 commuters to the project area.

Development in the Branchville area would presumably attract residents who use Metro North to commute to work. Using a conservative estimate of 15% of future Branchville commuters using Metro North, the projected additional ridership provided by the proposed development would yield approximately 68 to 74 riders per day.

Recommended Implementation Strategy

Enhancements to and redevelopment of the station area will require the Town of Ridgefield and its departments, boards, and commissions to act upon the recommendations of this plan.

The recommended course of action is as follows:

1. Continue to pursue a diversity of funding sources to assist in planning and infrastructure enhancements.

Lead Agencies: Town Engineer, Planning & Zoning Department

2. Implement transportation enhancements in station area.

The Town should work to solicit state funding and identify town funds for the design and construction of transportation enhancements.

Lead Agencies: Town Engineer, Planning & Zoning Department

3. Expand wastewater and drinking water infrastructure.

The Town should provide municipal wastewater infrastructure in Branchville and expand drinking water infrastructure to the east side of the Norwalk River.

Lead Agencies: First Selectman's Office, Board of Selectmen, WPCA, Town Engineer

4. Rezone the station area and replace the existing zoning with a new Branchville Village District zone.

Lead Agencies: Planning & Zoning Commission and Planning & Zoning Department

5. Adopt an Incentive Housing Zone to encompass the recommended Village District zone.

The provision of an IHZ would allow for densities of residential development as demonstrated in the build-out analysis and recommended development plan. An IHZ would allow for a minimum of 25% higher densities (as required by statute) than the underlying village district zone (if adopted).

The primary advantage of the IHZ is the incentive that it provides for the development of affordable housing while allowing the Town regulate affordable housing development within the IHZ.

Lead Agencies: Planning & Zoning Commission and Planning & Zoning Department

6. Consider establishing a Tax Increment Finance (TIF) district that corresponds with the new Village District zone if created.

The creation of a TIF district would be a powerful instrument for incentivizing new development and generating funding for property acquisition and enhancements in the station area.

The build out analysis of the potential development scenarios indicates that an additional \$2.2 million of annual tax revenue could be generated in the station area. If the TIF were structured to set aside 50% of new tax revenue, as much as \$1.1 million of annual revenue could be reinvested in the station area with the Town of Ridgefield still receiving \$1.1 million in new tax revenue.

Lead Agencies: First Selectman's Office, Board of Selectmen, Tax Assessor's Office

Introduction



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Introduction to the TOD Plan

This plan was commissioned by the Western Connecticut Council of Governments (WestCOG) on behalf of the Town of Ridgefield. The goal of this plan is to identify infrastructure improvements and regulatory changes necessary to support development in the Branchville Station Area. This plan also seeks to identify measures that the Town and Region can take to encourage pedestrian and transit friendly development in the Branchville Station area. The Town seeks to ensure that future development will provide an environment that is supportive of local residents, property owners, businesses, and commuters.

Eighty percent of the project is funded by the Federal Surface Transportation Program with the balance provided by the Region (WestCOG) and the Town of Ridgefield. This project is aligned with the State's goal of encouraging development in station areas so as to maximize value of transit improvements and support local economic development. This plan will build upon previous planning for the area including the Route 7 Corridor Study and the Connecticut Department of Transportation's Danbury Branch Line Study.

This plan was guided by a Task Force comprised of representatives from the Town of Ridgefield, Town of Redding, Western Connecticut Council of Governments, and the Connecticut Department of Transportation as well as Branchville residents, property owners, and business owners.

What is TOD?

Transit-Oriented Development (TOD) includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood that is located within a half-mile of a transit station. Successful TOD provides people with convenient, affordable and active lifestyles.

Why TOD?

- Reduced household driving and thus lowered regional congestion, air pollution and greenhouse gas emissions
- Walkable communities that accommodate more healthy and active lifestyles
- Increased transit ridership and fare revenue
- Improved property values within the TOD area
- Improved access to jobs and economic opportunities
- Expanded mobility choices that reduce dependence on the automobile and reduce transportation costs
- Greater housing choice



Elements of the TOD Plan

Existing Conditions Analysis: Documents multiple characteristics of the study area that are relevant to the planning for Transit Oriented Development in Branchville. These topic areas include:

- Land use
- Zoning
- Environmental constraints
- Wastewater infrastructure
- Market analysis
- Historic resources inventory
- Parking analysis
- Transportation system analysis

Charrette: The public charrette and survey were key instruments used to engage the public and ensure that the TOD plan is sensitive to local concerns and interests.

Planning Strategies: Multiple planning concepts were generated during and following the charrette planning process. These concepts include ideas for land use improvements, transportation improvements, and open space preservation and enhancement.

Build-Out Analysis: The build-out analysis is a test of the density of uses that the Branchville area could absorb given environmental constraints, potential infrastructure enhancements, and zoning modifications.

Recommended Development Plan: An illustrative guide to the type, location, and density of development that meets the vision and goals of this plan. This plan is based upon the preceding charrette process, conceptual planning, and build-out analysis.

Mobility Plan: Recommendations for transportation system improvements that serve all users (pedestrian, bicycle, transit, and auto).

Stormwater and Floodplain Management Plan: Recommendations for accommodating stormwater associated with future development.

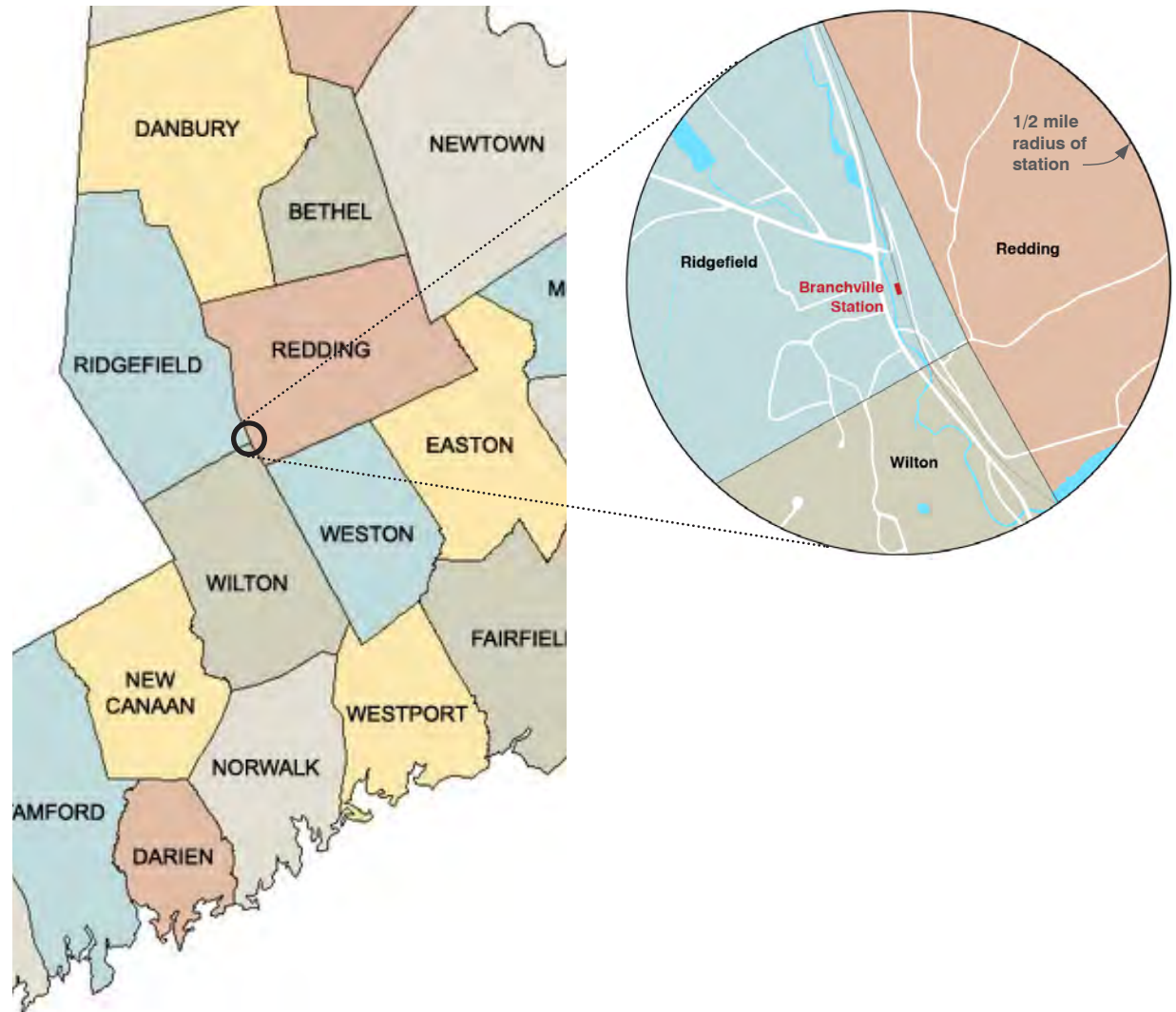
Zoning Recommendations: Zoning recommendations are provided to the Town for consideration of adoption. These recommendations are intended to foster the type of development as identified in this plan.

Design Guidelines: Zoning recommendations and design guidelines will be provided to the Town for consideration of adoption. These recommendations and guidelines are intended to foster the type of development preferred by the community.

Implementation Strategy: An implementation strategy will be provided to the Town that identifies a step by step process for implementing the improvements identified in the plan.

The Branchville Study Area

Branchville is located in the southeast corner of Ridgefield adjacent to the Towns of Redding and Wilton. The study area for this plan is within a half-mile radius of Branchville Station, with most of the efforts being focused within Ridgefield and areas in close proximity of the station. The half-mile station radius represents a typical study area for Transit Oriented Development (TOD) plans, as this represents the area that is typically accessible within walking distance of a station. Due to the local topography and limited roadway network, the potential development area for Branchville is closer in proximity to the station than the half-mile extent.





Existing Conditions Analysis

This existing conditions analysis documents multiple characteristics of the study area that are relevant to the planning for Transit Oriented Development in Branchville.

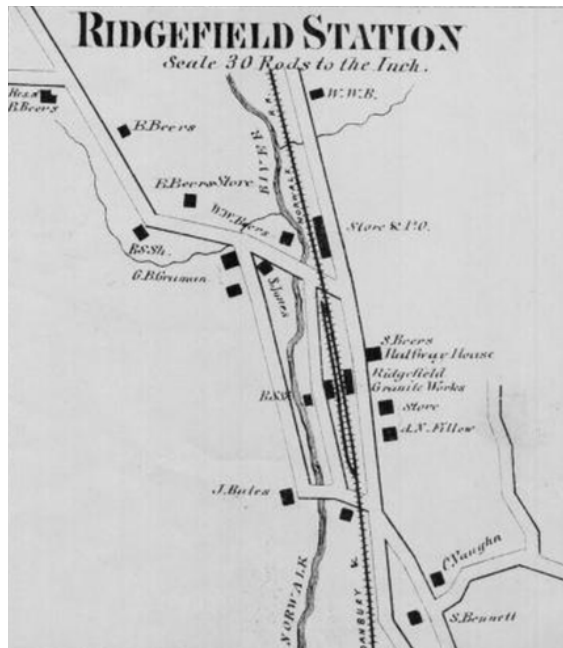
These topic areas include:

- Historic Resources
- Land Use
- Topography & Wetland Soils
- Flood Zones
- Hazardous Materials
- Threatened & Endangered Species
- Zoning
- Parcel Analysis
- Utility Infrastructure
- Transportation System
- Market Analysis

Historic Resources

History of Branchville

In the early 19th century, the southwest corner of Ridgefield, the area now known as Branchville, was largely rural. The Old Sugar Hollow Turnpike, a main highway that stretched from near the Danbury line south into Wilton, ran through the area connecting it with communities to the north and south; a segment of this alignment survives in the center of Branchville as West Branchville Road. In 1852, new access was provided to the area with the arrival of the Danbury and Norwalk Railroad. The new rail line paralleled the turnpike to the west as it traveled through Branchville. A passenger waiting room and ticket office were established in the home of Sherman Beers proximate to the tracks and the newly established station stop was termed Ridgefield Station. Residents who lived elsewhere in Ridgefield traveled to and from the new station by horse and buggy.



A.H. Beers, Map of Ridgefield Station, 1867
Source: Redding Historical Society

With the arrival of the railroad at mid-century, the character of the quiet community changed. Through the course of the second half of the 19th century, a small bustling town grew up in Branchville. Industry included a machinery factory and a quarry, the Ridgfield Granite Works. Both raw materials and finished goods could be shipped along the railroad to the port in Norwalk where they were loaded on ships to New York City. In addition, Branchville resident Abijiha Fillow established a mica mine which attracted geologists and mining companies to the area. As industry grew in Branchville, so too did services to support the workers and their families. An 1867 map shows the Branchville Granite Works, three stores, a halfway house, a post office and a collection of residences.

In 1870, the Danbury and Norwalk Railroad built a branch line from Branchville to the village of Ridgefield. At this time, the name of the station in Branchville was changed from the Ridgefield Station to the Branchville Station, reflecting its location at the end of the branch line. Passenger service to Ridgefield ran until 1925, while freight service on the branch line continued until 1964.

In the 1920's, Route 7 (Ethan Allen Highway) replaced the Old Sugar Hollow Turnpike as the primary vehicular thoroughfare. Commercial development sprung up along the new roadway, including Ancona's Grocery. Joseph Ancona emigrated from Sicily in 1912 with his father and brothers. They worked in the Gilbert & Bennett wire factory to the south of Branchville during World War I. Ancona opened his general store in 1920 with a soda fountain, dry goods, groceries, and a small gas pump, living in an apartment above the commercial space. He then expanded his business to include a liquor store, and in 1949 constructed a brick building to house a hardware store to the north of the grocery store at 51 Ethan Allen Highway. In the first half of the twentieth century, residential buildings were constructed along the side streets off of Ethan Allen Highway, such as Park Lane and Florida Road.

Several commercial establishments were constructed on the west side of Ethan Allen Highway south of Wilridge Road in the latter half of the twentieth century, thereby extending the commercial development beyond the Ancona block. When the hardware store wasn't successful, Ancona's Grocery moved from their original location north to the hardware store building at 51 Ethan Allen Highway. While the Ancona Grocery has closed, and the liquor store has moved to a parcel off of Branchville Road, the buildings that originally housed Ancona's Grocery and the Hardware Store remain and continue to serve commercial functions.

Buildings within the Project Focus Area

Research was undertaken at the Connecticut State Historic Preservation Office in September 2015 to identify properties within the project's focus area that may be listed in the State or National Registers of Historic Places. One property within the focus area was identified as listed in the National Register. The Branchville Railroad Tenement is located at 14 West Branchville Road, south of the railroad station, near the intersection of West Branchville Road and Portland Avenue. The two-story, three bay wooden structure was constructed in the in 1850's as a boarding house for immigrants brought in to construct the Danbury-Norwalk Railroad. It is the only known building of this type in the town of Ridgefield and one of Branchville's few remaining Victorian Vernacular commercial structures. In the 1880's, the building's owner, Abijah Fillow, expanded the building to the north, added a two-story Victorian veranda on the building's west side, and renovated the interior in order to convert the property to a hotel. In 1905, the tenement was purchased by Italian Immigrant Pasquale DeBinigno who added a wing to the south and converted the structure to a three-family house with a saloon and grocery store on the ground level. The tenement was listed in the National Register in 1982. No additional properties within the focus area are listed in the State or National Registers. The J. Alden Weir Farm, also listed in the National Register,

is located to the west of the center of Branchville, within the project's larger study area but outside the bounds of the focus area.

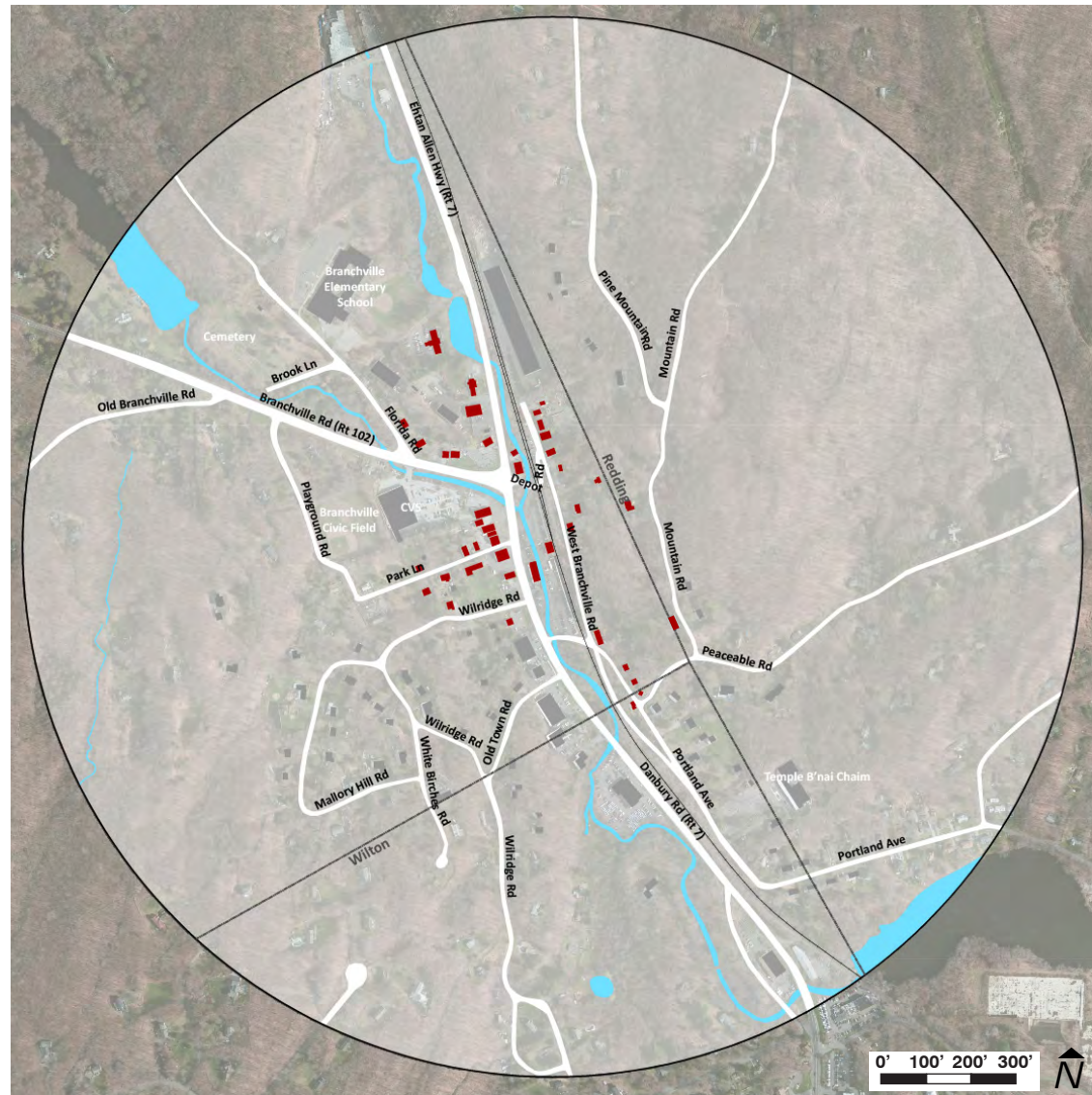
Of the approximately 50 additional buildings that lie within the project's focus area, 80 percent are greater than 50 years old. The earliest buildings within the focus area lie along West Branchville Road and Portland Avenue on the hill east of the train tracks. These buildings date from the 18th, 19th and 20th centuries and display Second Empire, Federal, Shingle, Greek Revival, Colonial Revival, and Italianate architectural forms. Some of these buildings retain the majority of their original architectural features while others have been substantially altered over time. One of the most prominent buildings on West Branchville Road is the Second Empire-style house at 28 West Branchville Road. Constructed in 1876, the house is characterized by a steep mansard roof and delicate roof brackets. The adjacent barn, which dates to c. 1900, is three stories high with a gambrel roof. Although the distinctive features of these buildings are largely intact, both properties are in a deteriorated state. More modest residential buildings on West Branchville Road include the late 19th century vernacular farmhouse at 48 West Branchville Road, dating to c. 1890, and the Colonial Revival-style residence at 42 West Branchville Road. Like the Branchville Railroad Tenement, these properties were constructed when this segment of West Branchville Road was part of the Old Sugar Hollow Turnpike, prior to the construction of Route 7 in the 1920's.

The Branchville Railroad station which lies on the west side of the tracks opposite the properties on West Branchville Road is another distinctive form within Branchville's architectural landscape. Constructed in 1920 as a way station on the Lenox-Pittsfield line of the New Haven & Hartford Railroad, this small building is characterized by symmetrical window and door spacing, and a deeply projecting hipped roof supported by brackets. The deep overhang of the roof shows the influence of the Shingle and Stick styles.

West of the train station, in the blocks between Wilridge Road and Branchville Road on Route 7,

several buildings are illustrative of the commercial development of Branchville in the first half of the 20th century. The vernacular buildings at 39-49 Ethan Allen Highway originally housed Ancona's Grocery and Liquor Store on the ground floor with living space above. Although these buildings have undergone substantial changes over time, including alterations

to rooflines and windows, their basic floorplan and overall massing remains intact. To the north, the two-story Colonial Revival-style brick building was constructed to house Ancona's Hardware in 1949. The building's original form and decorative details, including a dentiled cornice and semi-circular window in the building's gable end, remain largely unchanged.



Potential Historic Properties Near Station

Implications for Development

Federal, state and local regulations may guide changes to or the demolition of historic properties within the Branchville TOD focus area. Section 106 of the National Historic Preservation Act requires federal agencies consider effects to properties listed in, or eligible for listing in, the National Register of Historic Places when planning for their projects. In the event that federal funds are used for the implementation of the Branchville TOD Study, consultation would be required with the Connecticut State Historic Preservation Office to determine if there are adverse effects to historic properties. This would include effects to the National Register-listed Branchville Railroad Tenement, as well as other properties that could be determined eligible for the National Register. In addition, federally-funded transportation improvements, such as the replacement of the Portland Avenue or Branchville Road Bridges, would require an evaluation of the use of historic properties in accordance with Section 4(f) of the U.S. Department of Transportation Act.

In addition to federal historic preservation regulations, the municipalities each have their own regulations that pertain to the treatment of historic properties. There are no local historic districts within the project focus area and thus alterations to buildings within this area are not restricted, however there are specific procedures which guide demolition. In the Town of Ridgefield, the Building Department requires that applicants for demolition permits for all buildings send a certified letter to the Ridgefield Historical Society and the Ridgefield Historic District Commission notifying them of the demolition. The Town of Wilton has a 90-day demolition delay which the Wilton Historic District and Historic Property Commission may impose on the demolition of a property they determine has historic significance. Similarly, the Town of Redding has a 180-day demolition delay for properties the Demolition Delay Committee determines have historic value. Compliance with these regulations would be required for any demolition resulting from the implementation of the Branchville TOD Study. It is possible to halt demolition of a property listed in, or under consideration for, listing in the National Register through a provision under the Connecticut Environmental Policy Act.



Historic Postcard of Branchville Railroad Station
Source: Redding Historical Society



Branchville Railroad Station



Branchville R.R. Tenement (DeBenigno's Store), 1905
Source: Redding Historical Society



Branchville Railroad Tenement, 14 West Branchville Rd.



Ancona's Grocery, 41-49 Ethan Allen Highway
Source: Ridgefield Historical Society



39, 41-49, and 51 Ethan Allen Highway

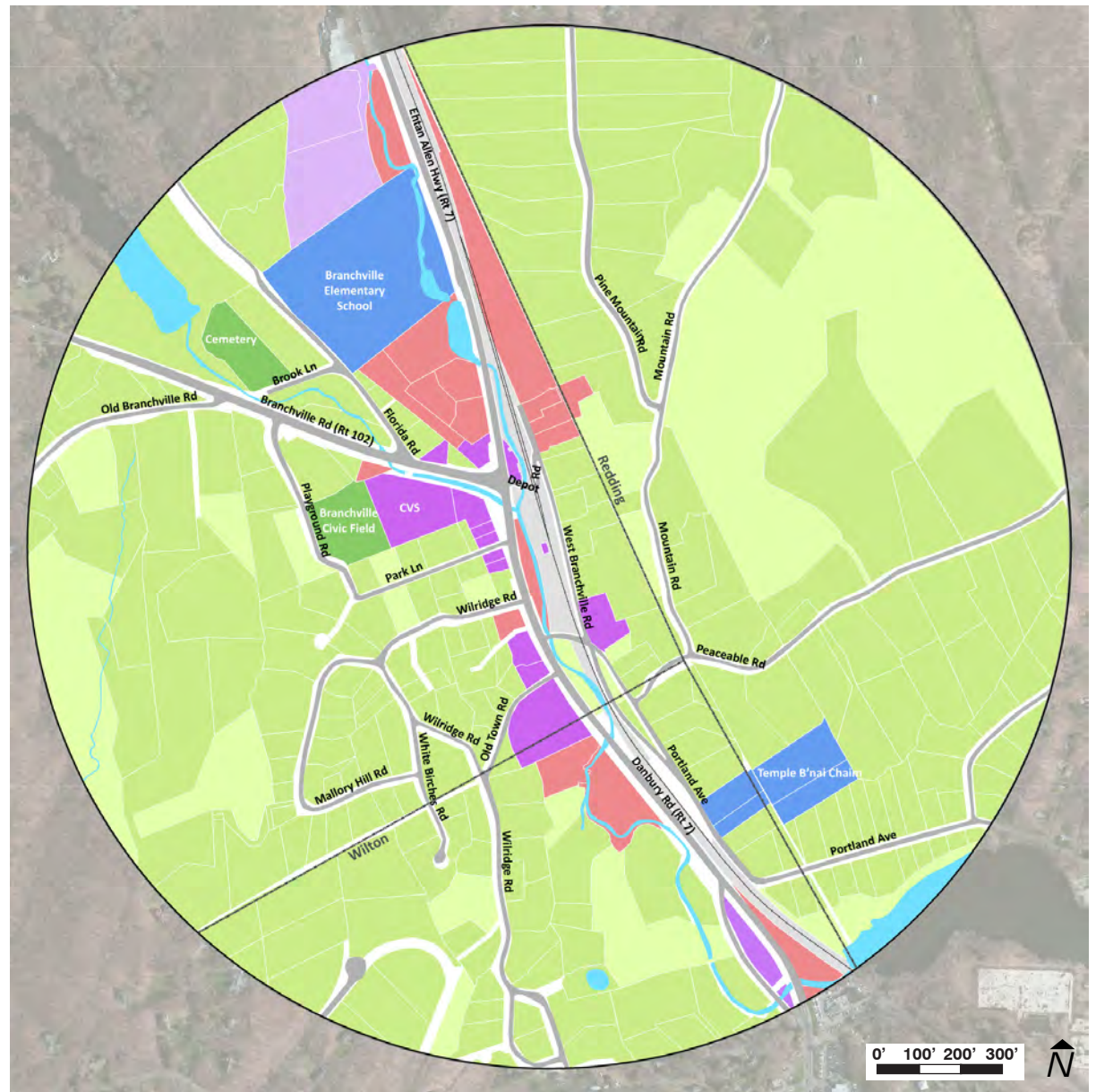
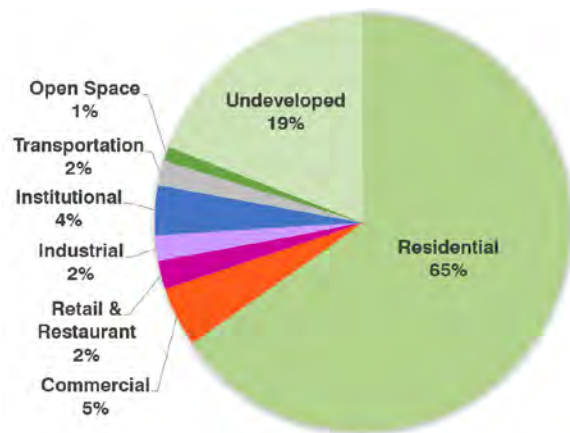
Land Use

The Branchville study area is largely comprised of low density residential development and undeveloped land in Ridgefield, Redding and Wilton. Commercial, retail and restaurant uses are primarily located along Route 7 and Branchville Road and at the northern end of West Branchville Road.

Institutional land uses in the area include Branchville Elementary School on Florida Road and Temple B'nai Chaim on Portland Avenue.

There are two open space parcels in the study area, a cemetery located on Brook Lane and a privately owned little league baseball field (Branchville Civic Field) located on Playground Road.

Industrial land uses are located on two sites north of Branchville Elementary School.



Legend

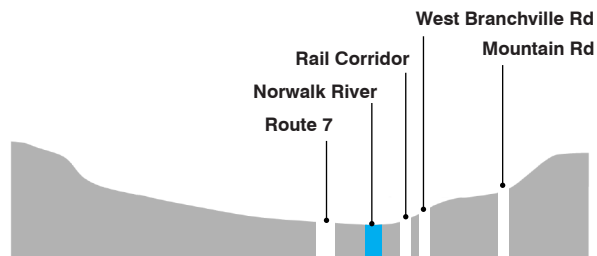


Land Use

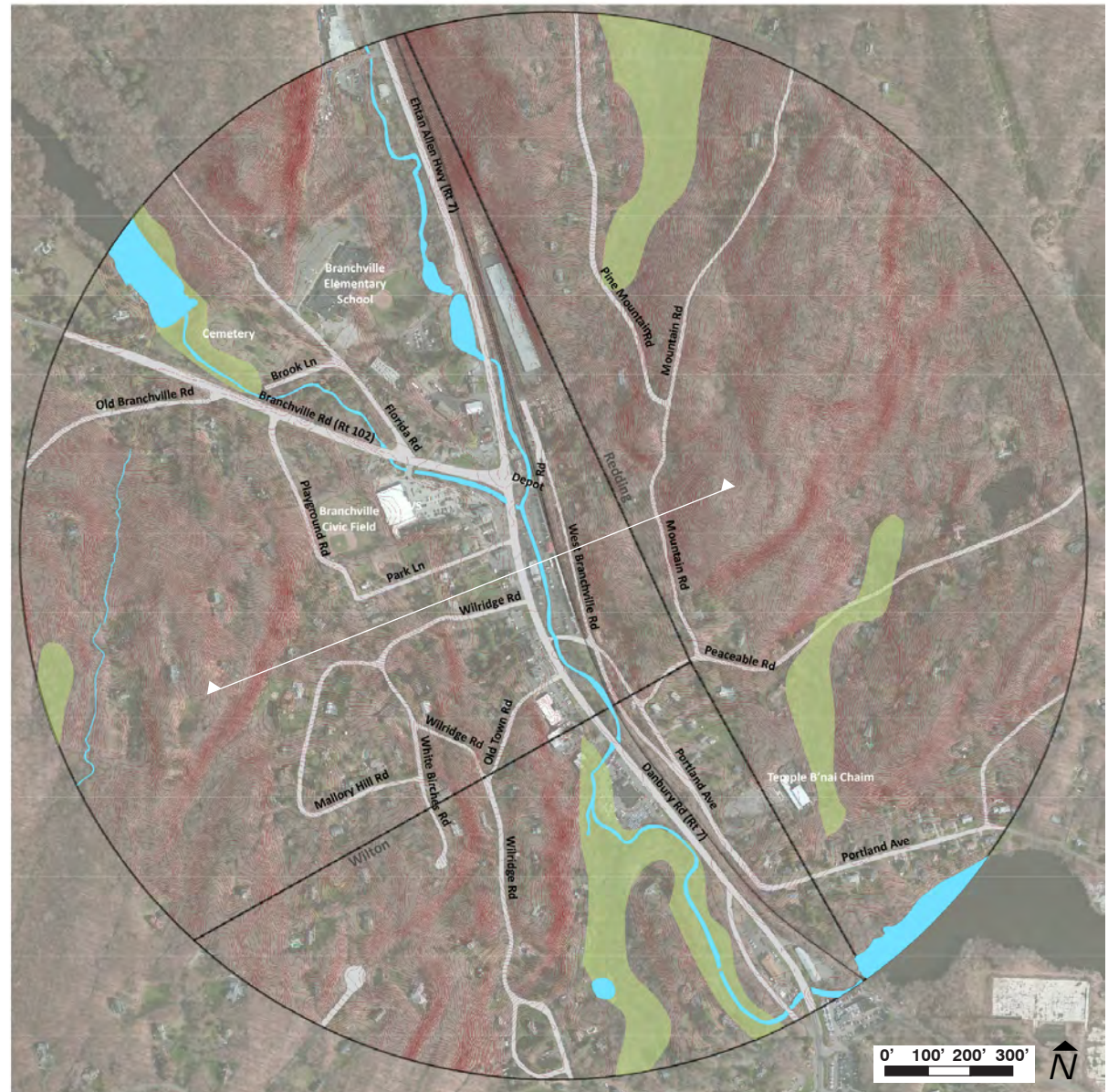
Topography & Wetland Soils

Branchville Station and the surrounding commercial area occupy a narrow valley along the Norwalk River. The topography to the east and west of the station is relatively steep and has consequently limited the density of development in those areas.

Inland wetland soils are present in the Branchville area, with the greatest share of those areas located in Redding and Wilton. In Ridgefield, wetland soils are located west of Florida Road and at the western edge of the study area. In Redding, wetland soils are present near Pine Mountain Road and Peaceable Road. In Wilton, wetland soils are located along the Housatonic River and east of Wilridge Road. These locations are based on state level soils mapping and have not been delineated in the field. As such, these areas may not contain wetland soils and there may be wetland soils within the study area that are not identified by this map.



Section view of Branchville's topography
2x vertical exaggeration



Legend

- Inland Wetland Soils
- 2' Contours

Flood Zones

Much of the Route 7 and Branchville Road corridor in Branchville rests in the floodplain and/or floodway.

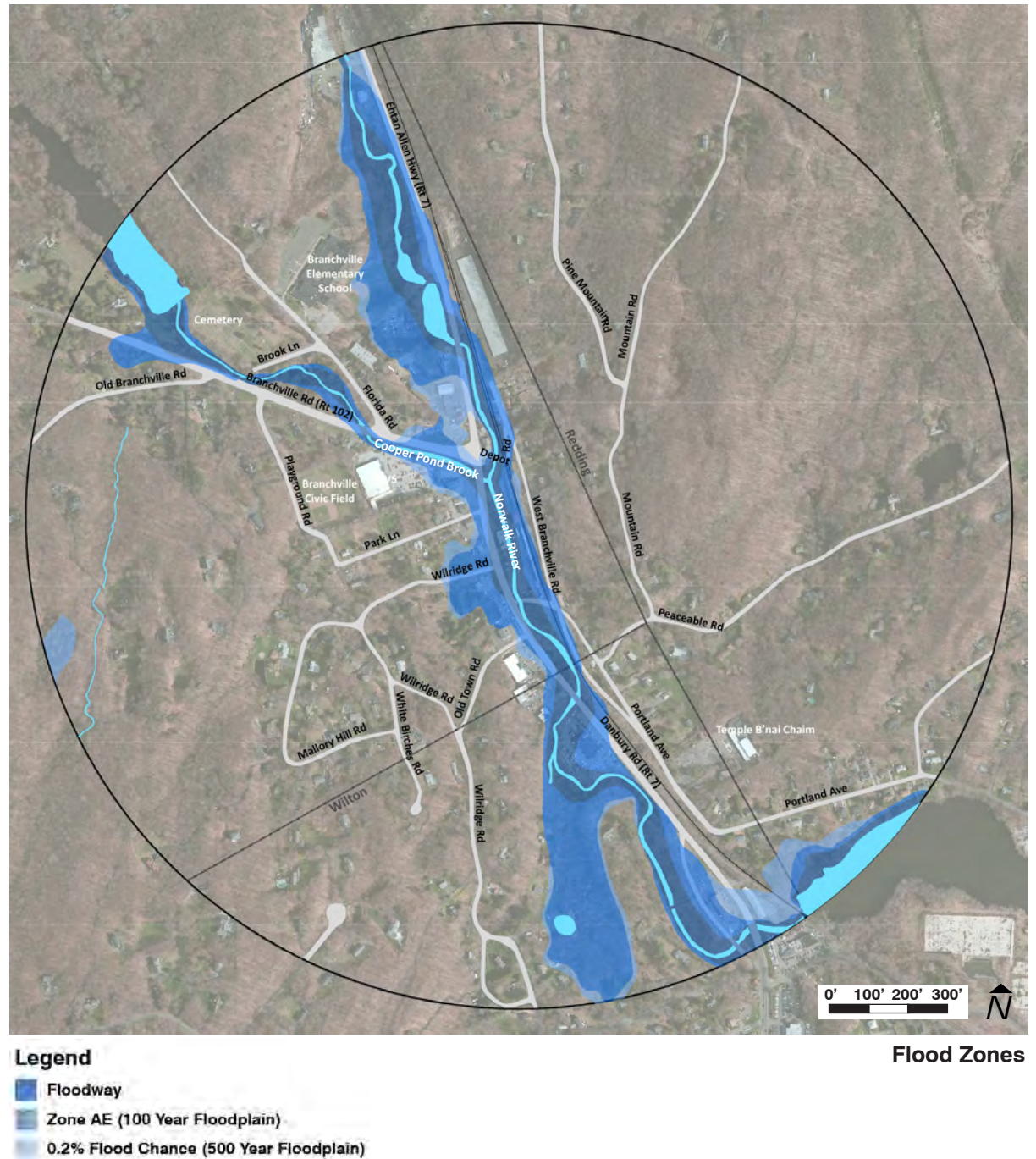
The floodway is comprised of the channel of the Norwalk River and Cooper Pond Brook and the parts of the floodplain adjoining those channels that are reasonably required to efficiently carry and discharge the flood water or flood flow of a river or stream. There are a number of buildings and businesses, such as Precision Brake Works, in Branchville that are located within, or in close proximity to the floodway. Future development within this area will be highly restricted.

Zone AE is the flood insurance rate zone that corresponds to the 100 year floodplain (1% chance of annual flooding). The train station and platform and much of the development on the west side of Route 7 is within this zone. Development within zone AE is possible, but floodplain building codes and insurance requirements restrict the type of development that is feasible in these areas.

Branchville also has areas that are within the 500 year floodplain (0.2% chance of annual flooding). The 500 year floodplain is the least restrictive flood zone. Businesses within the zone include the Little Pub and adjacent businesses.



Recent flooding on Norwalk River near Train Station
Photo courtesy of Ralph Baskin



Hazardous Materials

Background

The findings of this preliminary hazardous materials screening and evaluation are not intended to substitute for more detailed studies, such as an American Society for Testing and Materials (ASTM)-compliant Phase I Environmental Site Assessment or subsurface soil and groundwater investigations. This screening is meant to identify low, medium, and/or high risk properties as a guide for identifying potential contamination in the study area. Further technical and more detailed investigations may be required to determine the existence of oil and hazardous materials (OHMs) prior to property acquisitions, utility relocations, and construction of project elements. The identification of a site in this report does not conclusively confirm that the property has hazardous waste/material contamination, but rather that it has the potential to contain OHMs. There may be additional sites with contamination issues that have not been identified in this screening due to noncompliance with regulations or incomplete regulatory/historical information.

The United States Environmental Protection Agency (USEPA) and the Connecticut Department of Energy and Environmental Protection (CT DEEP) regulate the handling, storage, generation and use of OHMs. USEPA and CT DEEP maintain records of known hazardous materials release sites and enforce specific guidelines for the treatment and removal of OHMs at these sites.

Methodology

A records review of various federal and state environmental listing databases was conducted for the study area in August 2015. Environmental Record Search (ERS) produced a database report detailing hazardous material release sites identified within the study area boundaries. The environmental databases reviewed include, but are not limited to:

- National Priority List (NPL);

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- No Further Remedial Action Plan (NFRAP);
- Resource Conservation and Recovery Act (RCRA);
- Federal Brownfield;
- Emergency Response Notification System (ERNS);
- State Sites-Open and -Closed;
- State/Tribal Solid Waste Landfills (SWL);
- State/Tribal Leaking Underground Storage Tanks (LUST);
- State/Tribal Underground Storage Tanks/Aboveground Storage Tanks (UST/AST);
- State/Tribal Brownfields; and
- Facility Registry Index (FINDS).

The ERS report is described below.

A visual inspection of the study area was conducted on August 20, 2015 to identify potential sources of hazardous waste/materials. The inspection was conducted from the street and none of the subject properties were accessed. No on-site testing or assessment was conducted as part of this inspection.

File reviews at the Town of Ridgefield and Town of Wilton were conducted August 20, 2015 on the hazardous material sites ranked as high risk (described below). The file reviews were conducted at the Building Department, Health Department and Fire Marshal for both Ridgefield and Wilton.

Each release site was assigned a high-medium-low risk ranking relative to the possibility of encountering OHMs. The high-medium-low risk site designations are based upon review of the various federal and state environmental listing databases contained in the ERS database report that identifies hazardous material release sites within the study area. Based upon the release database and details of the reported release, the risk assignment was made. High risk sites included sites that have current or historical use as auto repair/dealerships, are listed as LUST (which

have documented evidence of contamination), and/or have current or historical use as drycleaners. Low risk sites have releases with closed cases, small quantities of released hazardous materials, store or transport hazardous materials, or have activities that do not contribute to soil/groundwater contamination.

Existing Conditions

The review of state and federal environmental database records revealed evidence of numerous recognized environmental conditions (RECs), which are potential sources of OHMs. These RECs require further investigation in the form of soil and/or groundwater sampling and analysis, to determine if the properties identified may impact the study area.

The ERS report identified 29 hazardous material sites in the study area. The hazardous material sites are scattered throughout the study area, however, the majority are located in the vicinity of Ethan Allen Highway. The release sites located within the “Focus Area” – the most likely area for potential Transit Oriented Development surrounding the Branchville train station, have been identified and explained in the following map and table. The ERS report identified 15 hazardous material sites in the Focus Area.

The visual inspection did not reveal additional properties with potential sources of OHMs in the study area. Based on the visual inspection, one of the properties listed in the ERS report was removed from the list of sites, as the location was incorrectly mapped in the report. Town of Ridgefield water pollution facility (Site ID 9) is located at 901 Ethan Allen Highway, which is outside of the study area.

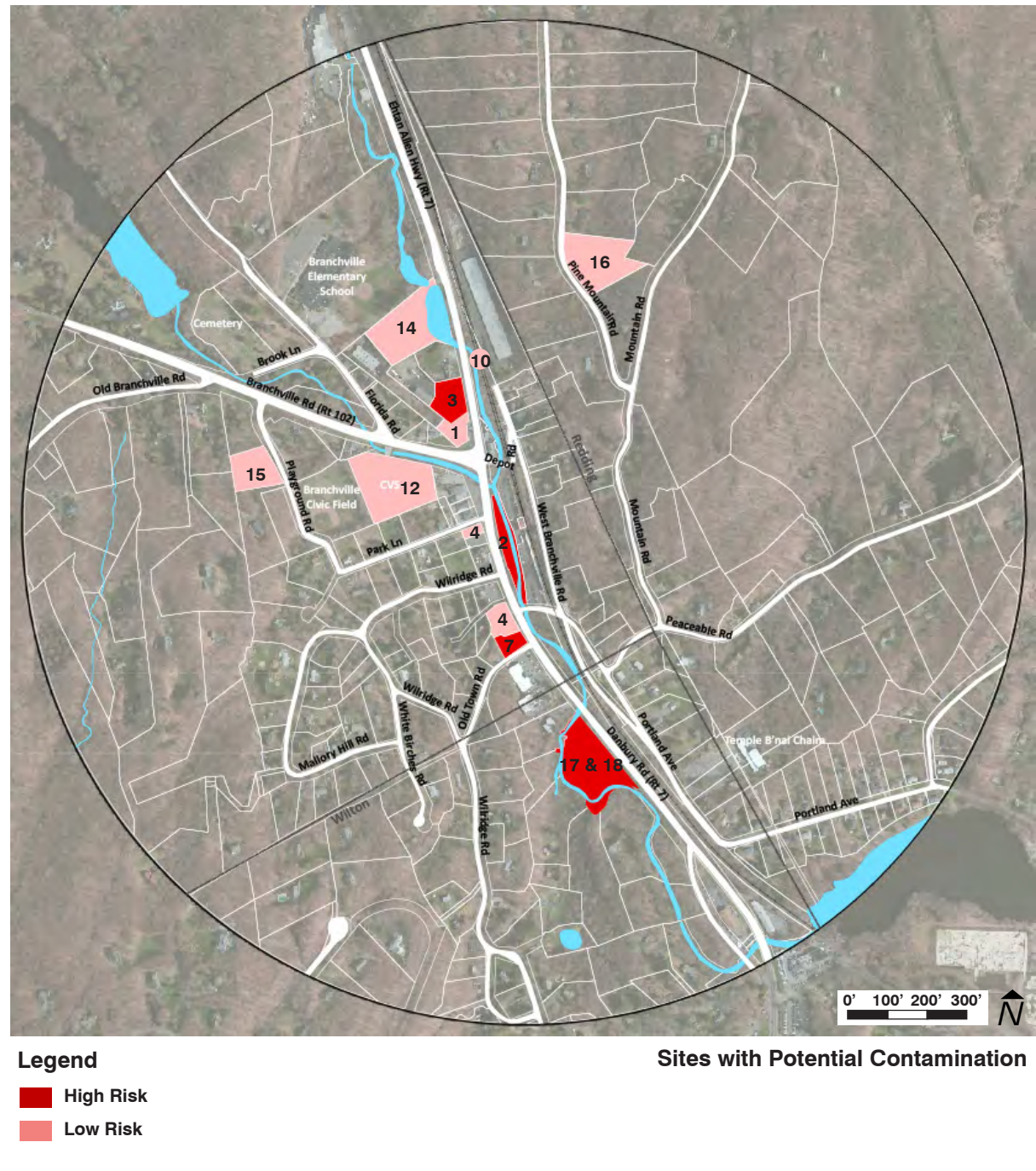
Based upon the environmental database review and visual inspection, each release site was assigned a risk ranking (low, medium, or high) relative to the possibility of encountering OHMs. See the following table for these rankings.

The file reviews of the high risk sites conducted at the Town of Ridgefield and Town of Wilton revealed the following:

- Precision Brakeworks/Getty Petroleum at 32 Ethan Allen Highway, Ridgefield: No files at the Building, Health or Fire Departments relative to hazardous materials.
- My Cleaners: No files at the Building, Health or Fire Departments relative to hazardous materials.
- Keans Autoworks, LLC/Branchville Service and Oil Company: No files at the Building, Health or Fire Departments relative to hazardous materials.
- Wilton Maintenance Garage/Georgetown Jeep Eagle: No files at the Building, Health or Fire Departments. Conversations with Peter Berstein, Georgetown Deputy Fire Marshal, revealed that the Fire Department only has records from 2011. Marshal Berstein stated that there have been several interested buyers for the Georgetown Jeep Eagle property, but all were not interested in purchasing based upon the extensive hazardous material issues at the property. He also said that this site has had multiple hazardous material releases throughout the years. Additional environmental issues have also occurred, including the filling of a perennial watercourse at the rear of the property. Conversations with Wilton town employees revealed that this site is well known as having many hazardous material issues throughout the years.

Potential Impacts

Potential impacts from hazardous waste/materials were evaluated based on the type of release, materials released and the proximity of the release site to the Focus Area. Table 1 identifies the number of high, medium, and low risk sites within the Focus Area.



