

# POSSIBLE INFRASTRUCTURE STRATEGIES

## Overview

Community infrastructure includes community facilities, transportation systems, and utilities. These facilities and resources support the overall community structure and influence the quality of life in a community.

This section describes the status of the basic infrastructure components in Orange, assesses relevant projections and needs, and offers basic recommendations for inclusion in the Plan of Conservation and Development.

*Infrastructure is about the services and facilities we need to meet our needs and enhance our quality of life*

Community Facilities



Vehicular Transportation



Other Transportation



Utility Infrastructure





# COMMUNITY FACILITIES

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## Overview

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Community facilities support functions such as education, public works, public safety, and recreation, all of which are important to maintaining the character and quality of life in a community. The map on page 11 shows the location of community facilities in Orange.

The Plan of Conservation and Development does not get involved in the day-to-day operations of individual departments. Rather, the Plan seeks to identify potential community facility needs (buildings and sites) so that they can be anticipated and planned for. The Plan also serves as a useful guide for referrals of proposed municipal improvements (as required by CGS Section 8-24) for review by the Planning and Zoning Commission.

As described on the following pages, the following community facility needs have been identified for future consideration:

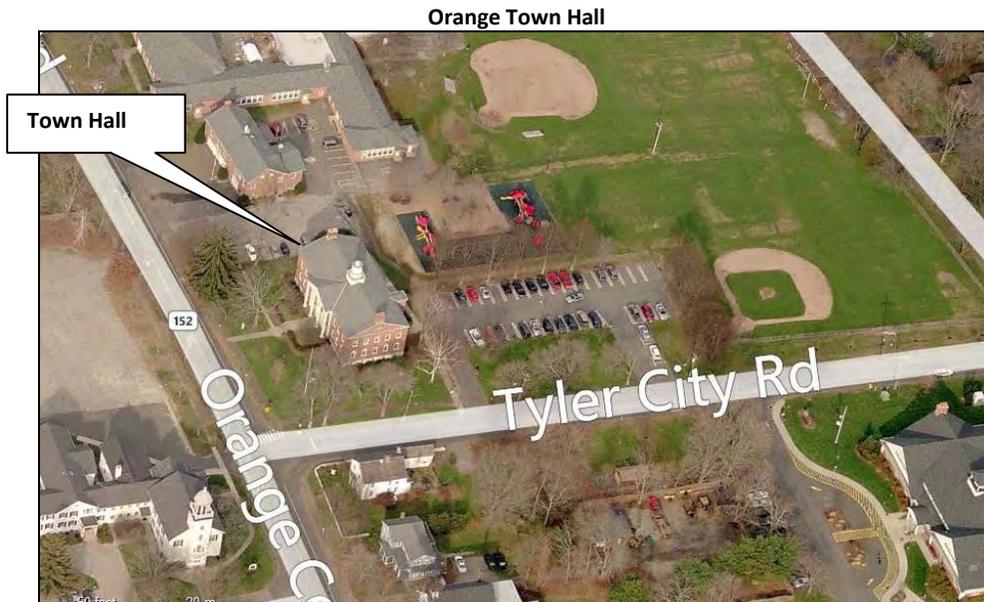
<b>Near Term (0-10 years)</b>	<ol style="list-style-type: none"><li>1. Investigate options for expanding or relocating the Town Hall.</li><li>2. Investigate what school facilities Orange will need for the long term.</li><li>3. Renovate and improve schools needed for the long term.</li><li>4. Prepare a program to improve the community center.</li><li>5. Make arrangements to purchase properties on Lambert Road adjacent to the Public Works facility, should these sites become available.</li></ol>
<b>Mid-Term (10-20 years)</b>	<ol style="list-style-type: none"><li>6. Contemplate the possible need to transition to either a paid fire department or a hybrid paid/volunteer arrangement.</li></ol>
<b>Long Term (20+ years)</b>	<ol style="list-style-type: none"><li>7. (none at this time)</li></ol>

## Plan For Future Town Hall Needs

The Orange Town Hall is located on Orange Center Road at the intersection with Tyler City Road. It shares a site with the Orange Center Firehouse and the Mary L. Tracy School.

At the present time, the building is fully occupied and day-to-day operations are cramped. At some time in the not-too-distant future, it will make sense to investigate options for expanding the facility. This expansion can help meet the need for additional office space, meeting space, and storage space. Additional parking spaces are also needed on many occasions.

Relocating the Town Hall elsewhere is also a possibility (Mary L. Tracy School, as a separate facility at the High Plains Community Center, or a possible future “town center” type area).



Plan For Future Town Hall Expansion		
Suggested Policies	Leader	Partners
1. Address the need for additional office space, meeting space, and storage space in Town Hall.		
Suggested Initial Tasks		
2. Investigate options for expanding or relocating the Town Hall.		

**Amity School District**

The school facilities of the Amity Regional School District involve residents and representatives of all three communities (Orange, Woodbridge, and Bethany) and are outside the scope of this Plan of Conservation and Development).

**Consolidate Educational Facilities**

The education system in Orange is a source of pride for residents. The Connecticut Department of Education classifies school districts into District Reference Groups (DRG) based on socio-economic status, perceived student needs, and enrollments. Orange is classified as DRG-B which is the second highest of the nine groups.

Orange has a two-tier educational system:

- The local school system provides education from pre-kindergarten to grade 6, and
- Regional School District #5 (Amity) provides education from grades 7 to 12 for children from Orange, Woodbridge, and Bethany.

Locally, the school system includes four facilities:

**Mary L. Tracy School**  
Orange Center Road  
(PreK-K)



**Turkey Hill School**  
Turkey Hill Road  
(Grades 1-6)



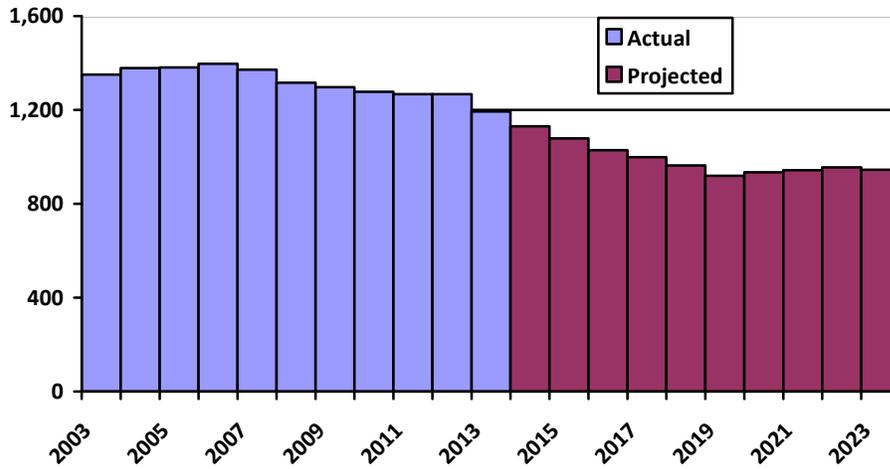
**Peck Place School**  
Peck Lane  
(Grades 1-6)



**Racebrook School**  
(Grannis Road)  
(Grades 1-6)



Local school enrollments (PK – 6) have been decreasing in recent years as a result of overall demographic trends. This enrollment decrease is expected to continue even with the addition of pre-kindergarten programs.



**Enrollment Information**

	Year	PK-6 Enrollment	
Historic	2003	1350	
	2004	1378	
	2005	1381	
	2006	1396	
	2007	1371	
	2008	1316	
	2009	1297	
	2010	1277	
	2011	1267	
	2012	1267	
	2013	1193	
	Projected	2014	1130
		2015	1079
2016		1028	
2017		998	
2018		963	
2019		919	
2020		934	
2021		943	
2022		955	
2023		945	

Based on enrollment projections and overall demographics, the time may come when Orange will no longer need four buildings for PK-6 enrollments.