Site	Site Name	Address	Database	Description of Release(s)	Risk
1	37 Ethan Allen Highway	38 Ethan Allen Highway, Ridgefield, CT	SDWIS-US	Coliform in public water system	Low
2	Precision Brakeworks/Getty Petroleum	32 Ethan Allen Highway, Ridgefield, CT	CPCS-CT, Dealers-Repairers-CT, FRS-US (2), LUST-Closed-CT, Manifest2-RI, Manifest-CT (3), RCRA-SQG-US, Sites-Closed-CT, UST-CT	Haz mat transporter and generator, Petroleum contamination to soil - case closed (USTs & LUSTs - 4 USTs removed), #2 fuel oil spill (unknown quantity), Auto dealer/repair, Coliform and nitrate in public water system	High
3	59 Ethan Allen Highway	59 Ethan Allen Highway, Ridgefield, CT	SDWIS-US	Coliform, nitrite and nitrate in public water system	Low
4	Computrol, Inc.	15 Ethan Allen Highway, Ridgefield, CT	Manifest-CT, RCRA-NON-US, Prop-Trans-CT, Hist-SDAD-CT, FRS-US	Haz mat transporter, Solvent storage	Low
5	Branchville Oil Company/CT Bulk Transport/	61 Ethan Allen Highway, Ridgefield, CT	Sites-Closed-CT (2), FRS-US	40 gallons #2 fuel oil spilled - case closed, 20 gallons #2 fuel oil spilled - case closed	Low
6 & 8	Branchville Mica Mine	No address	MRDS-US (2)	N/A	Low
7	My cleaners	9 Ethan Allen Highway, Ridgefield, CT	Hist-Cleaners	Possible solvent contamination	High
10	Norwalk River	In front of 71 Ethan Allen Highway, Ridgefield, CT	ERNS-US	Release in river from vehicle in water, no further details	Low
11	Keans Autoworks, LLC/Branchville Service and Oil Company	63 Ethan Allen Highway, Ridgefield, CT	FRS-US, Dealers-Repairers-CT, UST-CT	Auto dealer/repair, Possible petroleum contamination (5 USTs removed)	High
12	Anconas Market/Anconas Wine and Liquors	720 Branchville Road, Ridgefield, CT	SDWIS-US (2)	Tetrachloroethylene, 1,1-Dichloroethylene, nitrates, nitrites, coliform in public water system	Low
13	Emergency Response	79 Ethan Allen Highway, Ridgefield, CT	Manifest-CT	Haz mat transporter	Low
14	Brandstrom Instruments, Inc./Brandstrom Industries/Connecticut Light & Power	85 Ethan Allen Highway, Ridgefield, CT	FRS-US, ERNS-US, Sites-Closed-CT (2), Hist-SDAD-CT	20 gallons of oil from pole transformer, Waste oil in dumpster (unknown quantity) - case closed,	Low
15	SAA	19 Playground Road, Ridgefield, CT	Sites-Closed-CT	50 gallons of #2 fuel oil leaked from truck - case closed	Low
16	No name	14 Pine Mountain Road, Redding, CT	Sites-Closed-CT, ERNS-US	10 gallons of transformer oil released - case closed	Low
17 & 18	Wilton Maintenance Garage/Georgetown Jeep Eagle	1039 Danbury Road, Wilton, CT	UST-CT, Manifest-CT, FRS-US, Sites-Closed-CT, Hist-Auto Dealers (3), RCRA-NON-US,	2 USTs with no removal information, Haz mat transporter and generator, 6 gallons of hydraulic oil released - case closed, Auto dealer/repair	High

Sites with Potential Contamination

Further Investigation Required

Additional investigations for the presence of OHMs would be required to determine if mitigation would be necessary under the proposed alternatives.

For release sites that are ranked as low risk for potential impact, an updated review of agency files, environmental databases and public records should be revisited to determine if changes have occurred since the report was prepared. Further investigation, beginning with site-specific ASTM-compliant Phase I Environmental Site Assessments (ESAs) should be conducted at all high risk rated properties prior to the installation or construction of the project elements. Phase 1 ESAs should be completed for any properties that will be acquired as part of the project. If RECs are confirmed at these properties, further investigation in the form of subsurface soil and groundwater investigations and laboratory testing may be recommended. Any mitigation requirements would depend upon the extent and nature of the hazardous waste/materials found, the construction activity proposed and the intended uses of the site.



Site 2: Precision Brake Works, 32 Ethan Allen Highway



Site 11: Keans Autoworks, 63 Ethan Allen Highway



Site 7: My Cleaners, 9 Ethan Allen Highway



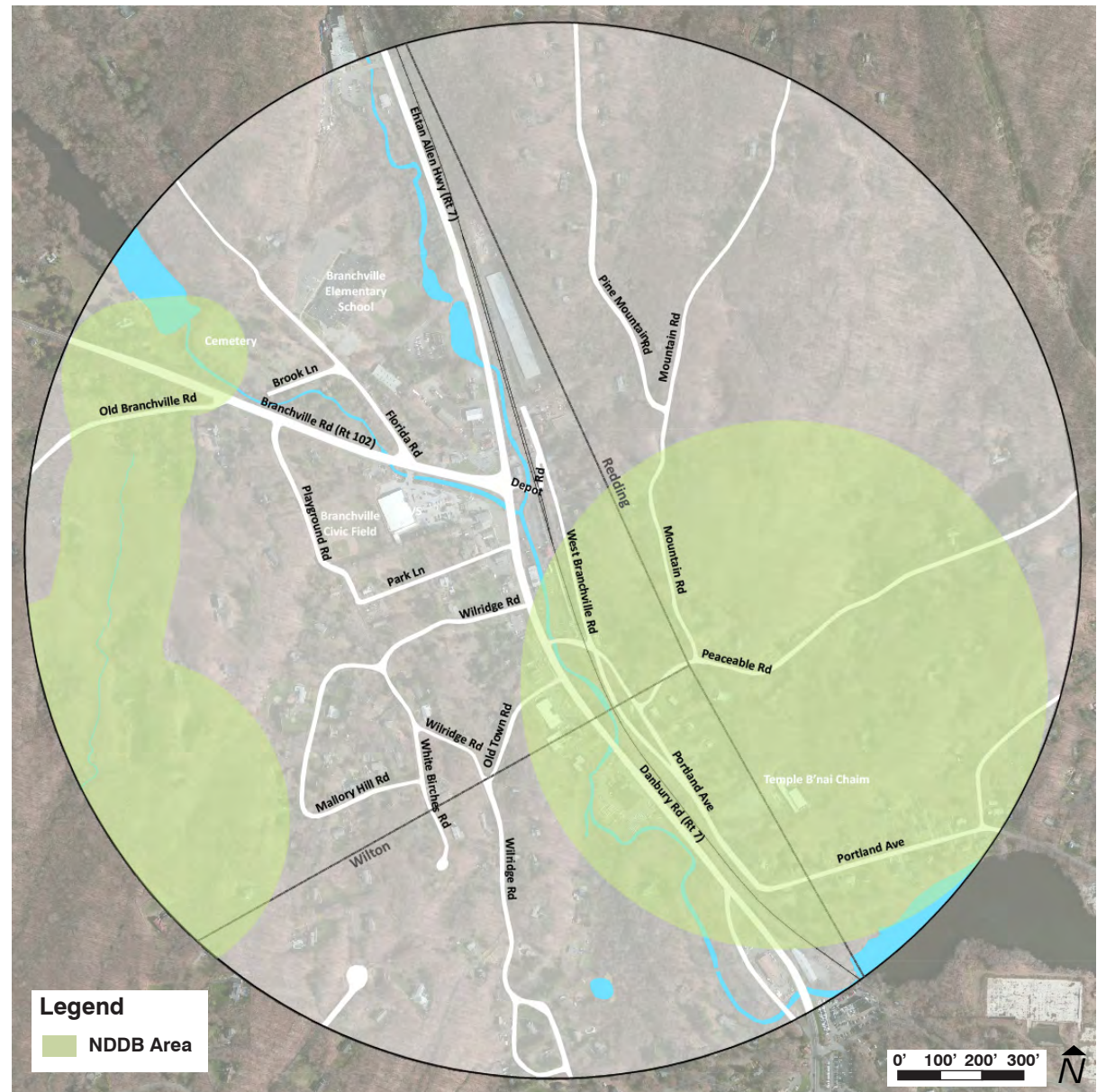
Site 17&18: 1039 Danbury Road, Wilton

Threatened and Endangered Species

Threatened and endangered species are mapped and regulated through the Connecticut Department of Energy and Environmental Protection (CT DEEP). Mapped Natural Diversity Database (NDDB) areas are locations where a state listed plant or animal species has been confirmed, or where these species' habitats have been observed. There are two mapped NDDB areas located in the study area: in the southeast portion and west-southwest portion.

Properties located within the mapped NDDB areas have the potential to impact the state's rare plants, animals or significant natural communities.

Before starting construction on or acquiring properties within mapped NDDB areas, a Request for NDDB State Listed Species Review must be completed. This NDDB review is required as part of many of CT DEEP's permits, including inland wetlands and waterways, stormwater and flood management. The CT DEEP review response will detail which species may be impacted, and may include requirements such as time of year restrictions on construction, or avoidance of sensitive habitat areas.



Threatened and Endangered Species

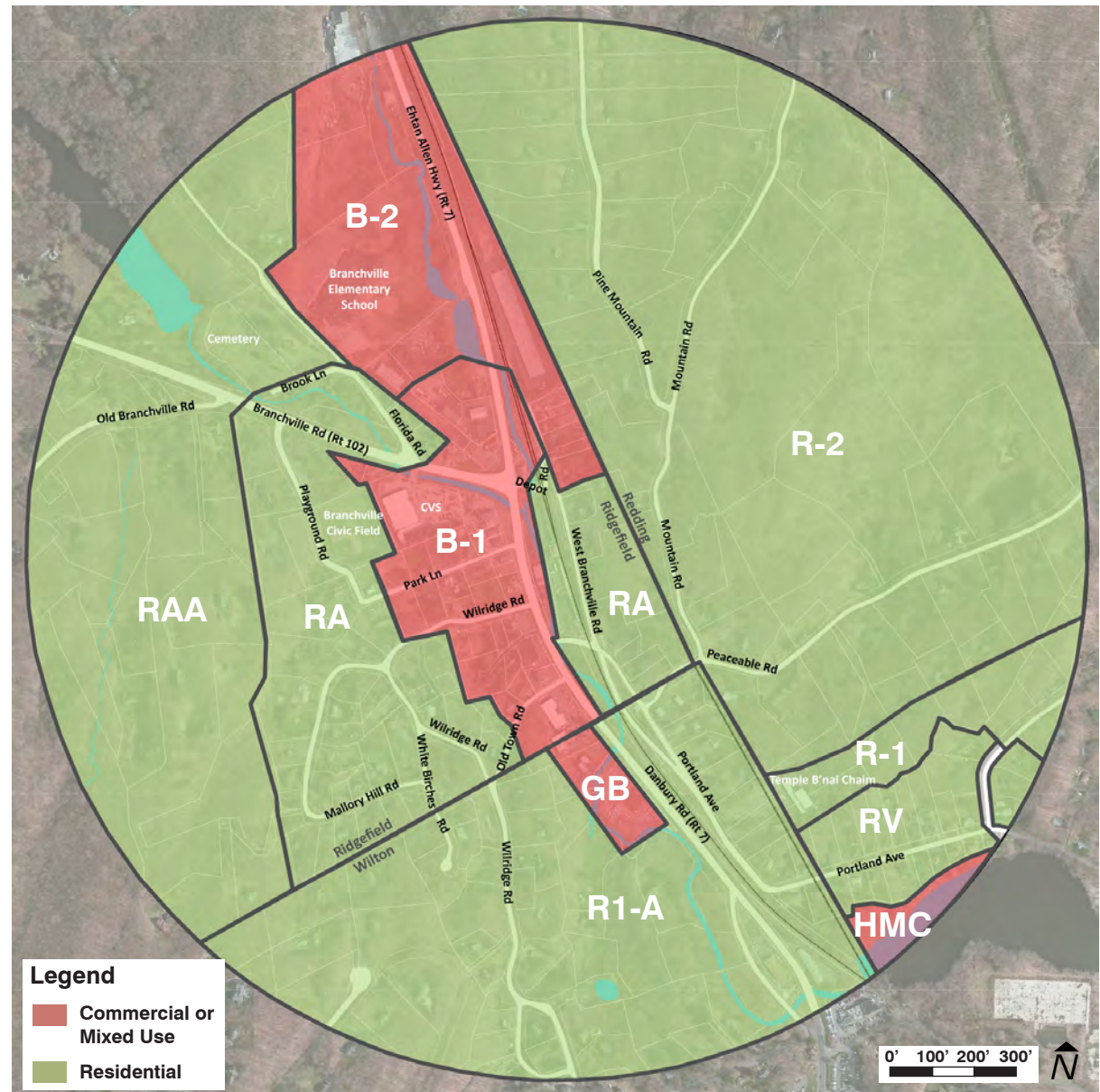
Zoning

The specifics of what is permitted or not in each of the zones that now govern land use in Branchville is important to understand for this study. As those standards are administered, they can, in their current language, either facilitate or constrain TOD from forming. An overview of existing zoning conditions in Branchville is provided here. The following map shows the zoning districts that encompass the study area in Branchville, while the table on the following page provides details on what these zoning districts allow and how they regulate development.

Critical elements of zoning that impact the opportunity for TOD include:

- Mixed-use potential – Mix of residential and non-residential uses on the same lot
- Density potential - Density at 8 or more dwelling units per acre and/or potential for substantial area of a lot to be dedicated to building space
- Site design to promote walking – Requirements for sidewalks – use of street frontage for sidewalks, and pedestrian path connections to adjacent land uses
- Parking requirements – Flexibility in the location, volume, and design of required parking
- Multimodal access – Requirements for connections to transit, pedestrian ways, as well as by bicycle

The zoning map indicates that the zoning adjacent to Route 7 is primarily for business or commercial uses while the areas east and west of the Route 7 corridor are predominantly intended for single-family residential uses. These zones generally do not permit a mix of residential and non-residential uses on the same lot. Yet, the B-1 zone which covers the core of Branchville where Route 7 meets Branchville Road offers the most flexibility for development to meet other essential TOD features among the zoning districts in the study area.



Today's residential zones in Branchville call primarily for low density development of single family homes on one acre or more. Home occupations are permitted as a special use. Not only must single residences sit on one acre or more, but they must be situated such that 90 percent of the lot is set aside for the yard and no more than 10 percent for the footprint of the home. Greater area can sometimes be dedicated to the building footprint by Special Permit. Residences can be up to 2.5 stories in height. Consequently, the RA and RAA residential zones that encompass the existing areas of homes east and west of the core of Branchville have the effect today of keeping the character as it currently exists with single low-profile homes and do not support a transition towards TOD. A notable exception to this is the language in the regulations that encourages adaptive reuse of historic structures.

The commercial B-1 and B-2 zones offer more flexibility for land use than that of the RA and RAA zones. That is, they are intended for a variety of retail, office, dining, and service uses. Lots can be as small as 10,000 square feet, or ¼ of an acre, allowing different uses on adjacent lots to be nestled close to one another. In the B-1 zone, buildings can cover up to 90 percent of a lot. These provisions create an opportunity for high density on a single lot and/or among a collection of adjacent parcels. Still, the B-1 and B-2 zone regulations do not permit mixing of different uses on the same lot or mixing residential uses with non-residential uses such as apartments on the second floor of a building with retail on the first floor. They do support some other features of TOD in addition to high density including flexibility in parking requirements, requirements for sidewalks, and limits on drive-thrus. Businesses which employ a drive-thru are auto-oriented and tend to discourage walking or use of transit by patrons.

Overall, the existing zoning in Branchville provides only limited support for TOD. Additionally, there are very limited specific site design requirements that could regulate the overall form of development; drive the how the character of individual sites form. As such, the existing zoning district language for Branchville is not configured to promote strengthening of the sense of place that is desired for the village.

Zones	RAA	RA	B-1	B-2
Allowed Uses	Conservation; Agriculture; SF residences; Group home; Equestrian	Conservation; Agriculture; SF residences; Group home; Equestrian	Retail store; Shopping center on a minimum of two (2) acres; Service establishment or personal service establishment; business, professional, or medical office; bank; Sit-down restaurant; food retail / serving establishment (such as a bakery, delicatessen, ice cream parlor, or coffee shop) with seating for fewer than fifteen (15) customers; pre-existing single family detached dwelling that conforms to the area and bulk requirements of the R-20 Zone; accessory uses to uses located on the same lot; Seasonal farmers' market; fitness center / exercise facility / dance studio / facility for education in the arts	Service or personal service establishment; Business, professional, or medical office; Bank; Sit-down restaurant; Offices for executive, administrative and data processing activities; A pre-existing single family detached dwelling that conforms to the area and bulk requirement of the R-20 Zone; Accessory uses when located on the same lot; Seasonal Farmers' Market; Ancillary retail sales of goods directly related and clearly incidental to the principal commercial use
Accessory Uses	Home based business; parking, Day Care; w-site plan approval, dwelling unit (affordable/senior); Home occupation	Home based business; parking, Day Care; w-site plan approval, dwelling unit (affordable/senior); Home occupation	Same as above	Same as above
Special Permit Uses	Accessory dwelling unit; Adaptive reuse of historic dwelling; government; B&B, education; Day Care	Accessory dwelling unit; Adaptive reuse of historic dwelling; government; B&B, education; Day Care	Added floor area; government uses; public parking and recreation facilities; drive-through's; Food retail / serving establishment (such as a bakery, delicatessen, ice cream parlor, or coffee shop) with seating for more than fifteen (15) customers; automobile-related/gas stations; Bowling alley/similar; Group day care; nonprofit/ education/religious/philanthropic uses; funeral home; commercial kennel/veterinary; Indoor theater; Hotel/Motel/Inn	Added floor area; government uses; public parking and recreation facilities; R&D facilities; Manufacture of optical goods and similar; Contractor yards; Warehouse storage; drive-through's; Group Day Care/day care center; Bowling alley/similar; Group day care; nonprofit/ education/religious/philanthropic uses; funeral home; commercial kennel/veterinary; Indoor theater; Hotel/Motel/Inn; pre-existing motor-vehicle related uses
Residential Density Permitted	1 unit per 2 acres	1 unit per acre	NA	NA
Minimum Lot Size	2 acres/1.4 ac non-wetland; note – regularity factor	1 ac./0.8 ac. non-wetland; note – regularity factor	10,000 SF	10,000 SF
Lot Coverage	7% (SP – 140% of lot coverage on lot < 1 acre/not to exceed FAR)	10% (SP – 140% of lot coverage on lot < 1 acre/not to exceed FAR)	90%	25%
FAR	5,850 to 2 acres plus 6% of over 2 acres (accessory structures and gov. uses excluded)	4,200 SF to 1 acre plus 6% of over 1 acre (accessory structures and gov. uses excluded)	NA	75%
Lot Frontage	200 ft.	100 ft.	50 ft.	50 FT
Setbacks	35 all sides	25 all sides	None – but 3 ft. if provided	None – but 3 ft. if provided
Max. Height (except cupola, spire, belfry)	45 ft./2.5 stories	40 ft./2.5 stories	Maximum Average – 40 ft.	Maximum Average – 40 ft.
Parking	2 spaces per dwelling unit	2 Spaces per dwelling unit	Shared use reduction; off-site parking on adjoining lot allowed by SP; deferred spaces allowed; fee-in-lieu of parking with SP	Shared use reduction; off-site parking on adjoining lot allowed by SP; deferred spaces allowed; fee-in-lieu of parking with SP
Landscaping	Any SP use; Requires Landscape Architect; Landscape buffer along property line	Any SP use; Requires Landscape Architect; Landscape buffer along property line	Required; Requires Landscape Architect unless waived; Includes parking; buffer where meets residential; depth of the landscape buffer and the density of plant materials shall be determined by the Commission	Required; Requires Landscape Architect unless waived; Includes parking; buffer where meets residential; depth of the landscape buffer and the density of plant materials shall be determined by the Commission
TOD Factors present	<ul style="list-style-type: none"> Mixed Use - limited Parking reductions - none Density potential - none Connectivity requirements: walk paths may be required 	<ul style="list-style-type: none"> Mixed Use - limited Parking reductions - none Density potential - none Connectivity requirements: walk paths may be required 	<ul style="list-style-type: none"> Mixed Use - none Parking reductions - yes Density potential - limited Connectivity requirements: sidewalk required on street frontage 	<ul style="list-style-type: none"> Mixed Use - none Parking reductions - yes Density potential - limited Connectivity requirements: Sidewalks may be required
Other Notes			Architectural review required: sidewalks required on frontages	Architectural review required;

Ridgefield Zoning Districts in Branchville

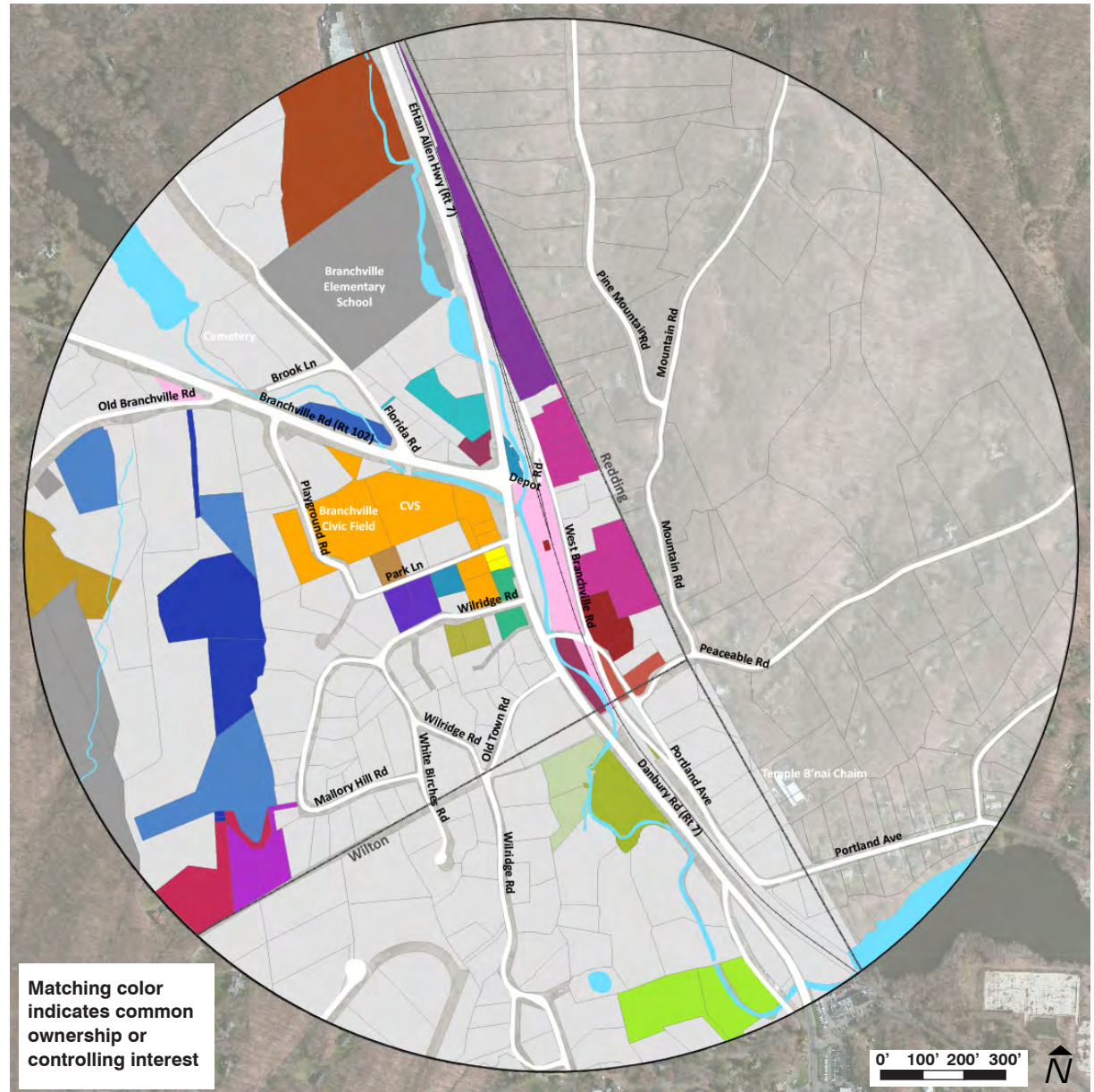
Parcel Analysis

An analysis of property ownership in the study area indicates that a number of properties are held by a small number of owners with more than twenty property owners holding more than one property in the station area.

These ownership patterns suggest the potential for property assemblage that could facilitate development in the study area. Furthermore, the parcel ownership patterns can be used in producing development scenarios for the study area, with potential development extents and connections between developments reflecting parcel ownership.

Key parcel ownership patterns include the Ancona's Liquors and CVS plaza, adjacent Route 7 fronting retail, and the Branchville Little League field on Playground Road. To the east of the station, a number of parcels along West Branchville Road have common ownership suggesting the potential for coordinated development on this side of the station.

Parcel ownership was not analyzed for Redding due to a focus of the TOD district towards Ridgefield and Wilton. A cursory review of Redding properties indicates mostly single family properties that are individually owned.



Parcel Analysis

Utility Infrastructure

Water Service

Water Service in the TOD area is provided by Aquarion Water Company. Aquarion reports that a 16" water main is located in Danbury Road (Route 7) which extends up to Branchville Road (Route 102). The 16" main then continues westerly up Branchville Road to provide water service to Ridgefield Center.

Gas/Electric/Telephone Service

- Eversource Energy provides three phase electrical service
- Yankee gas confirmed that gas service to the project area is not available
- Frontier Communications provides telephone/internet service

Wastewater Infrastructure

There are three existing wastewater treatment plants located within three miles of Branchville.

1. South Street Wastewater Treatment Facility
2. Route 7 Wastewater Treatment Facility
3. Georgetown Wastewater Treatment Facility

The three wastewater treatment plants each have positive and negative aspects associated with them.

1. South Street

The South Street WWTP is located on South Street, east of the downtown business district. The treatment plant provides service to Sewer District No. 1, which includes downtown Ridgefield and the residential areas surrounding the downtown area. The Town is currently undergoing preparation of a Wastewater Facilities Plan for this facility, which includes the design and construction of an eventual upgrade of the plant. Therefore, it is feasible to assume that capacity for the Branchville area would be available at this plant when the treatment facility is upgraded.

There are two potential routes to connect the Branchville area to this plant. The first is to extend south from the existing sanitary sewer mains on Sunset Lane, and then follow the Ridgefield Rail Trail

to Route 102, and then southeasterly along Route 102 to the Branchville area.

The second option is to extend south from the existing sanitary sewer mains in Prospect Ridge Road, and then continue along Route 102 southeasterly to the Branchville area. Connection to the South Street plant would require the construction of 2.8 to 3 miles of sanitary sewer force main, at an estimated cost of \$4.4 million to \$6.3 million. The Sewer District would also need to be expanded to incorporate the Branchville area.

2. Route 7 Treatment Plant

The Town of Ridgefield owns and operates a second treatment plant located on Ethan Allen Highway (U.S. Route 7) behind the medical office building. This plant treats sewage generated by Sewer District No. 2, which includes a majority of the businesses along U.S. Route 7 north of Great Pond Road. Treatment capacity at this plant is fully allocated, and the facility cannot accept any new flows unless the plant is expanded or existing flow capacity reallocated to the Branchville area. Service could be extended to the Branchville area by construction of a force main from the plant 3.4 miles southward along U.S. Route 7. Estimated cost of this extension is \$7.3 million. The Sewer District would need to be expanded to incorporate the Branchville area.

3. Georgetown Wastewater Treatment Plant

The Georgetown WWTP is located slightly over a mile from the Branchville area, and offers by far, the shortest connection length. The connection would be extended north from the Georgetown WWTP, up along North Main Street to Church Street, and then northerly along U.S. Route 7. The cost of this connection is estimated to be \$2.5 million.

Treatment capacity at this plant is also fully allocated, and the facility cannot accept any new flows unless the plant is expanded or existing flow capacity reallocated to the Branchville area. Additionally, since the plant is located in Redding, an intermunicipal agreement with the Town of Redding would be required.

On-Site Disposal Feasibility

Soil Suitability

Initial screening of the soil types in the project area at the start of this project was based solely upon a review of information included in the NRCS Soil Survey.

Soils in the study area include Ridgebury, Saco and Rippowam soils which are poorly drained and typically found in wetland areas. Ridgebury soils are typically found on slopes between 0 to 8 percent. This component is on depressions on uplands. The parent material consists of coarse-loamy lodgment till derived from gneiss, granite, and/or schist. Depth to a root restrictive layer, densic material, is 14 to 32 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during the months of January, February, March, April, May, November and December. Organic matter content in the surface horizon is about 10 percent.

Hinckley soils are found on both sides of U.S. Route 7 south of Route 102, as well as at the intersection of Route 102 and Playground Road. The Hinckley component makes up 40 percent of the map unit. Slopes are 3 to 15 percent. This component is on eskers on valleys, kames on valleys, outwash plains on valleys, terraces on valleys. The parent material consists of sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 5 percent.

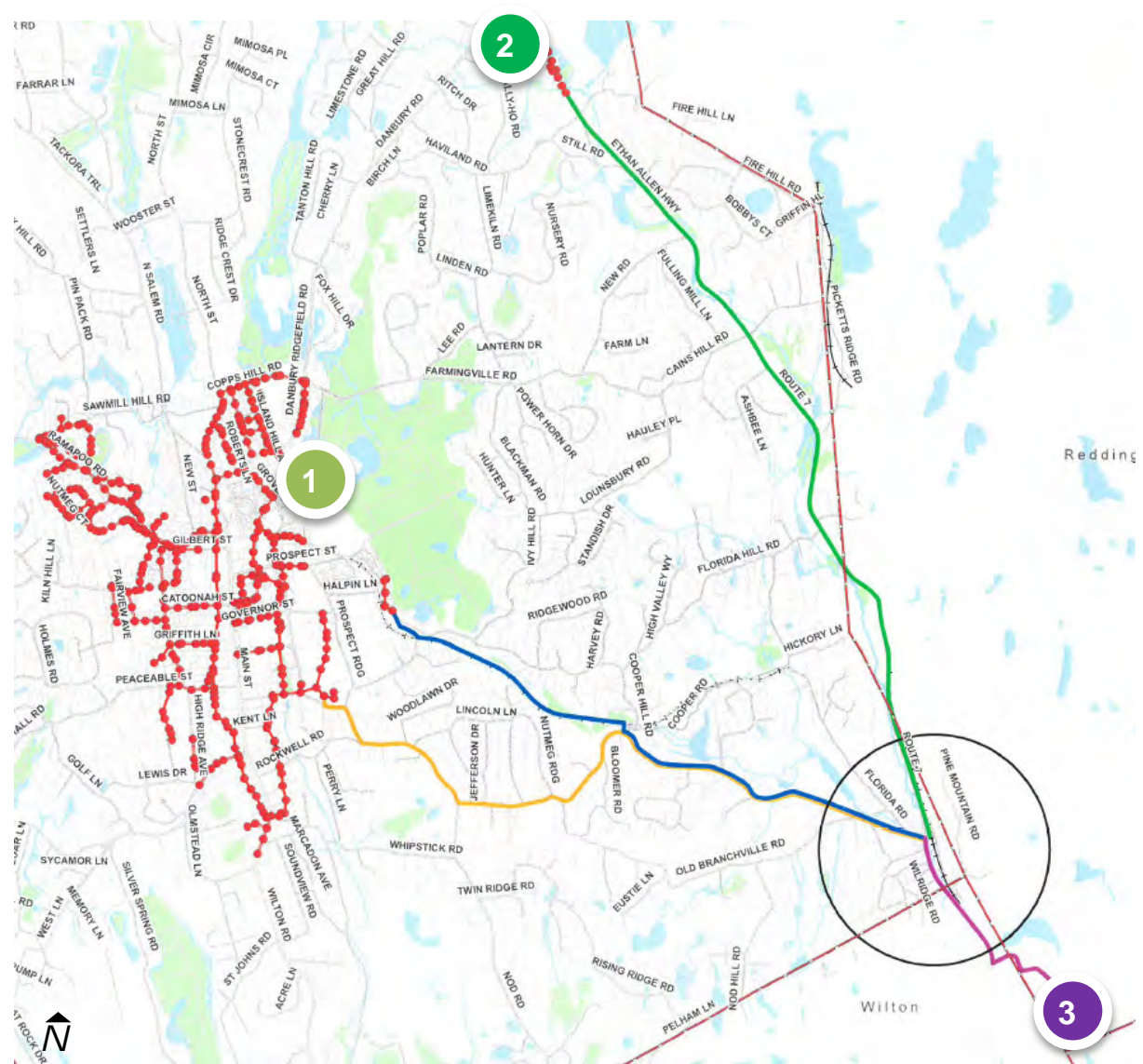
Udorthents, soils whose composition is unknown because of fill deposition, but are generally well draining occur at the Route 102 / U.S. Route 7

intersection, dividing the two pockets of Hinckley soil described above. The little league field behind the CVS was mentioned by the First Selectman as a site that was believed to have suitable underlying materials. The Udorthents component makes up 50 percent of the map unit. Slopes are 0 to 25 percent. This component is on urban land. The parent material consists of drift. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded or ponded.

The balance of soils in the project area are Charlton – Hollis complex soils, which are loamy and rocky, with shallow bedrock depths and bedrock outcrops.

Reviewing the soil survey in greater detail reveals that the soils most suitable for subsurface disposal are Hinckley soils. These soils are classified as a loamy sand, and fall into Hydrologic Soil Group A, which is well-drained. However, potential issues of concern also exist in these areas specifically in regards to the depth to groundwater and depth to bedrock. Shallow groundwater and/or bedrock in these areas may preclude the use of subsurface systems. It may be necessary to raise the grade by bringing in suitable fill material to create the clearances needed for subsurface disposal. The initial review concluded that soils in the area were generally limited for subsurface sewage disposal. However, during meeting with the Town, the study team was informed that there are pockets of suitable soil in the area. Additionally, discussions with the Health Department revealed that there are no known failing septic systems in the area.

The TOD study team was provided with soil testing results for a septic system feasibility study that was conducted at the Little League field, which is within the band of favorable Hinckley soils described above. The testing revealed that there was no groundwater, but the minimum depth to ledge was 67 inches. Additionally, the percolation rate of the underlying soils was 1 inch in 20 minutes.



Sewer Connection Options

Additional Soil Testing Requirements

Prior experience with Charlton soils indicates that they are often poorly suited for groundwater discharge systems. Conversely, udorthents are generally defined as areas where the existing soils have been disturbed and fill materials have been imported to overlay the virgin substrate material.

If potentially suitable parcels are found for either type of on-site system, the soils would need to be tested for depth to groundwater to evaluate the seasonal high groundwater elevation. Additionally, the hydraulic conductivity of the soil would also need to be evaluated.

Flow Distribution

The basic objective of flow distribution is to uniformly distribute the septic tank effluent to the infiltrative surfaces of the leaching system so as to maximize the volumetric renovative capacity of the soil. However, there is considerable debate as to whether the distribution should be by means of gravity flow to the various units of the leaching system or by means of a pressure distribution system (PDS). In the latter case, this would require the use of septic tank effluent pumping stations or dosing siphons. The arguments on both sides of this issue appear persuasive. The use of pressure distribution for individual residential subsurface soil absorption systems is arguable because of problems resulting from probable lack of maintenance by individual residence property owners. However, for large systems where the system is extensive and system maintenance is required as part of the permit issued for such systems, pressure distribution may be warranted. The extent of the need for uniform flow can only be known after the soil capacities are evaluated, and effluent totals are known.

It is also important to know the source of the flow that will be generated, and the volume of effluent that will be generated by the sources.

Regulatory Requirements

Package Treatment Plant: Discharges exceeding 5,000 gpd are subject to review and approval by the Connecticut Department of Energy and Environmental Protection.

Community Septic Systems: A Permit Application for Wastewater Discharges from Subsurface Sewage Treatment and Disposal Systems is required from CTDEEP. The application includes a fee and public notice requirements, and basic background information on the applicant. The source and volume of effluent must be identified, and potential storage of toxic and hazardous substances must be inventoried. Additionally, pollutant loading and groundwater mounding analysis must be provided to determine compliance with effluent limitations.

Permit conditions for both systems will also include monitoring and maintenance requirements, scaled to the size and scope of the system.

Groundwater Mounding Analyses: CTDEEP regulations require that a three foot vertical separation be provided between the bottom of the subsurface wastewater absorption system and the groundwater mound as a result of the wastewater discharge.

Downgradient Sensitive Receptors: CTDEEP Guidance for Design of Large-Scale On-Site Wastewater Renovation Systems requires that a travel time of 56-days be provided between the subsurface wastewater absorption system (SWAS) and sensitive receptors (e.g. the outer limit of the cone of depression of a public drinking water supply well, a surface water body used, or intended to be used, as a source of public drinking water supply, a private drinking water supply well serving an individual residence, or an impoundment used for aquaculture) and a 21-day travel time be provided to all other points of concern. The Norwalk River is classified as Surface Water Quality Class B. Class B designated uses are habitat for fish and aquatic life and wildlife and recreation.

Cooper Pond Brook is Class A, which designated uses include habitat for fish and other aquatic life and wildlife and recreation, and potential drinking water supplies. Travel times to these receptors will require further detailed study.

Location

Any community septic system or package treatment plant must be located where groundwater and bedrock is relatively deep, soils are generally gravelly and permeable, and a sufficient distance away from wetlands and watercourses such that transport of pollutants is minimized and minimum travel times are achieved.

Sites with Best Potential

The sites with the best potential based upon our secondary screening are those properties located in Udorthents or Hinckley soils areas. Priority should be given to Town-owned properties for further exploration. After a review of Town owned parcels within the vicinity of the TOD area, the only Town parcel meeting this requirement is at Branchville Elementary School.

Two additional privately owned large parcels that can also be considered for potential sites are the existing Little League field, and the parcel immediately north at 34 Playground Road. The Little League field provides more separation distance to watercourses, although the soils may be more suitable on the 34 Playground Road parcel.

A further review of each site determined that the Branchville Elementary School is located too close to the Norwalk River, and the parcel north of the little league field is too close to Cooper Pond Brook. Therefore, the only feasible site was determined to be the Little League field.

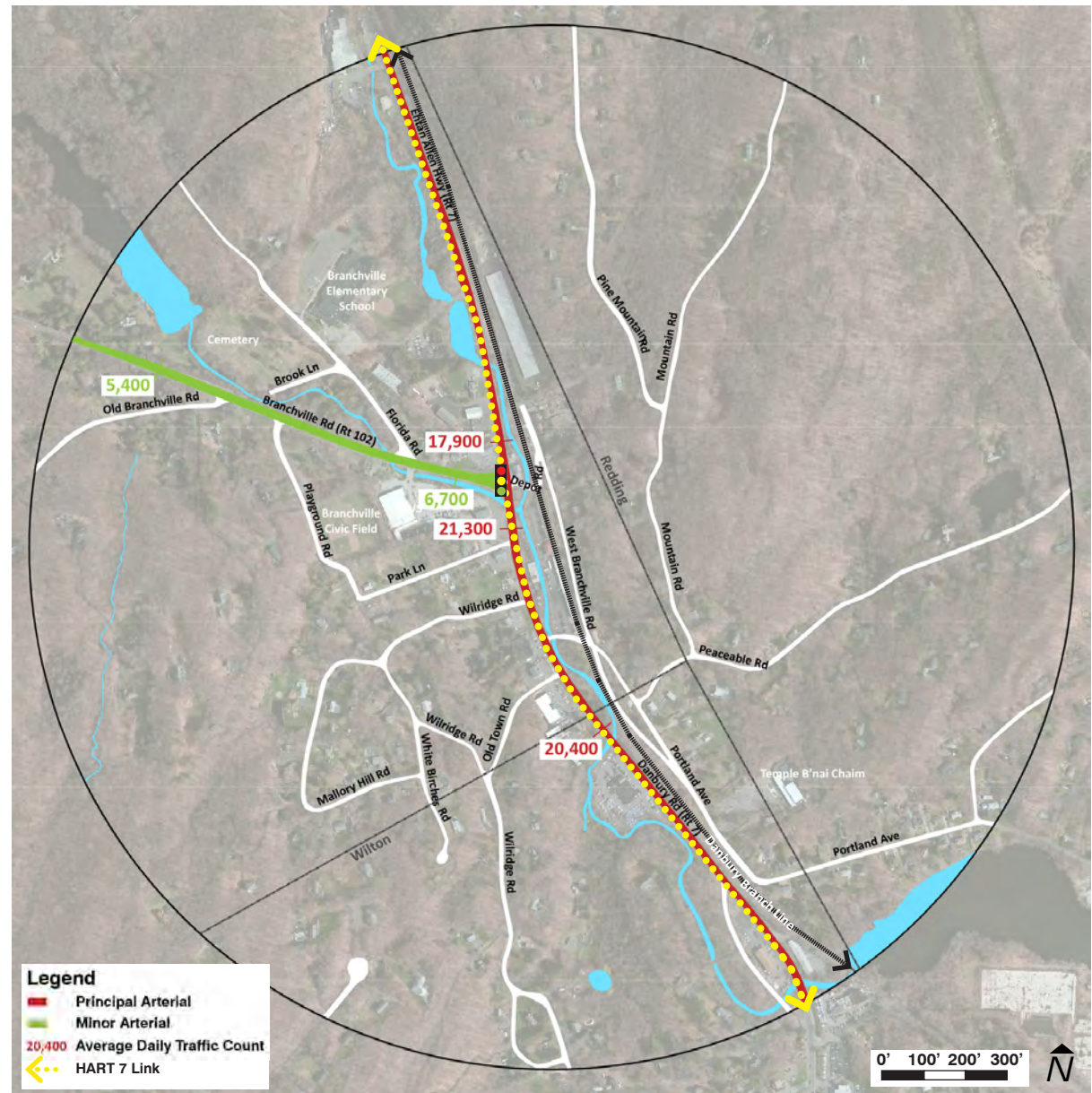
Transportation System

As a small village in a narrow river valley, Branchville's transportation infrastructure is relatively limited. The Ethan Allen Highway (Route 7) provides a north/south connection to Danbury to the north and Wilton and Norwalk to the south. Branchville Road (Route 102) provides an east/west connection between Branchville and Ridgefield Center. The rail corridor also provides a regional connection from north to south and parallels Route 7 along much of its route between Danbury and Norwalk.

Transit

Branchville's rail corridor, which is serviced by Metro North's Danbury Branch Line, extends north/south through the study area. The branch line has approximately 28 departing trains per weekday and provides service from Danbury to South Norwalk with connecting service to New York City. The average trip length is one half hour and to South Norwalk and 1.5 hours to Grand Central Station. Departures begin at 5:54 am on weekdays with the last southbound train departing at 10:52 pm. Arrivals begin at 8:11 am with the last arrival at 11:13 pm. Headways are approximately one half hour for southbound trains during the morning peak and approximately 45 minutes for northbound arriving trains during the afternoon peak. Train headways range from 1.5 to 2 hours in off-peak hours. Service is significantly reduced on weekends with 11 trips per day and 3 hour headways.

Branchville is also serviced by the Housatonic Area Regional Transit (HART) 7 Link route. The bus route provides eight weekday trips (no weekend trips) in each direction on Route 7 between Danbury and Norwalk and has a stop on Route 7 near Branchville Station. Danbury trips take 25 minutes while Norwalk trips take 45 minutes.



Road Network

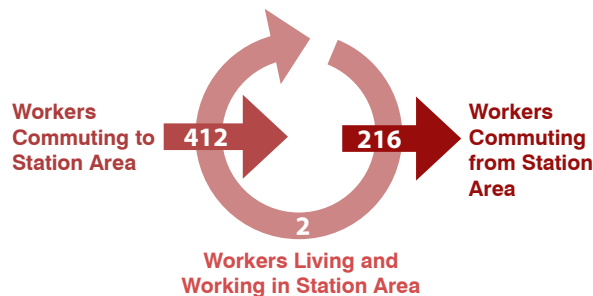
Roadways

Route 7, a state route and principal arterial, is the “Main Street” of Branchville, carrying an average of 17,900 to 21,300 vehicles per day. Route 102, also a state route and minor arterial, meets Route 7 in Branchville at Depot Road. Route 102 carries an average of 5,400 to 6,700 vehicles per day and connects Branchville to Ridgefield Center.

Local roads in Branchville are generally narrow, steep, and winding. Florida Road provides a connection to Branchville Elementary School, while Depot Road and Portland Avenue provide connections to the train station.

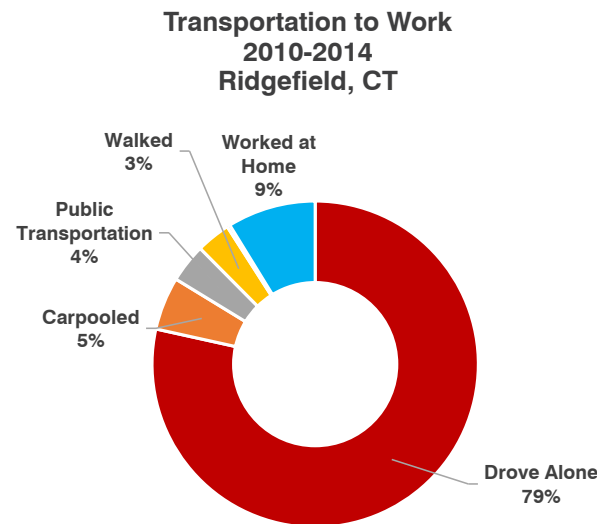
Commuting Patterns

The 2014 Census Longitudinal Origin-Destination Employment Statistics indicate that 412 people commute to a workplace within a half mile radius of the station area. Additionally, only 216 people commute from the station area to surrounding towns. The top origins of commuters who work in the station area include Danbury, Ridgefield, Norwalk, Stamford, and Bridgeport. The top destinations for commuters who live in the station area include Ridgefield, Stamford, Danbury, Norwalk, and Westport. With the presence of Metro North rail stations in these communities, Branchville Station provides a strategic connection for commuters.



Source: 2014 Longitudinal Employer-Household Dynamics, US Census

Commuting Patterns of Workers to and from Branchville Station Area (Top 5 origins/destinations)		
Inbound Commuters From	#	%
Danbury	56	13.5
Ridgefield	37	8.9
Norwalk	29	7.0
Stamford	19	4.6
Bridgeport	8	1.9
Outbound Commuters To	#	%
Ridgefield	28	12.8
Stamford	25	11.5
Danbury	21	9.6
Norwalk	21	9.6
Westport	7	3.2



Source: American Community Survey

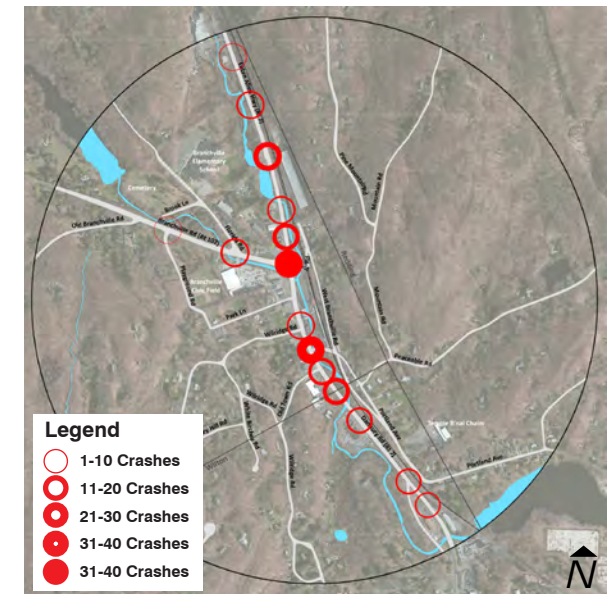
Crash History

Auto crashes in the study area are concentrated on Route 7 with the Route 102 and Portland Avenue intersection having the greatest frequency of crashes.