During the planning period, Orange should investigate what education facilities it will need for the long term – both in terms of capacity and quality of educational programs. Each of the school buildings has some need for “refreshment” and so one possibility might be for one school to go off-line for refreshment and renovation while the other schools accommodate the educational programs. This rotating schedule could be employed until the educational facilities are “ready for the 21<sup>st</sup> century.”

Consideration should also be given to the potential future use or re-use of any excess school facilities. Each site also provides recreational facilities which benefit the community. In terms of building design and location, Mary L. Tracy School may have the greatest potential for re-use.

<b>Consolidate Educational Facilities</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Seek to maintain educational excellence.		
2. Seek to use educational facilities efficiently.		
<b>Suggested Initial Tasks</b>		
3. Investigate what education facilities Orange will need for the long term.		
4. Renovate and improve schools needed for the long term.		

## Anticipate Fire Department Needs

Orange has an all- volunteer fire department which operates out of two fire stations – the Post Road firehouse near Lambert Road and the Orange Center firehouse (adjacent to Town Hall). The Post Road station was recently built and is well configured to meet community needs for the planning period and beyond. The Orange Center firehouse was built in the 1930s and, while not well-configured for modern fire equipment, does help meet community needs.

Orange has a very high ISO rating and this benefits local residents by allowing for lower fire insurance premiums. Given that Orange is an all-volunteer department, this is especially impressive. Fire capabilities are also aided by the fact that the South Central Regional Water Authority has water lines and hydrants in place which service much of the community. Emergency communications are reported to be adequate.

Over the long term, it may become more difficult to maintain an all-volunteer fire department due to increasing training and certification requirements and a changing age composition. Orange is able to maintain effective response at present at the present time because Orange accepts volunteers from surrounding areas (who want to get experience for career positions elsewhere) and because Public Works employees assist with fire response during the day.

Orange should begin to contemplate the possible need to transition to a paid fire department or a hybrid arrangement of paid staff supplemented by volunteer staff.

**Post Road Firehouse**



**Orange Center Firehouse**



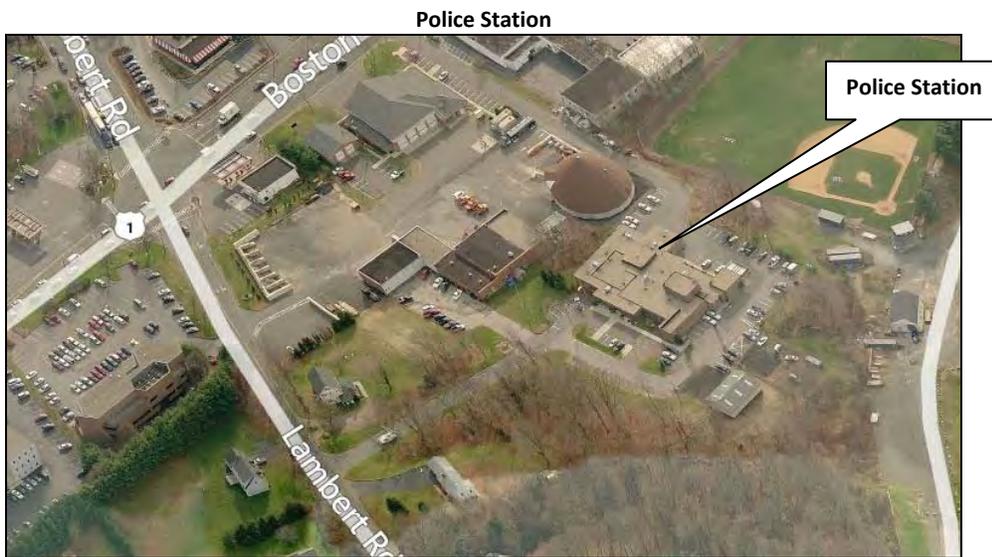
Anticipate Fire Department Needs		
Suggested Policies	Leader	Partners
1. Maintain effective fire response capabilities.		
Suggested Initial Tasks		
2. Contemplate the possible need to transition to either a paid fire department or a hybrid paid/volunteer arrangement.		