A total of 153 crashes were recorded in the study area over a four year period between 2010 and 2013. Of those crashes, 33 resulted in injuries with no fatal crashes reported. Of the 33 injury crashes, 21 occurred at the Route 7/102 intersection.

Most crashes were rear-end crashes, with “following too closely” being the primary contributing factor. This crash type is typical of areas that experience traffic congestion and long traffic queues at intersections. Injury crashes were most often turning movement crashes attributed to failure to grant right of way.

No bicycle or pedestrian crashes were reported over the four-year period.



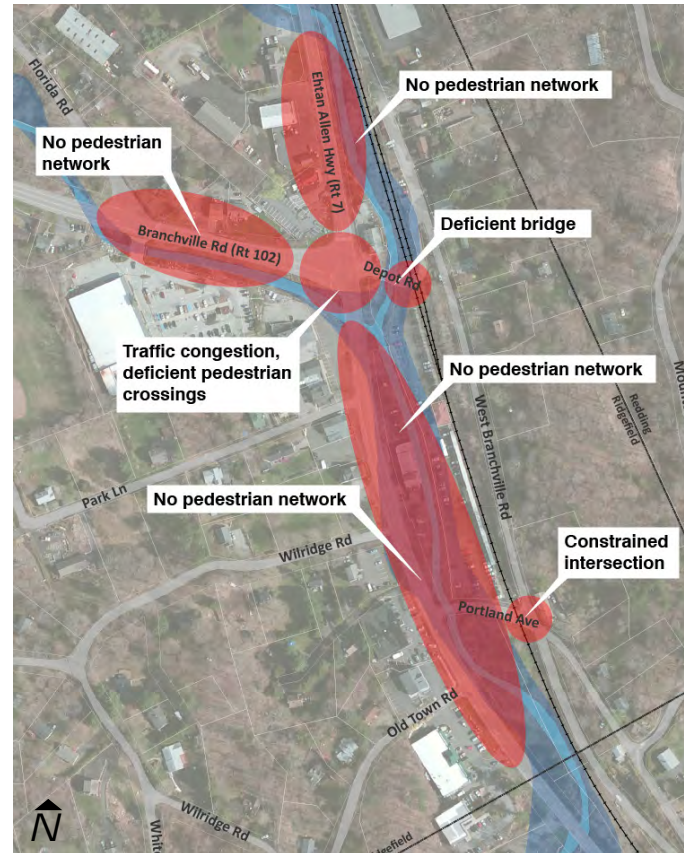
Auto Crashes 2010-2013
Source: CT Crash Data Repository

Infrastructure Deficiencies

The Branchville area experiences significant peak hour traffic congestion at the Route 7/102 intersection. Much of this congestion is related to the lack of southbound queuing lanes for turning traffic and issues related to station access at Depot Road.

The Depot Road Bridge is a narrow, ageing structure, which does not allow for concurrent operation of traffic in both directions. The Connecticut DOT has considered closing this bridge to automobile traffic if improvements can be made to the Portland Avenue station entrance.

As a whole, the most significant transportation infrastructure deficiency in the study area is the lack of pedestrian facilities. With a few exceptions, there are almost no sidewalks in the study area. Additionally, marked crosswalks across Route 7 and Route 102 are limited and lack basic infrastructure such as curb ramps, pedestrian phases, and pedestrian signal head.



Transportation Infrastructure Deficiencies



Depot Road Bridge

Narrow bridge, lacks sidewalks and is insufficiently wide to carry traffic in both directions at the same time



Sidewalk at Subway/My Cleaners

One of the few sidewalks in the Branchville study area



Crosswalk at Route 7 and 102

Pedestrian crossings at Route 7 are limited, in this example the crossing lacks curb ramps and does not have a dedicated pedestrian phase or pedestrian signal heads.

Station Access and Peak Hour Traffic

Branchville Station is accessed from the west at two locations: Depot Road and Portland Avenue. The Depot Road entrance meets Route 7 at the Route 102 intersection. This is the only signalized access to the station area. Portland Avenue meets Route 7 about 1/4 mile south of the Route 102 intersection and is an unsignalized intersection.

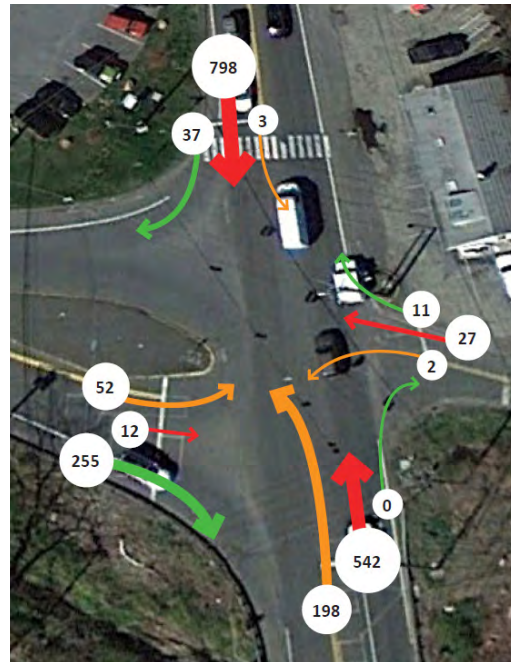
Peak hour traffic at both intersections overwhelmingly favors through movements. The northbound approach to Route 102, however, experiences a strong left turn movement, with approximately 25% of traffic taking a left onto Route 102 in the AM peak hour. Most travel to the station at this intersection comes from eastbound Route 102 traffic. A small amount of southbound traffic (six vehicles in the peak hour) turns left onto Depot Road to access the station. PM peak hour traffic exiting the station area via Depot Road is evenly split between right turning traffic onto Route 7 and through traffic to Route 102, a small number of vehicles turn left onto Route 7.

While the turning movements into Depot Road and Portland Avenue are relatively low during the peak hour, turning movements are potentially higher at off-peak hours such as earlier in the morning and later in the evening due to the schedule of departing and arriving trains.

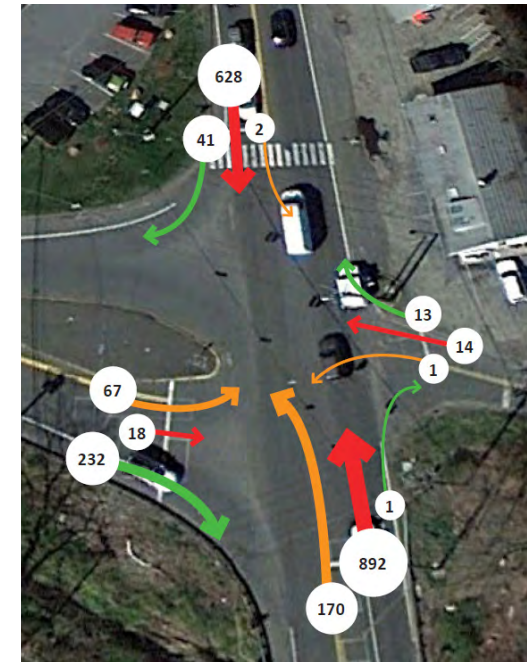
The Level of Service (LOS) at the Route 102 intersection was found to be “C” at the AM peak and “D” at the PM peak. The Portland Avenue intersection was found to be an “F” at both the AM and PM peaks. This is due to the delay caused to turning traffic due to the lack of a traffic signal at the intersection. LOS is a qualitative measure of how effectively an intersection processes traffic. In general terms, LOS is a function of vehicle delay through an intersection. Six levels of service are defined with letter designations from A to F, with LOS A representing the best operating conditions and LOS F representing the worst.

The Portland Avenue intersection accommodates the most significant share of peak hour traffic to the station area during both the AM and PM peaks. This intersection also processes most of the exiting traffic from the station area during both peaks.

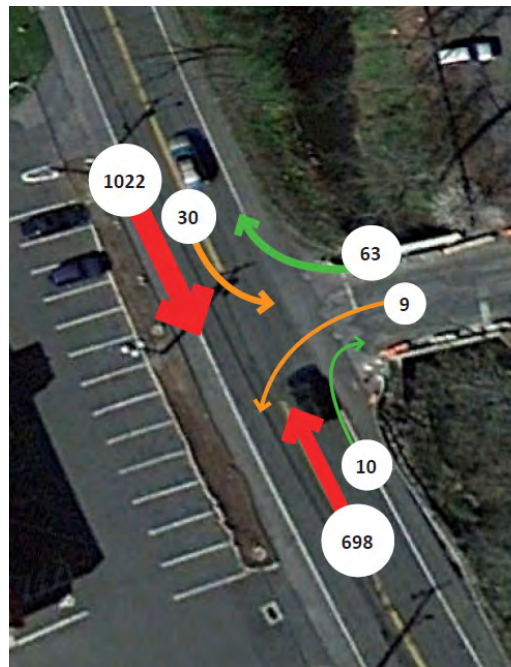
This peak hour turning movement data would suggest the potential for the enhancement of traffic operations and reduction of peak hour traffic congestion via improvements to, and modifications of, traffic flow at both intersections.



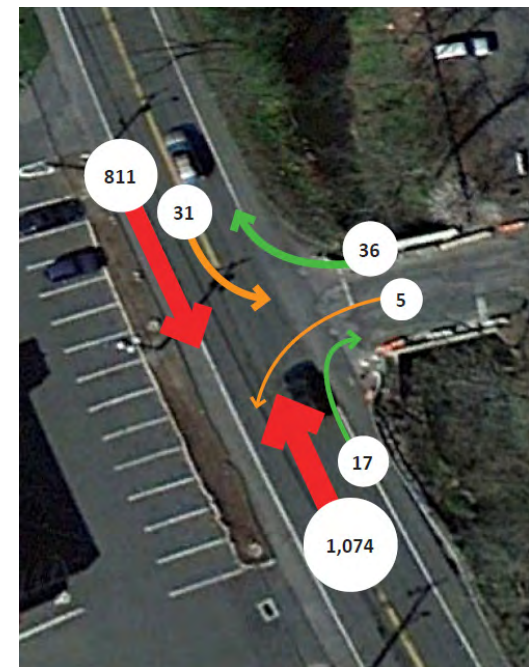
Route 7/102 Peak Hour AM (7:45-8:45 am)



Route 7/102 Peak Hour PM (5-6 pm)



Route 7/Portland Ave Peak Hour AM (7:45-8:45 am)



Route 7/Portland Ave Peak Hour PM (5-6 pm)

Parking Supply

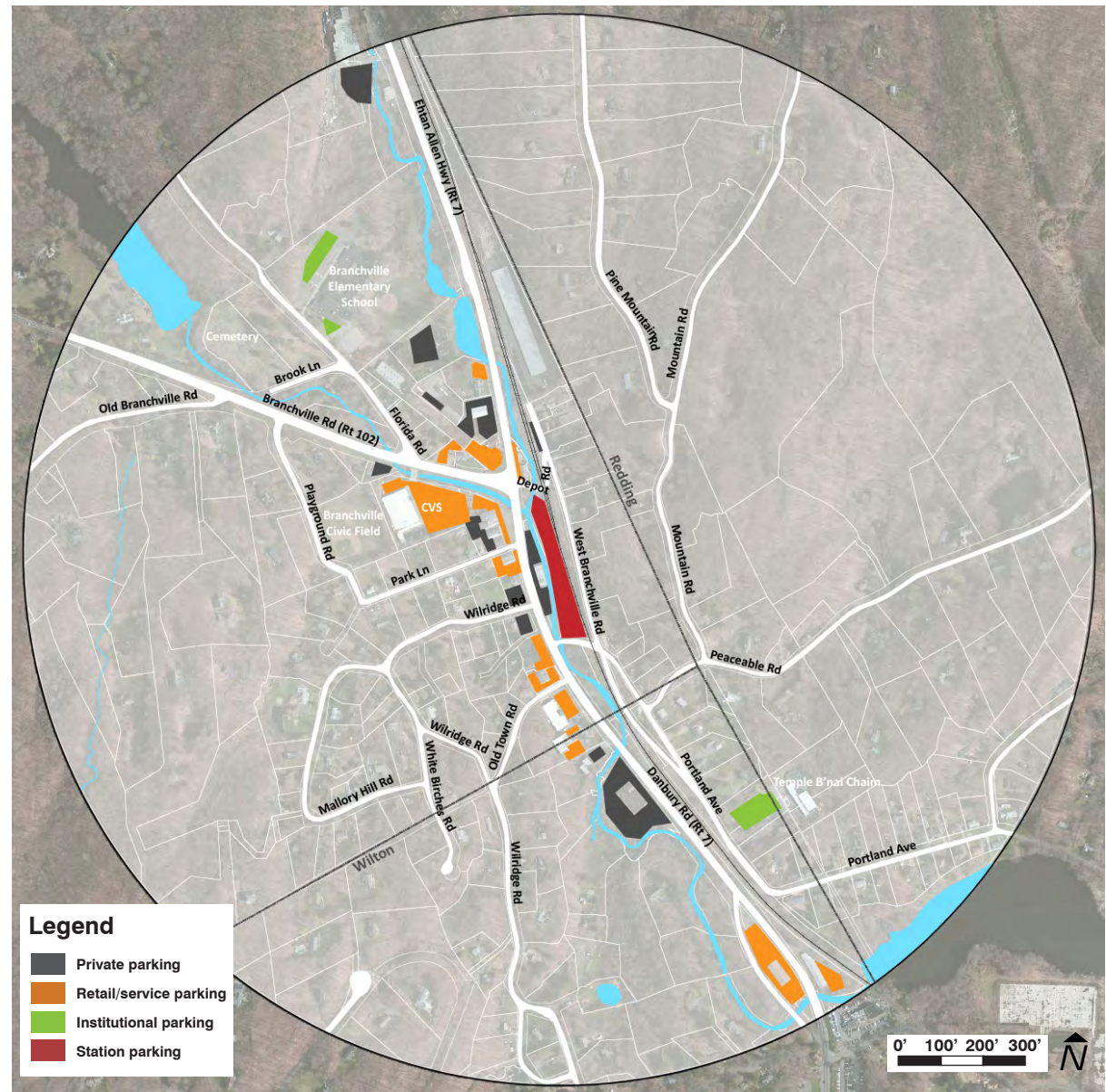
Parking supply in Branchville is distributed along Route 7 and is comprised of approximately 30 separate (excluding residential) lots. The largest parking areas in the study area include the Branchville Station lot, CVS/Ancona's Plaza lot, Branchville Elementary School, Temple B'nai Chaim and the former Jeep Dealership in Wilton.

In total, there are approximately 1,200 parking spaces in these non-residential parking lots. All parking is specific to use, with no signed shared facilities or municipal lots other than the train station lot.

The station lot is managed by the Ridgefield Parking Authority and has 130 commuter spaces that are reserved for permit holders and 15 daily parking spaces. On average, the lot is less than 80% utilized.

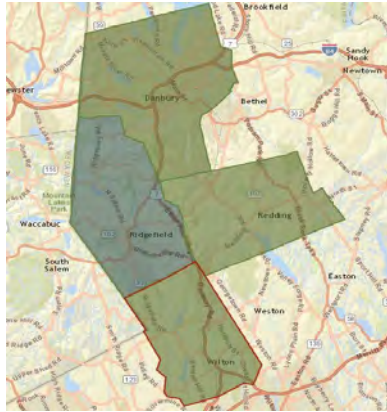
One of the few shared-use parking agreements is between Weir Farm and the Branchville Elementary School. Weir Farm, which is west of the study area, has a limited amount of on-site parking and therefore utilizes the Branchville Elementary School lot for off-site parking on weekends.

Parking within Branchville is generally sufficient to meet the needs of most businesses, the one exception being the Little Pub at the corner of Route 102 and Route 7. Patrons of the pub often park across the street in the CVS lot on busy evenings. The most significant issue surrounding parking is the lack of pedestrian and auto connectivity between lots. Due to the lack of connectivity, it is difficult for business commuters or patrons to park once and make trips to destinations on foot. Instead, business patrons often move vehicles from lot to lot, adding to traffic congestion in the area.



Parking Supply

Market Analysis



Trade Areas

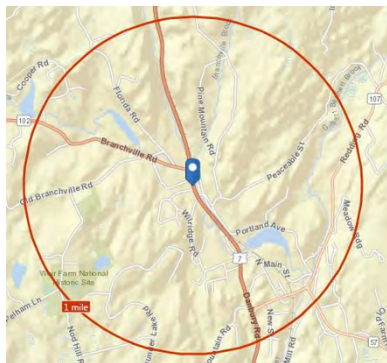
Defined Trade Area – Retail & Office

As part of the Real Estate Analysis, a Trade Area has been defined for the retail and office market which best represents the competitive marketplace for Ridgefield and Branchville. In addition to Ridgefield, the Study Area includes Danbury, Wilton – and in the case of Retail, Redding is added. Further submarket real estate analysis centered on the Route 7 corridor from Branchville to Cannondale. (Refer to map at left)



Defined Trade Area – Housing

A Trade Area for housing was defined for Ridgefield and Branchville as part of the Real Estate Analysis which best represents the competitive marketplace for the town and village. In addition to Ridgefield, the Study Area includes Danbury, Wilton and East Norwalk (Route 7). (Refer to map at left)



Defined Market Area – Branchville TOD Area

In order to evaluate demographic-economic profile of the Branchville area for Transit Oriented Development, a 1 mile radius was defined for the area centered at the axis of 35 Ethan Allen Highway (Route 7) – located across from the Branchville Train Station. This area encompasses Branchville business district and surrounding Ridgefield community as well as portions of Georgetown, consisting primarily of residential. Note: A ¼ mile radius area – essentially Branchville Business District - was defined for evaluating area of development potential.

Office Market

According to CoStar Group, a national provider of real estate information, Ridgefield's leasable office market amounts to 815,000 square feet. Office inventory in the town varies considerably ranging from conventional office primarily serving professional services, small businesses, non-profit, and legal and financial service market to corporate headquarters and executive office space.

The vast majority of the leasable office space in Ridgefield, or 80%, is found in the Ridgefield Center area including lower Danbury Road. Much of this space, or 41%, is located in newer properties built since 1980. The newest office building in the Ridgefield Center area is a 19,600 sf mixed use property at 159 Danbury Road built in 2015. The property includes both office and residential, with the later representing mix of one and two bedrooms. Office space in this building is renting at \$30.00 per sf annually (triple net lease).

A second smaller office node in Ridgefield is situated around or near the intersection of Route 7 and Route 35. This area supports a total of 145,000 sf office much of it linked to a 60,000 sf medical office building located at 901 Ethan Allen Highway.

Ridgefield Region Office Market

Office Inventory – Ridgefield Region

The office market in the Ridgefield region is considerable totaling over 8.6 million sf. If the office inventory located on Route 7 -Merritt Parkway submarket were included, the total would jump to 11.7 million sf making it second only to Stamford in size (19.7 million). Ridgefield is a minor player within the regional office market accounting for 9.4% of the office market, but in absolute numbers, it supports a sizeable base given town size of 815,000 sf.

Ridgefield Region Office Market Inventory

Market	# of Properties	Total Inventory (sf)
Ridgefield	65	815,574
Danbury	252	5,337,452
Wilton	119	2,478,462
Total	436	8,631,488

Office Vacancy - Region

Vacancy within the region appears mostly manageable ranging from 7.1% in Ridgefield to 14.6% in Danbury. However, a total 1.1 million square feet is on the market with an average lease-up time of 20 months. In Ridgefield, the lease-up time is shorter averaging 15 months. Meanwhile, over last five years, there has been little change in regional vacancy which has been moving sideways over-under 14% since 1st quarter 2012.

Vacancy Rate

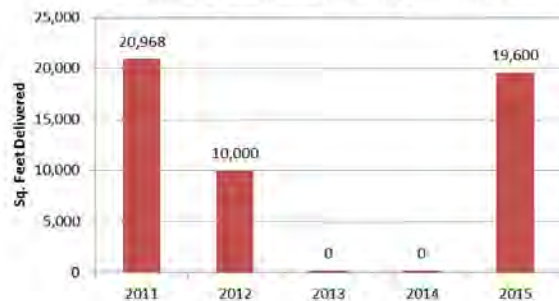


Source: CoStar Group

Office Inventory Growth - Region

The lack of inventory growth has helped keep office vacancy in the region somewhat stabilized even as the economy remains sluggish. Over last five years, 51,000 sf has been added to inventory amounting to a 0.6% increase in supply, indicative of low investment demand for new construction. By contrast, in the years 2006 to 2010 a total of 371,200 sf was added.

Inventory Growth Trends - Regional Office



Source: CoStar Group

Office Absorption Trends - Region

Data on office absorption is showing a net loss over the last five years. In other words, more space has become vacant than absorbed placing added pressure on vacancy.

Net Absorption



Ridgefield Local Office Market

Inventory - Local Office

In evaluating the local office market, we looked at Ridgefield and two submarkets: the Route 7 corridor extending from Branchville to Cannondale (Wilton) and the Village of Branchville. With respect to the latter, there is very little inventory that falls into the category as office with only 5 properties identified totaling 22,170 sf.

Vacancy and Lease Rate Trends - Local Office

Office vacancy within Ridgefield and Branchville-Georgetown-Cannondale submarket are at relatively low with reported rates of 7.6% and 8.6%, respectively. Vacancy data was unavailable for the properties in Branchville, though it appears roughly 5,000 sf is on the market which would translate into a 16% vacancy, a rate somewhat exaggerated by the small number of properties.

Some indications of an improving office market occurring locally are noted in a five year analysis of vacancy rates. In Ridgefield, vacancy has dropped from a high of 11.6% in 2011 to its current level of 7.1%. Branchville-Georgetown-Cannondale peak occurred in 2012 with 9.3% vacancy that has since fallen to 8.6%.

Building Configuration & Market Base - Local Office

Building Configuration diverges considerably within the three submarkets. In Ridgefield nearly 30% of all properties, or 19 properties, are in buildings 15,000 sf or more, a size tailored towards accommodating traditional office users.

By comparison, in the Branchville-Georgetown-Cannondale submarket only one property exceeds 15,000 sf – represented by a mixed-use retail-office property of 17,000 sf – of which the upper second-story space consisting of 8,000 sf is office (notably - half is used as dancing studio). Two-thirds of Branchville-Georgetown-Cannondale's office inventory is found in properties under 5,000 sf indicative of a smaller scale – retail service orientation of this market.

In the Branchville Village TOD submarket only five properties were identified representing a mix of office and mixed use properties with office. Four of the properties fell under 5,000 sf and one consists of 8,500 sf of office in a retail-office building.

Ridgefield Local Office Market Inventory

Market	# of Properties	Total Inventory (sf)
Town of Ridgefield	65	815,574
Rt 7 Branchville-Cannondale	48	281,882
Branchville (0.25 mile radius)	5	22,173

Source: CoStar Group

Ridgefield Local Office Market Vacancy & Lease Rate

Market	Vacancy Rate	Average Lease Rate (\$/sf)
Town of Ridgefield	7.1%	\$27.26
Rt 7 Branchville-Cannondale	8.6%	\$23.47
Branchville (0.25 mile radius)	N/A	\$18.00

Source: CoStar Group

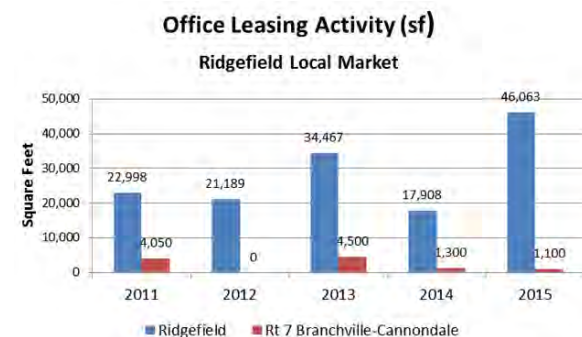
Leasing Activity – Local Office

Lease-up of office space in Ridgefield over the last five years has been surprisingly significant given size of market base in town. Since 2011, a total of 142,625 sf has been leased, representing an average of 28,525 sf a year. On an annual basis, the lease-up amounts to 3.5% absorption of inventory. Much of Ridgefield's office leasing is focused on properties within or on periphery of Ridgefield Center and along Danbury Road. It is largely driven by demand from traditional office employment sectors. These include professional services, finances, real estate, information, business services and management and more recently, healthcare.

Leasing activity in Branchville-Georgetown-Cannondale submarket, on the other hand, has been very light for the period 2011-2015. On average, the Branchville-Cannondale submarket leased just under 2,200 square feet a year, representing a small 0.01% annual lease-up of its market base.

While the broader Ridgefield office market caters to more traditional office sectors (professional services, finance, ect), the Branchville Rt7 office market base is mostly tailored to smaller retail oriented office use – proxies or substitutes to office - where walk in demand is a component. Instead of job growth which normally anticipates office demand, this market generally responds to changes in population which for the region has been somewhat muted over the past decade.

No leasing activity associated with office was identified for Branchville in last five years.



Retail Market

The retail market in the Ridgefield region is considerable amounting to over 8.2 million square feet, or 59 sf ft per capita. Within this market, Ridgefield supports a sizeable retail base relative to its population size and suburban location amounting to 1.02 million square feet, or 40.3 sf ft per capita. Wilton's retail nearly equals Ridgefield in size with 920,000 sf (49 sf per capita), while Redding's retail market is miniscule at 90,700 sf (10 sf per capita). Danbury dominates the market with 6.1 million sf, representing one of the larger urban retail markets in the state.

Ridgefield Regional Retail Market

Retail Inventory – Region

Ridgefield's regional retail market (Ridgefield, Danbury, Wilton, and Redding) consists of 8.2 million square feet. Danbury accounts for 75% of the market (6.2 million sf) followed by Ridgefield at 1.01 million sf and Wilton with 920,000 sf. Redding was included in this survey in light of its small business base in Georgetown. Total retail in Redding is estimated at 90,700 sf, essentially all in Georgetown.

Danbury functions as the retail center for the region, led by Danbury Fair Mall (1.2 million sf), but both Ridgefield and Wilton have developed a strong retail core designed to serve both local needs of its residents and a broader demand that pulls from the region.

Ridgefield Center in particular offers a diversified mix of national-regional retail outlets, locally-owned stores, numerous boutique stores and shops, businesses catering to personal services and needs, coupled with a lively casual dining and restaurant base.

Ridgefield Region Retail Market Inventory

Market	# of Properties	Total Inventory (sf)
Ridgefield	97	1,019,984
Danbury	385	6,170,180
Redding	15	90,783
Wilton	78	920,397
Total	575	8,201,344

Source: CoStar Group

Retail Vacancy - Region

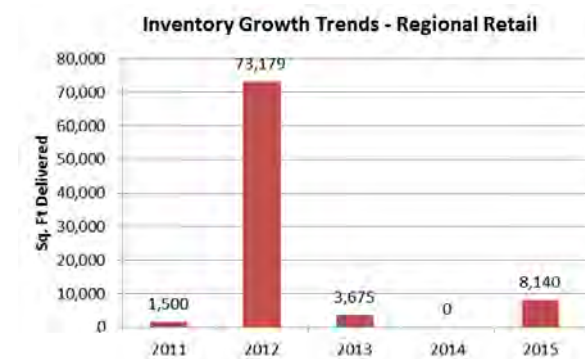
Although initially hit hard by the recession, retail vacancy has been on a downward trajectory for the region over the last five years as shown in the graph below. In 1st quarter 2016, retail vacancy stood at 3.2% down from a peak of 8% in 2012. In Ridgefield, retail vacancy for 2016 was even lower at 2.5%, essentially full occupancy.



Source: CoStar Group

Retail Inventory Growth - Region

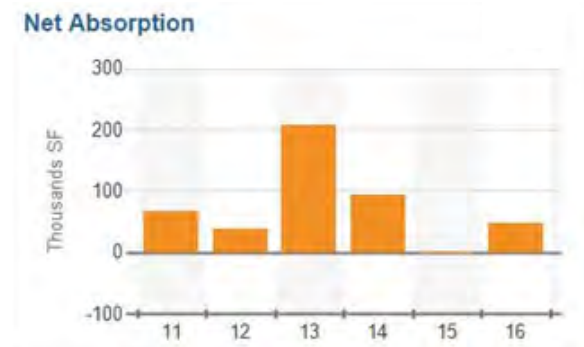
The one area of notable softness in the retail market within the region is observed in lack of new delivered space over the last five years, or indeed since 2007, outside of 70,000 sf in 2012.



Source: CoStar Group

Retail Absorption Trends – Region

Net absorption in retail, on the other hand, has been positive over last five years in the region with the exception of 2015 when it was essentially flat (leased space equaled vacated space).



Source: CoStar Group

Ridgefield Local Retail Market

Local Retail Market Inventory

On the local level, we examined market conditions for retail within the same submarkets identified for the office market. They include:

- Ridgefield
- Route 7/Branchville -Georgetown-Cannondale
- Branchville Village

As noted earlier, Ridgefield supports a well-established retail base of 1.0 million square feet. Over 80% of this retail is concentrated in Ridgefield Center and area just north of the downtown. Smaller retail nodes in Ridgefield are found in Branchville and at the junction of Route 7 and Danbury Road.

As a matter of market definition, Branchville and Georgetown function as a single market thus the submarket – Branchville/Georgetown-Cannondale. This retail base consists of 278,500 sf. The Branchville TOD area is a subset of this market and supports 71,500 sf.

Local Retail Market - Vacancy & Lease Rates -Local

Similar to the region overall, vacancy rates are low ranging from 2.5% in Ridgefield to 4.9% in Branchville TOD. Asking rents for retail are relatively high averaging between \$22.43/sf (Branchville-Cannondale) to \$27.91/sf (Ridgefield) and have been rising steadily by as much as 8% annually since 2012.



Source: CoStar Group

Leasing Activity - Local

Strong leasing activity and low vacancy over the last five years has helped push up lease rates particularly in Ridgefield. Overall in the past five years, Ridgefield witnessed lease-up of retail space equaling nearly 100,000 sf. Not surprisingly, Branchville-Georgetown-Cannondale and Branchville TOD posted much smaller totals of 24,200 sf and 12,500 sf, respectively. (Refer to chart on leasing trends at right)

Inventory Growth – Local

Similar to what was observed for the region, the local market has yet to witness much new inventory growth over the last ten years. As can be seen in chart below neither Branchville TOD nor the Route 7 Branchville-Cannondale submarkets recorded any new growth from 2006-2015. Meanwhile, Ridgefield Center – Danbury Rd reported only a modest 30,600 sf gain over this time span, an expansion of inventory of only 3.3%.

Ridgefield Local Retail Market Inventory

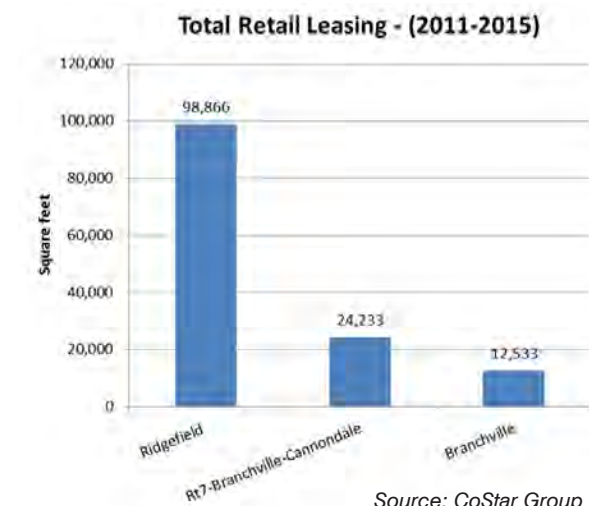
Market	# of Properties	Total Inventory (sf)
Town of Ridgefield	97	1,019,984
Rt 7 Branchville-Cannondale	43	278,479
Branchville (0.25 mile radius)	10	71,542

Source: CoStar Group

Ridgefield Local Retail Market Vacancy & Lease Rate

Market	Vacancy Rate	Average Lease Rate (\$/sf)
Town of Ridgefield	2.5%	\$27.91
Rt 7 Branchville-Cannondale	4.4%	\$23.43
Branchville (0.25 mile radius)	4.9%	\$24.20

Source: CoStar Group



Source: CoStar Group

Housing Market

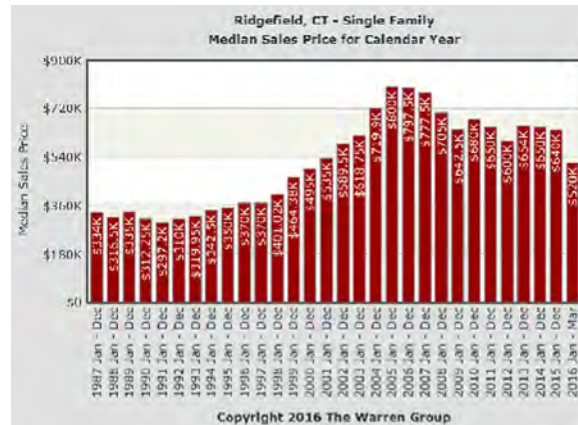
The Ridgefield housing market is over 80% single family, but in the last 15 years the town has seen an increase in the number of multi-family housing proposals targeting both condo and rental housing. Much of the rental housing that has come before the town has been in the form of applications under the state affordable housing statute 80-3g which shifts the burden of proof for denial on the town, and only in cases of health and safety. In response to the flurry of proposals, Ridgefield was successful in gaining a moratorium from the state on affordable housing proposals via 80-3g for a period of 4 years through 2018.

Price support for new housing in Ridgefield is strong though in terms of ownership the market has yet to fully recover from the housing collapse of 2007. Resales on recently constructed condos, however, have hit as high as \$700,000 – though most fall within the \$550,000+ range. Meanwhile, rents in new Ridgefield apartments range from \$1850 to \$2975/month (net). Nationally, new rental housing has been on a five year boom, though in Connecticut most of the development has been relegated to its economically stronger cities of Stamford, Danbury, Norwalk and New Haven. In Ridgefield, most rental housing that has come before the town for approval is modest in size ranging from 8 to 20 units.

Ridgefield Ownership Housing Trends

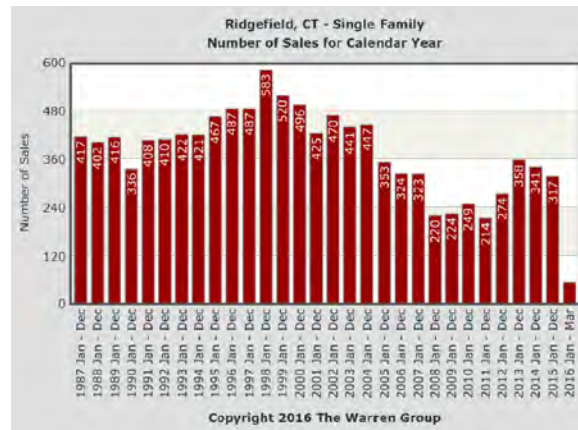
Single Family Market- Pricing Trends

While home values in Ridgefield fell less on a percentage basis than most area towns in the aftermath of the housing collapse, they have yet to recover to pre-recession levels. In 2015, median sales price for a single family home in Ridgefield was \$640,000, 20% below peak value attained in 2005. On the plus side, home values in town appear to have stabilized since 2012, though price appreciation has been minimal in recent years.



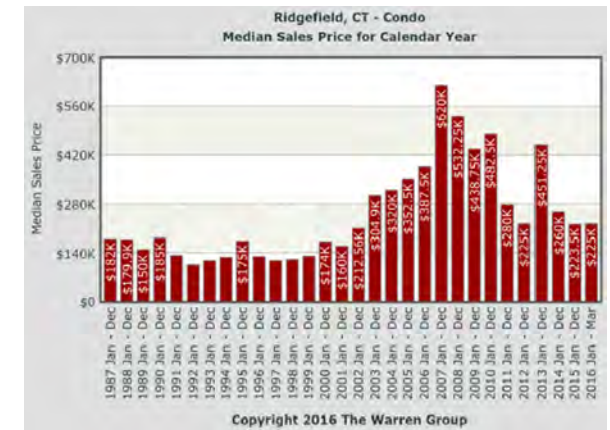
Single Family Market- Sales Volume Trends

Single Family Sales volume in Ridgefield hit bottom in 2008, though from an historical perspective, sales have been dropping steadily since 1998. Meanwhile, signs of a rebound in sales emerged in 2012-2014 that eclipsed pre-recession levels, only to be followed by two years of decline. Even at its height in 2013, sales volume was still well below annual sales totals achieved 1987-2004.



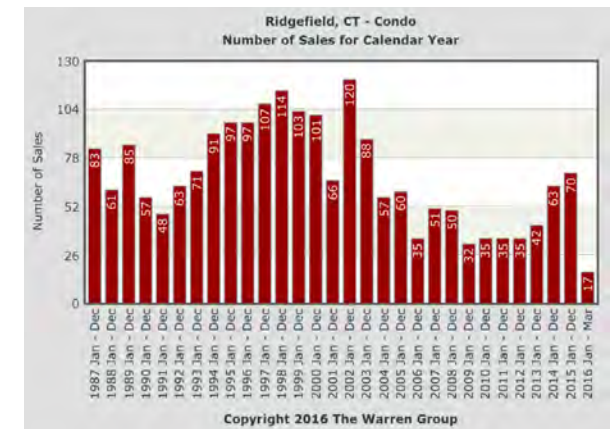
Condo Market-Pricing Trends

Median condo price in Ridgefield for 2015 was surprisingly low at \$223,500, but is largely shaped by resales from two older condominiums in town of 1970's vintage, Fox Hill Village and Casagmo, which together account for more than 600 units. In contrast, the newly built 73-unit Regency in Ridgefield townhomes (2008) on Danbury Road is recording resales exceeding \$700,000.



Condo Market-Sales Volume Trends

Meanwhile, condo sales volume has picked up in Ridgefield with 70 units in 2015, well above the pre-recession level of 51 units in 2007 and the most since 2003.



Regional Rental Housing Trends

In order to obtain a broader understanding of the market dynamics affecting the rental housing market in Ridgefield, rental housing data was collected among towns/cities in the following Eastern Fairfield County submarket region.

Vacancy Rates-Region: Year to date vacancy in the region for 2015 stood at 7.5% compared to 7.7% for Fairfield County. Prior to 2015, vacancy averaged closer to 5%. According to forecasts, vacancy will continue to be elevated through much of the remaining decade. (Refer to chart on following page for vacancy trends since 2011).

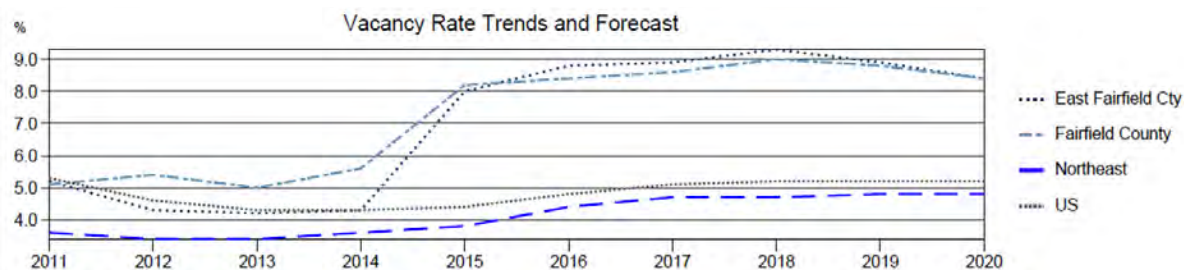
Rent Growth-Region: Eastern Fairfield County experienced a strong 5.6% rent growth in 2015, double the rate of growth achieved over the past three years (2.6% annually). Much of the growth is associated with new rental housing coming on line. Projections for Eastern Fairfield County call for rent hikes to drift down to 2.0% annual by 2018.

Asking Rents-Region: Asking rents for a two bedroom unit averaged \$1,645/m in the Eastern Fairfield County market area. This compares to \$2,281/month for same bedroom type in Fairfield County overall.

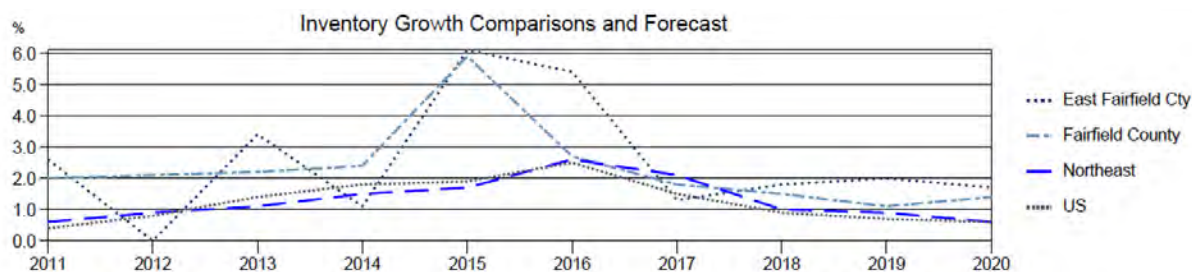
Inventory Growth-Region: Rental housing inventory expanded by 6.1% in the region in 2015 reflecting a surge in new construction of apartments that occurred in the region. Over the last three years a more modest growth rate of 3.5% annually has been the norm. It is expected that the inventory growth will moderate even further over the next five years to 2.4% annually as potential over-supply in high end rentals becomes a factor.



Housing region



Source: REIS Data



Source: REIS Data

Local Rental Housing Trends

Ridgefield's Rental Market is Small, but Expanding: Ridgefield's rental market consists of 18% of total occupied housing, or 1,605 units (2015). Although small, the rental base has been expanding rising from 1,235 units in 2000 to its present base, a 29% increase. Projections for 2020, however, indicate flat growth for rental in large part due to impact of a 4-year moratorium the town received from the state on 80-3g affordable housing proposals.

Ridgefield's Rental Profile Weighted towards Single Family: Ridgefield's private non-subsidized rental market is varied in product type though most rentals in town are associated with single family homes (32%) reflective of the corporate executive-base market that resides in town. The balance of the rental market is distributed between condo rentals (26%), professionally managed rental apartments (12%), and multi-family homes (14%). Much of the managed apartment supply is new with a sizeable share built in last 10 years. Governmental-assisted housing accounts for nearly 16% of Ridgefield's rental market, a sizeable share for a wealthy suburban community. Not included in the rental breakout below is privately owned and managed Ridgefield Crossing, a senior housing community with 123 units. (Refer to table below)

Ridgefield Rental Housing by Type

Rental Housing Type	Share
Market Rate Rentals	83.9%
Managed Apartments	11.8%
Multi-family	13.9%
Condo	25.8%
Single Family	32.4%
Government Assisted Housing	16.1%

Source: CoStar Group

Rental Market in Ridgefield Tight at 1.2% Vacancy: According to US Census/ACS survey, rental vacancy in town is tight reflecting near full occupancy at a rate of 1.3%. Fairfield County is nearly double, but also low at 2.4% for 2015. Typically in such tight markets, rent rate growth begins to rise which previously averaged 2.5% annually in last four years.

Active Rental Housing Development in Ridgefield: Most under 80-3g Affordable Housing Act: Ridgefield has seen a number of rental housing projects that have come on line in the last decade under Connecticut's 80-3g Affordable Housing legislation. These include Terraces at Ridgefield (now named Ridgefield 619) at 619 Danbury Road with 50 units, 593 Main Street (16 units), 159 Danbury Road Apartments (12 units) -part of a mixed-use residential-commercial property, and Governor House at 76 Governor St (16 units). The town, however, recently applied to the state for a moratorium on 80-3g proposals which was granted. The moratorium will run through 2018.

Proposed Housing for 306 Units Moving Forward: Ridgefield's largest proposed housing project is the Eureka V development calling for 306 units off Bennett's Farm Road and Route 7. The project dates back to 2002 and has been part of a long running lawsuit between developer and town over eminent domain and density issues. The town has approved a concept plan for the project as an affordable housing development under 80-3g. At this point it is not known if units will be rental or ownership. Developer is presently in process of gaining access to sewer and water capacity for its project.

2.7% of Ridgefield Housing Base is Defined Affordable: According to State DECD as of 2015, Ridgefield has a total of 256 affordable units which count towards the threshold for the Affordable Housing Appeals Act. Nearly 70% of the units tabulated are designated as governmental-assisted units, with the remainder associated with rental assistance (3), low interest government mortgages (15), or deed-restricted units (59).

Survey of Rents in Study Area Reveal Strong Price Support: A survey of rental housing in the Ridgefield Area that includes Ridgefield, Wilton and the Route 7 region of Norwalk reveals strong rent support for new construction rental with one and two bedroom units averaging \$1,759/month and \$2,522/month respectively. Average rents in Ridgefield among surveyed complexes are somewhat below Wilton and Norwalk, but reflect in large part older product – specifically associated with condo rental. Two bedroom rents at newer apartments in Ridgefield average \$1875/m at Ridgefield 619, \$2,162/m at Island Hills Apartments and \$3,260/m at 85 Governor House (rent includes heat and hot water). Below are tables providing summary of rental housing survey in study area. Rentals of single family homes were not included as part of the MLS survey.

Local Rental Housing – Summary of Rental Market Survey

- A survey of professionally managed market rate apartments in the 4-town trade area identified 27 apartment complexes. Thirteen properties were identified in Ridgefield.
- In Ridgefield, two bedroom rents in managed apartments averaged \$2,425/month, with rents ranging from \$1850 at Woodgate on Danbury Road to \$3450/m (includes H&HW) at 86 Governor, a new 20-unit rental complex targeted for occupancy July 2016. Condo rentals averaged \$2375/m for a two bedroom unit, while two bedroom rents in multi-family homes averaged \$1686/month.
- Overall in the 4-town competitive trade area, apartment rents for two bedrooms average \$2,450/month, with averages ranging from \$1719/month in Danbury to \$3297/m in Wilton. As noted above, two bedroom rents in complexes surveyed in Wallingford averaged \$2,375/month.
- All four markets in the trade area have witnessed the construction of new market rate rental housing in last decade that include six in Ridgefield (includes one mix-use), three in Danbury, one in Wilton and four in Norwalk-Route 7 submarket.
- As expected, the more affordable rental product in the region was found in multi-family units, principally in Danbury which averaged \$1,101/m and \$1375/m respectively, for a one and two bedroom unit. Overall in the region, averages calculated to \$1263/m (1 BR) and \$1659/m (2BR).

Ridgefield Rental Housing by Type

Town	Number of Complexes	One Bedroom Units			Two Bedroom Units		
		Average Rent	Average Size (sf)	Rental Cost per sf	Average Rent	Average Size (sf)	Rental Cost per sf
Ridgefield	13	\$1,527	816	\$1.92	\$2,425	1,174	\$2.03
Danbury	6	\$1,470	898	\$1.64	\$1,719	1,157	\$1.49
Wilton	3	\$2,043	886	\$2.48	\$3,297	1,415	\$2.32
Norwalk-Rt 7	5	\$1,965	852	\$2.45	\$2,357	1,159	\$2.15
Average		\$1,751	863	\$2.12	\$2,450	1,126	\$2.00

Source: Internet, Property Managers, Real Estate Ads & Journals, Craigslist

Multi-Family Housing Rental Summary - Ridgefield Trade Area

Town	Number of Units	One Bedroom Units		Two Bedroom Units	
		Average Rent	Average Size (sf)	Average Rent	Average Size (sf)
Ridgefield	17	\$1,366	700	\$1,686	995
Danbury	61	\$1,101	739	\$1,375	1,166
Wilton	124	\$1,322	730	\$1,799	1,187
Norwalk-Rt 7	2	N/A	N/A	\$1,775	1,200
Average		\$1,263	723	\$1,659	1,137

Note: Multi-family refers to privately owned 2-4 unit home

Source: CT MLS

Condo Housing Rental Summary - Ridgefield Trade Area

Town	Number of Units	One Bedroom Units		Two Bedroom Units	
		Average Rent	Average Size (sf)	Average Rent	Average Size (sf)
Ridgefield	35	\$1,591	900	\$2,375	1,478
Danbury	114	\$1,137	719	\$1,675	1,346
Wilton	170	\$1,606	777	\$2,056	1,226
Norwalk-Rt 7	28	\$1,588	698	\$2,531	1,311
Average		\$1,481	774	\$2,159	1,340

Source: CT MLS

Market Analysis Conclusions

Office Market TOD Potential

Market data collected to date on the Office Market suggests very little potential for development within the Branchville TOD study area. While, vacancy levels regionally and locally have dropped since peaks during recession they still remain elevated. Moreover, there appears to be little investment appetite for new office and virtually none for speculative space, with the possible exception of medical office.

In terms of Branchville TOD opportunity, much of what is marketed or used as office tends to be service-based and would fit easily into a retail building format. It was observed, however, that there is a notable lack of representation in conventional office sectors supporting legal, real estate, and accounting-finance in Branchville to the extent these sectors service a more service-oriented market – i.e. households or other businesses.

While service based office is in abundance in Ridgefield Center – and noted further south on Route 7 in Wilton, these businesses if located in Branchville offer potential for meeting more localized niche requirements, while at same time being close to rapid transit if needed. However, as it is highly unlikely that any conventional office would be developed in Branchville over a 5-7 year timeframe to accommodate such use – the inclusion of such businesses, would likely rely on vacancies in existing commercial space or possibly conversion of an existing property.

Office Market Opportunity- Branchville

Based on factors related to competition and tepid market environment, we anticipate only minor office growth potential in the Branchville TOD area totaling no more than 1,000 to 2,250 sf. It is expected that office demand in Branchville will principally be tied to businesses in independent-based legal, financial, real estate, and medical/allied health related sectors linked to local demand. All of these sectors are commonly found in commercial districts and could

be accommodated in Branchville. They are also underrepresented or absent in the business mix of the village.

With the current market environment ill-suited for supporting investment in new construction for office in Branchville, it is further expected that any office growth that emerges in the village will be absorbed in vacant space or as component of a property conversion or as part of a new mix-use project.

Retail Market TOD Potential

A stronger case can be made for retail growth within the TOD area given tight vacancies locally and high household income base in the trade area. However, a number of market and locational factors are likely to constrain opportunity for retail in Branchville.

Heading the list is low population density in a 1-2 mile radius, coupled with low population growth, though drive-by traffic from residents and non-residents alike are providing support of local businesses in Branchville according to local anecdotal data. Area competition is also a factor with Ridgefield Center-Danbury Road - 4 miles distance - containing nearly 800,000 sf of retail, while Route 7 south to Cannondale adds another 200,000 sf.

Lack of buildable sites with direct frontage to Route 7 appears to be another constraint – with essentially no viable locations on east side of Route 7 in the TOD area and only small infill options on the west side. Expanded options are noted on a number of side streets, but most retailers considering Branchville would want the visibility from Route 7.

On the other hand, capacity for parcel assemblage appears favorable with land ownership among commercial properties in the hands of a few owners. Strong traffic counts in the Branchville area are also supportive of retail growth. Meanwhile, a survey of the business district reveals low vacancy with only one vacant ground floor commercial space identified located at 37 Ethan Allen Highway. This space formerly housed the La Piazza and Wine Bar which closed in 2014.

One area of opportunity for growth in Branchville was identified in fast and prepared food and casual dining options in the village which would benefit both from local demand and connection to rapid transit, as well as its location along a highly traveled corridor. Additional opportunity for retail-commercial is identified among businesses catering to convenience based goods and services based on retail gap data reflecting additional capacity for growth in the district.

Retail Market Opportunity – Branchville

Based on the research undertaken of the retail/service/commercial market in Ridgefield and more specifically the Branchville trade area, it is estimated that from 2,500 to 7,500 additional sf could be supported in the Branchville district over a five-six year period depending on configuration (freestanding, infill or mixed use). As noted previously, much of this would likely be in the form of convenience based retail and services (some niche oriented), and would include full and limited service dining and take-out designed to serve a local-based and drive-by market.

As a side note, we also observed the presence of a market niche in the Branchville area that could represent an expansion opportunity oriented towards the building trades and home improvement market that included a hardware store, equipment rental, stone and marble wholesaler, specialty glass, and cabinetry. This sector is also well represented in fair numbers further north on Ethan Allen Highway outside of village.

While demand data indicates support for additional retail in Branchville, growth in retail supply in Branchville is likely to be constrained by investment reticence in new construction unless anchored by a high grade credit tenant. High commercial rents in the area – though Branchville is more competitive than other nearby districts – could also become an impediment to growth with only businesses capable of achieving high sales per square feet likely to be interested in space.

Housing Market TOD Potential

Probably as no surprise, the strongest market opportunity for development in the Branchville TOD area is linked with housing. This is the case for both ownership and rental, though latent demand is deepest for rental.

Condo Housing Market

Market factors in support of condo development include lack of new product in town which is dominated by two complexes built in the early 1970's comprising nearly 600 units – many rented. Most of these units, many one bedrooms, resale in the \$250,000 range, while median sales price for a condo in Ridgefield for 2015 was \$223,500 according to Warren Group.

However, a better test of price support for condos was noted in sales at Regency at Ridgefield built in 2008 – all townhouses- which sold at prices \$550,000+ with recent listings topping \$700,000. Condo opportunity is also enhanced by Ridgefield's high ranking as a residential location. Additionally, condo demand in town is benefiting from growth in the 55+ household market which is expected to expand by 43% between 2010–2020 in Ridgefield. As this market ages, senior households will be looking for opportunities in town to downsize.

While demographics, solid price support, dearth of newer product, and a desirable town location suggests an opportunity for condo housing in Branchville, a number of constraints impact on development potential in the village.

One such issue is that regionally-locally the condo market is still on the mend following the housing collapse of 2007 and subsequent financial crisis. Sales volume has started to pick up in Ridgefield but sales prices have yet to revive to post recession levels with price levels still down by 42% since 2006. Again part of this impacted by lack of new product, but nevertheless reflects continued weakness.

Branchville is also not perceived as a competitive location for condo, with areas closer to Ridgefield

Center deemed more favorable and marketable for ownership housing. Areas closer to the center have the additional benefit of access to public sewer that simplifies development.

Rental Housing Market

A more persuasive argument can be made for rental housing in the TOD area where proximity to the train station represents a stronger market advantage over condo and should help with rent support. Even without the connection to the train station, data on housing rents in the area appears quite strong locally with two bedrooms ranging from \$1875 to \$2900/m (net). Anecdotal data on lease-ups in a number of newer properties in town also suggest strong demand. Demographics also favor rental housing with highest growth rates projected among young adults 20-35 years over the next five years in Ridgefield.

Regionally the data on rental housing continues to be favorable, as it has been for almost the past eight years. Rent rate growth lifted to 5.6% in 2015 following three years at 2.5%. New inventory has also begun to hit the regional marketplace expanding by 6.1% in 2015. One cautionary note is this inventory growth has led to an increase in vacancy that is projected to remain above 5% through the end of the decade.

Overall vacancy in Ridgefield for rental continues to remain very low at under 2% despite the spate of rental housing projects in recent years-most under the state's affordable housing act 80-3g. An estimated 100 rental units have been approved and built under the regulation, the largest represented by Terraces at Ridgefield (now Ridgefield 619), but most sized between 8 to 16 units. Another 30+ units have been built as 100% market rate.

One other very sizeable housing project approved under 8-30g, but unbuilt, is the conceptually approved 306-unit Eureka Development located in north Ridgefield, which has been mired in a lawsuit with the town for over a decade. Given legal and infrastructure issues (no public sewer or water), it is not known when and if this project will move forward, or to what degree it will include rental, if any.

In terms of Branchville, household growth town-wide point to potential demand of as much as 250 units by end of decade of which 50 to 75 units would represent demand for rental housing. Regional latent demand for rental housing and shifts in household tenure could push that figure as high as 150 units. Key market groups for new rental in Ridgefield include both empty nesters and a burgeoning 20-34 age group that is showing up in local demographics, the later a likely prime candidate for any rental housing that might be proposed in Branchville.

Housing Market Opportunity – Branchville

Rental housing represents the strongest development opportunity for Branchville, both in terms of market and location. While depth of market and absorption potential would largely be defined by the target market, based on results of a market penetration analysis covering a broad market base it is estimated that up to 20 to 50 units could be envisioned for the target Branchville TOD area in a 5-6 year period, assuming issues related to sewer or septic capacity are resolved.

Summary of Development Potential

Of the three market sectors analyzed, the most conservative development scenario is projected for office given subdued condition of the market and constraints in future demand for the foreseeable future due to economy, though select options for small-scale legal, finance, real estate, health care related businesses is possible given how underrepresented they are in the district.

Development opportunities for Retail/Service/Dining in the target area appear to be moderately positive. However, scale of such development will be affected by level of economic growth locally and regionally, as well as success in identifying latent demand for goods and services in an area presently underserved. It is expected that much of the retail-commercial will be in the form of convenience-based services and food services – though it was also observed the village has formed a market niche in building trades and home

improvement which may represent an opportunity for further expansion.

Rental housing represents the most viable real estate sector for development in the TOD area based on market strength and advantages inherent with proximity to train station. This sector is also seeing the strongest investment interest from local and regional developers most likely to consider Branchville. New housing in the Branchville could take the form of infill, rehab conversion or new construction and be either stand alone or mixed use. Moreover, both market-rate and mixed income scenarios could be envisioned. In either case, enhancement of conditions along Route 7 would immeasurably enhance marketability.

Below is a summary chart of development potential over a five year period targeted for the Branchville TOD area based on the forgoing analysis of market conditions and market depth within select market sectors in the region, town and targeted TOD area.

Market Sector	Development potential under existing conditions
Office	1,000-2,250 sf
Retail-Services-Food	2,500-7,500 sf
Housing (rental)	20-50 units

Recommended TOD Focus Area

The recommended TOD focus area is comprised of approximately 54 acres (including rights-of-way and other non-developable areas) in proximity of Branchville Station. This area was identified based upon the preceding existing conditions analysis and represents the area that has the greatest susceptibility to change.

Most of the 54 acres are located in Ridgefield, but the recommended focus area includes Wilton and Redding. The area per town is as follows:

- Ridgefield: 40 acres
- Redding: 4 acres
- Wilton: 10 acres



Recommended TOD Focus Area



Charrette

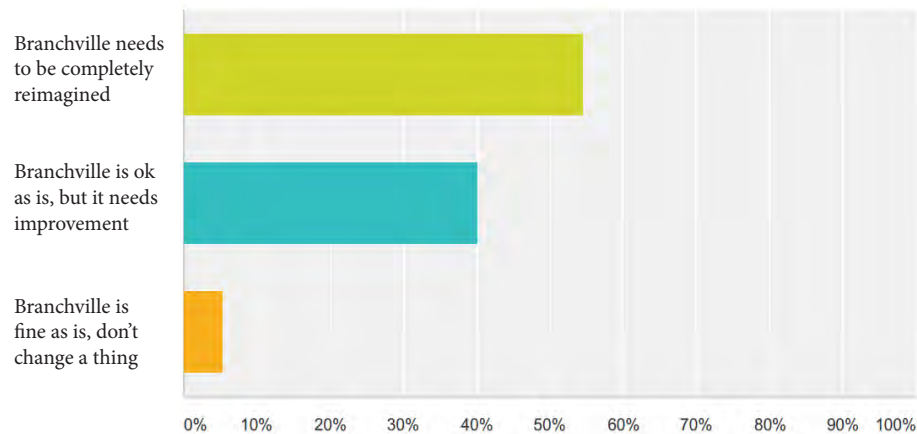
Public involvement was a key component of the Branchville TOD planning process. As such, a three-day “charrette” was held from Wednesday, September 16th to Friday, September 18th, 2015. The charrette featured an evening public workshop, focus group meetings, open house sessions, and a public presentation of the charrette findings. All charrette functions were held at the Ridgefield Library.

The charrette was promoted via direct mailings to all residents and property owners in Ridgefield, Redding, and Wilton within a half mile of Branchville Station. Additionally, press releases were sent to, and notices posted in, the Ridgefield Press, Hamlet Hub, and Ridgefield Patch. Flyers were also posted at the Ridgefield Library and at the train station. The charrette was also promoted by email invitation and distribution to various groups.

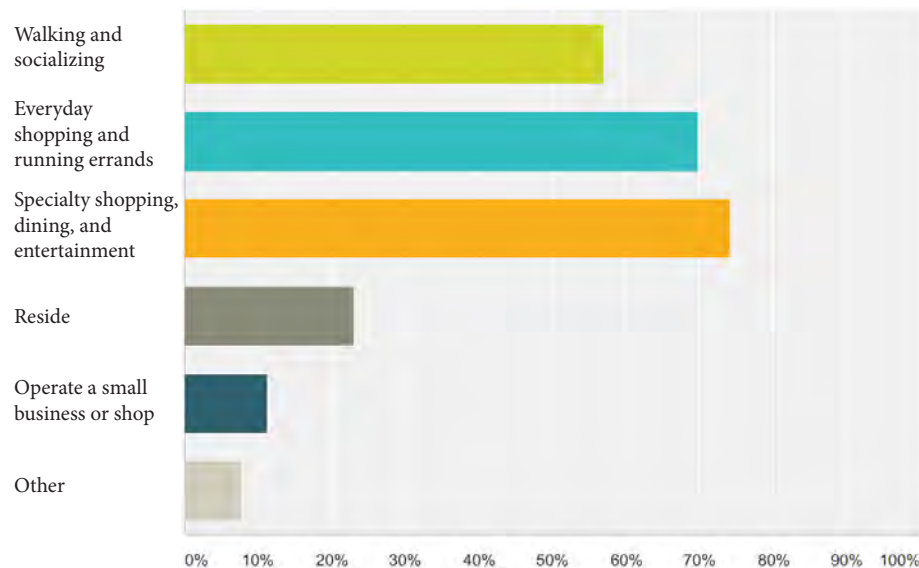
Online Survey Results

An online survey, conducted via Survey Monkey, was made available four weeks prior to the charrette and was held open throughout the duration of the charrette. Almost 300 responses were received from residents and stakeholders in the area. The most relevant survey results are presented here.

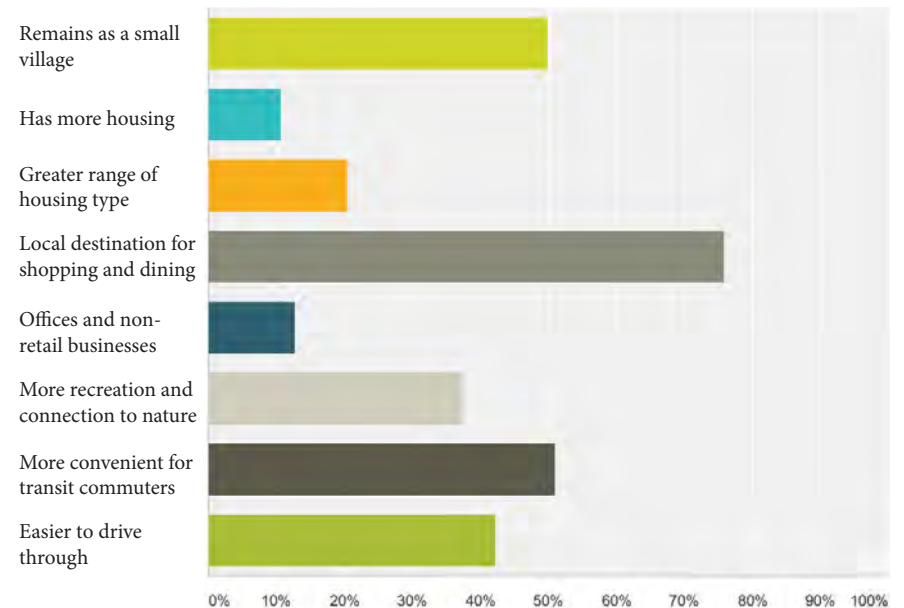
Please select the statement below that best corresponds to your thoughts about Branchville



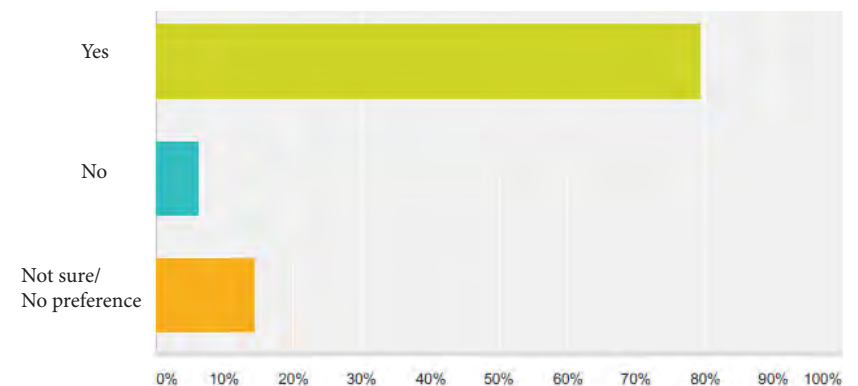
Which of the following best describes what you see yourself doing in Branchville?



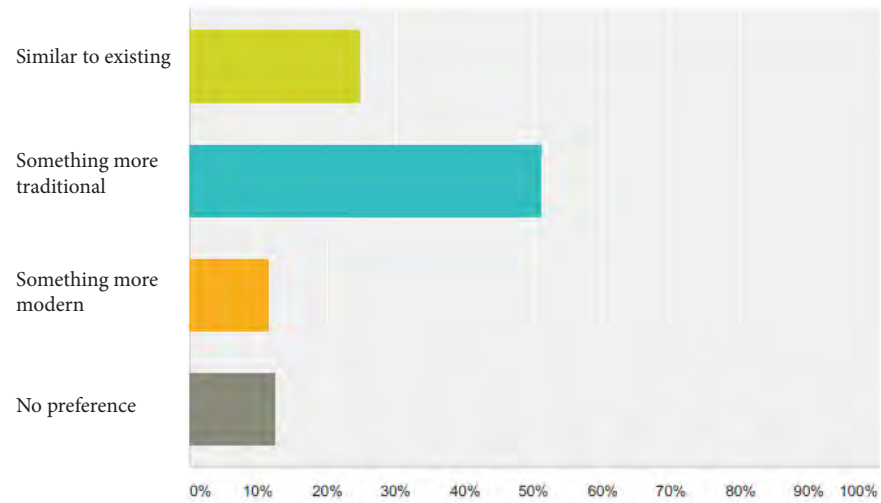
What is your vision for Branchville?



Would you like to see more bicycle and pedestrians amenities in Branchville?



What style of building do you think would be most appropriate?



Preferred Building Heights



Preferred Storefront Types



Sample Survey Comments

I would love to be able to walk safely to and from the Branchville train station. I live off of Branchville Road, at Cooper Hill, and tried to walk home once and was terrified walking on Branchville Road.

I would love to see Branchville morph into a smaller Ridgefield. As a young married couple, my husband and I want to have places to walk when we have children in the future.

Looking forward to what the future holds for that area. I hope it remains the charming, New England feel that belongs there!! No Strip Malls!!!

Ridgefield and Branchville need better, more upscale shopping and dining. All of this is available in New Canaan and Westport and our residents should be able to spend those \$ in their own town.

Please do not overbuild and commercialize Branchville. Please keep it truly quaint. Street parking will add to congestion and traffic.

I don't think the taxpayers should be paying for these improvements. Shouldn't the real estate investors be doing all this?

This area of Ridgefield is, in my opinion, and under-utilized resource. With better train scheduling into NYC and more thoughtfully planned out pedestrian/commuter neighborhood surrounding it, this could bring vibrancy and revenue to our town.

I'm excited to see how Branchville can be shaped into a transit-oriented mixed-use neighborhood hamlet with a diversity of retail, office and residential development that complements Ridgefield's current development pattern. It is the perfect place for Ridgefield to grow and from a sustainability perspective, makes sense.
IT'S A HIDDEN GEM THAT NEEDS TO BE REVITALIZED.

Whatever the plan it should maintain a quaint New England look.

I would hope you don't do anything that would harm the Norwalk River.

We would love love love to have a easier to navigate and cohesive Branchville. It would be great if the new Branchville would reflect Ridgefield's beautiful wooded surrounding. We envision a low key location that isn't built up with Condos or apartments. So excited for this project!

Look towards Blueback Square in West Hartford and the new Town Center in Storrs for excellent examples of what is possible if you decide that breaking all the traditional zoning rules is possible. Density and diversity are the key ingredients, that and getting rid of the surface parking.

Please include a bike trail, more walking and apartments or condos near the train station and a lot more parking for the train

As a gateway to the town, Branchville should have a unifying vision that is welcoming and affords easy access to the train. We have a very successful restaurant at which it is impossible to park and often requires playing chicken with traffic to cross the road from available parking.

I envision a quaint walkable downtown area with cafes, small restaurants, and shops with outdoor seating/space. It would be nice if the train was more frequent/convenient. Cafes/Shops/things to do Near the train station would make it more appealing for commuters. No big chain restaurants or cooperations. we live within walking distance from the train station but we rarely walk down there because its not that easy/safe to navigate by foot. Crossing the street is terrifying.

I would like to see Branchville more accessible to bicycles. One way: Allow bicycles on the Ridgefield rail trail (the only rail trail in the WORLD that bans bicycles, I suspect). One also has to deal with the problem of crossing Route 7, and how many lanes it should be. There are also issues of cooperation among towns that make up Georgetown, and the utilities, like sewer, that Georgetown may be able to provide. But Branchville/Georgetown would be a nice, rail-commuter-oriented village.

**VERY EXCITED
ABOUT WHAT
BRANCHVILLE
CAN BECOME!**

Workshop

A public workshop was conducted on the evening of September 16th and was attended by more than sixty stakeholders including residents, property owners, business owners, and town officials. The workshop was a key feature of the three-day charrette and was held at the Ridgefield Library.



The workshop was comprised of a presentation about the project and study area and included an interactive visual preference survey. The survey was followed by a break-out session comprised of several groups of four to eight people. Each group conducted an exercise discussing and noting Strengths, Issues, and Ideas for Branchville. Each discussion was documented on study area maps and flip charts. Upon completion of the exercise, each group reported back on their discussion. An overwhelming proportion of participants were in favor of improvements in the Branchville area. The key findings are listed at right.

Note: A small contingency (3 to 4 individuals) was opposed to any changes in Branchville and rejected the concept of any improvements to the local infrastructure or station area. The ideas put forward by that group, were generally limited to “don’t do anything”.

Strengths

- Mom and pop shops such as Whistle Stop Cafe
- Small and quaint
- Family oriented
- Nice variety of business, retail, residential
- Train station (service)
- Basic services
- Ball park (but not public)
- Branchville School
- Proximity to Georgetown
- Norwalk River

Issues

- No defined plan for Route 7 – risk to business
- Traffic congestion and speeds
- Traffic safety issues at Route 7/102
- Floodplain
- Reliability of train/bus schedule
- Potential to detract from Ridgefield Center
- Not pedestrian friendly – no sidewalks
- Residents like to support businesses –but is not neighborhood oriented
- Intersection and crossings dangerous
- Nothing to slow traffic or attract pedestrians
- Poor pedestrian access to station
- Dangerous parking at intersection
- No sidewalk or shoulder
- Pedestrian bridge to station is closed
- Difficult to walk to school
- Lack of services
- Properties that are eyesores
- No sewer
- Poor lighting
- Inadequate parking

Ideas

- Pedestrian walkways (sidewalks, crossings and ped bridge over river)
- Locate more businesses on Rt. 7
- Provide sewer infrastructure
- Roundabout
- Off-site parking for train
- Make more attractive to Weir Park visitors

- Beautify station; remove auto uses near station
- More mom and pop stores
- More mixed income and affordable housing
- Reimagine the station parking lot
- Parking in the rear, ped lighting and sidewalks on the front for retail
- Pedestrian and bike riverwalk along the river (Norwalk River Valley Trail)
- Housing for young people, teachers, etc.
- Housing along W. Branchville road; townhouses, duplexes, 2 story
- Connect to existing parks and school
- Reimagine ballpark for other recreational uses
- A walkable, village center
- Convert vacant car dealership to retail and parks
- Mixed-use development
- Street level retail and 1 – 2 levels of apartments above or behind street
- Redevelop CVS site
- Connect to rail trail
- Redevelop east side of tracks
- Connect to school
- Parking garage
- Pocket parks
- River access
- Village scale development



Workshop Visual Preference Survey

An interactive visual preference survey was conducted at the workshop. Each participant was given a “clicker” allowing them to vote on various images presented on-screen. The image selection was divided into two categories, architecture and site design. The key results are shown here.

Most Preferred Building and Architecture Images



Least Preferred Building and Architecture Images



Most Preferred Site Design and Landscaping Images



Least Preferred Site Design and Landscaping Image



Focus Group Summaries

Four separate focus group meetings were conducted during the three-day charrette. Attendees included Town staff, commission members, residents, property owners, business owners, and representatives from the Connecticut Department of Transportation and the Housatonic Area Regional Transit. The focus groups were conducted by topic and included the following topics: Transportation, Architecture and Environment, Economic Development, and Housing.



Transportation Focus Group

Key Themes

- There is a need for improved pedestrian access throughout the area.
- The service road option behind businesses was popular, access between businesses was also identified as a need. There is a desire to park once and make multiple trips. Today, you have to get back into your car and drive to get anywhere else in the area.
- The owners of the storage unit company were ok with closing Depot road if the intersection by Portland Ave was improved and the West Branchville curve was widened to allow large trucks to make the turn.

- The Parking Authority Chair expressed interest in maintaining access from Route 7 to the train station via Depot Road even if Depot Road access is closed off to West Branchville Road.
- Traffic calming elements should be considered.
- There is a desire for weekend HART bus service and improved connectivity between the bus and train.

General Discussion

- A representative from the Fire Department emphasized the need for emergency access to West Branchville Road, it is hard to get fire trucks up and down the road now and there are now fire hydrants on the road.
- The Town is actively working to improve the Depot Road intersection at this time, currently the left turn movement onto Depot Road backs up traffic for a mile and a half.
- The use of smartphone traffic apps has caused rerouting of traffic onto residential streets, local residents have been complaining to the town.
- Depot Road could be converted to pedestrian only- if the intersection of Portland Avenue and West Branchville Road is improved. The turning radius would have to be realigned so that the large trucks that access the self storage unit could then use Portland Avenue instead of Depot Road to access the storage units. Gene Nazzaro, owner of the self storage units is open to this type of modification.
- The bridge on Portland Avenue often floods, it is historic and in bad shape. The alignment of the roadway does not allow for the installation of rail crossing gate which is preferred for safety. Additionally, two large vehicles can't travel across the bridge at the same time.
- The relocation of Portland Avenue opposite of Old Town Road would allow for the installation of a traffic signal at that location.

- Metro North is not very dependable, more people would use the train if service was better and more frequent with more direct trains.
- Parking at the train station- there is currently sufficient parking at the station. The Parking Authority oversells permits for the spaces by about 30% and the lot is only about 80% full. There are 15 day parking spaces and 130 commuter permit spaces. In 2008 the lot was completely at capacity, once fees were imposed use dropped off. Commuters now go up to Wilton or Cannondale station when parking is not available at Branchville. Expansion of parking might only be necessary with improved rail service.
- Weir Farm's parking needs were discussed- they currently use the parking at the Branchville School during the weekends. The director of the park said that it would be great to have parking that provides access to Weir Farm while also benefiting Branchville. Branchville could benefit from the 20,000 visitors a year that Weir Farm gets.
- Representatives from HART spoke about their service. Currently, the HART bus operates Monday thru Friday from Danbury to Norwalk and is typically commuter only. The "sweetheart" bus is used for seniors and people with disabilities and also operates Monday- Friday. There is a desire for weekend bus service and better connectivity.
- HART was asked whether there are any considerations for expanding service between Branchville and Downtown Ridgefield. HART responded that density and roadway issues have prohibited this type of service.
- Sidewalks are desired in Branchville, but this is logistically challenging- there are no significant facilities for pedestrians.
- A service road concept was discussed for businesses fronting Route 7, this option might be a good solution for providing access to buildings.

Economic Development Focus Group

Key Themes

- Build residential units in Branchville so as to support local retail and commercial businesses.
- Look for redevelopment opportunities in the area, there are many underutilized properties.
- Collaboration between property owners will be critical to success.

General Discussion

- Development is largely constrained by the lack of sewer facilities in Branchville. The Georgetown facility had previously been discussed as an option, but the facility is currently fully allocated. The little league baseball field was discussed as a potential site for a small in-ground disposal facility.
- There is available frontage along Route 7 that could be redeveloped.
- It is unlikely that there would be the market to support a parking structure.
- Branchville has never been a significant hub into NYC and probably won't be until train service is improved and increased. The area might be more attractive to development if it attracted more commuters to NYC.
- There are many underutilized parcels in Branchville.
- There is an interest in developing a plan that proposes development for areas that are already zoned for commercial development.
- Redevelopment of existing building and businesses such as CVS, Tusk and Cup, and Little Pub, is probably more feasible than new development.
- Branchville has more business activity than it did 5 years ago.
- More collaboration between property owners would help all businesses.
- There is a desire to build residential development first and then develop additional retail and improve infrastructure.

- Development should occur in phases and will really grow organically over time and adapt as Branchville evolves.
- Branchville's assets are not used to the fullest potential.
- There is a need to identify what can be implemented by the Town versus what would be done by the private sector or the DOT.
- The Town needs businesses and light manufacturing to increase the tax base.
- There is a need to address the flooding issue in Branchville as this is a barrier to development.
- The National Flood Insurance Policy is less stringent on commercial buildings; a mixed use development style with commercial below and residential above may be a good solution for flood prone areas.

Architecture and Environment Focus Group

Key Themes

- The TOD plan presents an opportunity to increase residential units in the area.
- Infrastructure improvements are needed in the station area.
- Preserve key buildings in the area and maintain the character of the place.

General Discussion

- Historic Resources that should be saved include (but are not limited to) the tenement station building along the train tracks, the station building, and the original Ancona's Market building.
- The Precision Brake Works Building used to be the Grumman Tool Company, and was converted to a gas station in the 1950's.
- There is a mining history (mica) in Branchville.
- Branchville had a public green, although small, but this was removed when the state realigned Route 7.
- The stone facade building that is home to Branchville Motor Works used to be a gas station.

- Weir Farm would like to encourage visitors from the train station, they are interested in acquiring more parking and getting a pedestrian access route or greenway trail.
- There is a desire to build structures that fit in with the community- modern architecture won't be well received by the community.
- The current zoning allows for 40' buildings in the commercial district -this was agreed to be a reasonable scale of building for Branchville.
- The Bissel building in Ridgefield Center was referenced as a good architectural and building use example.
- There is interest in increasing residential units in the study area.
- The lack of sewer and flood plains are limiting factors to development.
- There was discussion of construction a "flood bench" to allow water to spread out laterally when flooding events occur, so as to minimize impacts to properties in the flood plain.
- There was discussion of debris in the Norwalk River, State statute allows the Town to clean up the river and then charge the property owners.
- Some properties in the area have contamination issues and/or a history of contamination.
- The Branchville Oil Company property is likely contaminated- used to be a heavy manufacturing company.
- There is a need for various options for sewage treatment
- How feasible would it be to have a Riverwalk? There would be a lot of pushback from the Norwalk River Trust- they are very concerned with the riparian environment along the riverfront. The river presents a significant challenge to the site.

Housing Focus Group

Key Themes

- There is a shortage of moderately priced units, a need for affordable residential units for the elderly and people in their 20's, town workers, teachers, etc.
- Residential units would help fuel economic development and improve retail business in the area.
- People want to live in an area where they can walk around, go to shops and have access to essential services.
- Questions came up about reality of people living so close to the train noise- DOT is working on a new whistle for the at grade crossings that directs noise to just at the crossing area- the noise issue in the future would not be as much of a constraint.
- There is a need for convenient retail in close proximity to the residents- there is a desire for mixed use development with retail below and residents above- no Toll Brothers type development.

General Discussion

- There is a two year wait-list for affordable 1-2 bedroom units; 3 bedroom units have a seven year wait-list.
- There is a shortage of moderate cost rental housing downtown.
- A surge in food stamps usage in the region is connected to high housing costs.
- 15% of Ridgefield residents fall into that "ALICE" low income level category.
- People with marginal incomes and the elderly who don't want to drive would benefit from housing near the train station- police, town workers, teachers would all benefit from affordable housing.
- There is a growing population of retirees that want to downsize, but would still like to stay in Ridgefield and take the train into the city for shows and shopping, etc.
- 20 somethings could benefit from a TOD, this area could attract young families looking for rentals and starter homes.
- Condominium units in the area are very expensive- not affordable for most.
- Several property owners on West Branchville road have expressed interest in building residential units on West Branchville Road.
- Branchville has a lot of pass-thru businesses that serve commuters- this should be promoted and maintained, the school also generates traffic in the area.
- Discussion of secondary dwelling units came up, there has been a trend of homeowners moving into small accessory units and renting out the larger main houses and ancillary units are permitted by zoning.
- There is no public open space in the area.
- The idea of a land trust was discussed, where people only buy the house, not the land itself.
- New residential housing units would need parking, but standards could be lower than the rest of the Town due to the area's access to transit.
- There are political barriers to developing affordable housing due to the stigma associated with that housing type.
- Housing needs to be subsidized to truly be affordable.

Branchville's Vision

The following vision for Branchville was identified in the Route 7 Corridor Plan and has been upheld as a guiding vision through feedback received during the charrette process and from the project Task Force.

In the future, Branchville will be a strong, cohesive mixed-use village. It will have outdoor public spaces, landscaping, and amenities that will be inviting to visitors and residents alike. Parking will be located so visitors can park once and walk throughout the village. Branchville will have well-connected small-scale developments with a mix of retail and housing. The pedestrian environment along and across Route 7 will be pleasant and safe. The train station will be well connected to the rest of the village where commuters live, shop, or dine.



Concept rendering for a transformed public space on the west side of Route 7



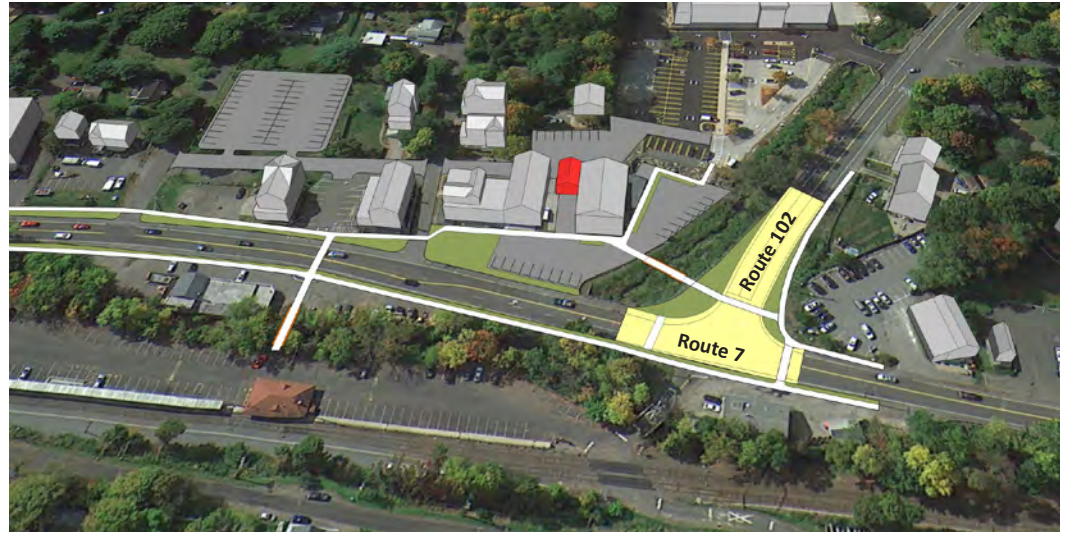
Concept plan for new pedestrian connections at the Route 7/102 intersection

Planning Strategies

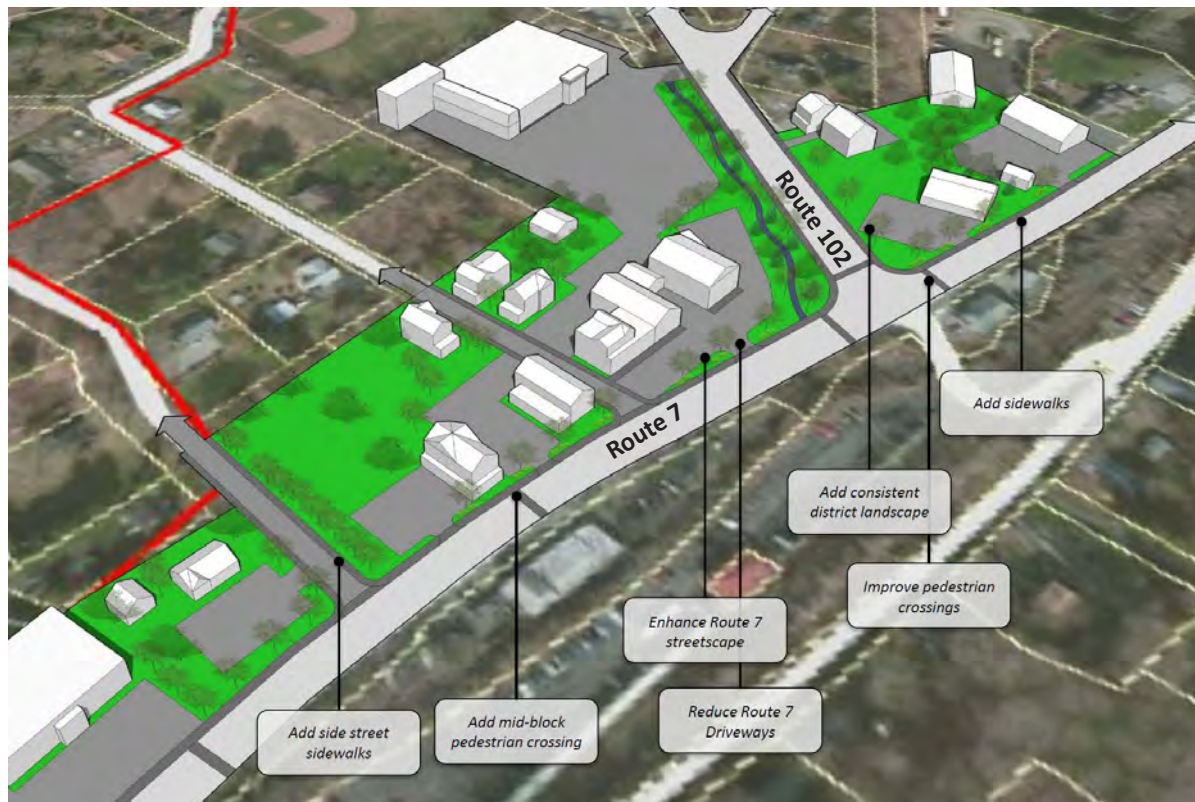
The strategies presented on the following pages were produced during the planning charrette and reflect the feedback received, and comments heard, throughout the charrette and survey process. These concepts provide a general framework by which specific infrastructure enhancements and development concepts can be based upon. All concepts that involve private property assume the willing engagement of property owners in future development.

Strategy 1: Provide Pedestrian Enhancements & Improve Key Intersections

This concept seeks to establish a continuous pedestrian network on both side of Route 7, connecting the existing commercial and retail areas to the train station. This concept also incorporates the Connecticut Department of Transportation's plan for access modifications to the station site which includes improving Depot Road, realigning Portland Avenue with Old Town Road, and providing a traffic signal at that location.



Concept plan for new pedestrian connections at the Route 7/102 intersection

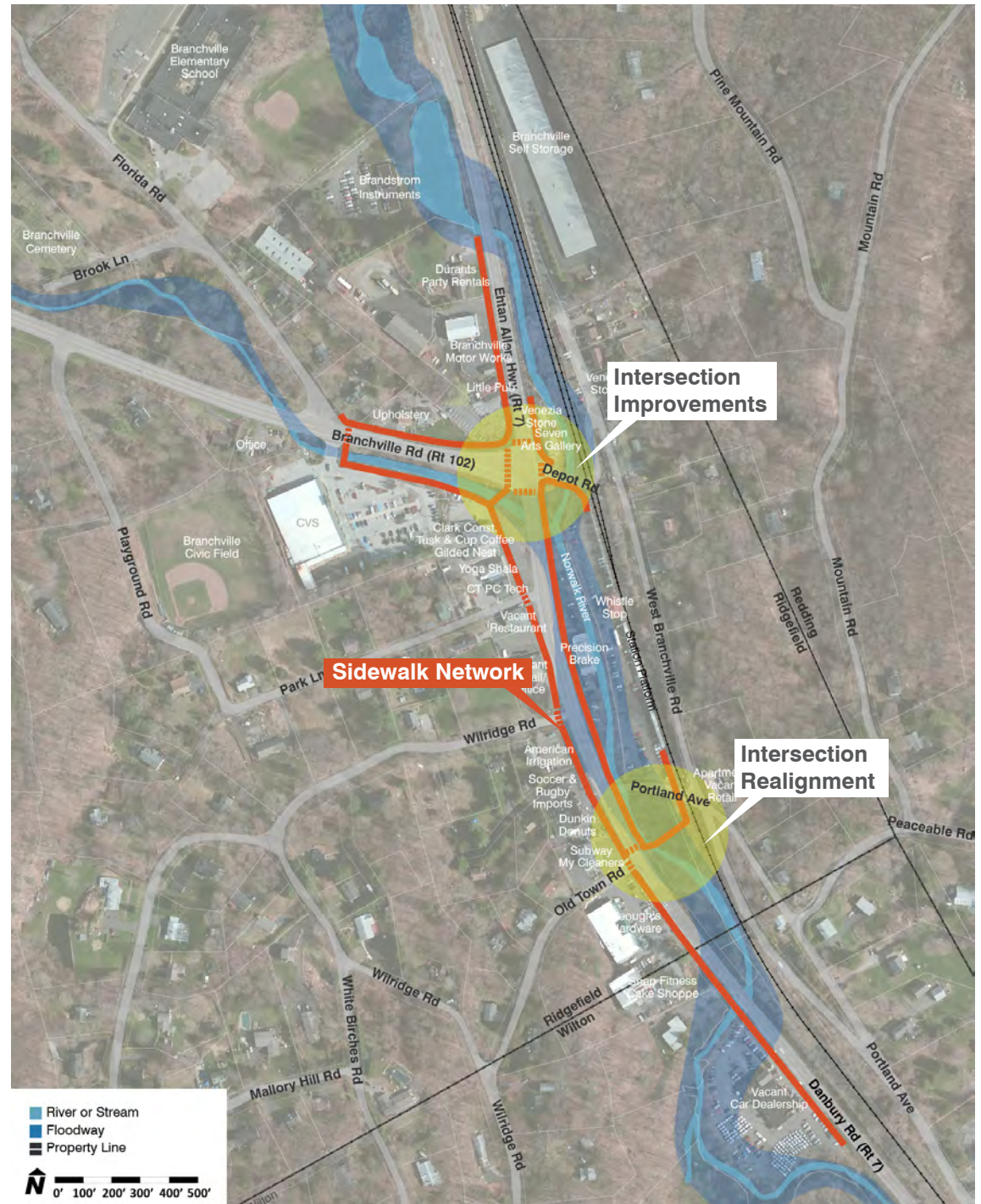


Concept plan for new pedestrian connections and enhancements on Route 7

Strategy 1 (cont.): Provide Pedestrian Enhancements & Realign Key Intersections



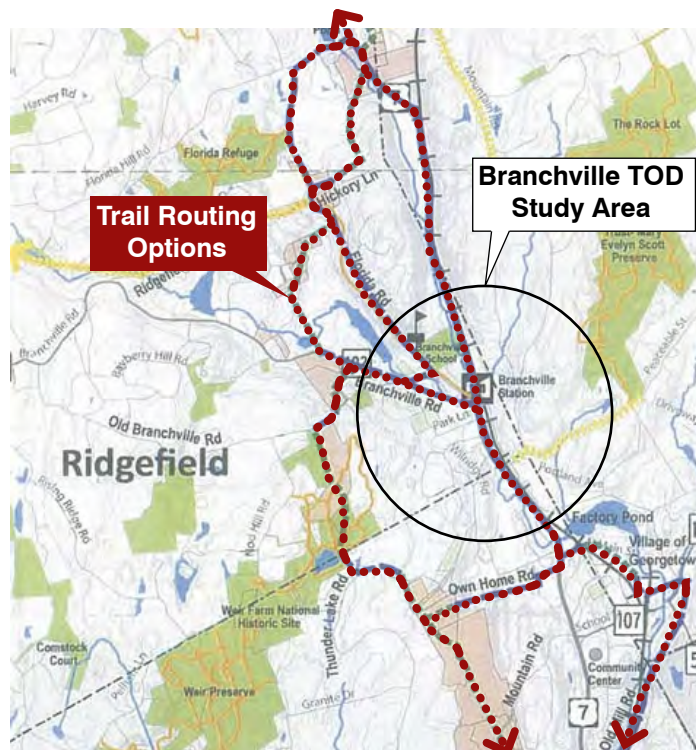
Realignment concept for Portland Avenue



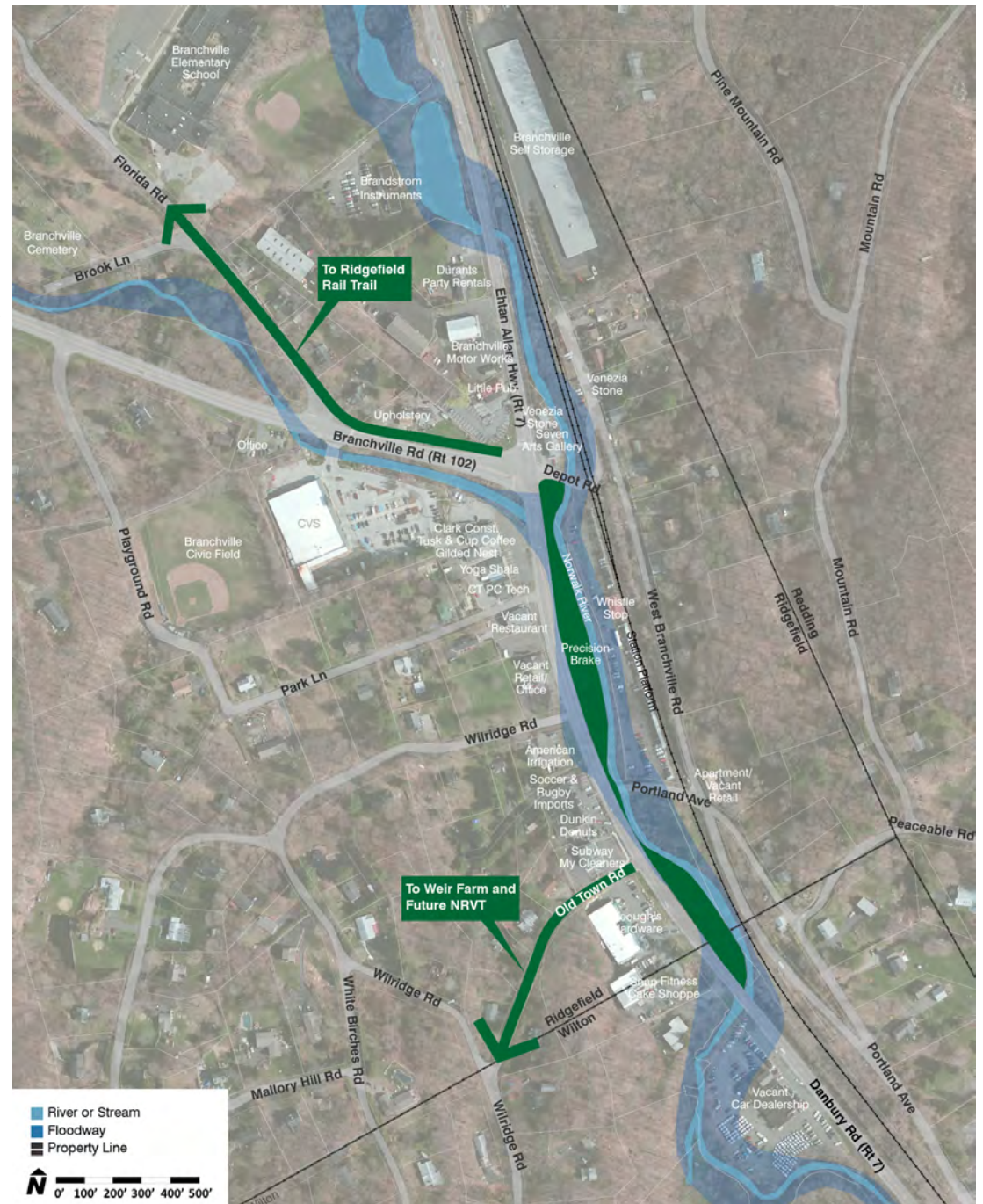
Strategy 2: Develop Greenway and Provide Riverfront Enhancements

This concept seeks to connect Branchville and the station to Weir Farm, the planned Norwalk River Valley Trail, and the existing Ridgefield Rail Trail. As part of this concept, the Norwalk River riverfront area along Route 7 would be restored as open space, with pathways, landscaped seating areas, and new connections to the train station.