## Maintain Police / Medical Response

The Orange Police Department is located on Lambert Road on a site shared with the Public Works Garage and the Post Road firehouse. The building, which was built in 1974 and added to in 2000, is expected to be adequate in size for community needs for the next 10-20 years although maintenance and repairs (roof, HVAC, etc.) may be necessary.

Emergency medical response is also provided by the Police Department as all patrol personnel are trained in medical response. A paramedic is stationed in Orange around the clock to assist with medical response.

Emergency communications are in the middle of a system-wide upgrade.



Maintain Police / Medical Response		
Suggested Policies	Leader	Partners
1. Maintain effective police / medical response capabilities.		

## Maintain And Improve Recreation Facilities

Orange has a number of recreation facilities which are appreciated by residents and enhance the overall quality of life in the community.

The main facility may be the High Plains Community Center which includes the Senior Center, a gymnasium, a fitness center, an indoor pool, and a number of rooms and classrooms used for a variety of local activities. In addition, the grounds include recreational fields and several structures which provide for a variety of events. Orange also has the Old Tavern Road Recreation Area and Wolfe Park which provide fields for outdoor sports and activities. Local schools (and the Amity Regional Junior High School) also provide indoor space for local activities and outdoor space for youth sports and other activities.

Interest has been expressed in providing additional fields for outdoor sports (soccer, lacrosse, etc.) as well as addressing needs at the community center (upgrade the gymnasium/auditorium, renovate the classroom wing, upgrade the pool area, overall refreshment of the facility, add parking).

**High Plains Community Center**



**Indoor Pool**



**Old Tavern Road Recreation Area**



**Wolfe Park**



<b>Maintain And Improve Recreation Facilities</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Maintain and improve outdoor recreation facilities.		
2. Maintain and improve the community center.		
<b>Suggested Initial Tasks</b>		
3. Prepare a program to improve the community center.		

## Address Public Works Space Needs

The main Public Works facility is located near the intersection of Lambert Road and the Post Road (Route 1). The site is intensively used at the present time for storage and maintenance of equipment and storage of work materials. At some time during the planning period, the indication is that additional space will be required.

Over the long term, it will make sense to consider how this site can be expanded in order to meet potential future needs of all the activities conducted here (the site is shared by Public Works, the Post Road firehouse, and the Police Station). Should adjacent properties on Lambert Road become available, the Town should consider purchasing these sites in order to provide expansion room in the future for these municipal activities.

Indications are that the transfer station site (at the end of South Orange Center Road) is adequate for community needs during the planning period.



Address Public Works Space Needs		
Suggested Policies	Leader	Partners
1. Address space needs for public works activities.		
Suggested Initial Tasks		
2. Make arrangements to purchase properties on Lambert Road adjacent to the Public Works facility, should these sites become available.		

## Maintain Other Community Facilities

Orange also has other community facilities which enhance the overall quality of life in the community:

- **Case Memorial Library** - the library was recently built and is anticipated to be adequate for community needs for some time
- **Stone-Otis House** – a historical building located at the corner of Orange Center Road and Tyler City Road, now maintained by the Orange Historical Society
- Old Library (Orange Center Road)
- Elderly Housing (Red Cedar Road)
- Fairgrounds (Orange Center Road)
- Town Green (part)

These facilities complement the other community facilities in Orange and should continue to be maintained.