Pathways and/or sidewalks would extend to Florida Road so as to connect to the Ridgefield Rail Trail. A pathway would also extend from Old Town Road where an off-street pathway could potentially lead directly to Weir Farm.



Norwalk River Valley Trail Proposed Routing
Multiple route options have been considered, both on and off-road. Routing through the Branchville area has been proposed as a roadside pathway or on-street bike lane along Route 7, Route 102 and Florida Road.



Strategy 3: Provide Wastewater Infrastructure

One of the primary constraints to development in Branchville is the lack of sewer infrastructure. There are a number of options available for providing wastewater disposal in Branchville. These include:

Option A: Connect to existing facilities

1. Ridgefield Center
2. Route 7/35
3. The Georgetown facility in Redding (currently 100% allocated)

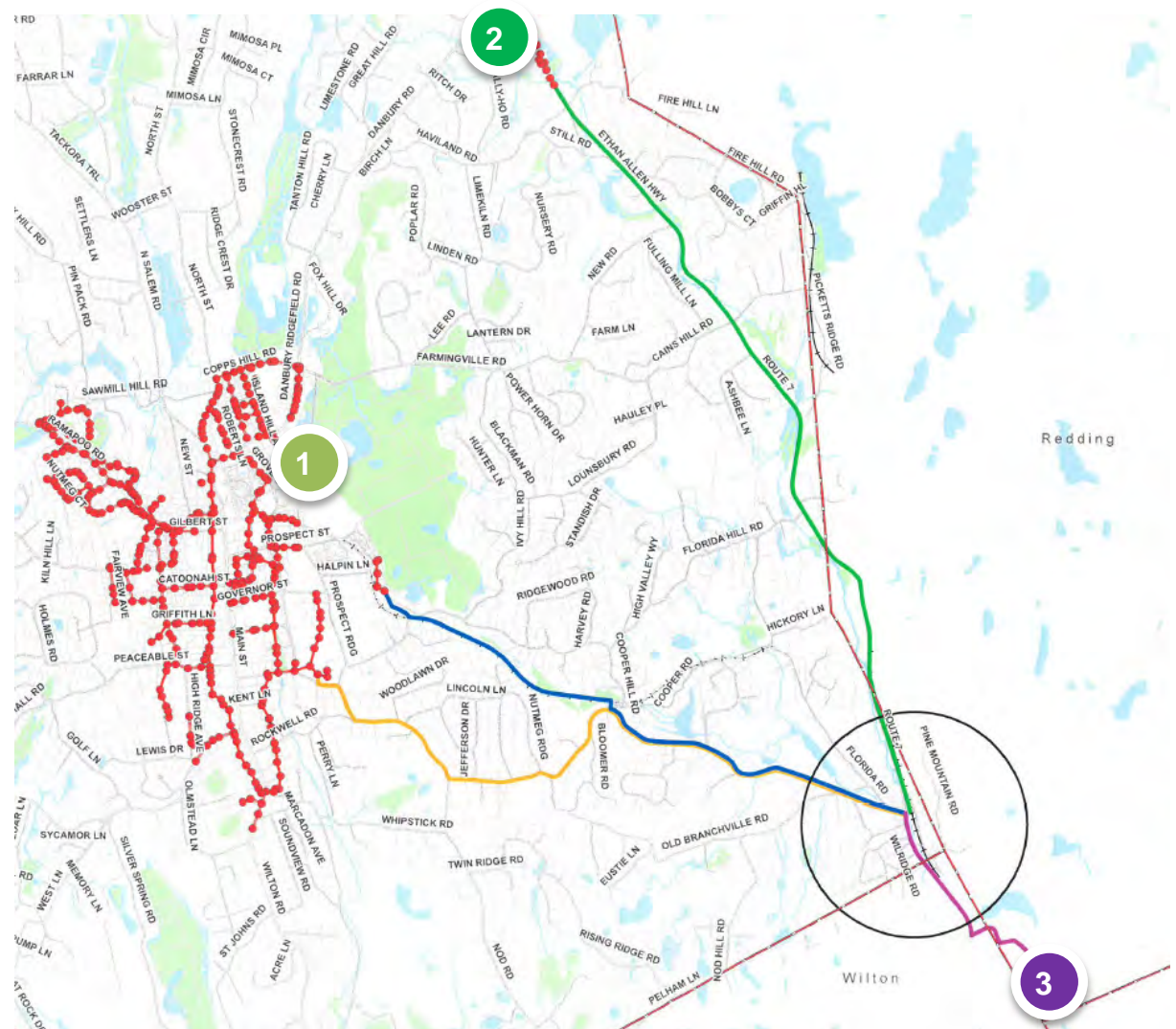
Option B: Dispose of wastewater locally via a community system

The connection to existing facilities is challenging for a number of reasons including the cost of installing sewer lines over a long distance, limited capacity at existing facilities, and in the case of Georgetown, the requirement for an inter-municipal agreement and the lack of available allocation at that facility.

The community system option may be a promising alternative, but requires further investigation for feasibility and regulatory compliance.



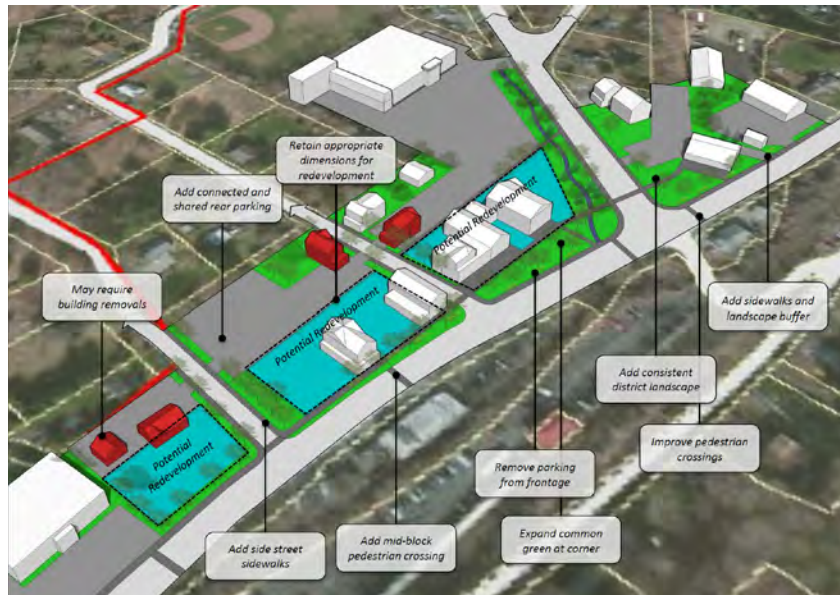
Community system example



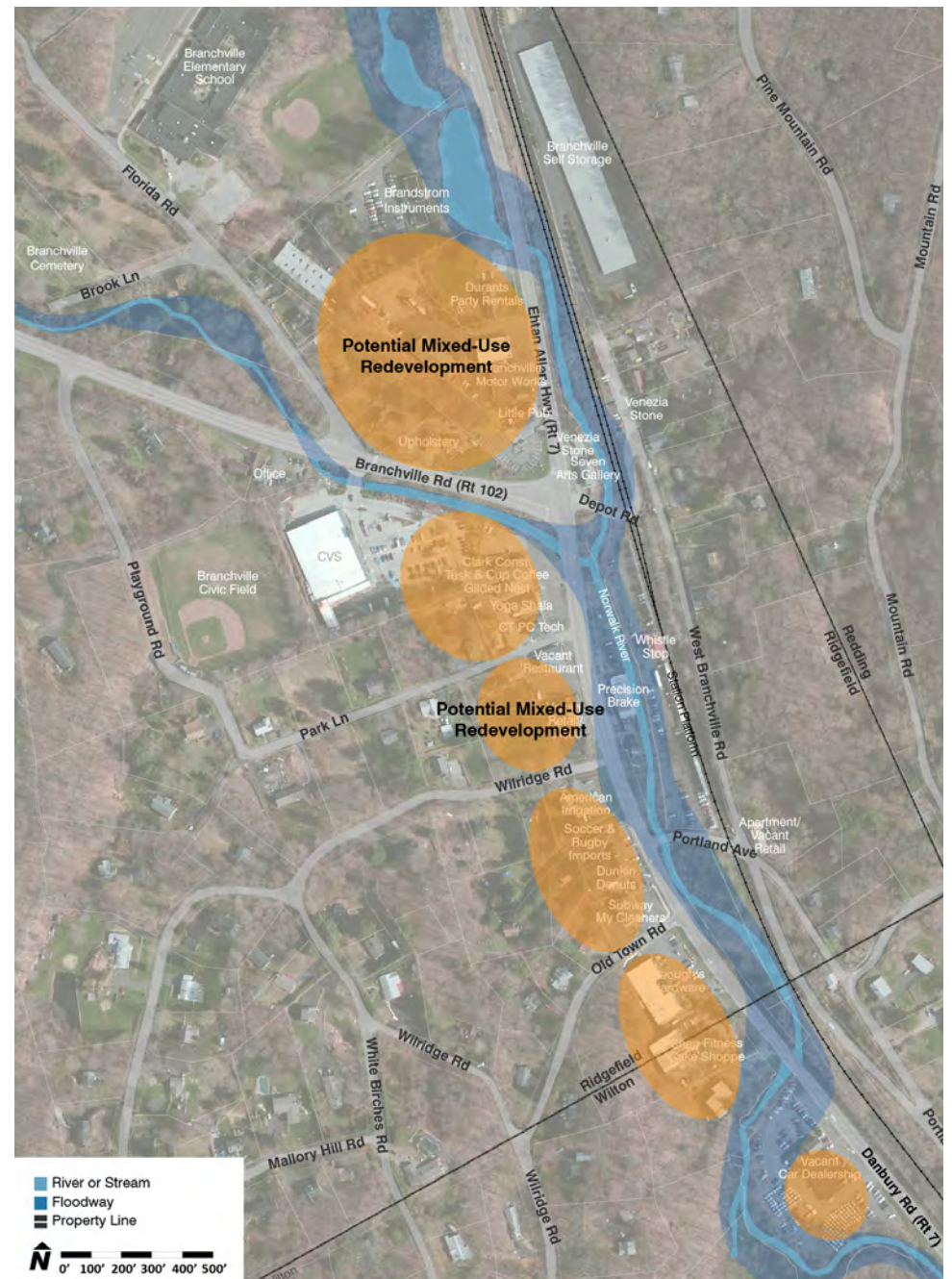
Sewer connection options

Strategy 4: Encourage Infill Development & Redevelopment

The infill development and redevelopment option would work with the existing development on the west side of Route 7 to establish a more complete street front and consolidate parking to the rear of buildings. This concept would integrate the sidewalk network concept so as to establish good pedestrian circulation thereby allowing customers to park once and make trips by foot to more than one business. Infill development could be mixed-use in nature with lower level retail or office and upper level residential units.



Infill development opportunities along Route 7



Strategy 5: Create a New “Main Street”

The “Main Street” concept seeks to develop a new pedestrian friendly street west of Route 7. The street would connect the CVS/Ancona’s parking area to Wildridge Road, with the potential for expansion to Old Town Road. Development would occur on both sides of the street with parking provided on-street and in small lots. New development could be mixed-use in nature with lower level retail or office and upper level residential units.



New “Main Street” concept west of Route 7

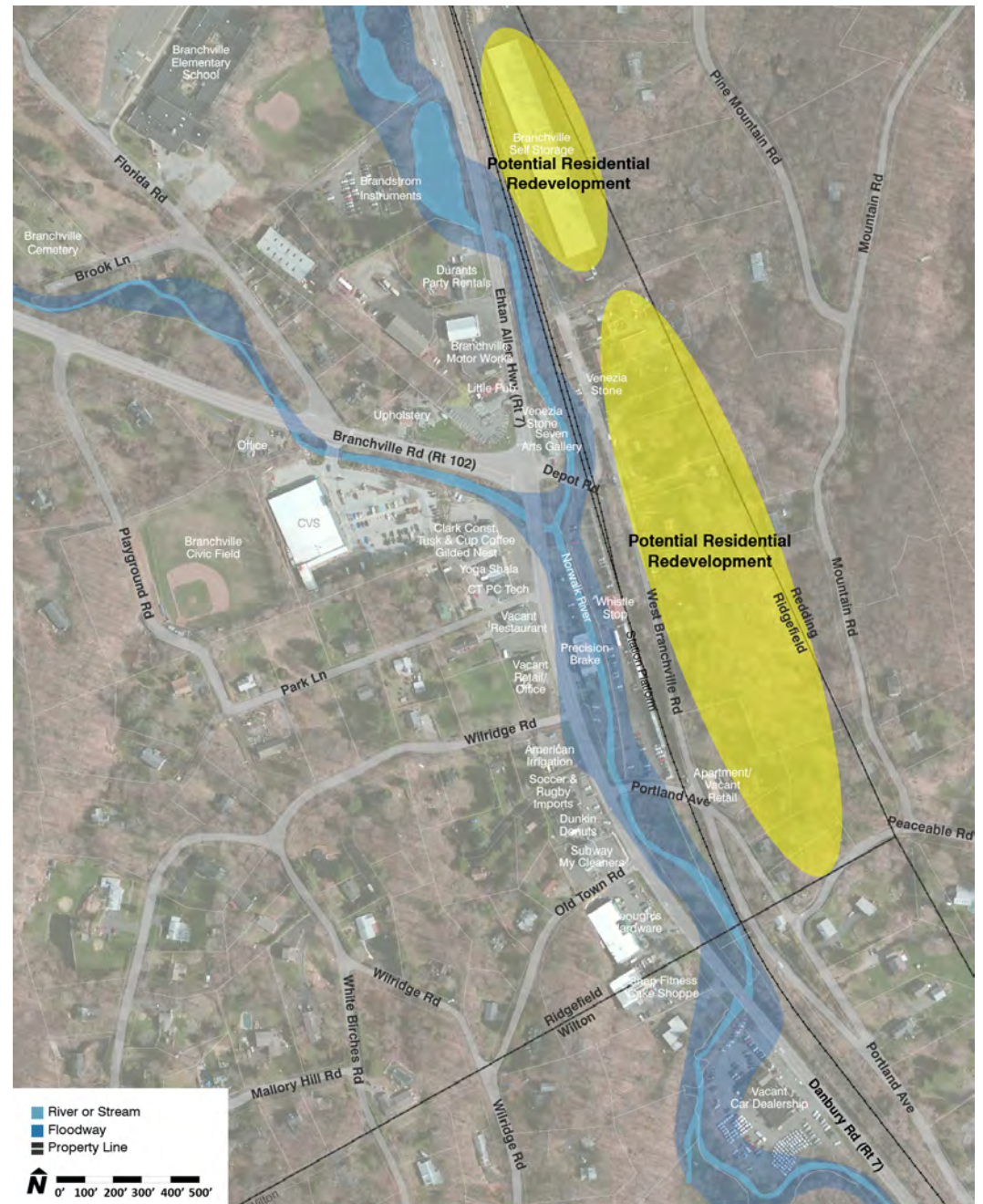


Strategy 6: Encourage Residential Redevelopment

West Branchville Road holds promise for residential redevelopment and infill development. The area has a low density of housing due to the existing wastewater disposal constraints. The provision of wastewater disposal infrastructure would allow greater housing densities in that area. While the topography is also a development constraint, there are multiple prototypes for hillside residential development that could be introduced to this area.



Example of hillside development





Build-Out Analysis

This build-out analysis is a test of the density of uses that the Branchville area could absorb given environmental constraints, potential infrastructure enhancements, and zoning modifications. This analysis generates potential development scenarios. Actual development in Branchville will likely differ given the varied ownership of property, cost of development, infrastructure limitations, and the priorities and policies of the neighboring towns of Redding and Wilton.

This analysis is useful in assessing the magnitude of infrastructure enhancement that would be required to support development and the potential tax revenue that could be generated by development.

While the TOD study area is comprised of a 1/2 mile radius, the focus area of this build out is limited to a 54 acre area identified through the existing conditions analysis and charrette as the most feasible for redevelopment.

Development Concepts

A combination of commercial, high density, and medium density residential development is recommended for the station area. Commercial development will be directed towards existing commercial and retail areas on Route 7.

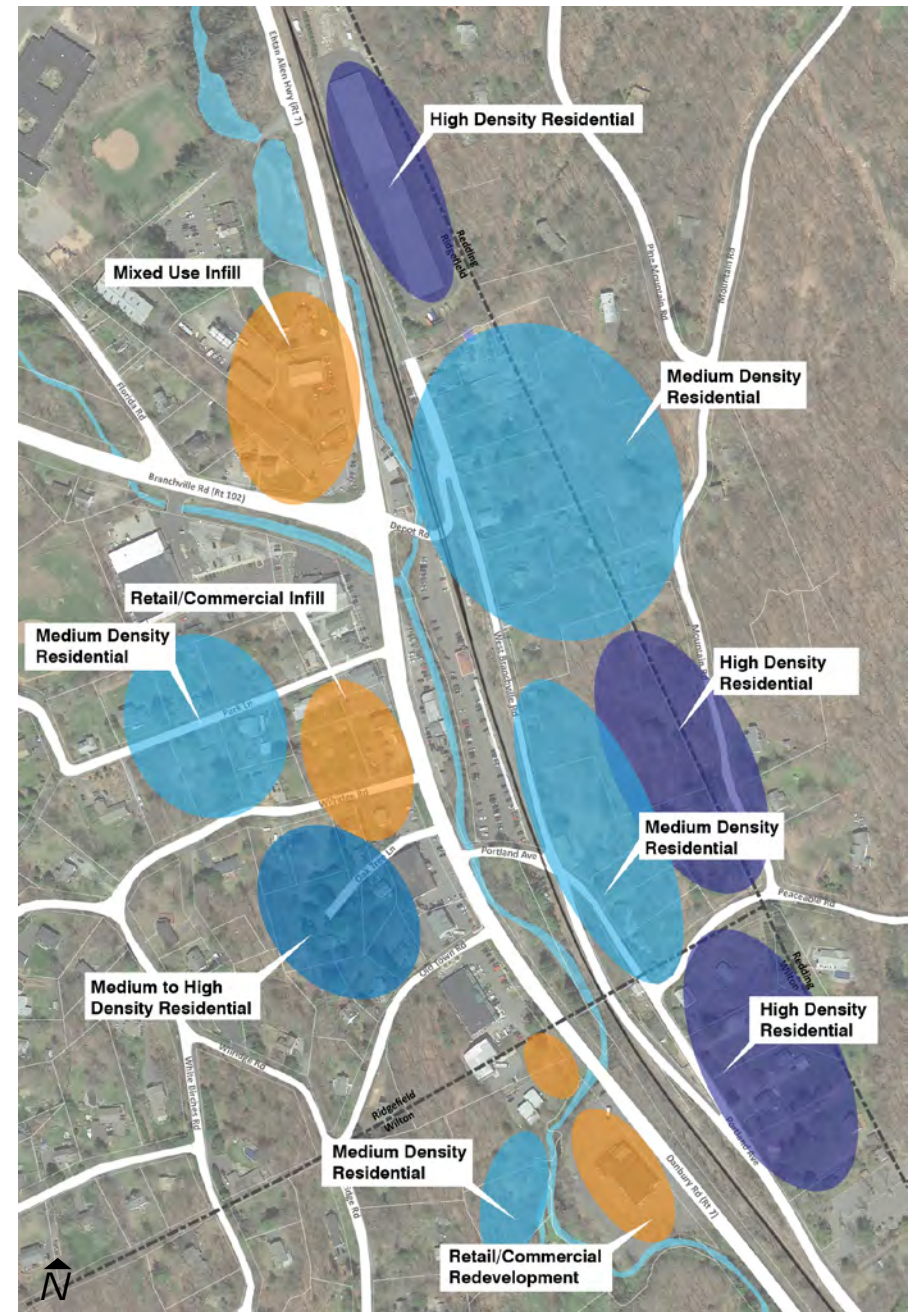
Three concepts were explored by the design team, with each strategy providing varying degrees of commercial and residential development and different patterns of circulation in the development area.

Development Concept A seeks to maximize the amount of high density development and spreads that development across all three communities: Ridgefield, Redding, and Wilton. Commercial infill areas are concentrated along Route 7 and are interspersed with areas of medium density development.

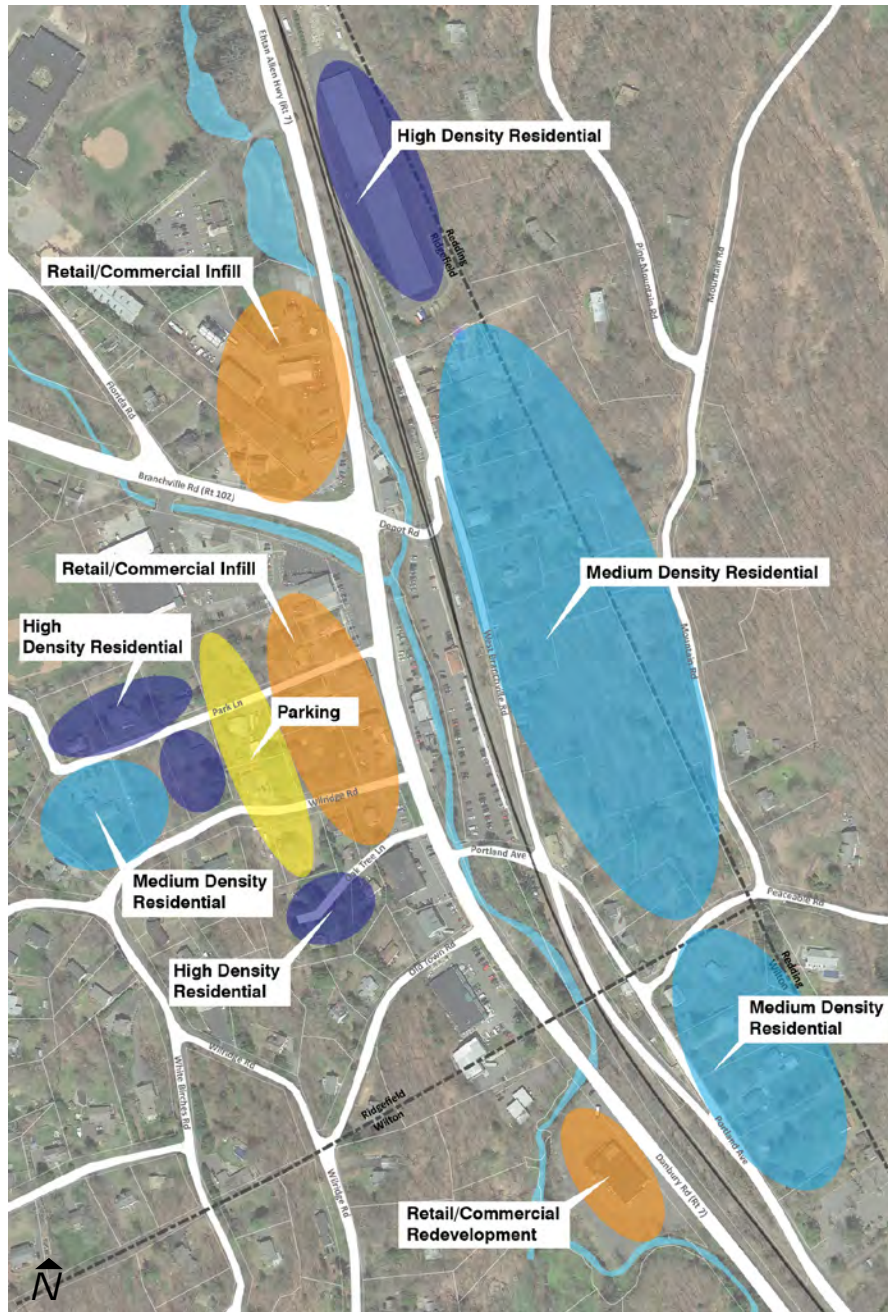
Development Concept B places a focus on a strong core of commercial development west of Route 7 with small pockets of high density development located only within Ridgefield. This strategy emphasizes medium density development to the east of the rail corridor, with a small areas at the western end of Park Lane and Wilridge Road.

Development Concept C, similar to Strategy B, places an emphasis on medium density residential development and concentrates commercial development along the Route 7 corridor. This strategy also seeks to create an area of open space and potential shared or municipal parking between commercial and residential development west of Route 7.

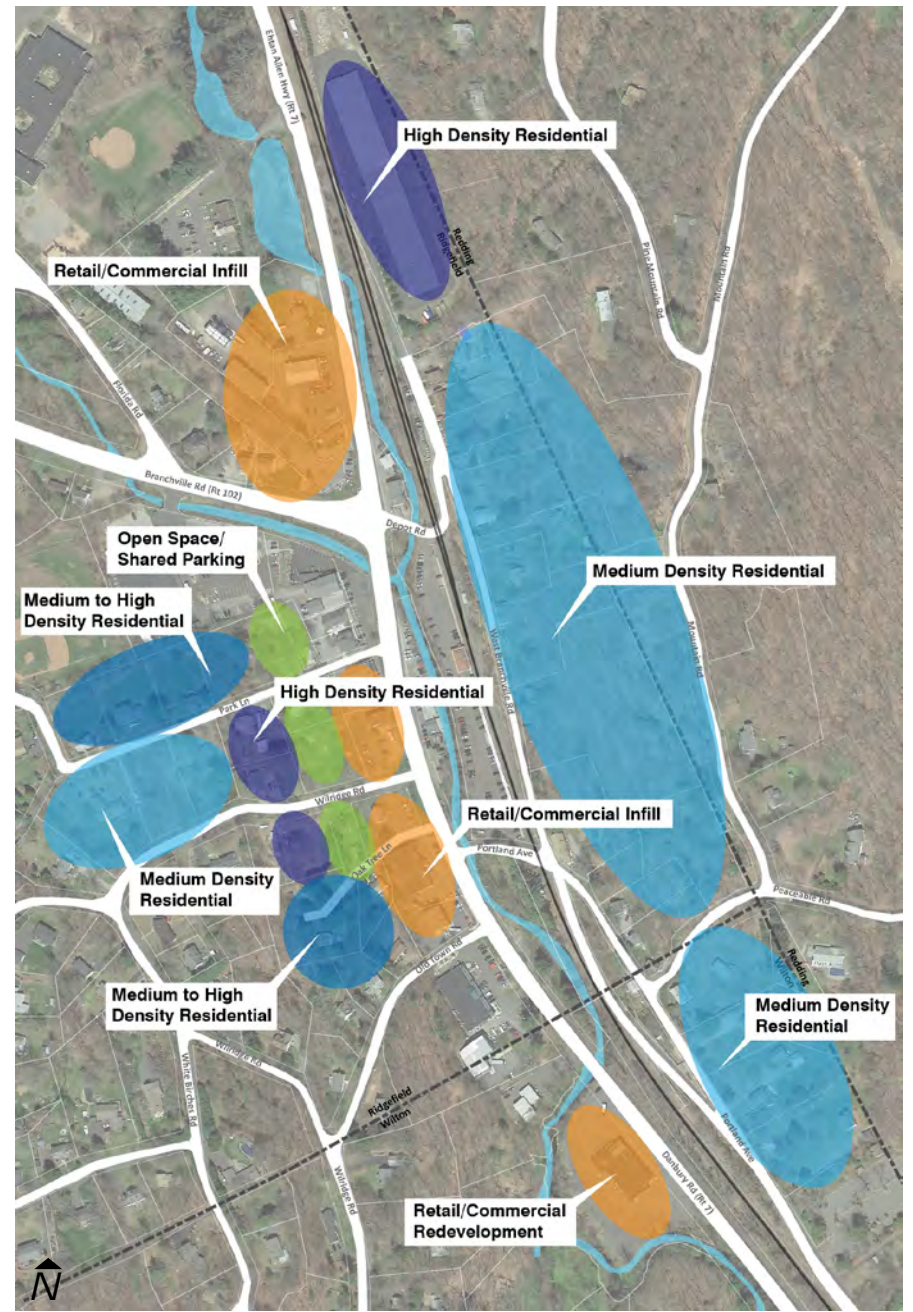
These strategies are shown at right and on the following pages and have been used in the development of concept plans for the station area. All three concepts seek to maximize the density of residential and commercial development in proximity of Branchville Station.



Development Concept A



Development Concept B



Development Concept C

Development Types

A combination of commercial, high density, and medium density residential development is recommended for the station area. In development of a build-out analysis for the station area, building prototypes have been used in the site layout and establishment of development densities and parking requirements.

Medium Density Residential

Townhouse style development is recommended as a building type for medium density residential areas. Townhouses are single family units that are joined together so as to maximize unit density and provide a uniform and consistent facade along the street. Townhouses have the following characteristics:

- Individual residence from ground floor to roof.
- 2-2.5 stories tall
- Each residence has a front door that opens to the street.
- Multiple residences share a common lot and have common walls.
- Parking may be provided in attached garage or in a surface lot.
- Residences are typically owner occupied condominium units.
- Development densities between 10 to 15 dwelling units per acre.



Townhouse units with ground floor garages

High Density Residential

Apartment development is recommended as a building type for high density residential areas. Apartment buildings allow for the greatest density of residential units per acre. Buildings may take many forms but generally have the following characteristics:

- Units can be rental or owner occupied condominiums.
- Multiple units per structure, units are often stacked
- Dwelling unit entrances may open to a lobby, corridor, or off street location
- Parking provided in surface lot, or limited parking in ground floor of structure if grades permit
- Three-story maximum is recommended
- Development densities between 20 to 40 dwelling units per acre.



Three-story apartment building

Commercial Development

Commercial buildings could take many forms, but the ideal use would have retail, restaurant, or office uses on the ground floor and the potential for office or residential units on upper floors. Typical characteristics include:

- Lower level office, retail or restaurant
- Upper level residential or office
- Parking provided in surface lots
- Three-story maximum is recommended



Commercial mixed-use building with ground level retail

Concept A

Concept A places emphasis on large building footprints such as apartment buildings and mixed use commercial buildings. Development is focused primarily in Ridgefield, with a significant amount of development in Wilton and a small amount of development in Redding. This concept uses infill commercial development along Route 7 and a combination of apartment and townhouse development west of Route 7 and east of the rail corridor.

In total, 412 units of housing are shown in this concept, with a majority (252) of those units provided in apartment buildings. This concept also provides a significant amount of commercial development with 94,000 sf of development shown.

Concept Benefits

- Mixture of development types
- Minimized impacts to slope east of West Branchville Road

Concept Constraints

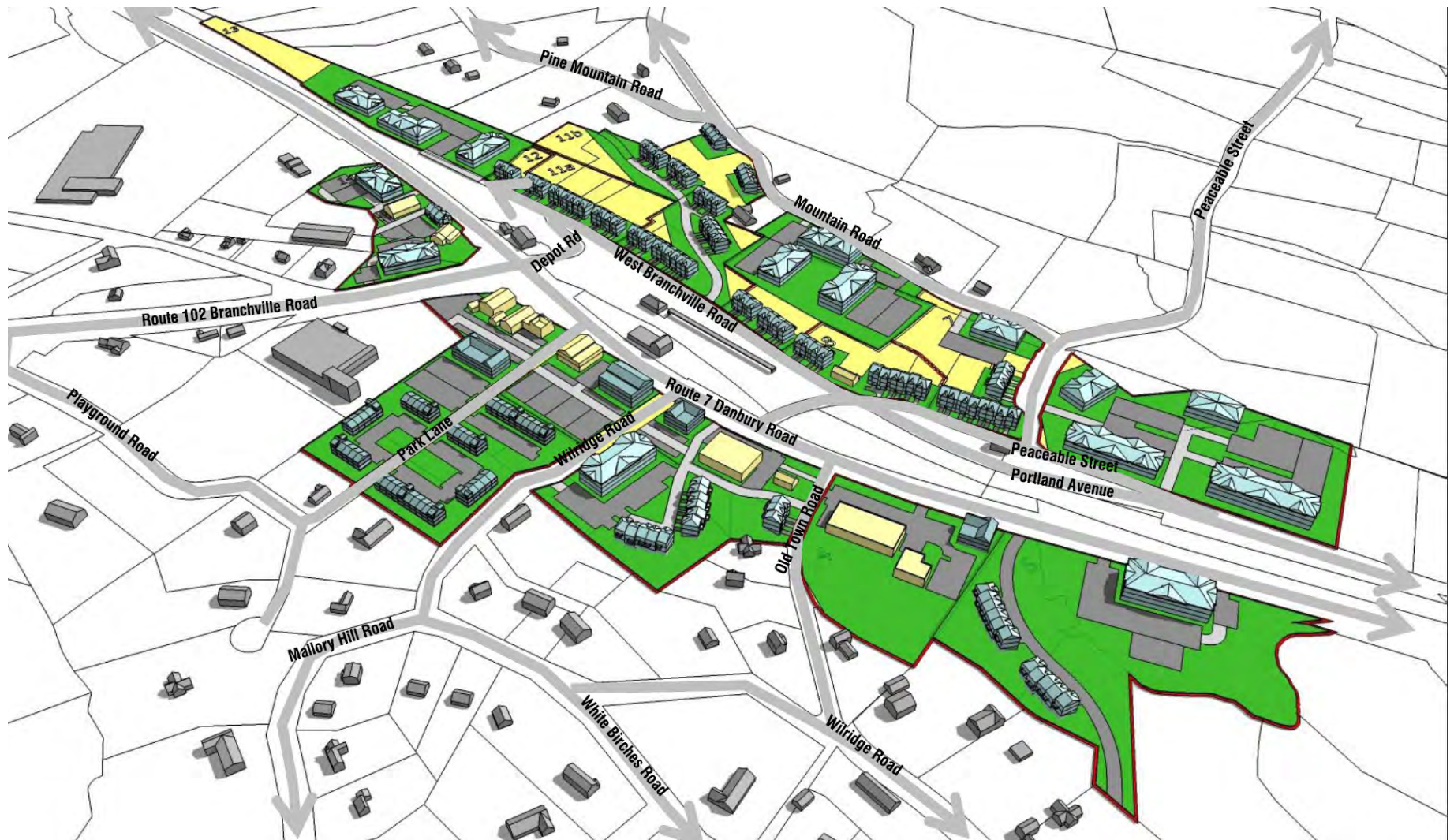
- Weak connectivity between development sites
- Isolated pockets of residential development
- Apartment development in Wilton and Redding may be less feasible than townhouse style development due to adjacent land uses and topographic constraints
- Potential for residential development east of the rail corridor is not maximized

Development Summary

Town	Commercial (sf)	Apartments (units)	Townhouses (units)	Parking (spaces)
Ridgefield	54,000	152	128	996
Redding	0	20	20	24
Wilton	40,000	80	12	210
Total	94,000	252	160	1,310



Concept A Development Model



Concept B

Concept B seeks to create a new “Main Street” to the west of Route 7 by orienting commercial development along a new roadway at the rear of existing commercial buildings on Route 7. Parking for those structures would be provided on-street and in parking lots to the west of this commercial development area.

Medium density residential development, in the form of townhouse development, is concentrated to the east of the rail corridor. This development fronts West Branchville Road, Portland Avenue, Peaceable Road, and Mountain Road with a limited amount of development set back from the street in courtyard “cul-de-sacs” or on small connecting roadways. This development pattern allows for the phasing of development over time as each courtyard of townhouses could be developed independently.

High density residential development, in the form of apartment buildings are concentrated in two locations: at the site of the existing Branchville Self Storage and to the west of the new “Main Street” area. In total, six apartment buildings are projected under this concept providing 192 dwelling units.

In total, 418 units of housing are shown in this concept, with a majority (226) of those units provided in townhouse development. This concept also provides the most robust scenario for commercial development with 113,000 sf of development shown. Given parking constraints in the area, commercial development would be limited to one to two story buildings.

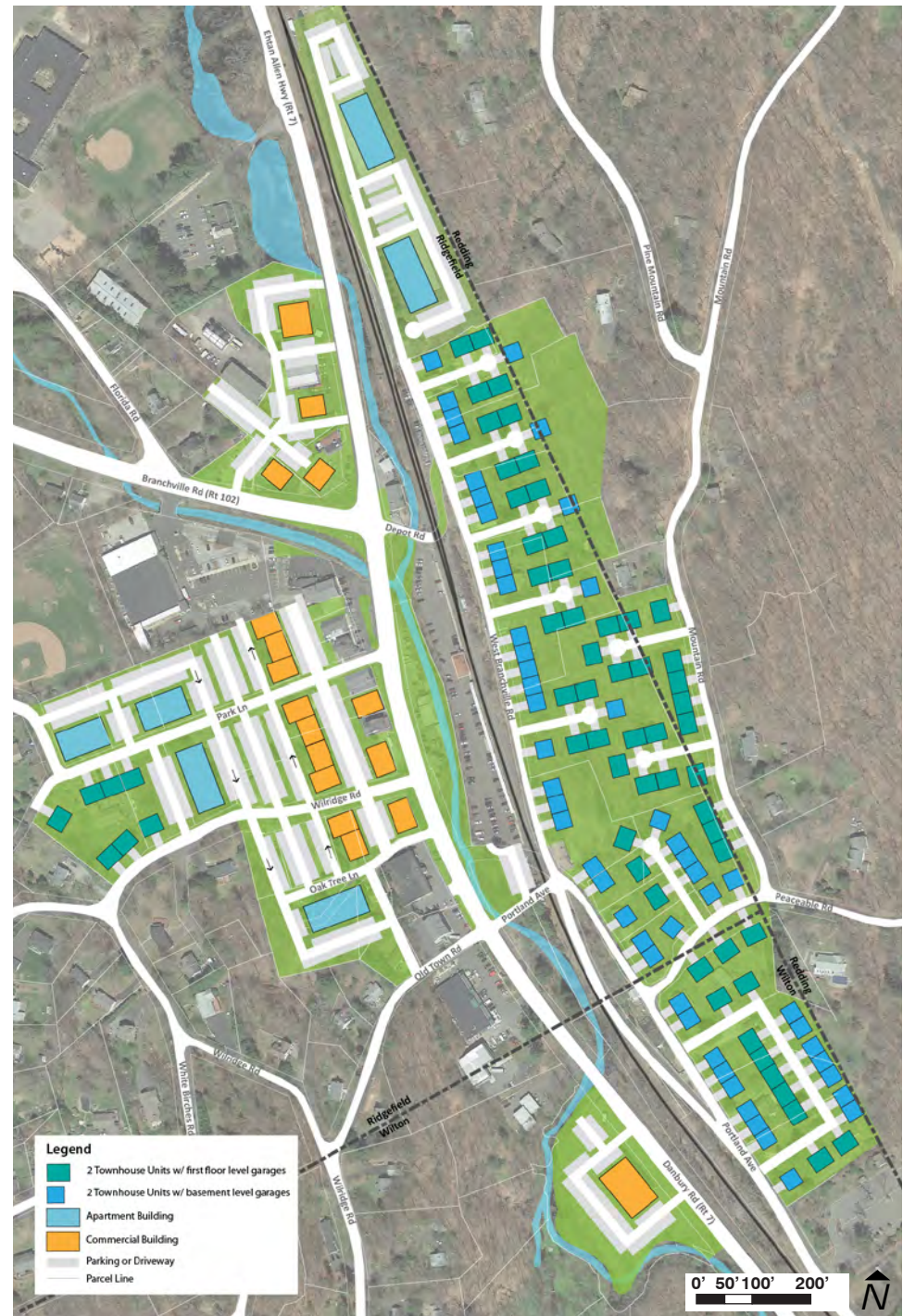
Concept Benefits

- New “Main Street” featuring commercial development
- Townhouse development can be phased

Concept Constraints

- Weak connectivity between townhouse developments
- Current market conditions do not favor robust commercial development in the station area
- Apartment development at the western end of Park Lane is not highly compatible with single family land uses in that area

Town	Commercial (sf)	Apartments (units)	Townhouses (units)	Parking (spaces)
Ridgefield	83,000	192	158	1,151
Redding	0	0	12	24
Wilton	30,000	0	56	210
Total	113,000	192	226	1,385



Concept C: Preferred Development Concept

Concept C has been identified as the preferred development concept. This concept places emphasis on residential development with commercial infill development playing a secondary role. A small public green space, located west of Route 7 and between Park Lane and Wilridge Road is a defining feature of this concept.

Similar to Concept B, medium density residential development, in the form of townhouse development, is concentrated to the east of the rail corridor. This development also fronts West Branchville Road, Portland Avenue, Peaceable Road, and Mountain Road. Local, potentially private roadways provide access to townhouse development that is off of the previously mentioned roadway. This development pattern would allow a limited amount of development phasing, but would require the consolidation of multiple parcels for development to occur.

High density residential development, in the form of apartment buildings are concentrated in two locations: at the site of the existing Branchville Self Storage and to the west of commercial development on Route 7. In total, six apartment buildings, providing 189 dwelling units, are projected under this concept.

In total, 449 units of housing are shown in this concept, with a majority (260) of those units provided in townhouse development. This concept also provides the most conservative scenario for commercial development with 68,000 sf of development shown.

Concept Benefits

- Public green space at the center of development
- Amount of commercial development is more consistent with existing market realities
- High level of connectivity between development areas

Concept Constraints

- Low diversity of housing type east of West Branchville Road
- Requires assembly and coordination of multiple individual parcels

Town	Commercial (sf)	Apartments (units)	Townhouses (units)	Parking (spaces)
Ridgefield	38,000	189	192	1,022
Redding	0	0	12	24
Wilton	30,000	0	56	210
Total	68,000	189	260	1,256



Concept C Development Model



Infrastructure Needed to Support Development Concepts

The development concepts, regardless of the selected as a preferred concept, would need substantial infrastructure investment to support the proposed development. In summary the infrastructure includes:

Telecommunications: Present in project area with potential for expansion.

Electricity: Present in project area with capacity for expansion.

Natural Gas: Not available in project area.

Drinking Water: A water main is present along Route 7 and Branchville Road. An extension of the main to the east side of the rail corridor would be needed to serve development in that area.

Wastewater Disposal: The lack of wastewater infrastructure is the primary constraint to development in Branchville. Municipal sewer service would be required to support the full build out. Community septic systems may be a mechanism for supporting a limited amount of development in the near term.

Stormwater: The stormwater system within the project area is limited and primarily serves roadway discharge from Route 7 and Route 102 and some business with frontage immediately along those routes.

There are no discharge constraints that would limit development in Branchville, providing water quality and volume is treated in accordance with the CTDEEP stormwater quality manual.

The Town of Ridgefield requires that net discharge from post-development conditions not exceed pre-development conditions, so peak flows would have to be attenuated, either through infiltration or underground storage before discharging off-site.

Estimated Water and Wastewater Flows

Estimated water and wastewater flows were generated for a development scenario that includes 82,500 sf of commercial space and 463 units of housing (941 bedrooms).

The estimated waste water flow is 61,085 gallons per day. The residential sewage generation rates were based upon documented flow rates from similar developments, while the retail/office sewage generation rate was taken from the CTDPH Health Code.

The estimated water flow demand for this development scenario is 83,985 gallons per day, which is required for domestic water and irrigation. Water flow for fire protection is estimated to be 2,000 gallons per minute. Water flows were conservatively estimated using the sewage generation rate. An allowance was also added for irrigation using an assumption that 500 square feet per proposed dwelling unit would be irrigated. Fire flow was determined based upon the largest building in the proposed development scenario.

Wastewater Disposal Options

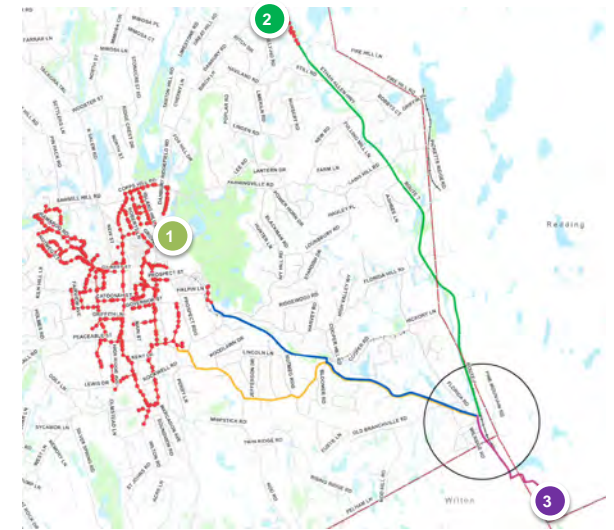
As documented in the existing conditions analysis, the options for wastewater disposal include the extension of a sanitary sewer main to the project area and/or on-site disposal of waste via a combination of private and community septic systems.

Sewer Treatment Facility Options

Treatment facility options include the South Street Wastewater Treatment Facility, the Route 7 Wastewater Treatment Facility, and the Georgetown Wastewater Treatment Facility.

The estimated cost for providing sewer extensions to the above facilities are as follows:

1. South Street: \$4.4 - \$6.3 million, depending on route of sewer main
2. Route 7: \$7.3 million
3. Georgetown: \$2.5 million



Treatment facility locations and sewer main routing options.

Costs to perform upgrades at the South Street and Route 7 treatment facilities in the Town of Ridgefield were not estimated for this project. It is assumed that any capacity increase required will be provided as part of upgrades which result from the ongoing facility planning work. Likewise, costs for required improvements, if any, at the Georgetown treatment facility were not estimated for this report. An analysis of the existing treatment plant components must be conducted to confirm the extent of improvements that may be required at this facility.

On-Site Disposal Options

Disposal of sewage flows from the TOD area can be accomplished by the use of two types of on-site sewage disposal: a package treatment plant, or community septic system.

Package Treatment Plant: A package treatment plant is a local treatment plant designed to treat small flows. It is often available in pre-fabricated modular units. These treatment plants are best suited for subsurface discharge (similar to a septic system), as opposed to surface discharge to a river or stream (similar to the existing treatment plants). Discharges to

surface waters have much more stringent regulatory requirements, including effluent treatment limits, which can make them cost prohibitive. Subsurface disposal plants have much lower permitting requirements, however, the receiving soils must be conducive to subsurface discharge. The more favorable the soils, the smaller and less costly the package treatment plant will be.

Discharges exceeding 5,000 gpd are subject to review and approval by the Connecticut Department of Energy and Environmental Protection.

Community Septic Systems: A community type system is one where each building or parcel has its own septic tank, but is piped to a centralized subsurface leaching field, which accepts effluent from a number of individual properties. All community systems are regulated by the Connecticut Department of Energy and Environmental Protection.

A Permit Application for Wastewater Discharges from Subsurface Sewage Treatment and Disposal Systems is required from CTDEEP. The application includes a fee and public notice requirements, and basic background information on the applicant. The source and volume of effluent must be identified, and potential storage of toxic and hazardous substances must be inventoried. Additionally, pollutant loading and groundwater mounding analysis must be provided to determine compliance with effluent limitations.

Permit conditions for both systems will also include monitoring and maintenance requirements, scaled to the size and scope of the system.

The sites with the best potential for these systems are properties located in Udorthents or Hinckley soils areas. Priority was given to Town-owned properties for further exploration. After a review of Town owned parcels within the vicinity of the TOD area, the only Town parcel meeting this requirement is at Branchville Elementary School. Further review of each site determined that the Branchville Elementary School is located too close to the Norwalk River, and the parcel north of the little league field is too close to Cooper Pond Brook.

Two additional privately owned large parcels that can also be considered for potential sites are the existing Little League field, and the parcel immediately north at 34 Playground Road. The Little League field provides more separation distance to watercourses, although the soils may be more suitable on the 34 Playground Road parcel.

Based upon the evaluations conducted, an on-site treatment system is not a feasible option for providing sewer service for the full build-out option of the TOD project area.

Based upon the soil test data provided, and additional reasonable assumptions about the surrounding soils in the area, the maximum flow that can be treated and disposed of at the Little League Field using an on-site system is 7,000 gallons per day. This would accommodate 70,000 sf of commercial space or 63 two-bedroom housing units, or a combination thereof.

Given the limitation of 7,000 gallons per day, pretreatment of waste would not be necessary; a conventional community system with privately owned septic tanks and a common leaching area at the ballfield would be the recommended approach.



The Little League field has sufficient capacity to support a community septic system for the proposed apartment development on the north and south sides of Park Lane (preferred development concept).

Fiscal Impact of Preferred Development Concept

A fiscal analysis of the preferred development concept was conducted so as to compare the existing conditions against the full build-out. The total existing appraised value of the study area is currently \$21,118,211 (\$14,782,748 assessed value), which generates \$394,909 in property tax revenue for the Towns of Ridgefield, Redding, and Wilton.

The potential development value for new development was generated based upon a study of property values of comparable properties in Ridgefield. The projected appraised value per building type is as follows:

- Townhouse units: \$301/sf
- Apartment units: \$99/sf
- Commercial space: \$98/sf

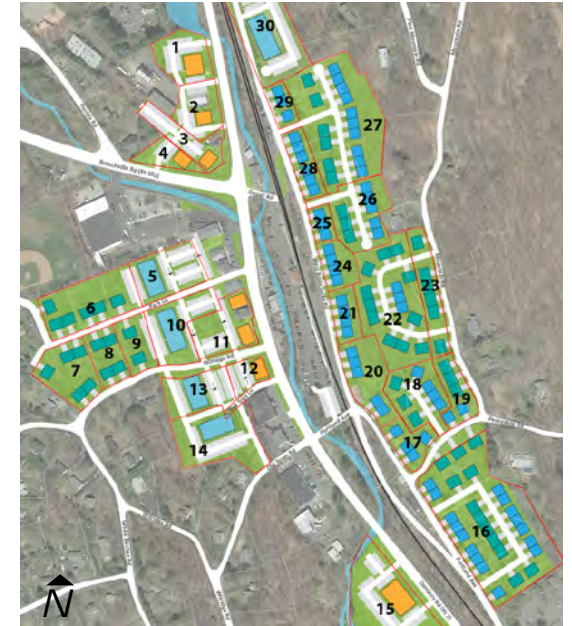
The total potential appraised value of the full build out is \$192,995,029, which represents an increase

of \$171,876,818 in total appraised value. This development would create an additional \$3,214,661 in property tax revenue per year. The share of this revenue per town, based upon the location of development would be as follows:

- Ridgefield: \$2,209,109
- Redding: \$337,414
- Wilton: \$668,138

These potential revenue projections do not account for the additional cost of municipal services or debt service on infrastructure enhancements that may be required or incurred by future development.

A full build out of the preferred concept could generate an additional \$3.2 million in property tax revenue per year.



Develop ment Area	Existing Appraised Land Value	Existing Appraised Value of Buildings	Total Existing Appraised Value	Appraised Value of Buildings to Remain	Potential Appraised Value of New Buildings	Potential Total Appraised Property Value	Potential Appraised Value Added by Redevelopment	Potential Tax Generated by Development (26.69 Mill Rate- Ridgefield)	Current Tax Generated by Existing Uses (26.69 Mill Rate- Ridgefield)	Potential Increase in Tax Revenue
1	\$ 529,000	\$ 303,200	\$ 832,200		\$ 1,078,000	\$ 1,607,000	\$ 774,800	\$ 30,024	\$ 15,548	\$ 14,476
2	\$ 500,250	\$ 390,125	\$ 890,375	\$ 390,125	\$ 294,000	\$ 1,184,375	\$ 294,000	\$ 22,128	\$ 16,635	\$ 5,493
3	\$ 397,938	\$ 690,092	\$ 1,088,030	\$ 690,092	\$ 294,000	\$ 1,382,030	\$ 294,000	\$ 25,820	\$ 20,328	\$ 5,493
4	\$ 696,000	\$ 185,618	\$ 881,618	\$ -	\$ 294,000	\$ 990,000	\$ 108,382	\$ 18,496	\$ 16,471	\$ 2,025
5	\$ 348,480	\$ 139,345	\$ 487,825	\$ -	\$ 2,475,000	\$ 2,823,480	\$ 2,335,655	\$ 52,751	\$ 9,114	\$ 43,637
6	\$ 491,357	\$ 196,276	\$ 687,633	\$ -	\$ 4,752,000	\$ 5,243,357	\$ 4,555,724	\$ 97,962	\$ 12,847	\$ 85,115
7	\$ 195,691	\$ 402,734	\$ 598,425	\$ -	\$ 6,020,000	\$ 6,215,691	\$ 5,617,266	\$ 116,128	\$ 11,180	\$ 104,947
8	\$ 164,560	\$ -	\$ 164,560	\$ -	\$ 4,816,000	\$ 4,980,560	\$ 4,816,000	\$ 93,052	\$ 3,074	\$ 89,977
9	\$ 174,240	\$ 60,696	\$ 234,936	\$ -	\$ 2,408,000	\$ 2,582,240	\$ 2,347,304	\$ 48,244	\$ 4,389	\$ 43,855
10	\$ 514,800	\$ 351,858	\$ 866,658	\$ -	\$ 2,970,000	\$ 3,484,800	\$ 2,618,142	\$ 65,107	\$ 16,192	\$ 48,915
11	\$ 439,516	\$ 355,057	\$ 794,573	\$ 355,057	\$ 1,176,000	\$ 1,970,573	\$ 1,176,000	\$ 36,816	\$ 14,845	\$ 21,971
12	\$ 202,400	\$ 51,943	\$ 254,343	\$ -	\$ 588,000	\$ 790,400	\$ 536,057	\$ 14,767	\$ 4,752	\$ 10,015
13	\$ 338,240	\$ 228,378	\$ 566,618	\$ -	\$ 2,475,000	\$ 2,813,240	\$ 2,246,622	\$ 52,560	\$ 10,586	\$ 41,974
14	\$ 457,741	\$ 457,416	\$ 915,157	\$ -	\$ 2,475,000	\$ 2,932,741	\$ 2,017,584	\$ 54,792	\$ 17,098	\$ 37,695
15	\$ 1,305,200	\$ 475,100	\$ 1,780,300	\$ -	\$ 2,940,000	\$ 4,245,200	\$ 2,464,900	\$ 79,729	\$ 33,436	\$ 46,293
16	\$ 1,270,000	\$ 601,700	\$ 1,871,700	\$ -	\$ 33,712,000	\$ 34,982,000	\$ 33,110,300	\$ 656,997	\$ 35,152	\$ 621,845
17-20	\$ 653,142	\$ 619,271	\$ 1,272,413	\$ -	\$ 26,488,000	\$ 27,141,142	\$ 25,868,729	\$ 507,078	\$ 23,772	\$ 483,305
21-23	\$ 383,705	\$ 261,552	\$ 645,257	\$ -	\$ 27,692,000	\$ 28,075,705	\$ 27,430,448	\$ 524,538	\$ 12,055	\$ 512,483
24-26	\$ 460,865	\$ 436,196	\$ 897,061	\$ -	\$ 18,060,000	\$ 18,520,865	\$ 17,623,804	\$ 346,025	\$ 16,760	\$ 329,266
27-29	\$ 1,297,150	\$ 497,956	\$ 1,795,106	\$ -	\$ 30,100,000	\$ 31,397,150	\$ 29,602,044	\$ 586,593	\$ 33,538	\$ 553,055
30	\$ 1,316,480	\$ 2,276,943	\$ 3,593,423	\$ -	\$ 8,316,000	\$ 9,632,480	\$ 6,039,057	\$ 179,964	\$ 67,136	\$ 112,828
Total	\$12,136,755	\$ 8,981,456	\$ 21,118,211	\$ 1,435,274	\$ 179,423,000	\$ 192,995,029	\$ 171,876,818	\$ 3,609,570	\$ 394,909	\$ 3,214,661

Implications for Transit Ridership

The preceding development scenarios would introduce between 412 and 449 residential dwelling units. Townwide, Ridgefield has 1.1 workers per household. Assuming an average of 1.1 commuting workers per dwelling unit, a full build out of the project area could introduce between 453 and 494 commuters to the project area.

Currently, 4% of Ridgefield residents use transit as a primary means of commuting to work. This is notably lower than the region, with 10% of commuters in Fairfield county using transit to commute to work. Transit ridership is also significantly higher in communities such as Greenwich (16%) and Westport (19%) which both have significant populations in the vicinity of Metro North stations.

Development in the Branchville area would presumably attract residents who use Metro North to commute to work. Using a conservative estimate of 15% of future Branchville commuters using Metro North, the projected additional ridership provided by the proposed development would be approximately 68 to 74 riders per day.

A full build out of the preferred concept could generate an additional 68 to 74 riders per day at Branchville Station.



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Recommended Development Plan

The recommended development plan presents the preferred development concept as developed through the preceding analyses. This plan demonstrates a potential, and recommended, development scenario for Branchville. The development plan provides a framework for the type of development and features of development that are possible in Branchville.

Actual development in Branchville will likely vary from this plan. Implementation of this plan will be contingent upon the participation of property owners in assembling and redeveloping properties so as to enable this vision.

Design Objectives of the Plan

The recommended development plan seeks to integrate the concepts and recommendations that emerged from the charrette planning process and Task Force input. The plan is based upon the preferred development concept identified in the build out analysis.

The design objectives of the recommended development plan are as follows:

- Provide strong multi-modal connections to Branchville Station
- Provide pedestrian facilities throughout the study area
- Improve off-street connections between commercial properties
- Provide usable open space
- Preserve historically significant structures
- Direct new development and redevelopment towards vacant and underutilized properties
- Provide a vision for development that is complementary to existing land uses
- Expand opportunities for retail and service businesses
- Provide a range of housing types
- Provide a level of density that is supportive of the implementation of an Incentive Housing Zone (IHZ)
- Allow for phased development
- Provide adequate parking while reducing existing parking requirements through the use of shared parking resources
- Orient development towards streets

Focus Areas

This area has been divided into five focus areas for the purpose of closer analysis of the design elements within each focus area. The focus areas are as follows:

- **Northwest (NW):** Includes area north of Branchville Road and west of Route 7.
- **West (W):** Area west of Route 7, south of Branchville Road and north of Old Town Road.
- **South (S):** This area is located entirely within Wilton and includes one large parcel west of Route 7; remaining parcels are east of Portland Avenue.
- **East (E):** Area east of West Branchville Road and west of Mountain Road. This area extends into Redding.
- **Northeast (NE):** This area consists of one parcel which is currently the location of the Branchville Self Storage facility.



Northwest Focus Area

The northwest focus area is occupied by a number of small retail businesses and a popular local restaurant, the “Little Pub”. This proposed redevelopment plan for this area shifts parking from the front of businesses to the rear and sides. Infill development is proposed in this concept with four new structures totalling 20,000 sf of commercial space. Structures that are preserved in this concept include the Little Pub, Keane's Motorworks building, and the industrial buildings at 65 Ethan Allen Highway.

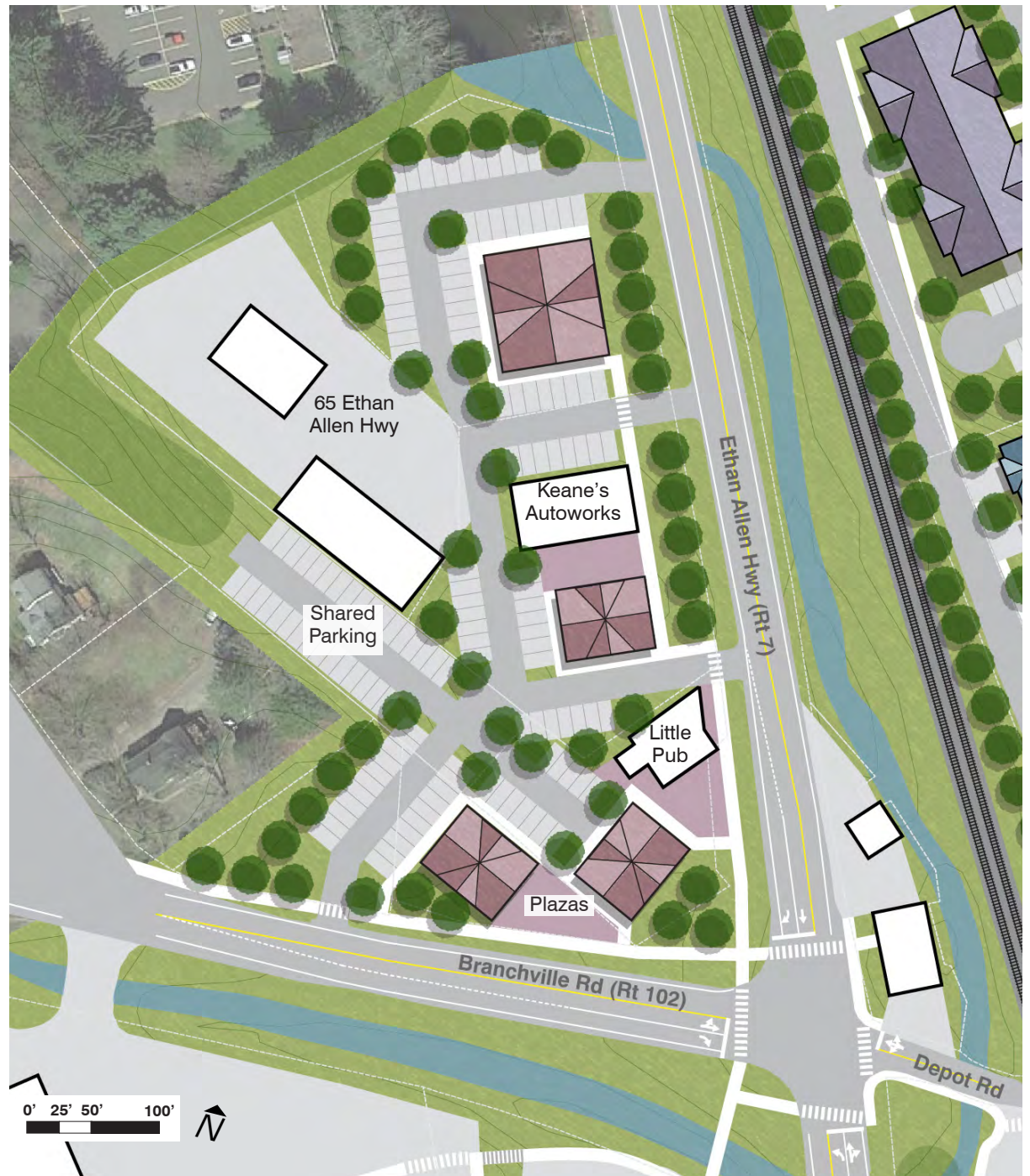
Potential uses would include retail, restaurant, service, or office. A total of 140 parking spaces are shown in this plan; the spaces could be shared or allocated to individual businesses and buildings. This concept also includes pedestrian circulation between proposed buildings and the provision of outdoor plazas for seating or outdoor dining.

Proposed Development Summary

Commercial (sf)	Apartment (units)	Townhouse (units)	Parking (spaces)
20,000	0	0	140



Example of commercial infill



West Focus Area

This development area is bordered by CVS and the Branchville Little League Field to the north, Route 7 to the east, Old Town Road to the South, and a single family residential neighborhood to the west.

The recommended development for this area concentrates mixed-use and commercial development in existing commercial areas along Route 7. High density residential development in the form of apartment buildings is shown between the commercial area and existing and proposed low and medium density residential areas. Townhouse and duplex development is shown at the western end of the focus area so as to provide a transition between more intense land uses and the existing single family residential neighborhood.

At the center of this development area is a “Village Green”. This is envisioned to be a public space surrounded by businesses, residences, sidewalks and street trees. There is also a limited capacity to provide outdoor patios or plazas adjacent to select buildings along Route 7. These plazas would allow for outdoor seating or cafe style dining.

A total of 18,000 sf of new commercial space, 105 apartment units, 34 townhouse units, and 342 new parking spaces (two per townhouse plus surface parking lots shown) are shown in this concept.

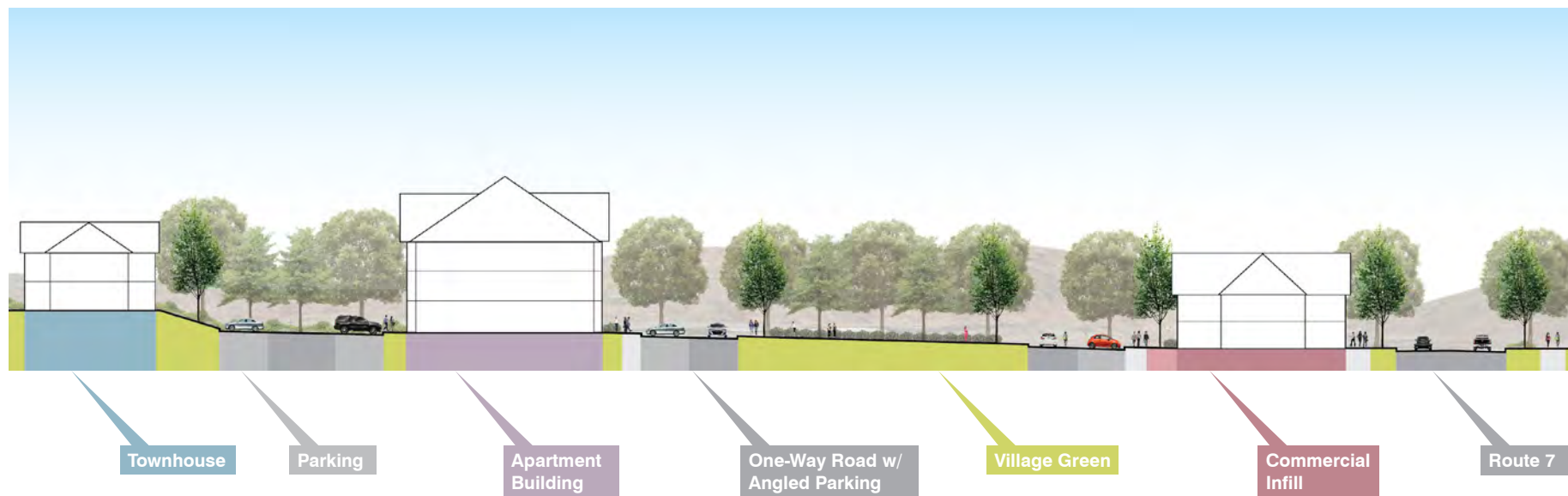
Proposed Development Summary

Commercial (sf)	Apartment (units)	Townhouse (units)	Parking (spaces)
18,000	105	34	342

Potential Parking Expansion

Depending on the amount of infill development along Route 7 and the type of land use, additional parking may be needed. The “Village Green” space has the capacity to provide 40 additional spaces while still maintaining a functional green space (see inset at right).





Elevation View of West Focus Area (view north)

South Focus Area

This focus areas includes recommended development areas that are located exclusively in Wilton. On the west side of Route 7, commercial redevelopment is recommended for the former auto dealership at that location. This site could accommodate 30,000 sf of development and provide 96 parking spaces. The provision of a pedestrian bridge over the Norwalk River would connect the site to commercial areas to the north in Ridgefield.

Residential development is recommended east of the rail corridor along Portland Avenue and Peaceable Road. This area is currently occupied by five single family homes on large lots. Redevelopment with townhouse and duplex housing could supply up to 56 housing units.

Proposed Development Summary

Commercial (sf)	Apartment (units)	Townhouse (units)	Parking (spaces)
30,000	0	56	208



East Focus Area

This area, east of the rail corridor and West Branchville Road is currently occupied by a small number of single family residential structures, small industrial buildings to the north, and mostly undeveloped land at the center and east side of the area.

The topography of the area is very steep, limiting development to buildings with shallow (front to back) footprints that can more easily be accommodated on a hillside. As such, townhouse and duplex style development is recommended for this area. Townhouses can be oriented so as to allow for ground floor level garages on the low side of the site and grade level walk-outs from the first floor at the rear of the building. Buildings that are oriented with the front facing uphill can be accommodated by providing first floor level garages, allowing for a basement level walkout at the back of the building.

Sidewalks would be provided throughout the development area, with pathways connecting separate development clusters. Internal streets could be public or private.

In total, this development area could accommodate up to 160 townhouse dwelling units with two parking spaces per unit (one garage and one driveway).

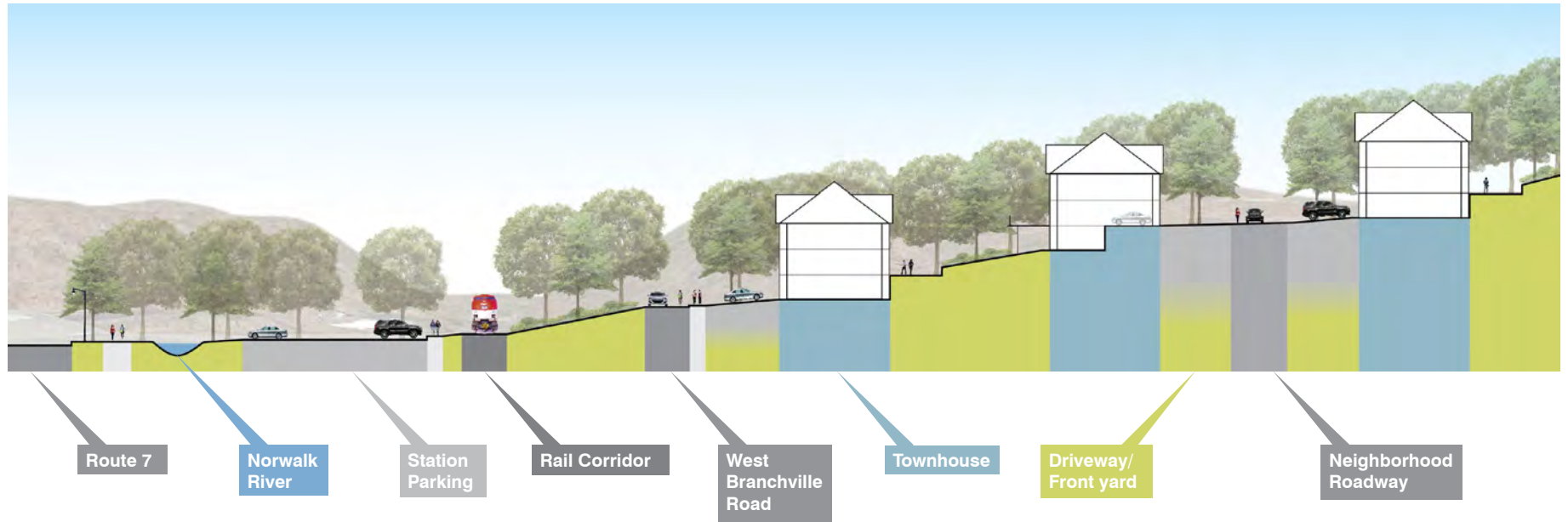
Proposed Development Summary

Commercial (sf)	Apartment (units)	Townhouse (units)	Parking (spaces)
0	0	160	320



Example of townhouse development





Elevation View of East Focus Area (view north)

Northeast Focus Area

This area occupies the site of the Branchville Self Storage facility. The site's geometry and the flat profile are ideal for the development of apartment buildings and the surface parking required to support those buildings.

The proposed development concept uses the existing driveway and replaces the self storage facility with two 3-story apartment buildings with a total of 84 apartment units. The site could also accommodate 146 parking spaces.

Proposed Development Summary

Commercial (sf)	Apartment (units)	Townhouse (units)	Parking (spaces)
0	84	0	146



Example of three story apartment buildings



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Mobility Plan

A number of mobility enhancements are recommended within the project area, with most of those improvements recommended in the proximity of Branchville Station.

The mobility plan seeks to establish a continuous pedestrian network on both side of Route 7, connecting the existing commercial and retail areas to the train station. This plan also incorporates the Connecticut Department of Transportation's plan for access modifications to the station site which include improvements to Depot Road and realignment of Portland Avenue with Old Town Road.

Station Area Mobility Enhancements

A number of mobility enhancements are recommended within the project area, with most of those improvements recommended in the proximity of Branchville Station. These improvements include:

1 Realignment of Route 102/Route 7 intersection

Realignment of this intersection will shorten pedestrian crossing distances and slow turning movements while still providing ample operating space for large vehicles such as trucks and buses.

2 New signalized intersection at Old Town Road

The provision of a signalized intersection at Old Town Road would provide access to a realigned Portland Avenue. This would allow for protected left turns onto Portland Avenue and a protected pedestrian crossing.

3 Realignment of Portland Avenue

This would allow for the alignment of Portland Avenue directly across from Old Town Road and would require construction of a new bridge over the Norwalk River.

4 Improvement of Portland Avenue/West Branchville Road intersection

An improved intersection would allow turning movements for large vehicles such as fire trucks that is not accommodated by the current alignment.

5 Pedestrian Bridges across Norwalk River and Cooper Pond Brook

Existing bridge crossings at the Route 102/Route 7 intersection do not have sufficient width to accommodate sidewalks. The provision

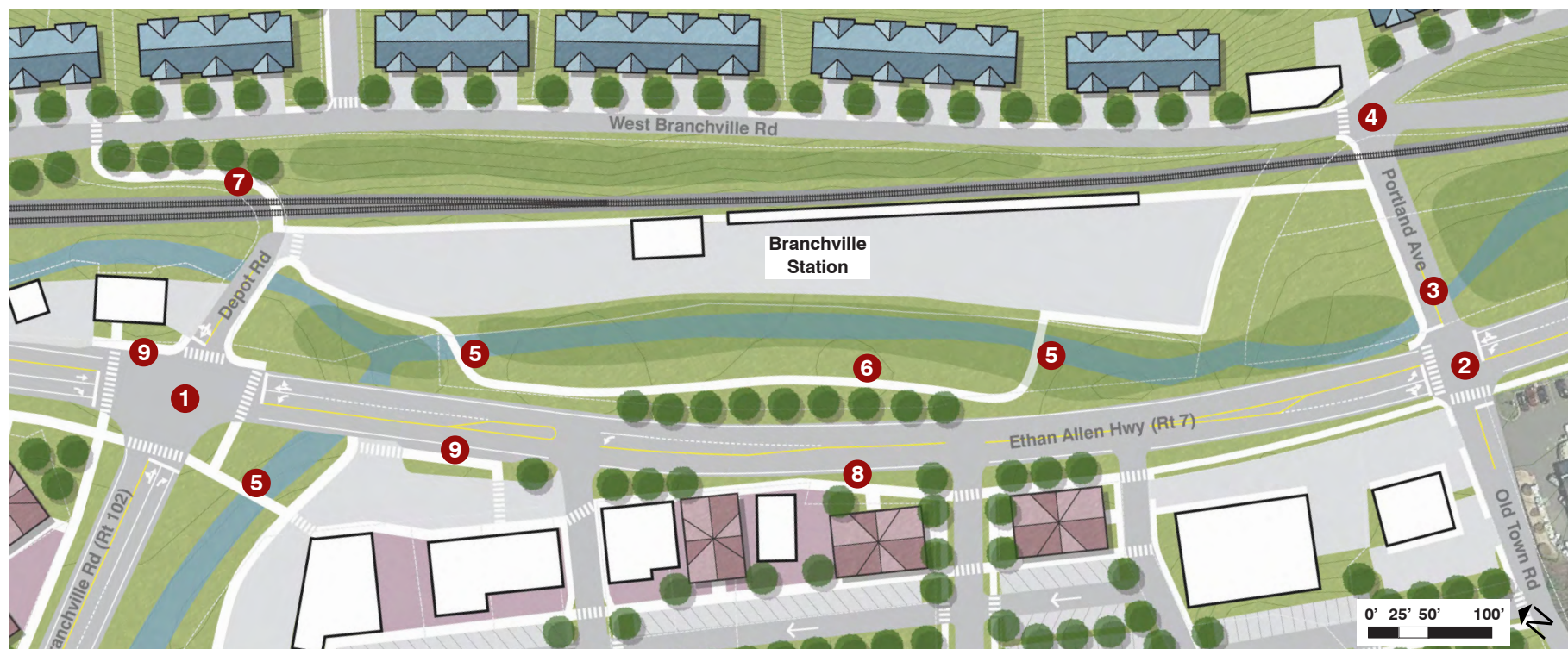
of pedestrian bridges would provide safe and attractive pedestrian crossings.

6 Greenway Path along the Norwalk River

This pathway would parallel and cross the Norwalk River at multiple locations and could provide a connection to Florida Road where an on-street connection can be made to the Ridgefield Rail Trail. This enhancement assumes a future reuse of the existing service station site on the east side of Route 7.

7 Pathway connection to West Branchville Road

The pathway would replace the existing roadway rail crossing which CT DOT plans on closing if and when improvements are made to Portland Avenue. The pathway would maintain a pedestrian crossing at this location and access to the train station from West Branchville Road.



8 Sidewalk network throughout project area

Sidewalks should be provided on at least one side of every street in the project area. Sidewalks in commercial areas should be sufficiently wide to accommodate higher volumes of pedestrian traffic, street furniture, and storefront displays. Marked crosswalks should be provided at all intersection crossings.

9 Bus stops and shelters

Bus stops should be located to the “far side” of the Route 102/ Route 7 intersection to minimize delay to traffic moving through the intersection. This concept also provides sufficient pull-out space for buses to allow for stopping outside of the travel lane. Other enhancements would include bus shelters and waiting areas.

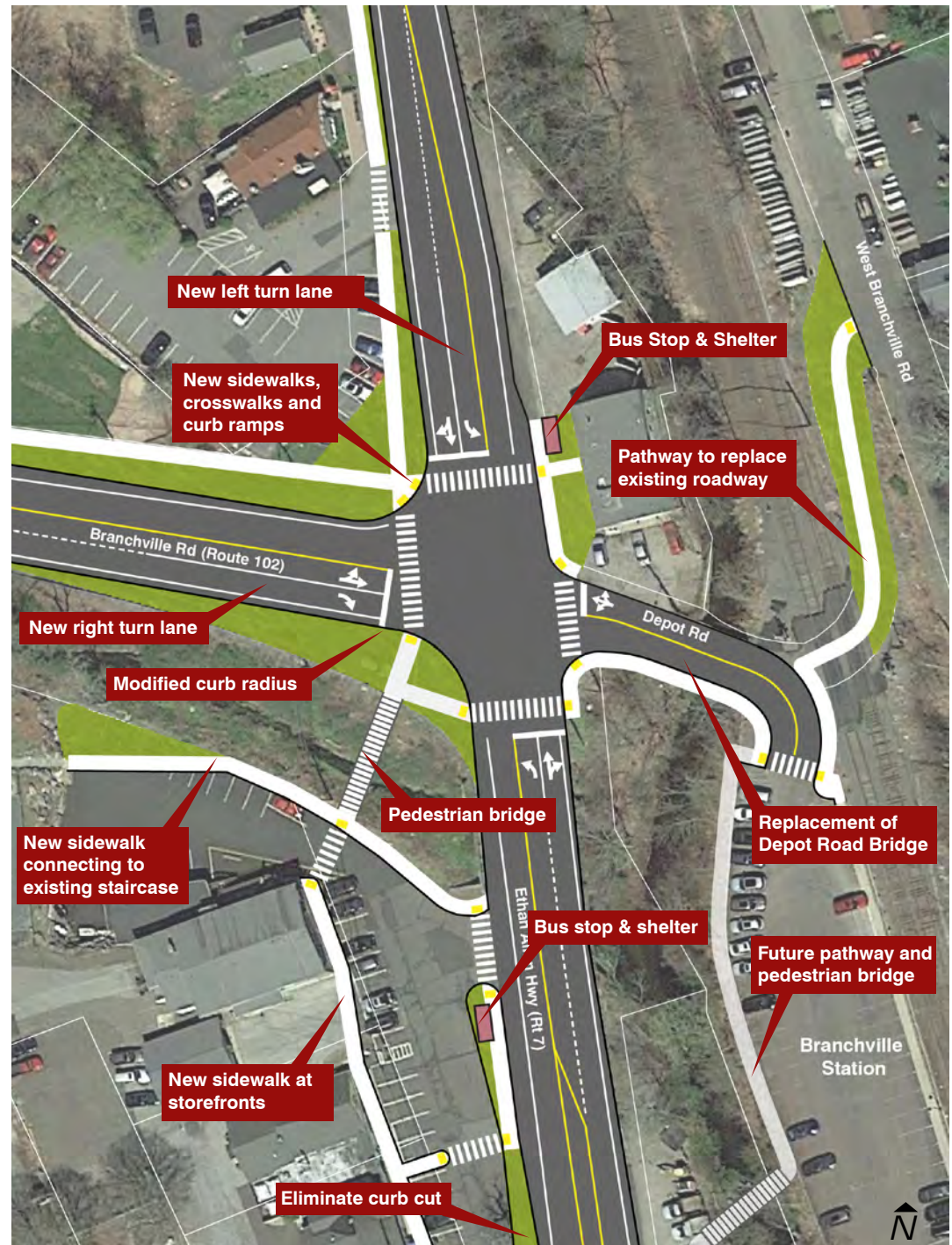
Route 7/102 Area Enhancements

Transportation enhancements along the Route 7 corridor (shown in the figure at right) should be implemented by the Town of Ridgefield and/or the Connecticut Department of Transportation (CT DOT) and could occur independent of private sector property development. Most of the recommended enhancements would occur within the right-of-way or on state owned property. Coordination with, and cooperation from, the property owner of the commercial properties at 51 Ethan Allen Highway will be necessary to provide sidewalk and crosswalk connections to those businesses.

Enhancements include operational and geometric improvements of the Route 7/102 intersection, the provision of sidewalks, pathways, curb ramps, marked crosswalks, pedestrian bridges, and bus stops and shelters. Also included in these proposed enhancements is the replacement of the Depot Road bridge so as to better accommodate two-way traffic and a sidewalk or pathway. Improvement of this bridge is also necessary given the existing condition of the bridge which has been found to be deficient.

Additionally, CT DOT plans to eliminate the at-grade rail crossing at Depot Road. Conversion of the eastern end of Depot Road to a pathway is recommended as a means of maintaining pedestrian access to the station in this location. This modification, which has been considered by CT DOT, would likely only be made in coordination with improvements to Portland Avenue.

Intersection improvements and signal timing modifications at the Route 7/102 intersection could improve the level of service from the existing peak hour “C” (am)/ “D” (pm) to “B” during both morning and afternoon peaks.



Portland Avenue Area Enhancements

The primary improvements in this area include the realignment of Portland Avenue to the south so as to align with Old Town Road. This requires the construction of a new bridge of over the Norwalk River, which would resolve the deficiencies of the existing bridge structure.

This alignment would also support the installation of a traffic signal at this location. Signalization of this intersection would improve traffic operations by protecting left turn movements onto Portland Avenue and Old Town Road. Signalization also allows for a protected pedestrian crossing at this location. Signalization of this intersection could improve the traffic level of service from “F” (failing) to “A” (best operating condition).

The concept has been advanced to design by the Connecticut Department of Transportation (CT DOT). Based upon a hydraulic analysis of the Norwalk River and associated floodway, CT DOT has found that the provision of an access road connecting the train station and a reconstructed Portland Avenue is not feasible given potential impacts to the floodway. Access to the station would instead be provided by improvements to Depot Road.

The intersection of Portland Avenue and West Branchville Road would also be improved under this concept so as to allow for turning movements of large vehicles such as fire trucks. Sidewalks and marked crosswalks would be included with intersection enhancements.

Redevelopment of this area would also create an opportunity to construct a pathway along the Norwalk River. This improvement would be contingent upon a future reuse of the existing service station site on the east side of Route 7.

Improvements to Ethan Allen Highway (Route 7) in this area includes a widening of the highway to the west by ten feet to create sufficient roadway space to accommodate left turn lanes and left turning vehicles. Widening of the roadway should be accompanied by installation of a sidewalk, curb ramps and marked crosswalks on the west side of the roadway. These improvements would occur entirely within the state's right-of-way and would not require property takings. Encroaching uses (primarily parking areas) would, however, be impacted by widening of the roadway and installation of a sidewalk.



Typical Mobility Enhancements

A number of mobility enhancements are recommended within the project area. Those identified below are typical mobility enhancements in the project area:

1 11' wide travel lanes

Eleven foot wide travel lanes should be employed on Routes 7 and 102 as a means of minimizing lane width and maximizing shoulder width.

2 5' wide shoulders

Five foot wide shoulders should be provided on Routes 7 and 102 as a means of accommodating bicyclists and providing separation between vehicles and pedestrians.

3 Concrete sidewalks

Ten foot wide concrete sidewalks should be provided in commercial and retail areas. Sidewalks in residential areas should be a minimum width of five feet in low density areas and six feet in higher density areas.

4 Pedestrian scaled street lighting

Pedestrian scaled street lighting should be provided in all retail, commercial, and mixed use areas and in high density residential areas.

5 Marked crosswalks and curb ramps

Marked crosswalks and ADA compliant curb ramps should be provided at all pedestrian crossings.

6 Greenway

A 10' wide shared-use asphalt pathway should be provided along the Norwalk River as part of the planned Norwalk River Valley Trail.



Ethan Allen Highway (Route 7) view north from Oak Tree Lane

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Stormwater and Floodplain Management

The following stormwater management standards are recommended to establish minimum stormwater management criteria for new development and redevelopment activities in the Branchville TOD area. Projects should be required to meet these minimum standards, and comply with specific criteria for the site planning process, groundwater recharge, water quality, channel protection, and peak flow control requirements. The standards are consistent with the stormwater management approaches and design guidance contained in the Connecticut Department of Energy and Environmental Protection's Connecticut Stormwater Quality Manual, the Connecticut Department of Transportation Drainage Manual, and the Town of Ridgefield. The proposed minimum standards assist in the protection of the water and habitat quality of receiving waters from the negative impacts of stormwater runoff. This is achieved by using a combination of both structural controls and non-structural practices (such as Low Impact Development (LID)) as part of an effective stormwater management system.

Stormwater Management Standards & Strategies

The following stormwater management standards are recommended to establish minimum stormwater management criteria for new development and redevelopment activities in the Branchville TOD area. Projects should be required to meet these minimum standards, and comply with specific criteria for the site planning process, groundwater recharge, water quality, channel protection, and peak flow control requirements. The standards are consistent with the stormwater management approaches and design guidance contained in the Connecticut Department of Energy and Environmental Protection's Connecticut Stormwater Quality Manual, the Connecticut Department of Transportation Drainage Manual, and the Town of Ridgefield. The proposed minimum standards assist in the protection of the water and habitat quality of receiving waters from the negative impacts of stormwater runoff. This is achieved by using a combination of both structural controls and non-structural practices (such as Low Impact Development (LID)) as part of an effective stormwater management system.

Standard 1: Low Impact Development

Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable in order to reduce stormwater runoff volume for both new and redevelopment projects. The objective of the LID Site Planning and Design Strategies standard is to provide a process by which LID is considered at an early stage in the planning process such that stormwater impacts are prevented rather than mitigated for later.

Instead of rapidly and efficiently draining the site, low-impact development relies on various planning tools and control practices to preserve the natural hydrologic functions of the site, and typically involves controlling stormwater at its source instead of a centralized management system. Natural hydrologic functions such as interception, depression storage, and infiltration are evenly distributed throughout an undeveloped

site. Trying to control or restore these functions using an end-of-pipe stormwater management approach is difficult, if not impossible.

Low Impact Design strategies include the following approaches:

Reduce/Minimize Total Impervious Areas

After, or concurrent with, the mapping of the development envelope, develop the traffic pattern and road layout and preliminary lot layout. The entire traffic distribution network, (roadways, sidewalks, driveways, and parking areas), are the greatest source of site imperviousness, these changes in the impervious area alter runoff and recharge values and site hydrology. Strategies include:

- Utilize as narrow a road section as possible
- Limit sidewalks to one side of the road where feasible
- Minimize on-street parking to the minimum necessary
- Provide parking beneath buildings
- Favor vertical over horizontal construction where possible
- Share driveways where possible
- Minimize setbacks where possible to minimize driveway length

Minimize Directly Connected Impervious Area

Disconnecting the unavoidable impervious areas as much as possible will reduce the amounts of pollutants transported by the runoff. Strategies for accomplishing this include:

- Disconnecting roof drains and directing flows to vegetated areas
- Directing flows from paved areas such as driveways to stabilized vegetated areas
- Breaking up flow directions from large paved surfaces.
- Encouraging sheet flow through vegetated areas.

Increase Drainage Flow Paths

The time of concentration, in conjunction with the hydrologic site conditions, factors into the peak discharge rate for a storm event. Site and infrastructure components that affect the time of concentration include:

- Travel distance (flow path)
- Slope of the ground surface and/or water surface
- Surface roughness
- Channel shape, pattern, and material components

Techniques that can affect and control the time of concentration may be incorporated into the LID concept by managing flow and conveyance systems within the development site as follows:

- Maximize overland sheet flow length
- Increase and lengthen flow paths
- Lengthen and flatten site and lot slopes
- Maximize use of open swale systems
- Increase and augment site and lot vegetation

Standard 2: Runoff Volume Reduction and Groundwater Recharge

Stormwater must be recharged within the same sub-watershed to maintain baseflow at predevelopment recharge levels to the maximum extent practicable. The objective of the groundwater recharge standard is to protect water table levels, stream baseflow, wetlands, and soil moisture levels. Infiltrating stormwater may also provide significant water quality benefits such as reduction of bacteria, nutrients, and metals when infiltrated into the soil profile.

Maintaining pre-development groundwater recharge conditions may also be used to reduce the volume requirements dictated by other sizing criteria (i.e., water quality, channel protection, and overbank flood control). Recharge must occur in a manner that protects groundwater quality. Recharge practices may include both structural stormwater controls and nonstructural practices, and are dependent upon the underlying soil profile.

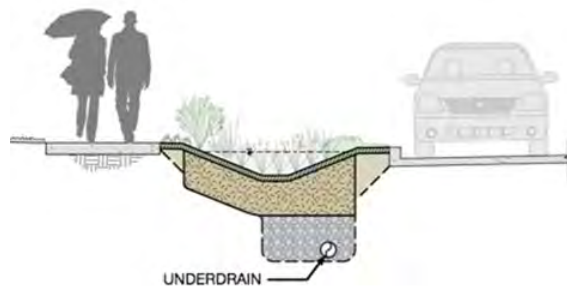
In addition, infiltration practices should not be used where subsurface contamination is present from prior land use due to the increased threat of pollutant migration associated with increased hydraulic loading from infiltration systems, unless the contamination is removed and the site has been remediated, or if approved by CTDEEP on a case-by-case basis.

Runoff Volume Reduction and Groundwater Recharge strategies include the following:

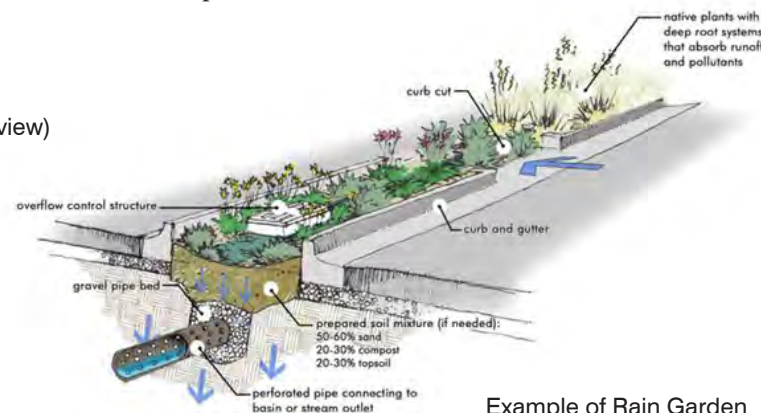
Infiltration Trenches

An infiltration trench is an excavated trench that has been back-filled with stone to form a subsurface basin. Stormwater runoff is diverted into the trench and is stored until it can be infiltrated into the soil, for a maximum storage period of three days. Infiltration trenches are very adaptable and can be configured in numerous layouts to make them ideal for small urban drainage areas. Their service life is maximized when some form of pretreatment is included in their design.

Infiltration trenches can be used around the perimeters of parking lots, along parking lot medians.



Example of Infiltration Trench (elevation view)



Example of Rain Garden

Underground Infiltration Chambers

Similar to the infiltration trench, an underground infiltration chamber consists of a perforated plastic or concrete chamber surrounded by crushed stone. Stormwater runoff is diverted into the chamber system and is stored within the stone and chamber until it can be infiltrated into the soil, for a maximum storage period of three days. Underground infiltration chambers are very adaptable and can be configured in numerous layouts to make them ideal for small urban drainage areas. Their service life is maximized when some form of pretreatment is included in their design. Drywells also fall into this category.

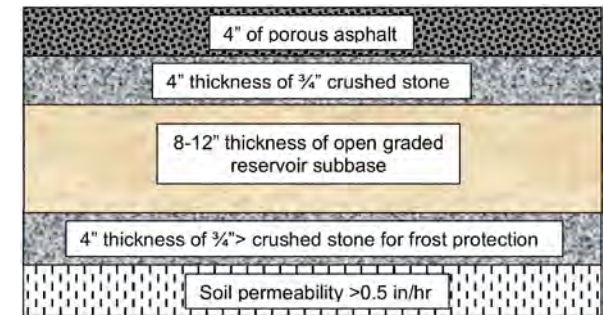
Underground infiltration chambers are suitable to accept runoff from buildings and parking lots, provided that there are not high levels of pollutants associated with stormwater “hot spots”.