Case Memorial Library



Old Library

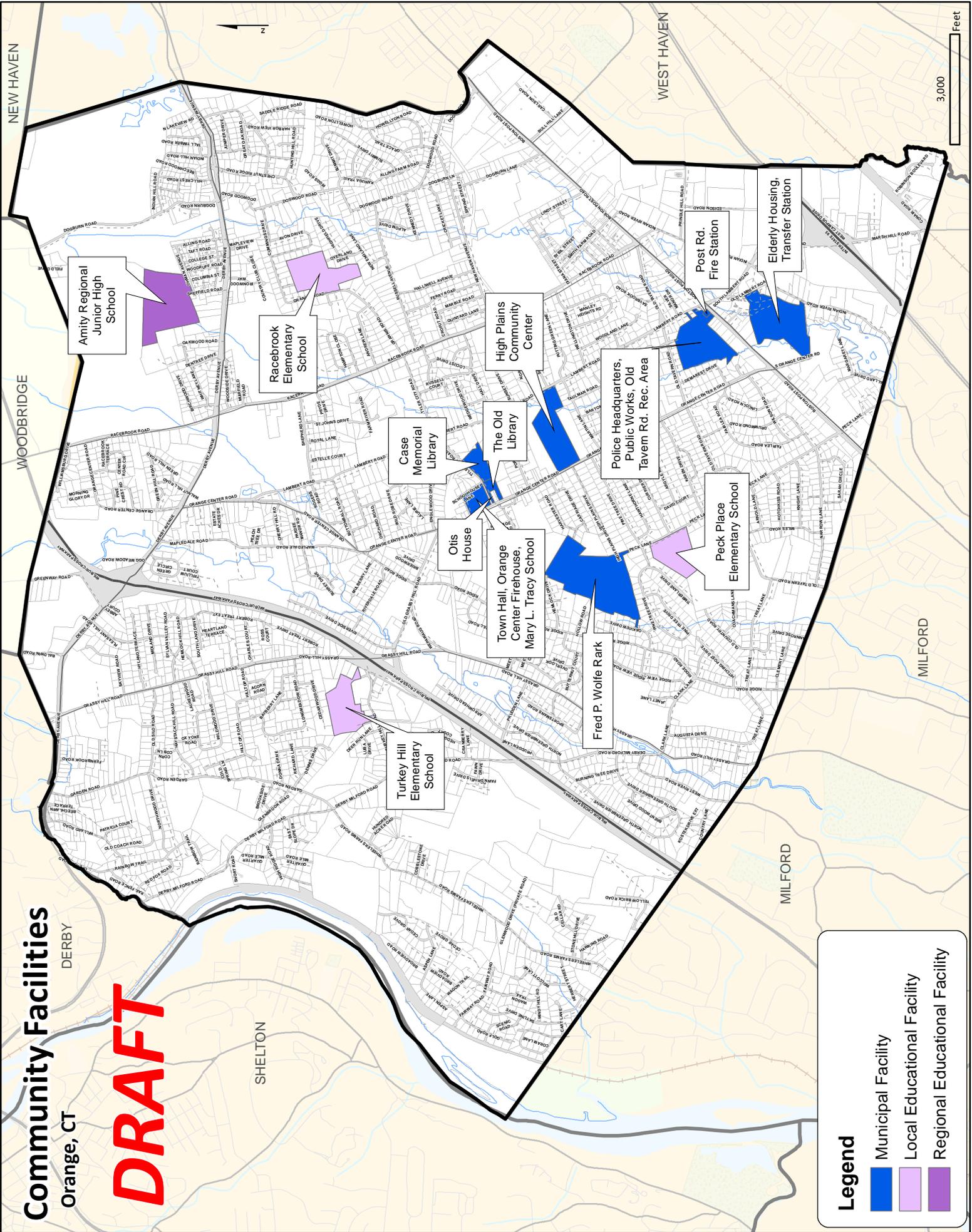


Maintain Other Community Facilities		
Suggested Policies	Leader	Partners
1. Maintain other community facilities in Orange.		