Rain Garden and Bioretention

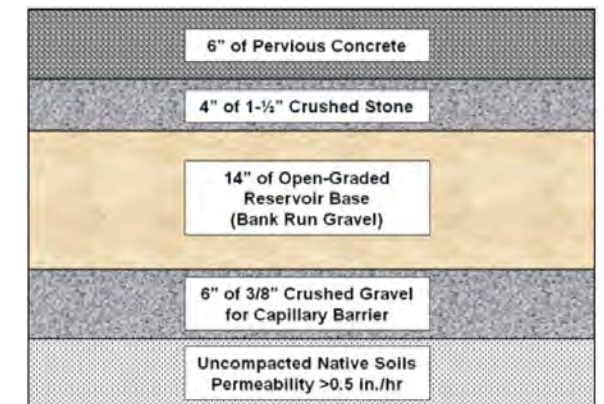
A rain garden is a garden which takes advantage of rainfall and stormwater runoff in its design and plant selection. Usually, it is a small garden which is designed to withstand the extremes of moisture and concentrations of nutrients, particularly Nitrogen and Phosphorus, that are found in stormwater runoff. Rain gardens are sited ideally close to the source of the runoff and serve to provide an area for the intercepted runoff to pond and drain through the soil, where pollutants are removed by both infiltration and biological uptake.

Permeable Pavement

Permeable pavement is designed to allow infiltration of stormwater through void spaces in the pavement section and into the soil below where the water is naturally filtered and pollutants are removed. Typical pavement, which has no void space for water to move through, resulting in significantly increased runoff. There are numerous permeable pavement products on the market, including pervious concrete, pervious asphalt, and permeable pavers. Availability of pervious concrete and asphalt in smaller quantities may be limited.



Typical Permeable Asphalt Details (cross section)



Typical Permeable Concrete Details (cross section)

Standard 3: Water Quality Pollutant Reduction

Stormwater runoff must be treated before discharge. The amount that must be treated from each rainfall event is known as the required water quality volume (WQV) and is the portion of runoff containing the majority of the pollutants. The WQV is generally the first inch of runoff from the storm, which contains the highest pollutant loads as it washes off accumulated sediments and pollutants.

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). In order to provide adequate treatment of stormwater, the WQV must be treated by at least one of the structural BMPs listed in the Connecticut Department of Energy and Environmental Protection's Connecticut Stormwater Quality Manual at each location where a discharge of stormwater will occur. Structural BMPs are generally required to achieve the required pollutant removal efficiencies. Potential strategies include the following:

Infiltration Practices

Infiltration practices, in addition to recharging groundwater and reducing stormwater volume also can reduce pollutants, by encouraging absorption of nutrients and metals to the soil matrix below, immobilizing them and preventing their discharge to wetlands and watercourses.

Wet Ponds

Wet ponds typically consist of two general components, a forebay and a permanent wet pool. The forebay provides pretreatment by capturing coarse sediment particles in order to minimize the need to remove the sediments from the primary wet pool. The wet pool serves as the primary treatment mechanism and where much of the retention capacity exists. Wet ponds can be sized for a wide range of watershed sizes, however, their application may be restricted by the size of the site. For example, a variation on the conventional wet pond, sometimes referred to as a "pocket pond", is intended to serve relatively small drainage areas (between one and five acres). Because of these smaller

drainage areas and the resulting lower hydraulic loads of pocket ponds, outlet structures can be simplified and often do not have safety features such as emergency spillways and low level drains. In any event, the hydraulic design of the pond must be viewed in the context of the hydrology of the watershed, because over detaining storms can exacerbate flooding conditions. In Branchville, there is a small potential for this to happen because the site is in the upper reaches of the Norwalk River watershed.

Micropool Extended Detention Basins

Micropool extended detention basins are primarily used for peak runoff control and utilize a smaller permanent pool than conventional wet ponds. While micropool extended detention ponds are not as efficient as wet ponds for the removal of pollutants, they should be considered when a large open pool might be undesirable or unacceptable. Micropool extended detention ponds are also efficient as a stormwater retrofit to improve the treatment performance of existing detention basins.

Stormwater Filtration Practices

Stormwater filtering practices are commonly used to treat runoff from small sites such as parking lots and small developments; areas with high pollution potential such as industrial sites; or in highly urbanized areas where space is limited. A number of surface and underground stormwater filter design variations have been developed for these types of applications. Underground filters can be placed under parking lots and are well suited to highly urbanized areas or space-limited sites since they consume no surface space. As such, stormwater filters are often suitable for retrofit applications where space is typically limited. Stormwater filtration systems that do not discharge to the soil (i.e., are contained in a structure or equipped with an impermeable liner) are also suitable options for treating runoff from industrial areas and other land uses with high pollutant potential since the water is not allowed to infiltrate into the soil and potentially contaminate groundwater. These systems tend to be maintenance intensive.

Surface Sand Filter

The surface sand filter consisting of a filter bed and sedimentation chamber that are aboveground. Surface sand filters can consist of excavated, earthen basins or aboveground concrete chambers.

Bioretention: Bioretention systems are shallow landscaped depressions designed to manage and treat stormwater runoff. Bioretention systems are a variation of a surface sand filter, where the sand filtration media is replaced with a planted soil bed designed to remove pollutants through physical and biological processes. Stormwater flows into the bioretention area, ponds on the surface, and gradually infiltrates into the soil bed. Treated water is allowed to infiltrate into the surrounding soils or is collected by an underdrain system and discharged to the storm sewer system or receiving waters. Rain gardens are a form of small-scale bioretention applications (i.e., residential yards, median strips, parking lot islands), which may be more appropriate for the sizes of the parcels in the TOD study area.

Subsurface Sand Filters

Subsurface sand filters work on the same concept as the surface filtration practices, but instead use underground chambers, and as a result may be more suitable for sites with limited area. Due to their underground nature, operational inefficiencies may not be readily visible, and therefore require frequent observation to ensure that they are operating as intended.

Water Quality Swales

Water quality swales provide significantly higher pollutant removal than traditional grass drainage channels, which are designed for conveyance rather than water quality treatment. They come in two basic formats: dry swales and wet swales. Since these treatment practices require little room, they can be considered for areas where there is a moderate amount of impervious cover and enough perimeter land space to incorporate them.

Dry Swales

Dry swales are designed to temporarily hold the water quality volume of a storm in a pool or series of pools created by permanent check dams at culverts or driveway crossings. The soil bed consists of native soils or highly permeable fill material, underlain by an underdrain system. Pollutants are removed through sedimentation, adsorption, nutrient uptake, and infiltration.

Wet Swales

Wet swales also temporarily store and treat the entire water quality volume. However, unlike dry swales, wet swales are constructed directly within existing soils and are not underlain by a soil filter bed or underdrain system. Wet swales store the water quality volume within a series of cells within the channel, which may be formed by berms or check dams and may contain wetland vegetation. The pollutant removal mechanisms in wet swales are similar to those of stormwater wetlands, which rely on sedimentation, adsorption, and microbial breakdown. Water quality swales can be used in place of curbs, gutters, and storm drain systems on residential and commercial sites to enhance pollutant removal and provide limited groundwater recharge, flood control, and channel protection benefits.

Standard 4: Conveyance and Natural Channel Protection

Open drainage and pipe conveyance systems must be designed to provide adequate passage for flows leading to, from, and through stormwater management facilities for at least the peak flow from the 10-year, 24-hour Type III design storm event. Protection for natural channels downstream must be supplied by providing 24-hour extended detention of the one-year, 24-hour Type III design storm event runoff volume.

Control the post-development peak flow rates to the corresponding pre-development peak flow rates. Size the emergency outlet to safely pass the post-development peak runoff from large storms in a controlled manner without eroding the outlet works, downstream drainage systems, and property

more than would occur during a similar event under predevelopment conditions. Numerous strategies and combinations of strategies may be used to achieve the required protection levels, especially wet pond and underground infiltration practices.

Standard 5: Redevelopment

Redevelopment is defined as any construction, alteration, or improvement that disturbs the ground surface or increases the impervious area where the existing land use is commercial, industrial, institutional, governmental, recreational, or multifamily residential. Redevelopment of previously developed sites must meet the standards to the maximum extent practicable for the portion of the site undergoing redevelopment.

Where sites that are currently developed with an effective impervious cover of forty percent or more, the site shall be designed in such a manner as to retain on-half the water quality volume for the site and provide additional stormwater treatment without retention for discharges up to the full water quality volume for sediment, floatables and nutrients to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

In cases where it is not possible to retain half the water quality volume, the design of the redevelopment shall retain runoff volume to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In such cases, additional stormwater treatment up to the full water quality volume is still required. Any such treatment shall be designed, installed and maintained in accordance with the Stormwater Quality Manual. If retention of half the water quality volume is not achieved, a report shall be prepared describing: the measures taken to maximize runoff reduction practices on the site; the reasons why those practices constitute the maximum extent achievable; the alternative retention volume; and a description of the measures used to provide additional stormwater treatment above the alternate volume up to the water quality volume.

Standard 6: Land Uses with Higher Potential Pollutant Loads

Stormwater discharges from land uses with higher potential pollutant loads require the use of specific source control and pollution prevention measures and the specific stormwater BMPs approved for such use. Stormwater runoff from land uses with higher potential pollutant loads shall not be recharged to groundwater, unless it has been adequately treated for the pollutant of concern as determined by the approving agency. The recharge prohibition applies only to stormwater discharges that come into contact with the area or activity on the site that may generate the higher potential pollutant load. In these areas where infiltration is not appropriate, other LID practices can be used, as long as they are lined (e.g., lined bioretention areas). The intent of this standard is to prevent, to the maximum extent practicable, pollution from entering water resources.

Standard 7: Illicit Discharges

All illicit discharges to stormwater management systems are prohibited, including discharges from on-site wastewater treatment systems, sub-drains and French drains near on-site wastewater treatment systems. The stormwater management system is the system for conveying, treating, and infiltrating stormwater on site, including stormwater best management practices and any pipes intended to transport stormwater to ground water, surface water, or municipal separate storm sewer system (MS4). Illicit discharges to the stormwater management system, i.e., illicit connections, are discharges not entirely comprised of stormwater that are not specifically authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The objective of this standard is to prevent pollutants from being discharged into MS4s and Waters of the State, and to safeguard the environment and public health, safety, and welfare.

Standard 8: Construction Erosion and Sedimentation Control

Erosion and sedimentation control (ESC) practices must be utilized during the construction phase as well as during any land disturbing activities. ESC practices must meet the requirements of the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities for CTDEEP-regulated activities. ESC practices must be designed according to the guidelines in the most recent edition of the Connecticut Guidelines for Soil Erosion and Sediment Control (as amended). The objective of this standard is to prevent erosion and sedimentation from construction site runoff.

All development, regardless of the area of disturbance, must implement erosion and sedimentation controls prior to and during construction. Additionally, temporary controls shall be removed from a site and disposed of properly after the site has been stabilized.

Floodplain Management

Portions of the TOD area are within areas mapped by the Federal Emergency Management Agency as a special flood hazard area. FEMA establishes the minimum standards for the National Flood Insurance Program (NFIP) while the Connecticut Department of Energy and Environmental Protection (CTDEEP) and Town of Ridgefield can establish additional requirements.

There are two components to special flood hazard areas: the floodway and the flood fringe, together, they are collectively referred to as the floodplain. The floodway is the portion of the floodplain most critical for the conveyance of flood flows, and also contains the highest velocities. Development in the floodway is more tightly regulated than anywhere else in the floodplain. The flood fringe is the portion of the floodplain between the floodway and the floodplain limit. This area is subject to restrictions, but not to the same extent as the floodway.

Flood Fringe Requirements

Within the flood fringe:

- Construction must withstand impact loads, uplift, and other forces associated with flooding
- Must use flood resistant materials
- Utility equipment must be located above the base flood elevation, or floodproofed
- Utility lines must be designed to minimize/eliminate infiltration of flood waters
- No increase in base flood elevation
- Compensatory storage/conveyance required
- Lowest floor of residential construction must be elevated to or above the base flood elevation
- Non-residential construction has the option of flood-proofing to 1 foot above the base flood elevation, although typically it is beneficial to raise above the base flood elevation to reduce flood insurance rates.

Floodway Development Requirements

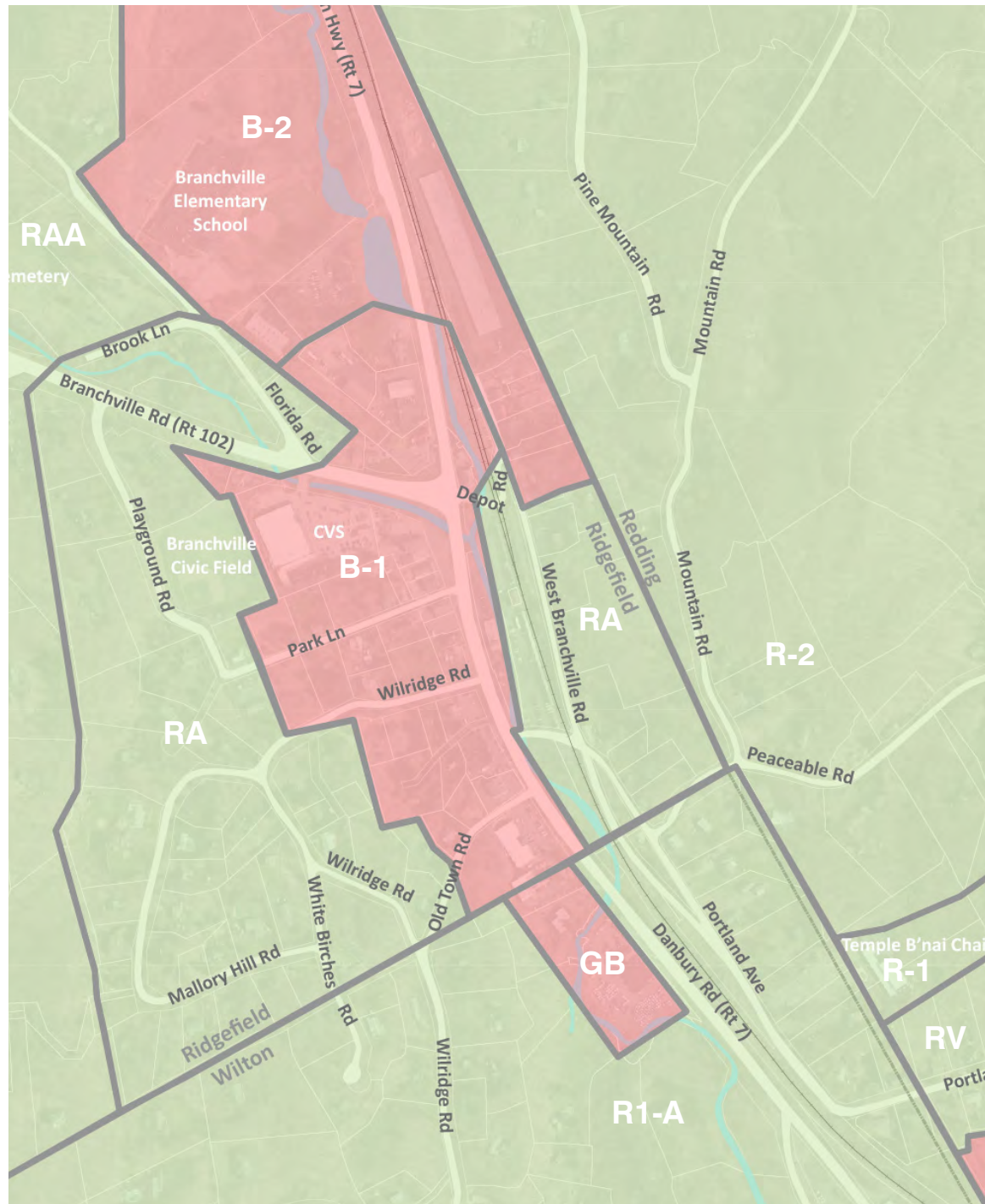
All flood fringe development requirements apply, and it must also be demonstrated that there will be no increase (0.00 feet) in the base flood elevation.

State Funding Requirements

If state funding is involved in the site-specific construction of the proposed development blocks, a CTDEEP Floodplain Management Certification is required. Additionally, if the funding covers housing components, the housing must be constructed above the 500-year flood elevation, and must also include dry access to contiguous dry land above the 100-year flood elevation.



Floodway and Flood Fringe along Route 7



Zoning Recommendations

The following zoning recommendations are required to enable development commensurate with the preferred development plan. These recommendations are specific to the Town of Ridgefield.

Proposed Branchville Zoning Districts

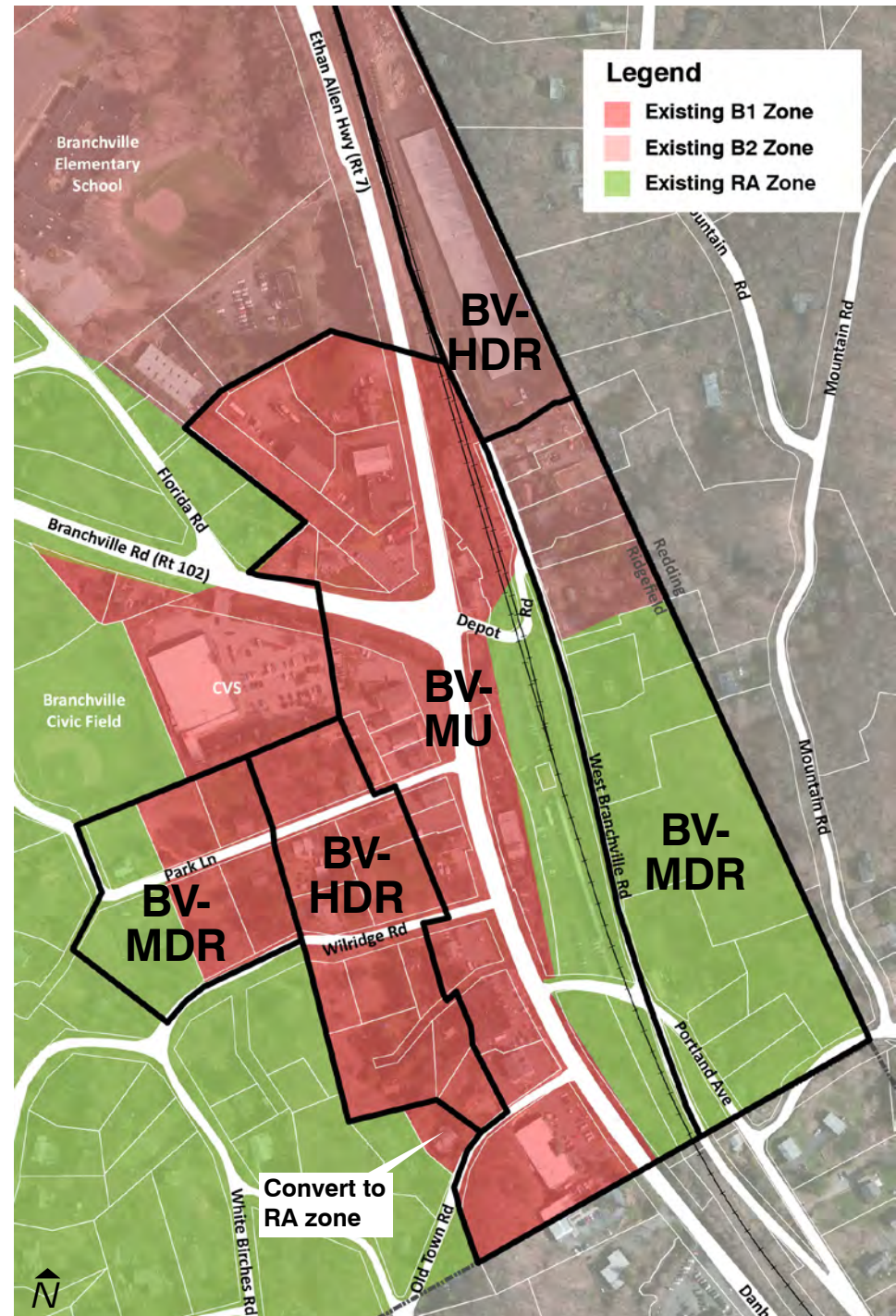
The various residential and business districts in the Ridgefield zoning regulations were assessed for their dimensional, use and other related standards. The TOD concept plan was evaluated for footprint, density, percentage coverage, and setback averages to understand how to create appropriate zoning for this area. In addition, feedback from workshops, survey results, and the visual preference survey were considered. Given this information, the following recommended zoning was developed. These recommendations do not include proposed changes to zoning for the Towns of Redding or Wilton. If those communities choose to encourage development pursuant to the proposed development scenario presented within this plan, their respective Planning and Zoning Commissions should consider the adoption of zoning similar to that proposed here.

The Branchville Transit Oriented Development concept plan has five (5) subareas with different footprints, densities, coverages, setbacks and envision uses (see map at right). In support of the preferred development plan, three new zones are proposed, these are:

- Branchville Village Mixed-Use District (BV-MU)
- Branchville Village Medium Residential Density District (BV-MRD)
- Branchville Village High Residential Density District (BV-HRD)

The Branchville Village Medium Residential Density District (BV-MRD) and Branchville Village High Residential Density District (BV-HRD) are residential in nature with an emphasis on being pedestrian friendly and easily walkable to the Branchville Metro-North train station. The Branchville Village Mixed-Use District (BV-MU) is meant to promote mixed-use retail of limited size with apartments on the upper floors. The permitted uses recommended for this district are similar to the already existing B1 zone. Both the B1 and the BV-MU are meant to promote mixed-use retail of limited size with apartments on the upper floors. The Branchville Village Mixed-Use District (BV-MU) has the same small retail permitted uses as the B1 district.

One modification to the boundaries of the existing zones is recommended at 13 Old Town Road where a single family residential property currently located in the B-1 zone should be rezoned to match the adjacent RA zone.



Proposed Zoning

Below is the recommended zoning text to be added to the Ridgefield Zoning Code to create three (3) zones previously discussed: Branchville Village Mixed-Use District (BV-MU), Branchville Village Medium Residential Density District (BV-MRD) and Branchville Village High Residential Density District (BV-HRD). Additional modifications are needed in Section 7 Basic Standards and Section 8.3 Architectural Review/Village Districts.

6.3 Branchville Village Mixed-Use District (BV-MU)

A. Purpose

The Branchville Village Mixed-Use District (BV-MU) District is established to provide for residential and commercial mixed-uses that encourage transit oriented development adjacent to the Branchville Metro-North Railroad station; to offer a more healthy and active walkable community; and to reduce dependence on automobile transportation and thus lower congestion, air pollution and greenhouse gas emissions.

B. Architectural Review Required

The BV-MU Zone is hereby designated as a Village District as authorized by CGS 8-2j. Any new construction or remodeling of the exterior of a building within the BV-MU Zone shall be reviewed by a design review board designated by the Commission (see Section 8.3 for additional information and requirements).

C. Permitted Uses

The following uses are permitted within an existing building by:

- Issuance of a Zoning Permit by the ZEO in accordance with Subsection 9.1.A provided that no new floor area is created and/or added to the tenant space and no additional parking is required.
- Approval of a Site Plan application by the Planning Director for a change of use in accordance with Subsection 9.1.C when new floor area, not to exceed 1,500 square feet, is added to tenant space within an existing building, and/or when additional parking is required for the proposed use.

If new floor area is constructed or if existing tenant space is increased by more than 1,500 square feet or if there are changes in the exterior site plan for the property, the following uses may only be permitted by the Commission under a Special Permit or Revision to an existing Special Permit, unless administrative approval is authorized pursuant to Sec. 9.2.A.7.e.

1. Service establishment or personal service establishment.
2. Business, executive/professional, or medical office.
3. Retail stores of 1,500 square feet or less in gross floor area of tenant space within an existing building.

- a. Any area designated for outside display or storage shall be included as part of the 1,500 square feet of area allowed.
4. Sit-down restaurant.
5. Food retail / serving establishment (such as a bakery, delicatessen, ice cream parlor, or coffee shop) with seating for fewer than fifteen (15) customers.
6. Ancillary retail sales of goods directly related and clearly incidental to the principal commercial use, service business, medical office or recreational use, provided that the display area for such retail sales shall not exceed the lesser of 10% of the gross customer area or 200 square feet
7. Fitness center/ exercise facility/ dance studio/ facility for education in the arts.
8. Uses accessory to uses listed in Subsection 5.6.C when located on the same lot.

D. Permitted By Special Permit (Commission)

The following uses require approval of a Special Permit application in accordance with Subsection 9.2.A.

1. Construction which results in new floor area.
2. Municipal or other governmental uses, including public parking and recreational facilities.
3. Food retail/serving establishment (such as a bakery, delicatessen, ice cream parlor, or coffee shop) with seating for fifteen (15) or more customers.
4. Retail uses in excess of 1,500 square feet of gross floor area of tenant space.
 - a. No single retail tenant space shall total more than 2,500 square feet, of gross floor area, including any area designated for outside storage or display of retail merchandise.
5. Any change in use, building structure, gross floor area (including outdoor display or storage of retail merchandise), or parking configuration of any single retail business or tenant space where the gross square footage of retail area (including outside display or storage of retail merchandise) is in excess of 2,500 square feet, legally existing at the time of the creation of the Branchville Village Mixed-Use District on *(date of amendment)* provided that:
 - a. Existing retail gross floor area (including any area used for outside storage or display of retail merchandise) shall not be increased.
6. Apartment dwelling units located over street level businesses, the density of which shall be based on available parking for the mixed uses, as determined by the Commission, provided that:
 - a. The building shall be no taller than 3 (three) stories;
 - b. Units shall be no smaller than 800 square feet in gross floor area;
 - c. Units shall be constructed to meet ADA (Americans with Disabilities) requirements;

- d. Adequate public water supply or well, and septic disposal system or sewer service shall be provided on the lot;
- e. Adequate off-street parking shall be provided on the premises for the residential and non-residential uses.
- 7. Educational or philanthropic uses.
- 8. Veterinary hospitals conducted under the personal administration of a licensed veterinarian.
- 9. Uses accessory to uses listed in Subsection 5.6.D when located on the same lot.

E. Dimensional Standards

- 1. **Maximum Density**
In calculating the number of dwelling units, fractions shall be changed to the nearest whole number, dropping fractions of less than 0.5 and rounding up for fractions of 0.5 or more.
 - a. Ten (10) dwelling units per 10,000 square feet.
- 2. **Minimum Lot Size**
 - a. 10,000 square feet
- 3. **Minimum Frontage**
 - a. 50 feet
- 4. **Maximum Lot Coverage**
No more than sixty (60) percent of the land area shall be covered by buildings except that the Commission may allow greater coverage for a development proposed in accordance with Subsection 4.2.C.1.b.
- 5. **Minimum Yard Setbacks**
 - a. No part of any building or structure shall be located less than the following distance from any front, side, or rear lot line.
Setback Minimum Distance:
 - Front yard average of abutting principal structures or as otherwise approved by the Commission
 - Side yard none required at least 3 feet if provided
 - Rear yard none required at least 3 feet if provided
- 6. **Maximum Building Height**
 - a. Unless a greater height is authorized by the Commission for good cause shown, no building or structure shall exceed forty (40) feet in average building height or three (3) stories.

F. Additional Standards

- 1. See requirements below and refer to Section 7.0 of these Regulations for additional provisions related to parking, loading, landscaping, signage, and other standards.
- 2. The Planning Director may refer any Site Plan for Change of Use application to the Commission for review and/or action.

6.4 Branchville Village Medium Density Residential Density District (BV-MRD)

A. Purpose

The Branchville Village Medium Residential Density District (BV-MRD) District is established to provide for single-family and two-family residential uses that encourage transit oriented development surrounding to the Branchville Metro-North Railroad station; to offer a more healthy and active walkable community; and to reduce dependence on automobile transportation and thus lower congestion, air pollution and greenhouse gas emissions.

B. Architectural Review Required

The BV-MRD Zone is hereby designated as a Village District as authorized by CGS 8-2j. Any new construction or remodeling of the exterior of a building within the BV-MRD Zone shall be reviewed by a design review board designated by the Commission (see Section 8.3 for additional information and requirements).

C. Permitted With Zoning Permit (ZEO)

- 1. Single-family detached housing.
- 2. Single-family semi-detached housing.
- 3. Two-family dwelling units with individual exterior entrances.
- 4. Two-family attached dwelling units with individual exterior entrances.
- 5. Accessory uses providing said uses are clearly incidental to the principal use including recreation uses when designed for the exclusive use of those residing within the development.

D. Dimensional Standards

- 1. **Maximum Density**
In calculating the number of dwelling units, fractions shall be changed to the nearest whole number, dropping fractions of less than 0.5 and rounding up for fractions of 0.5 or more.
 - a. Seven (7) dwelling units per acre.
- 2. **Minimum Lot Size**
 - a. 10,000 square feet
- 3. **Minimum Frontage**
 - a. 50 feet
- 4. **Maximum Lot Coverage**
No more than thirty-five (35) percent of the land area shall be covered by buildings except that the Commission may allow greater coverage for a development proposed in accordance with Subsection 4.2.C.1.b.

5. Minimum Yard Setbacks
 - a. No part of any building or structure shall be located less than the following distance from any front, or side lot line.
 - a. Setback Minimum Distance:
 - Front yard 20 feet
 - Side yard 10 feet
 - Rear yard setback none required, but 3 feet if provided
 - Single-family semi-detached housing including townhouses on a common parcel shall have 40 feet between rear of back facing buildings.
 - Where property abuts a residential zone see Subsection 7.1.E of these Regulations
6. Maximum Building Height.
 - a. Unless a greater height is authorized by the Commission for good cause shown, no building or structure shall exceed thirty-five (35) feet in average building height or two-and-a-half (2.5) stories.

6.5 Branchville Village High Residential Density District (BV-HRD)

A. Purpose

B. Architectural Review Required

The BV-HRD Zone is hereby designated as a Village District as authorized by CGS 8-2j. Any new construction or remodeling of the exterior of a building within the BV-HRD Zone shall be reviewed by a design review board designated by the Commission (see Section 8.3 for additional information and requirements).

C. Permitted With Zoning Permit (ZEO)

1. Single-family semi-detached housing.
2. Two-family dwelling units with individual exterior entrances.
3. Two-family attached dwelling units with individual exterior entrances.
4. Multiple dwelling units in one building.
5. Accessory uses providing said uses are clearly incidental to the principal use including recreation uses when designed for the exclusive use of those residing within the development.

C. Dimensional Standards

1. Maximum Density

In calculating the number of dwelling units, fractions shall be changed to the nearest whole number, dropping fractions of less than 0.5 and rounding up for fractions of 0.5 or more.

- a. Four (4) dwelling units per 10,000 square feet.
2. Minimum Lot Size
 - a. 10,000 square feet
3. Minimum Frontage
 - a. 50 feet
4. Maximum Lot Coverage

No more than fifty (50) percent of the land area shall be covered by buildings except that the Commission may allow greater coverage for a development proposed in accordance with Subsection 4.2.C.1.b.
5. Minimum Yard Setbacks
 - a. No part of any building or structure shall be located less than the following distance from any front, side, or rear lot line.

Setback Minimum Distance:

 - Front yard 10 feet
 - Side yard 10 feet
 - Rear yard 10 feet
6. Maximum Building Height
 - a. Unless a greater height is authorized by the Commission for good cause shown, no building or structure shall exceed forty (40) feet in average building height or three (3) stories.
7. Building Separation
 - a. Except as provided below, a distance of not less than thirty (30) feet shall be maintained between buildings containing dwelling units.
 - b. The Commission may allow a building separation of less than 30 feet with a finding that the approved separation distance will not be incompatible with adjoining property developments and will be in compliance with all applicable building and fire safety codes.

D. Other Standards

1. Utilities
 - a. Unless otherwise authorized by the Commission, all utilities, lines and connections serving the development shall be placed underground.
2. Vehicular and Pedestrian Facilities.
 - a. Off-street parking as required by Section 7.3, shall be provided in attached or detached garages, basement areas, or outdoors.
 - b. Sidewalks and walk paths shall comply with Section 7.10 of these regulations.

Revisions and Additions to Section 7 Basic Standards

Since the Branchville Village Mixed-Use District (BV-MU) zone will be listed under “6. Special Zones” and not in “5. Business Zones & Uses”, some of the text will need to be modified in section 7. Basic Standards. Section 7.2. “E. Signs Permitted in

Non-Residential Districts” should include mixed use districts as well. The text should read “E. Signs Permitted in Non-Residential and Mixed Use Districts.” The BV-MU zone will have non-residential uses, so signs should be regulated under non-residential sign standards.

One of the requirements for the Branchville Village TOD is to create a pedestrian-friendly location. To produce this type of environment, there needs to be sidewalk and walkpath requirements. BV-MU, BV-MRD, and BV-HRD zones should be added to the chart in Section 7.10.B.1. to define the standard as “Sidewalks shall be required along street frontages and along internal roads within the development. Walkpaths may be required within the site.”



Revisions and Additions to 8.3 Architectural Review/Village Districts

Section 8.3.B.3 should be added with the following text: “Any exterior modification associated with a proposed development, construction, or use in the Branchville Village Mixed-Use District (BV-MU), Branchville Village Medium Residential Density District (BV-MRD) and Branchville Village High Residential Density District (BV-HRD) zones shall be reviewed in relation to the design guidelines in Subsection 8.3.F, and in accordance with Sec. 8-2j of the Connecticut General Statutes.

Section 8.3.F will need to be added to the Ridgefield Zoning Code as well. This will be the guideline standards for the three (3) Branchville Village Districts.

Summary of Changes to Current Zones

There are three (3) zones currently within the Branchville Village Transit Oriented Development Area. There is one (1) residential district, RA, and two (2) business districts, B-1 and B-2. The figures at right illustrate the dimensional changes in the various zones.

 **More required or allowed**
 **Less required or allowed**
 = **No change**

	RA Zone		
	BV-MU	BV-MDR	BV-HDR
Min. Lot Size (sf)	▼	▼	▼
Max. Density	▲	▲	▲
Min. Frontage (ft)	▼	▼	▼
Max. Lot Coverage	▲	▲	▲
Min. Front Setbacks (ft)	▼	▼	▼
Min. Side Setbacks (ft)	▼	▼	▼
Min. Rear Setbacks (ft)	▼	▼	▼
Building Height	▼	▼	▼
Max. Number of Stories	▲	=	▲

	B-1 Zone		
	BV-MU	BV-MDR	BV-HDR
Min. Lot Size (sf)	=	=	=
Max. Density	▲	▲	▲
Min. Frontage (ft)	=	=	=
Max. Lot Coverage	▼	▼	▼
Min. Front Setbacks (ft)	▼	▲	▲
Min. Side Setbacks (ft)	=	▲	▲
Min. Rear Setbacks (ft)	=	=	▲
Building Height	=	=	=
Max. Number of Stories	=	▼	=

	B-2 Zone		
	BV-MU	BV-MDR	BV-HDR
Min. Lot Size (sf)	=	=	=
Max. Density	▲	▲	▲
Min. Frontage (ft)	=	=	=
Max. Lot Coverage	▲	▲	▲
Min. Front Setbacks (ft)	▼	▼	▼
Min. Side Setbacks (ft)	=	▲	▲
Min. Rear Setbacks (ft)	=	=	▲
Building Height	=	=	=
Max. Number of Stories	=	▲	=

RA zones currently permit single-family homes only. If a parcel in RA converts to a BV-MDR zone, it will additionally allow single-family semi-detached housing, two-family dwelling units with individual exterior entrances, and two-family attached dwelling units with individual exterior entrances. If a RA parcel becomes a BV-HDR zone, it will permit all uses found in the BV-MDR zone plus multiple dwelling units in one building. If a RA parcel changes to a BV-MU district, it would only allow upper floor residential uses plus many other business uses.

Changes in Business Use

If B-1 or B-2 changes to either BV-MDR or BV-HDR, this area changes from a mostly business district to a residential use. If B-1 or B-2 changes to the BV-MU zone. The figures below and at right shows new, unchanged or excluded uses.

Proposed uses for BV-MU zone

Use	BV-MU
Service Establishment or Personal Service Establishment	Permitted
Business, Professional, Or Medical Office	Permitted
Fitness Center / Exercise Facility / Dance Studio / Facility For Education In The Arts	Permitted
Sit-Down Restaurant	Permitted
Food Retail Fewer Than 15 Customers	Permitted
Ancillary Retail	Permitted
Retail Less Than 1,500 Sq. Ft.	Permitted
Municipal	Special Use
Educational, Philanthropic, Or Religious Uses	Special Use
Food Retail 15 Or More	Special Use
Veterinary Hospitals	Special Use
Retail In Excess Of 1,500 S.F.	Special Use

Proposed permitted uses versus existing permitted uses

Permitted Uses	B-1	B-2
Service Establishment or Personal Service Establishment	Unchanged	Unchanged
Business, Professional, Or Medical Office	Unchanged	Unchanged
Fitness Center / Exercise Facility / Dance Studio / Facility For Education In The Arts	Unchanged	Unchanged
Sit-Down Restaurant	Unchanged	Unchanged
Food Retail Fewer Than 15 Customers	Unchanged	New
Ancillary Retail	New	Unchanged
Retail Less Than 1,500 Sq. Ft.	New	New
Real Estate Office	Unchanged	Unchanged
Seasonal Farmers' Market	Unchanged	Unchanged
Bank	Unchanged	Unchanged
Retail Store	Excluded	Unchanged
Shopping Center (2 acre minimum)	Excluded	Unchanged
Office for Executive, Admin and Data Processing	Unchanged	Excluded

Proposed special uses versus existing permitted uses

Special Permit Uses	B-1	B-2
Municipal	Unchanged	Unchanged
Educational, Philanthropic, Or Religious Uses	Unchanged	Unchanged
Food Retail 15 Or More	Unchanged	New
Veterinary Hospitals	Unchanged	Unchanged
Gasoline Station	Excluded	Excluded
Retail in Excess of 1,500 S.F.	New	New
Day Care Centers	Excluded	Excluded
Public Utility Substation	Excluded	Excluded
Group Day Care Homes	Excluded	Excluded
Indoor Theater	Excluded	Excluded
Drive Through Facility, Not Permitting Food Service	Excluded	Excluded
Nonprofit Club	Excluded	Excluded
Funeral Homes	Excluded	Excluded

Incentive Housing Zone

In addition to rezoning the station area, Ridgefield should institute an Incentive Housing Zone (IHZ) to encompass the proposed new zoning districts and proposed development areas.

An IHZ is an area which has a zoning overlay that allows developers to increase housing density in exchange for creating mixed-income housing. Eligible locations for IHZ overlays include; an area near a transit station, including rapid transit, commuter rail, bus terminal, or ferry terminal, an area of concentrated development such as a commercial center, existing residential or commercial district, or village district, an area that, because of existing, planned or proposed infrastructure, transportation access or underutilized facilities or location, is suitable for development as an incentive housing zone.

Up to \$50,000 may be awarded for mixed income housing project specific activities such as costs for land purchase, planning/design costs, certain preliminary engineering costs, appraisals, legal expenses, and costs for permits and approvals. This funding is provided to the municipality for their project use, or if there is an interested developer, the Town may pass these funds to the developer for their use in the project development.

A zoning commission may modify, waive or delete dimensional standards contained in the zone or zones that underlie an incentive housing zone in order to support the minimum or desired densities, mix of uses or physical compatibility in the incentive housing zone. Standards subject to modification, waiver or deletion include, but shall not be limited to, building height, setbacks, lot coverage, parking ratios and road design standards.

The regulations of an incentive housing zone may allow for a mix of business, commercial or other nonresidential uses within a single zone or for the separation of such uses into one or more subzones.

The Branchville area was reviewed for the feasibility of implementing an IHZ district in 2016. The study, produced by Tighe & Bond (of the project team) found that it was not currently feasible to implement an IHZ due to the lack of wastewater infrastructure. Regardless, we recommend the adoption of an IHZ given the potential use of community septic systems in achieving higher densities. Implementation of an IHZ would ensure that the Ridgefield maintains a measure of control over new development, while encouraging the development of affordable housing consistent with the community's vision.

Recommended IHZ Boundary

The IHZ boundary should match and fully cover the extends of the proposed new BV-MDR, BV-HDR, and BV-MU zones. The IHZ would be an overlay zone that is supplemental to these underlying zones.

Requirements

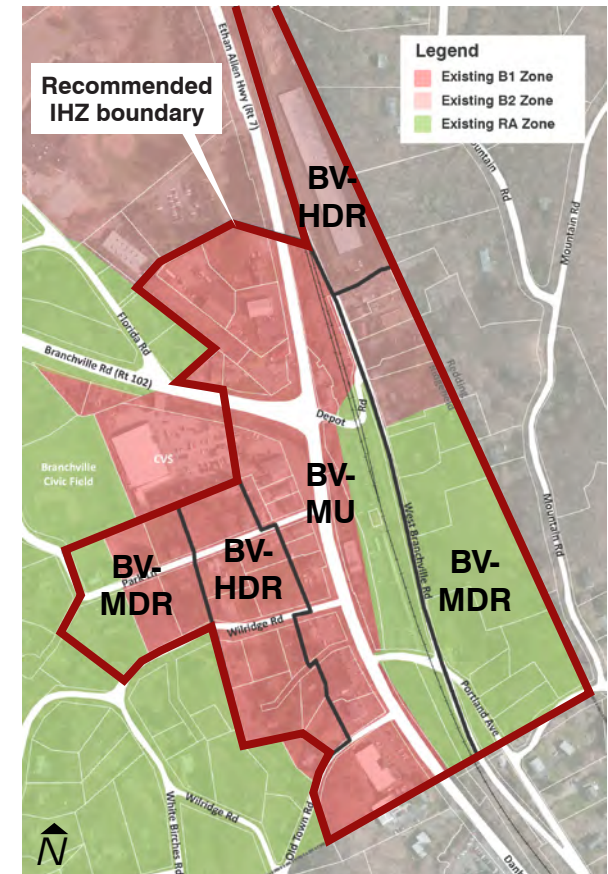
- Must be adopted by the zoning commission.
- The minimum allowable density for incentive housing development, per acre of developable land, shall be:
 - (A) Six units (6) per acre for single family detached housing
 - (B) Ten units (10) per acre for duplex or townhouse housing; and
 - (C) Twenty units (20) per acre for multifamily housing
- Municipality is required to file annual application to the Commissioner for an IHZ certificate of compliance.

Benefits

- Creates an incentive to provide affordable housing
- Encourages density levels that are supportive of transit oriented development
- Development applications under Connecticut General Statute 830g are not permitted within an IHZ thereby ensuring the application of local zoning codes within the IHZ.
- State funding available to subsidize projects

Limitations

The land area of an incentive housing zone shall not exceed 10% of the total land area in the municipality. The aggregate land area of all incentive housing zones and subzones in a municipality shall not exceed 25% of the total land area in the municipality.



Recommended IHZ boundary



Design Guidelines

The following design guidelines are recommended for adoption as guidelines that are supplementary to Ridgefield's zoning code, or as an advisory document. The use and application of the guidelines would ensure that development in Branchville is consistent with the vision of this plan and with the preferences of local residents and property owners.

The guidelines consist of three parts: Design Principles and Guidelines which can be adopted as code; Design Styles which identify the key architectural features recommended for development; and Building Types which profile the key features and types of structures that are recommended in the Branchville project area.

Design Guidelines

1 Design Principles

The following design principles shall apply to new construction, substantial reconstruction and rehabilitation of properties within the Village Districts. These principles are consistent with the legislative requirements of CGS Section 8-2j.

Additional guidance may be found in the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67), which are regulatory for the Historic Preservation Tax Incentives program, and the Guidelines for Rehabilitating Historic Buildings, which assist in applying the Standards to historic rehabilitation projects.

1.1 Proposed buildings or modifications to existing buildings shall be harmoniously related to their surroundings and the terrain in the district, and to the use, scale and architecture of existing buildings in the district that have a functional or visual relationship to a proposed building or modification.

1.2 All spaces, structures and related site improvements visible from public roadways shall be designed to be compatible with the elements of the area of the Village Districts in and around the proposed building or modification.

1.3 The color, size, height, location, proportion of openings, roof treatments, building materials and landscaping of commercial or residential property, and any proposed signs and lighting shall be evaluated for compatibility with the local architectural motif and the maintenance of views, historic buildings, monuments and landscaping.

1.4 The removal or disruption of historic traditional or significant structures or architectural elements shall be minimized.

1.5 The building and layout of buildings and included site improvements shall reinforce existing buildings and streetscape patterns, and the placement of buildings and included site improvements shall assure there is no adverse impact on the district.

1.6 Proposed streets shall be connected to the existing district road network, wherever possible.

1.7 Open spaces within the proposed development shall reinforce open space patterns of the district, in form and siting.

1.8 Locally significant features of the site such as distinctive buildings or sight lines of vistas from within the district shall be integrated into the site design.

1.9 The landscape design shall complement the district's landscape patterns.

1.10 The exterior signs, site lighting and accessory structures shall support a uniform architectural theme if such a theme exists and be compatible with their surroundings.

1.11 The scale, proportions, massing, and detailing of any proposed building shall be in proportion to the scale, proportion, massing, and detailing in the districts.

2 Design Guidelines

The following design guidelines shall apply to all new construction, substantial reconstruction and rehabilitation of properties, and changes that alter the exterior appearance of buildings within the Village Districts and in view from public roadways.

2.1 Building Placement and Orientation

(1) Building Placement

(a) Building placement shall respect existing patterns of building placement for the street on which they are located and define the edges of streets and public spaces.

(b) The individuality of the building shall be subordinated to the overall continuity of the streets and public spaces.

(c) Buildings shall be placed to conceal parking at the interior or rear of building lots.

(2) Building Setbacks

(a) Infill buildings shall comply with front yard requirements set by the Village District zones.

(b) If the adjacent buildings are setback at a distance that exceeds the minimum front yard requirements, infill buildings shall match the setback from the front lot line of the immediately adjacent buildings. If the setbacks do not match, the infill building may match one or the other, or may be an average of the two setbacks.

(3) Building Orientation

(a) Buildings shall be oriented with the primary building façade(s) facing the primary street frontage(s) of the site.

(b) Building massing and façades shall be designed to frame streets and public spaces, to provide a sense of spatial enclosure and to define street edges.

(c) Building entrances, doors and windows shall be oriented to the primary street(s)

(d) Storefronts in commercial and mixed-use buildings shall be oriented to the primary street(s) with transparency to streets and public spaces.

(4) Design Treatment of Edges

(a) Buildings that are not physically adjoined to abutters shall treat side yards and the spaces between buildings in a manner consistent with existing patterns of use, in terms of setbacks and use.

(b) Landscaping shall be used to define street edges and to buffer and screen edges that may have a negative visual impact, such as parking or loading areas.

2.2 Building Massing and Form

(1) Relationship to Existing Context

(a) Building massing, form, and scale shall be complementary to and respectful of the patterns of existing buildings in the immediate vicinity.

(2) Building Form

(a) The shape and massing of new and renovated buildings shall provide a balance among building height, story-height, building width and bay width that is compatible with those of adjacent buildings.

(b) The shape and massing of the building shall complement the abutting structures and define the edges of streets and open spaces.

(c) Residential buildings shall incorporate massing and façade design elements such as front porches, front-gable roofs, cross-gables, or hipped roofs with dormers that help relate their building massing to that of adjacent historic buildings.