# Community Facilities

Orange, CT

# DRAFT



**Legend**

- Municipal Facility
- Local Educational Facility
- Regional Educational Facility



3,000 Feet



# TRANSPORTATION

## Overview

The road system in a community like Orange is functionally important to the day-to-day life of community residents, visitors, and businesses as well as being an important component of its character and self-image. .

This section of the Plan of Conservation and Development looks at the overall configuration of the vehicular transportation network and other transportation modes (pedestrian, bicycle, bus, rail, etc.).

Roadways



Pedestrian



Bicycle



Transit



## Modify Road Classifications

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The map on page 15 summarizes the recommended road classifications for Orange (as per Section 382-23 of the Subdivision Regulations):

- Expressways – limited access highways for regional travel
- Arterial Roads – state highways used for inter-community travel
- Commercial Roads – Town roads intended and used to service commercial and industrial developments
- Collector Roads – Town roads configured and used for inter-neighborhood travel
- Local Roads – Town roads used primarily for access to residential property and generally configured to discourage through traffic

There are two major exceptions to the above classifications:

- South Lambert Road / Marsh Hill Road is a Town road which serves as a major arterial road connecting I-95 to Route 1
- Indian River Road / Racebrook Road are Town roads which serve as a minor arterial road connecting I-95 to Route 1 and Route 114

Because of this, the Town should request that the Connecticut Department of Transportation consider incorporating these two roads into the State Highway system as follows:

- Designate South Lambert Road / Marsh Hill Road as part of State Route 152 (Orange Center Road) and route SR 152 over the section of Route 1 between Orange Center Road and South Lambert Road
- Designate Indian River Road / Racebrook Road as part of State Route 114 (Racebrook Road).

These road classifications are different than regional and state road classifications. The regional and state classifications are used for road funding purposes whereas the local classifications are used for land use guidance and roadway construction/maintenance. The two classification systems are not inconsistent.

Modify Road Classifications		
Suggested Policies	Leader	Partners
1. Use the recommended roadway classifications for land use guidance and roadway construction/maintenance.		
Suggested Initial Tasks		
2. Request that the Connecticut Department of Transportation consider incorporating South Lambert Road / Marsh Hill Road and Indian River Road / Racebrook Road into the State Highway system.		

## Address Overall Roadway Issues

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The overall circulation pattern in Orange is reasonable with a couple of exceptions as discussed below.