(d) Commercial and mixed use buildings shall incorporate massing and façade design elements such as storefronts, cornices and parapets that help relate their building massing to that of adjacent historic buildings.

(3) Scale and Proportion

(a) The scale of proposed new or substantially rehabilitated buildings shall be compatible with the surrounding architecture and landscape context.

(b) The scale and proportions of building elements shall be generally compatible with those of adjacent buildings and the features and components of the façade.

(c) Elements that may help to relate building massing proportionally shall include: articulated building bases through a change in material or treatment; placement of windows in a regular pattern; articulation of building entries with porches or awnings, and façade and roof projections such as gabled roofs.

(4) Height

(a) Infill buildings shall comply with height requirements set by the Village District zones.

(b) Where there is a discrepancy greater than ten (10) feet between the proposed building height and the height patterns of adjacent existing buildings, the Architectural Advisory Committee shall review design proposals with the applicant for context sensitivity based upon the following: articulation of façade; building mass, scale, bulk and proportion; or other building massing considerations.

(5) Building Roofs

(a) Roofing materials visible from public sidewalks or streets shall be of high quality and durable, including, but not limited to: slate, copper, metal, ceramic slate tile or architectural asphalt shingle.

(b) Roofing materials shall not call undue attention to the roof itself with

bright or contrasting colors, unless historically documented.

(c) Building mechanical equipment located on building roofs, sites, or other locations shall not be visible from the street.

2.3 Building Façades

(1) Façade Design and Relationship to Existing Context

(a) The façade or primary building elevation of new construction or substantial rehabilitation shall be compatible with the façade design of neighboring buildings, so as to create continuity across projects and the street edge.

(b) Primary building façades with frontage along the street shall be sensitive to the existing context of building façades along that street.

(c) At least two of the following design elements shall be repeated in adjacent buildings: design treatment at the ground level, front porch with ornate post elements, front gabled-roof, relative location and size of doors and windows, window style and proportions, location of signs, dominant façade material, dominant color, and dominant roof form.

(d) New construction and substantial rehabilitation of commercial and mixed-use buildings shall be oriented to define the edges of the street and provide visibility to and from the ground floor to activate the public space.

(e) There shall be a direct vertical correspondence between the design of the façade of the upper floors and the ground level retail façades in mixed-use buildings.

(2) Placement and Treatment of Entries

(a) Entrances shall be oriented to the primary street frontage and address the street with an active and welcoming entry composition that is integrated into the overall massing and configuration of the building.

(b) Building entries may add components to the building façade such as porches, canopies, glazed areas and stoops.

(c) Commercial and mixed-use buildings shall provide a high level of visibility and transparency into storefronts and ground floor uses.

(d) Building and shop entrances shall be recessed to a minimum depth equal to the width of the door to prevent doors from swinging into the sidewalk.

(3) Façade Materials

(a) Materials shall be selected to be compatible with or complementary to the materials that characterize the Village Districts.

(b) Building façade exterior materials, including architectural trim and cladding, shall be of high quality and durable, including but not limited to: stone, brick, wood shingles or clapboard, wood trim, metal, glass, sustainable cement masonry board products and integrated or textured masonry.

(c) Materials on the façade that are subject to deterioration (plywood or plastic) shall be avoided or removed and replaced with more durable materials (wood shingles, clapboard, brick or metal).

- (d) Repairs and alterations must not damage or destroy materials, features or finishes that are important in defining the building's historic character.
 - (e) Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials.
 - (f) Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
 - (g) Efforts shall be made to preserve or replicate the historical wood trim around windows, doors and building corners.
 - (h) Exterior material may not include vinyl or aluminum siding.
 - (i) Uninterrupted, multi-level glazing may not be used as a primary façade design treatment.
- (4) **Proportion and Pattern of Windows**
- (a) Original window patterns and openings shall be preserved or restored in the redevelopment of existing structures, including conservation and repair to preserve historical trim and details.
 - (b) New construction shall acknowledge and respond to existing window patterns of adjacent buildings in proportion, scale, rhythm and number of openings.
- (5) **Transparency**
- (a) Buildings with commercial use at the ground level shall have at least 40% of the ground floor façade in transparent windows and storefronts.
 - (b) Along the secondary façades that face pedestrian alleys or connections, façades must achieve at least 15% transparency.
 - (c) Windows on the ground floor of the primary façade of commercial buildings shall not be mirrored or use tinted glass or be obstructed by curtains, shades, or blinds.
- (6) **Awnings and Signage**
- (a) Awnings and signs may not obscure important architectural details by crossing over pilasters or covering windows.
 - (b) Multiple awnings or signs on a single building shall be consistent in size, profile, location, material, color and design. On multi-tenant buildings the awnings and signs shall be allowed to vary in color and details, but shall be located at the same height on the building façade.
- 2.4 Landscape**
- (1) **Landscape Use and Orientation**
- (a) Landscape features shall define edges, and frame streets and public spaces, while shielding negative views such as dumpsters or loading areas.
 - (b) Plantings shall not obscure site entrances and exit drives, access ways, or road intersections.

- (c) Tree species shall be selected to maintain adequate height clearances for sidewalk circulation and visibility of commercial storefronts.
 - (d) Site and landscape features shall be integrated with the design of new construction and substantial rehabilitation, in order to reflect a coordinated site and building design.
- (2) **Open Spaces**
- (a) Public and private open spaces shall be designed, landscaped, and furnished to be compatible with or complementary to the overall character of the Village Districts.
- (3) **Rain Gardens**
- (a) Rain gardens may be provided as a contributing element of the site drainage, and integrated into the overall site landscaping.
 - (b) Plantings shall be well adapted to wetland edge environments, including grasses, sedges, shrubs, or trees that tolerate intermittent wet conditions and extended dry periods.
- (4) **Trees**
- (a) Existing trees, and in particular healthy and mature trees that characterize portions of the neighborhood shall be preserved to the extent possible, and they shall be incorporated into the proposed site plan.
 - (b) Existing trees shall be protected from damage during site construction and staging, according to best management practices.
 - (c) New trees and shrubs shall be selected from indigenous species native to the region or species adapted to the area.
- 2.5 Lighting**
- (1) **Glare**
- (a) Lighting shall not cast glare onto streets, public ways, the sky, or onto adjacent properties.
- (2) **Light Fixtures**
- (a) Site lighting shall be set at a low luminaire height (bottom of fixture not higher than 12-14 feet for pedestrian areas, and 18-20 feet for parking lots).
 - (b) Light fixtures shall be shielded or the "cut-off" variety, projecting all light down towards the pavement (less than 90 degrees from the vertical line).
 - (c) Decorative fixtures do not need to be the cut-off variety, but shall be equipped with interior reflectors or shields to direct light at the desired target.
 - (d) LED fixtures and solar-powered lights shall be used wherever possible.
 - (e) Flood and area lighting are strongly discouraged.

2.6 Parking

(1) Parking Placement

(a) Parking areas shall be located on the interior of blocks, behind buildings, or at the rear of sites, away from prominent site edges, public spaces, and streets.

(3) Screening and Landscaping

(a) Parking areas shall be separated from the street and adjacent residential properties by landscaped buffers of between five (5) feet and eight (8) feet in width.

(b) Parking areas may be screened from street view by fences, gates, walls, permanent planters, or hedges.

(4) Curb Cuts

(a) Curb cuts shall be minimized and combined whenever possible into one main access point per property.

(b) Curb cuts and driveways of adjacent properties may be combined into one shared access point in order to minimize curb cuts, if agreed upon by the parties involved and approved by the Zoning Official.

2.7 Streetscape and Sidewalks

(1) Pedestrian Access

(a) New construction and infrastructure improvements shall reinforce a network of continuous, convenient and safe pedestrian connections along sidewalks to and from all pedestrian entrances.

(b) Sidewalks and pedestrian paths shall incorporate appropriate lighting, street furniture, landscaping, and signage consistent with the respective Village District design character.

(c) The pedestrian network shall not include streets or spaces that are primarily used for vehicular connections, deliveries and services.

(2) Sidewalk Configuration

(a) Sidewalks shall have a minimum unobstructed width of 4 feet.

(b) In commercial areas, and when allowed by street dimensions, sidewalks may be widened to accommodate street trees, landscaping, and outdoor furnishing and amenities.

(3) Special Paving

(a) Unit pavers may be used to enhance the character of sidewalks, pathways, and outdoor sitting areas.

(b) When employed, unit pavers shall be selected and set in a manner that limits uneven surfaces or joints that would become an impediment to accessibility.

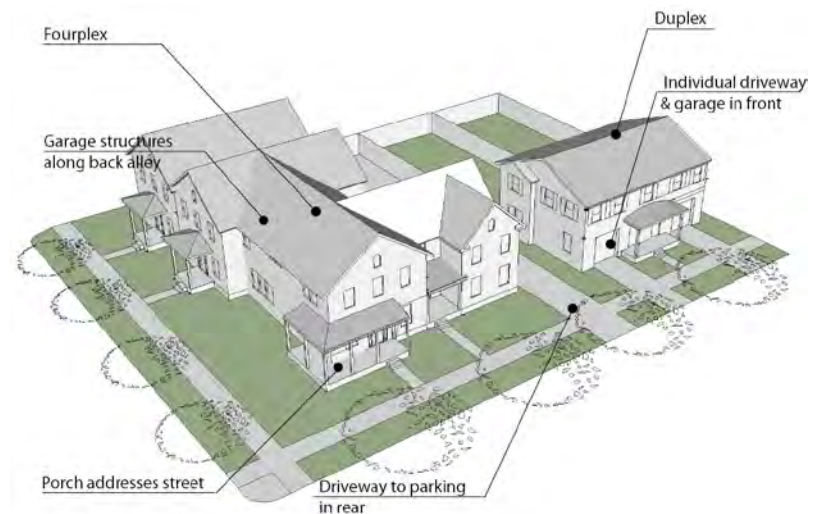
(4) Street Furniture

(a) Street furniture, such as benches, bike racks, trash and recycling receptacles, shall be clustered at convenient locations that are plainly visible and accessible.

Recommended Architectural Design Styles and Building Types

The architectural design styles and building types on the following pages are recommended for Branchville. These drawings and design descriptions provide details on the elements of architectural and site design that will support a pedestrian friendly village setting in Branchville. These design details are “typical” details and could remain advisory or could be adopted by the Planning & Zoning Commission as requirements.

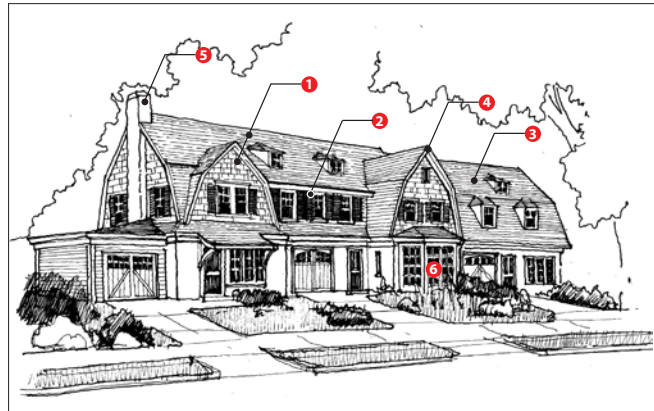
The drawings and the associated guidance are intended to supplement the preceding design guidelines.



Example of Building Type Guidelines

Recommended Design Styles

Shingle Style



ESSENTIAL ELEMENTS OF THE SHINGLE STYLE

- 1 Continuity of roof and wall surfaces. Wood shingles, stretched smooth, on siding and roofs
- 2 Louvered shutters
- 3 Shed roof and gambrel shapes
- 4 Cross gables and irregular roof lines
- 5 Prominent but not ornate chimneys
- 6 Turrets, verandas, oriels
- 7 Asymmetrical floor plans and elevations

History and Character

Shingle Style is essentially a suburban and resort style. It originated in the coastal towns of Cape Cod, Massachusetts and Newport, Rhode Island in the 1870's. Dwellings are ample in size, substantial in appearance and spread low against the ground usually on a heavy stone foundation. The Shingle Style plays with a complicated massing. Colonial motifs survive as isolated elements such as shingles, broad gables or gambrels, and small window panes.

Materials and Components

CLADDING: Wall cladding and roofing of continuous shingles; masonry first story with shingles above are also common in this style.

ROOFING: Complex roofs are common with this style. Gables are usually arranged asymmetrically. Intersected gables or a larger gable crossed with several smaller roof forms is a common practice in the shingle style. The gambrel roof form which is typical on shingle style homes, allows for a full second floor to be incorporated into the steeper roof shape, while giving the appearance of only one floor. Dormers are usual and are used to add visual complexity to the roof.

WINDOWS: Generally numerous windows, some of ample proportions, some rather small. Double-hung windows are commonly arranged with single-pane sash at the bottom and multipane sash above. For large wall areas, windows could be arranged in rows of two, three or even more. Palladian windows are a popular eclectic element of this style.

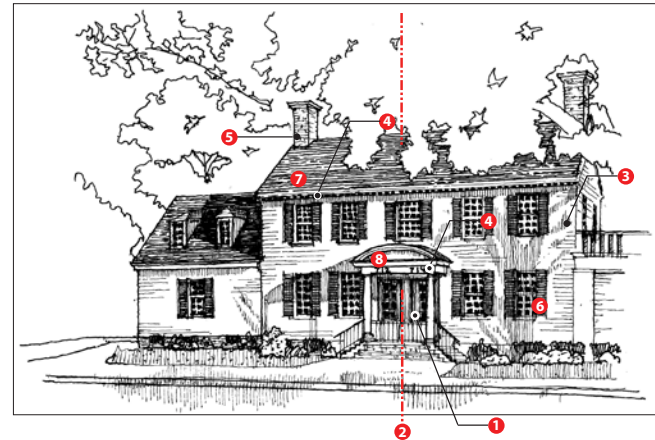
COLUMNS: Classical columns as well as shingle clad-columns or stone supports are commonly used.

PORCHES: Porches are very common in this style, and associated with the main entrance. Porches are often planned with simple straight balusters used for railings.

Local Samples



Colonial Revival



ESSENTIAL ELEMENTS OF THE COLONIAL REVIVAL STYLE

- 1 Rectangular-shaped, generally two to three stories in size, with centered front door
- 2 Symmetrical shapes on either side of the center line
- 3 Constructed with one or two materials, generally wood siding, brick or stone
- 4 Classical and colonial detailing: columns, cornices with dentils or modillions, and entablatures
- 5 Plain end chimneys, often paired at each end
- 6 Louvered shutters
- 7 Simple gabled roof
- 8 Columned porch or portico

History and Character

Classical Revival and Colonial Revival styles are expansive in scale, monumental, symmetrical, and represent the nostalgia for the distinguish dwellings of a younger America. This style was typically used to build residences for wealthy families and are likely to be large in size. Colonial and Classic Revival are academic in spirit, borrowing motifs from a specific model or a single style, most commonly Renaissance, Georgian or Neoclassical. Proportions are low and broad, their horizontal dimensions are emphasized by widely spaced window openings, horizontal coursing or siding, and strong -although shallowly projecting- cornice lines. Surface texture is generally limited to restrained ornament.

Materials and Components

SIDING: Clapboard is often found in the Colonial Revival, but brick is very popular as well, especially after the 1920's when brick veneer construction made the use of brick more affordable.

ROOFING: Gable roofs are a typical roof form found in Colonial Revival homes. Slate shingles were commonly used, but asphalt shingles are more common now because of cost. Mansards and dormers are very common especially in urban residential examples.

WINDOWS: Rectangular with double-hung sashes, each one consisting of six, eight, nine or twelve panes. Windows are usually sets in adjacent pairs.

COLUMNS: Classical columns supporting a simple portico or a pediment supported by pilasters is usual.

PORCHES: Porches shelter the main entrance and are located almost with no exemption at the center of the main facade. These entrance-way spaces are surrounded by any manner of paired columns, pilasters or archways.

SHUTTERS: Wood shutters often with incised patterns. They were a functional part of the house, in terms of security as well as to keep light and rain out. Now shutters are generally decorative only, but because they were intended to function, they should look as if they were to be closed over the window.

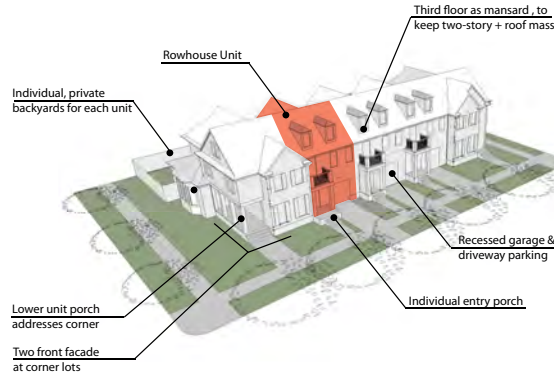
Local Samples



Recommended Building Types

Building Type: Rowhouse

Description



Rowhouse is a dwelling unit attached by common wall to another dwelling unit. Rowhouse is generally a single unit form ground to roof with no units below or above it. Typical arrangements are a minimum of 3 individual dwelling units arrayed side by side along a primary frontage.

Urban Standards

Unit Frontage: 20' min.
25' typical

Unit Size: 850 Sq.Ft. min.

Lot Width/ Frontage: 75 ft min.
150 ft max.

Max Height: 2 Story + Mansard

Access Standards:

- (1) The main entrance to each dwelling shall be accessed directly from and face the street
- (2) Parking shall be accessed through driveway in front

Parking Standards:

Parking garage in front of each unit and possibility of parking in driveway

Service Standards:

- (1) Services (including all utility access, above ground equipment, trash containers) shall be located on the rear of the lot, or screened from street view.

Landscape Standards:

- (1) All yards shall be landscaped
- (2) Landscape shall not obscure front yards on adjacent lots.

Frontage Standards:

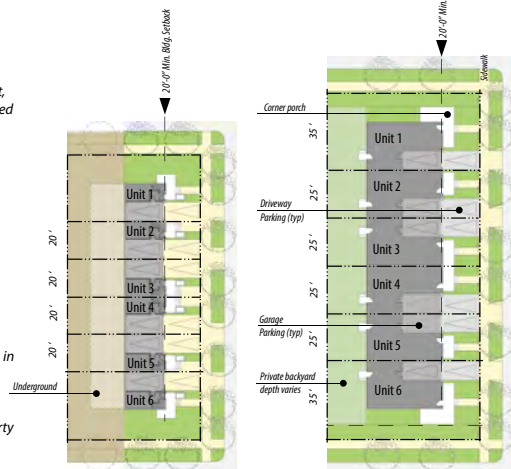
- (1) Each rowhouse ground level shall be designed so that living areas (e.g. living room, family room, dining room, etc.), rather than bedrooms and service rooms are oriented toward the fronting street to the extent possible.
- (2) Stoops, Frontyards and Porches allowed

Building and Massing:

- (1) Buildings shall be composed of 2 and/or three story volumes in compliance with the regulations for the applicable zone.
- (2) Buildings on corner lots shall be designed with two front facades.
- (3) Each rowhouse building shall maintain setbacks from property lines, with as much direct access to yards as possible.



Unit Section
20' wide units shown



Lot Diagrams

Building Type: Duplex, Triplex, Fourplex

Description



Corner Duplex shown

Duplexes, triplexes and fourplexes are multiple dwelling types that are architecturally presented as a large single-family house in their typical neighborhood setting.

Urban Standards

Unit Size Standard: 850 Sq. Ft.

Lot Width/ Frontage: Minimum 50 ft; amximum 75 ft.

Max Height: 2 Story + Mansard

Access Standards:

- (1) The main entrance to each dwelling shall be accessed directly from and face the street. Access to second floor dwellings shall be by stair, which may be open or enclosed.
- (3) Where alley is not present, parking and service shall be accessed by of a 10 feet wide driveway, with 2-foot planter on each side

Parking Standards:

- (1) Parking within individual garages, which shall contain up to four cars.
- (2) Garages on corner lots without alleys can front onto the side street only if provided with 1-car garage doors, and with driveways up to 10 feet wide that are separated by planters at least 2 feet wide.

Service Standards:

- (2) Where an alley is not present, services, including all utility access and above ground equipment and trash container areas shall be located at least 10 feet behind the front of the house, and be screened from street view with hedge or fence as specified for the zone.

Landscape Standards:

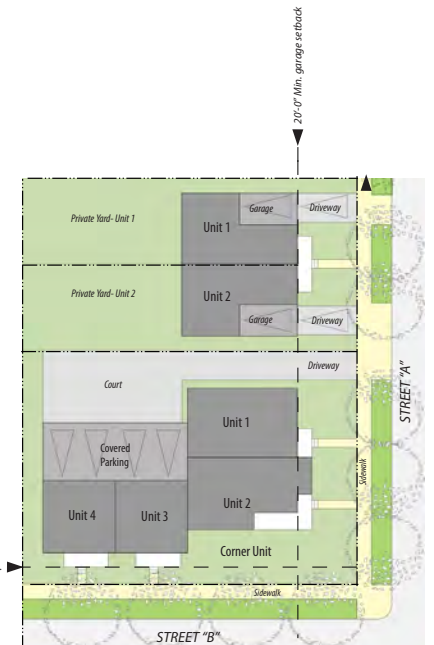
- (1) All yards shall be landscaped
- (2) Landscape shall not obscure front yards on adjacent lots.

Frontage Standards:

- (1) Dwellings abutting front yards shall be designed so that living areas (e.g. living room, family room, dining room, etc.), rather than bedrooms and service rooms are oriented toward the fronting street to the extent possible.
- (2) Stoops, Frontyards and Porches allowed
- (3) On corner lots, entrances to triplex and fourplex dwellings on both frontages is required.

Building and Massing:

- (1) Building elevations abutting side yards shall be designed to provide at least on horizontal plane break of at least three feet, and one vertical break of at least two feet.
- (2) Buildings on corner lots shall be designed with two front facades
- (3) Buildings shall be massed as large houses, composed mainly of two story volumes plus roof, each designed to house scale.
- (4) Dwellings within buildings may be flats and/or townhouses

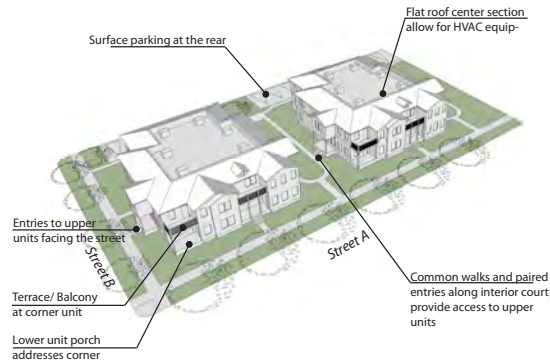


Lot Diagram

Recommended Building Types

Building Type: Small Multiplex-Six Stack Dwellings (*Mansion Homes*)

Description



Mansion Homes combine several units within one larger structure to resemble a large single family home. Typical arrangements consist in four, six nad up to eight dwelling units per building.

Urban Standards

Lot Width/ Frontage: 100 ft min. (six units)

Min. Lot Area: 7,400 Sq.Ft.

Max Height: 2 Story + Mansard

Access Standards:

- (1) The main entrance to each dwelling shall be accessed directly from and face the street or court. Access to second floor dwellings shall be by stair, which may be open or enclosed.
- (2) Where an alley is present, parking and seivces shall be accessed through the alley

Parking Standards:

Street and off-street perpendicular parking

Service Standards:

- (1) Where an alley present, services, including all utility access, and above ground equipment, and trash container areas shall be located on the alley
- (2) Where an alley is not present, services, including all utility access, and above ground equipment and trash container areas shall be located at least 10 feet behind the front of the house, and be screened form street view with hedge or fence

Landscape Standards:

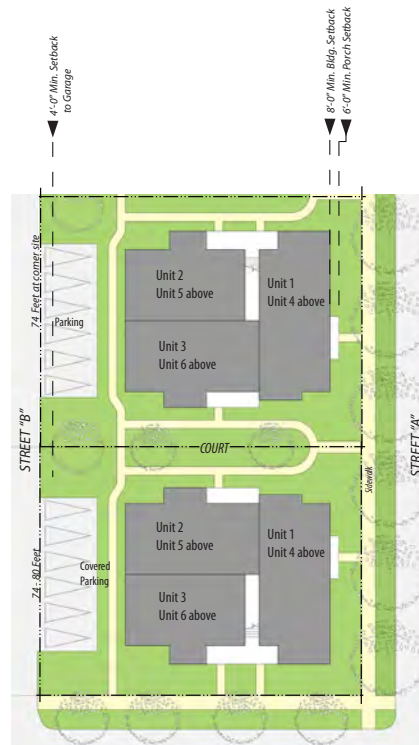
- (1) All yards shall be landscaped

Frontage Standards:

- (1) Dwellings abutting front yards shall be designed so that living areas (e.g. living room, family room, dinin room, etc.), rather than bedrooms and service rooms are oriented toward the fronting street to the extent possible.
- (2) Stoops, Frontyards and Porches allowed

Building and Massing:

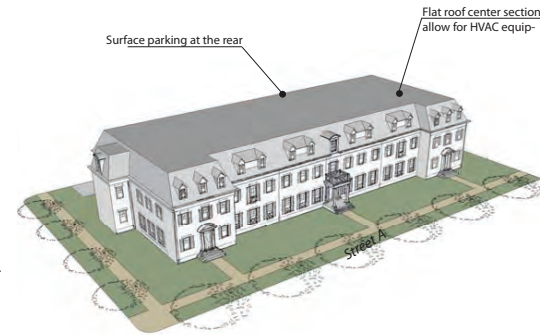
- (1) Building elevations abutting side yards shall be designed to provide at least on horizontal plane break of at least three feet, and one vertical break of at least two feet.
- (2) Buildings on corner lots shall be designed with two front facades
- (3) Buildings shall be massed as large houses, composed principally of two story volumens plus roof, each designed to house scale.
- (4) Dwellings within buildings may be flats and/or townhouses



Lot Diagram

Building Type: 12+ Apartment Building

Description



12+ Apartment Building

Urban Standards

Lot Width/ Frontage: 150 ft min. (six units)

Min. Lot Area:

Max Height: 3 Story

Access Standards:

- (1) The main entrance to each dwelling shall be accessed directly from and face the street or court. Access to second floor dwellings shall be by stair, which may be open or enclosed.
- (2) Where an alley is present, parking and seivces shall be accessed through the alley

Parking Standards:

Street and off-street perpendicular parking at rear

Service Standards:

- (1) Where an alley present, services, including all utility access, and above ground equipment, and trash container areas shall be located on the alley
- (2) Where an alley is not present, services, including all utility access, and above ground equipment and trash container areas shall be located at least 10 feet behind the front of the house, and be screened form street view with hedge or fence

Landscape Standards:

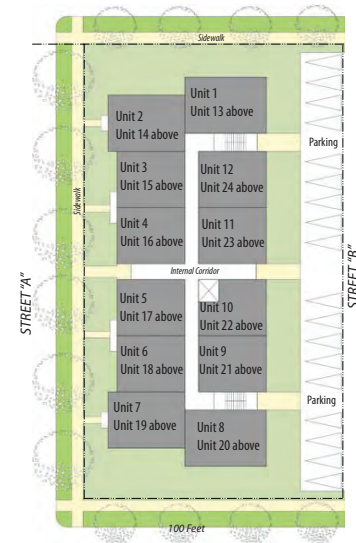
- (1) All yards shall be landscaped

Frontage Standards:

- (1) Dwellings abutting front yards shall be designed so that living areas (e.g. living room, family room, dinin room, etc.), rather than bedrooms and service rooms are oriented toward the fronting street to the extent possible.
- (2) Stoops, Frontyards and Porches allowed

Building and Massing:

- (1) Building elevations abutting side yards shall be designed to provide at least on horizontal plane break of at least three feet, and one vertical break of at least two feet.
- (2) Dwellings within buildings may be flats and/or townhouses

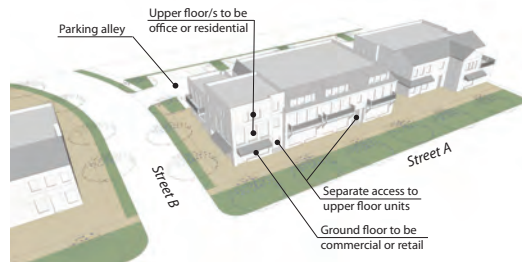


Lot Diagram

Recommended Building Types

Building Type: Mixed-Use

Description



Medium size attached of detached structures consisting of dwelling units above a flexible ground floor space for service or retail uses.

Urban Standards

Unit Size Standard: 850 Sq. Ft.

Lot Width/Frontage: Minimum 50 ft; maximum 150 ft

Max Height: 3 Story

Access Standards:

- (1) The main entrance to each ground floor storefront is directly from the street
- (2) Entrance to the upstairs residential/ office portion of the building is through a separate access door/lobby.
- (3) Interior circulation to each dwelling is through a corridor.
- (4) Where an alley is present, parking is access through the alley.
- (5) Where alley is not present, parking is accessed from the street through the building.

Parking Standards:

- (1) Surface parking.
- (2) Dwellings have indirect access to their parking stalls.
- (3) Parking entrances are to be located as close as possible to the side or rear of the lot.

Service Standards:

- (1) Services are located on alleys.
- (2) Where an alley is not present, services, including all utility access and above ground equipment and trash container areas are located as specified for the zone.

Landscape Standards:

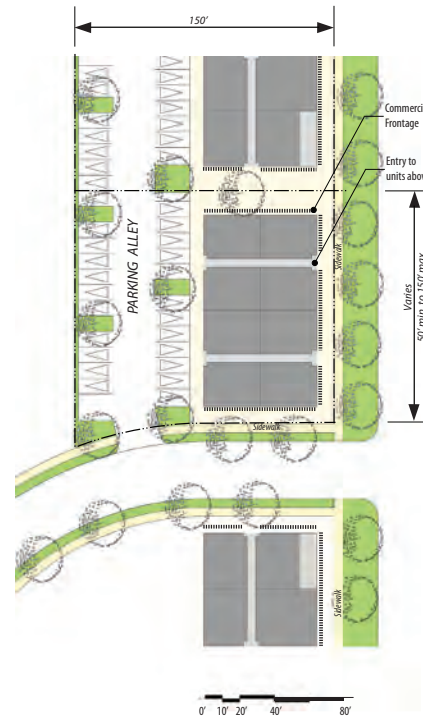
- (1) In the front yard, there is no landscape but streetscape.
- (2) Surface parking areas shall be landscaped per the town commercial area landscape standards.

Frontage Standards:

- (1) Entrance doors for upstairs units as well as storefronts shall face to the front or side if court is present. Service rooms are oriented to the degree possible backing to corridors.
- (2) Shopfront, arcade, gallery and forecourts allowed.

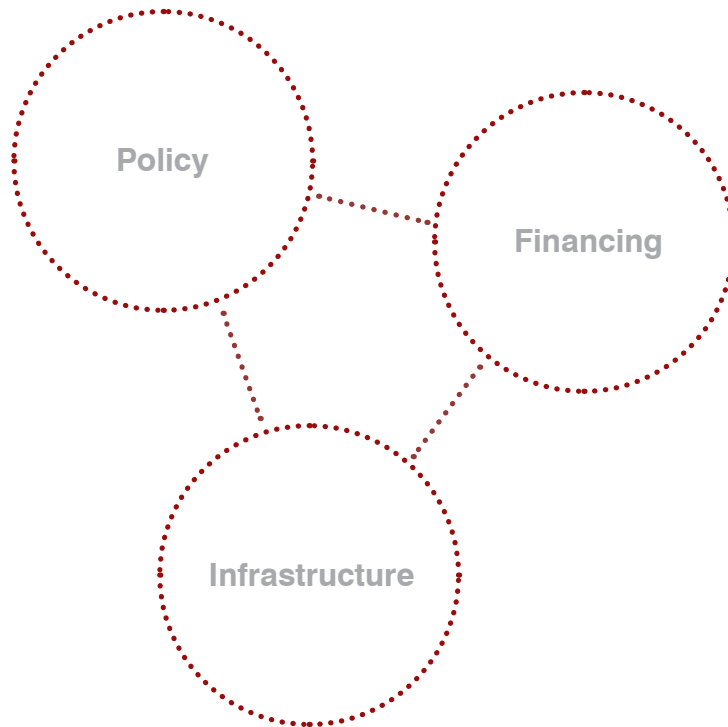
Building and Massing:

- (1) Each upstairs unit shall have at least one side exposed to the outdoors.
- (2) Terrace or balcony allowed.
- (3) Buildings are allowed to contain any of three types of dwellings: flats, town houses or lofts.



Lot Diagram

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Recommended Implementation Strategies

The following implementation strategies provide a framework of recommendations, responsible parties, and funding sources and mechanisms for achieving the improvements proposed within this plan. This plan provides a vision for what is possible in Branchville if investments are made by the Town, State and private property owners and developers. The implementation strategies are focused towards the measures that the Town of Ridgefield can take to improve infrastructure and modify the regulatory environment so as to encourage transit oriented development.

Realizing this plan will require the leadership of the Ridgefield's First Selectman's Office and the support of the town's Board of Selectmen. The town's Planning and Zoning Department, Town Engineer and WPCA will also play a key role in spearheading many of these initiatives. The participation and support of various boards and commissions such as the Planning & Zoning Commission will be critical in advancing this plan.

Implementation Strategy

Enhancements to and redevelopment of the station area will require the Town of Ridgefield and its departments, boards, and commissions to act upon the recommendations of this plan.

The recommended course of action is as follows:

1. Continue to pursue a diversity of funding sources to assist in planning and infrastructure enhancements. Grant and funding programs include:

- Connecticut Office of Policy and Management TOD Grants
- Connecticut Department of Transportation Local Transportation Capital Improvement Program (LOTICIP)
- Local Bridge Program
- Small Town Economic Assistance Program (STEAP) Grants
- Small Cities Community Development Block Grant Funds (CDBG)

Lead Agencies: Town Engineer, Planning & Zoning Department

2. Implement transportation enhancements in station area.

The Town should work to solicit state funding and identify town funds for the design and construction of transportation enhancements.

Recommended transportation improvements include:

- The provision of a well connected public sidewalk network throughout the station area
- The provision of marked crosswalks and ADA compliant curb ramps at roadway crossings
- Realignment of the Route 102/Route 7 intersection
- Modification of station access including the realignment of Portland Avenue and signalization of the Portland Avenue/Old Town Road intersection

- Management of access along Route 7 including consolidation and reduction of driveways

Lead Agencies: Town Engineer, Planning & Zoning Department

3. Expand wastewater and drinking water infrastructure.

The Town should provide municipal wastewater infrastructure in Branchville and expand drinking water infrastructure to the east side of the Norwalk River.

Specific infrastructure recommendations include:

- Resume discussions with the Town of Redding to explore the feasibility of connecting to the Georgetown wastewater treatment facility.
- Coordinate with the Ridgefield WPCA to assess the feasibility of connecting to the South Street treatment plant.
- Establish sewer taxing district in Branchville as a means of financing waste water infrastructure.
- Coordinate with CT DOT to include an extension of the Route 7 water main from the west side of Route 7 to the east side of the Norwalk River via a reconstructed Portland Avenue or Depot Road.

Lead Agencies: First Selectman's Office, Board of Selectmen, WPCA, Town Engineer

4. Rezone the station area and replace the existing zoning with a new Branchville Village District zone with the following subzones:

- Branchville Village Medium Residential Density District (BV-MRD): to promote the development of small scale multifamily units such as townhouses and duplexes
- Branchville Village High Residential Density District (BV-HRD): to promote the development of higher density apartment units
- Branchville Village Mixed-Use District (BV-MU): to promote mixed-use retail of limited size with apartments on the upper floors.

Lead Agencies: Planning & Zoning Commission and Planning & Zoning Department

5. Adopt an Incentive Housing Zone to encompass the recommended Village District zone.

The provision of an IHZ would allow for densities of residential development as demonstrated in the build-out analysis and recommended development plan. An IHZ would allow for a minimum of 25% higher densities (as required by statute) than the underlying village district zone (if adopted).

The primary advantage of the IHZ is the incentive that it provides for the development of affordable housing while allowing the Town regulate affordable housing development within the IHZ.

Lead Agencies: Planning & Zoning Commission and Planning & Zoning Department

6. Consider establishing a Tax Increment Finance (TIF) district that corresponds with the new Village District zone if created.

The creation of a TIF district would be a powerful instrument for incentivizing new development and generating funding for property acquisition and enhancements in the station area.

The build out analysis of the potential development scenarios indicates that an additional \$2.2 million of annual tax revenue could be generated in the station area. If the TIF were structured to set aside 50% of new tax revenue, as much as \$1.1 million of annual revenue could be reinvested in the station area with the Town of Ridgefield still receiving \$1.1 million in new tax revenue.

Lead Agencies: First Selectman's Office, Board of Selectmen, Tax Assessor's Office

Implementation Summary Table

Recommended Improvement	Timing	Cost	Funding Source	Responsible Parties
Infrastructure				
Route 102/Route 7 intersection improvements	Near Term	\$500,000	LOTICIP, OPM TOD Grants	Town Engineer, CT DOT
Completion of sidewalk network on Route 7 and Route 102 including installation of pedestrian scaled lighting	Near Term	\$1,400,000	LOTICIP, OPM TOD Grants	Town Engineer, CT DOT
Relocation of Route 7 Link bus stops and provision of shelters and waiting areas	Near Term	\$20,000	LOTICIP, OPM TOD Grants	Town Engineer, HART, CT DOT
Realignment of Portland Avenue and construction of new bridge, new Portland Avenue rail crossing, new signalized intersection at Old Town Road	Near Term	\$7,000,000	Federal and State Local Bridge Program, Town	CT DOT, MetroNorth/MTA, Town Engineer
Expansion of Branchville Station Parking	Near Term	\$100,000	State	CT DOT
Elimination of Depot Road vehicular rail crossing, provision of pedestrian crossing	Near Term	\$500,000	Rail Crossing Program	CT DOT, MetroNorth/MTA, Town Engineer
Construction of pathway and pedestrian bridges along and over the Norwalk River	Long Term	\$500,000	DEEP, National Recreational Trails Program	Town Engineer, Norwalk River Valley Trail, WESTCOG
Provision of sidewalk network on local roads	Mid Term	-	Private Developers, TIF District	Town Engineer, Planning & Zoning Department
Expansion of sewer service into Branchville	Mid Term	\$2,500,000-\$6,300,000	Town, Taxing District, STEAP Grant	First Selectman, Board of Selectmen, Town Engineer, WPCA
Expansion of water main service to West Branchville Road	Mid Term	\$500,000	Town	Town Engineer, Aquarion Water Company
Policy				
Adoption of Branchville Village Center Zoning District	Near Term	—	—	Planning & Zoning Department, Planning & Zoning Commission
Adopt an Incentive Housing Zone (IHZ)	Near Term	—	—	Planning & Zoning Department, Planning & Zoning Commission
Establish a Tax Increment Financing (TIF) district	Near Term	—	—	First Selectman, Board of Selectmen, Tax Assessor's Office

Funding Sources & Mechanisms

The Town of Ridgefield should continue to pursue multiple sources of funding assistance for enhancements to the station area. Relevant programs administered by the State include, but are not limited to, the following:

Connecticut Office of Policy and Management TOD Grants

Provides up to \$2 million in financial support for construction projects that expand on previous state investment in transit-oriented development or planning or construction projects that demonstrate responsible growth through their consistency with the State Conservation & Development Plan.

Note: Ridgefield submitted a grant application, which was not awarded, for station area improvements in February 2016.

Connecticut Department of Transportation Local Transportation Capital Improvement Program (LOTICIP)

The LOTICIP is intended primarily to address regional transportation priorities through capital improvement projects prioritized and endorsed by the RPO.

Pavement preservation, pavement rehabilitation, and exclusive sidewalk projects are eligible. Projects must have a minimum construction cost of \$300,000 to qualify. Planning studies may be eligible for LOTICIP as a funding source, subject to the Department's current Planning Study Process.

Local Bridge Improvement Program

State financial assistance is available to municipalities under the Local Bridge Program, both State and Federal, in the form of a grant-in-aid. The program is administered by the Connecticut Department of Transportation. Grant percentages vary depending upon the assessment of the town's ability to pay. Grant percentages for each municipality for the State program range from 15% to 50% of the total cost of

the project (Ridgefield's is 39.68%). To qualify for State funding, a bridge must carry a certified public road, be municipally owned and/or maintained, be structurally deficient and must not have a prior commitment from the State – not withdrawn or expired – to fund the project.

The scope of the project may include reconstruction, rehabilitation, modifications or improvements such as widening, complete replacement, or complete removal, as long as the project corrects the deficiencies that made the bridge eligible for funding. The project may use standard materials such as steel and concrete, traditional material such as timber, or innovative materials such as plastics and aluminum, as long as sound engineering practices are used. Any reasonable structure type may also be used, including timber trusses, if conditions permit.

Preliminary studies, engineering and property acquisition costs are eligible, subject to certain restrictions, and are reimbursed retroactively. Under exceptional circumstances, municipalities may apply for an advance grant to fund the preliminary engineering phase of a project.

The Federal Local Bridge Program funding is a reimbursement program, funded with 80% federal funds & 20% Town funds, for both design and construction phases.

Because of the functional classification of Depot Road and Portland Avenue, only the Portland Avenue bridge qualifies for the Federal program.

Note: Ridgefield has successfully applied to the Federal Local Bridge program for reconstruction of the Portland Avenue Bridge and design is expected to commence in 2017.

Small Town Economic Assistance Program (STEAP) Grants

STEAP funds are issued by the State Bond Commission and can only be used for capital projects. A project is considered to be a capital project if it is new construction, expansion, renovation or replacement for an existing facility or

facilities. Project costs can include the cost of land, engineering, architectural planning, and contract services needed to complete the project. The program is managed by the Office of Policy and Management, and grants are administered by various state agencies.

STEAP funds are issued by the State Bond Commission and can only be used for capital projects. A project is considered to be a capital project if it is new construction, expansion, renovation or replacement for an existing facility or facilities. Project costs can include the cost of land, engineering, architectural planning, and contract services needed to complete the project. Projects eligible for STEAP funds include:

- Economic development projects such as constructing or rehabilitating commercial, industrial, or mixed-use structures and constructing, reconstructing, or repairing roads, access ways, and other site improvements
- Recreation and solid waste disposal projects
- Social service-related projects, including day care centers, elderly centers, domestic violence and emergency homeless shelters, multi-purpose human resource centers, and food distribution facilities
- Housing projects
- Pilot historic preservation and redevelopment programs that leverage private funds
- Other kinds of development projects involving economic and community development, transportation, environmental protection, public safety, children and families and social service programs

Small Cities Community Development Block Grant Funds (CDBG)

Connecticut's CDBG Program, also known as the Small Cities Program, provides funding and technical support for projects that achieve local community and economic development objectives. The Small Cities Program principally benefits low- and moderate-income persons. This program is only available to Connecticut towns and cities with

populations of less than 50,000; Ridgefield is listed as an eligible community.

Community Development Block Grants help cities and towns implement housing, community, and economic development projects that assist low and moderate-income residents, or that revitalize areas of slum or blight. Eligible CDBG projects include but are not limited to:

- Acquisition of real property
- Public facilities and improvements
- Code enforcement
- Clearance, rehabilitation, reconstruction, and construction of buildings (including housing)
- Disposition of real property
- Public services
- Relocation
- Planning and capacity building
- Program administrative costs
- Local development corps, and non-profits
- Economic development assistance to for-profit businesses
- Technical assistance
- Housing services
- Homeownership assistance

National Recreational Trails Program

The Recreational Trails Program is an assistance program of the U.S. Department of Transportation's Federal Highway Administration. The program is administered locally through the Connecticut Department of Energy & Environmental Protection (DEEP). Recreational Trails Program funds are used for projects that include:

- Construction of new trails (motorized and non-motorized).
- Maintenance and restoration of existing recreational trails (motorized and non-motorized).
- Access to trails by persons with disabilities.
- Purchase and lease of trail construction and maintenance equipment.
- Acquisition of land or easements for a trail, or for trail corridors.

Tax Increment Financing (TIF)

Tax Increment Financing uses anticipated future increases in property taxes to pay for current improvements or to repay debt issued for such current improvements. Investment in a specified area (TIF District) is repaid over time using the increased tax revenue generated by the investment.

The municipality can issue revenue bonds, assessment bonds, general obligation bonds, or any combination, to finance TIF District projects. Prior to establishing a TIF District, the municipal legislative body or board of selectman must consider whether the proposed tax increment district and district master plan will contribute to the economic growth or wellbeing of the municipality or to the betterment of the health, welfare or safety of the inhabitants of the municipality.

A portion of the real property within the TIF district shall meet at least one of the following criteria: (1) Be a substandard, insanitary, deteriorated, deteriorating or blighted area; (2) be in need of rehabilitation, redevelopment or conservation work; or (3) be suitable for industrial, commercial, residential, mixed use or retail uses, downtown development or transit oriented development.

TIF's can be used to finance:

- public infrastructure improvements
- façade improvements
- project development and redevelopment costs (including transit oriented and downtown district development)
- capital costs, remediation costs
- financing and land assembly costs
- technical and marketing assistance
- revolving loans
- professional services
- repayment of private debt incurred by developer
- administrative expenses, including personnel, studies and reports
- business development and expansion assistance for TIF district property owners
- TIF district establishment costs

Benefits

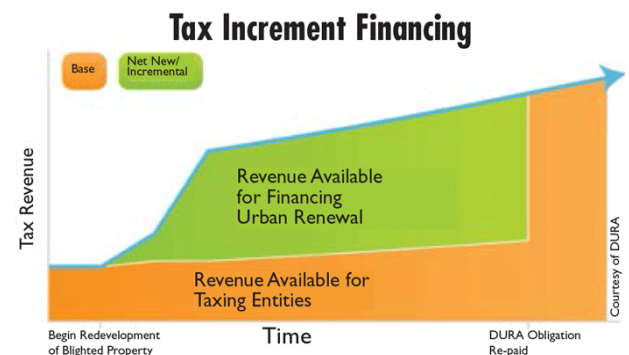
- Local decision making as municipalities develop their own TIF Districts and Plans
- Incentivizes development
- Encourages development in underdeveloped and underutilized areas where it might not otherwise occur
- Outside improvements are allowed in areas outside the TIF District as long they directly related to or are made necessary by TIF District
- Municipality is granted ability to use all or part of the TIF revenues for projects within TIF district
- TIF revenues can be leveraged and used to repay debt service on municipal TIF or developer debt related to the TIF District or collected and segregated by municipality and used to fund future projects within TIF District on a pay-as-you-go basis.

Requirements

Requires public hearing, input from local planning agency, and legislative body approval of a "District Master Plan". District master plan must be adopted at the same time the TIF district is created.

Limitations

- Under act number 15-57, TIF Districts cannot exceed 10% of the total value of taxable property within municipality.
- TIF Districts cannot exceed 50 years, beginning with the year the district is created.



Source: Denver Urban Renewal Authority

Section 12-65 Tax Incentives

As an alternative or supplement to a TIF district, the Town could consider tax incentives under CT General Statute Chapter 203, Sec. 12-65 which allows agreements fixing assessments on multifamily housing of three or more housing units. The real estate to be used for the housing project must be in a redevelopment area, community development area or neighborhood strategy area, and be included in a redevelopment plan approved by a redevelopment agency, in an urban renewal project area, or in a community development plan approved by the municipality.

The term of such agreement shall not exceed fifteen years from the date of the completion of the housing project or completion of rehabilitation of the housing project or sixteen years from the date of the agreement, whichever is the shorter period. The assessment agreed on for the real estate plus future improvements can not be less than the assessment as of the last regular assessment date of the real estate without such future improvements.