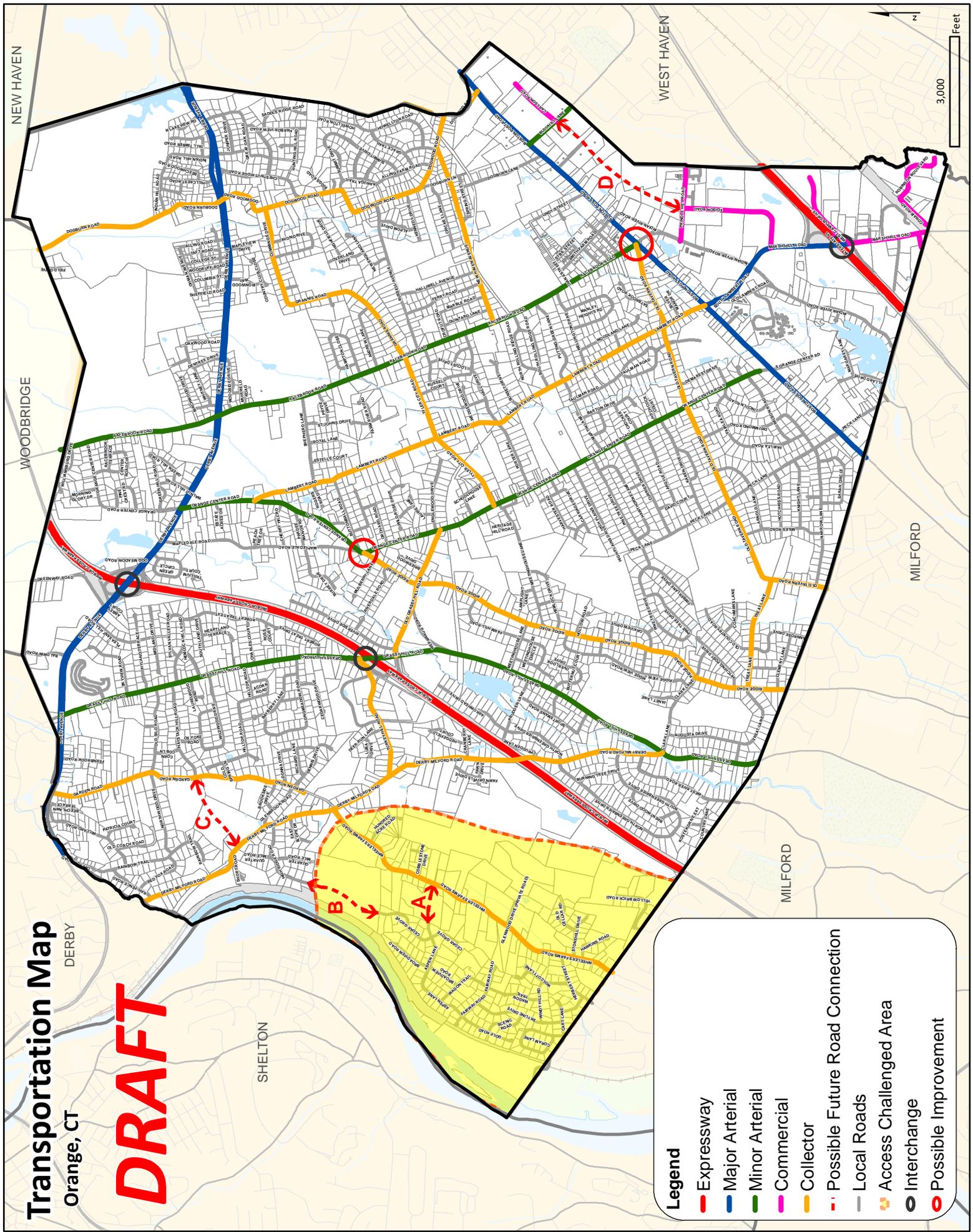
1. **Whealers Farm Road** – The TPZ may wish to encourage or require road connections in the Wheelers Farm Road area in order to provide secondary access in the event that Wheelers Farm Road is blocked for any reason (shown as “A” and “B” on the map on the facing page). Without such a connection, the entire southwestern part of Orange is essentially one large “cul-de-sac” accessible from the rest of Orange only by Wheelers Farm Road.
2. **Grassy Hill / Derby-Milford Connection** – To enhance overall circulation in western Orange, the TPZ may wish to consider encouraging or requiring this connection (shown as “C” on the map on the facing page).
3. **Edison / Bull Hill Connection** – To enhance overall circulation in the “Economic Area”, the TPZ may wish to consider encouraging or requiring this connection (shown as “D” on the map on the facing page).
4. **Five Corners @ Old Tavern** – Relocating Old Tavern Road away from the intersection with the Post Road (Route 1) and Racebrook Road (Route 114) as part of development or redevelopment plans in this area will help address congestion in this location.



# Transportation Map

Orange, CT

# DRAFT



**Legend**

- Expressway
- Major Arterial
- Minor Arterial
- Commercial
- Collector
- Possible Future Road Connection
- Local Roads
- Access Challenged Area
- Interchange
- Possible Improvement

3,000 Feet

5. **Five Corners @ Mapledale** – There is also a five-corner intersection where Orange Center Road intersects with Ridge Road, Mapledale Road, and Buttonball Road. Traffic operations at this location are hindered by the five-corner configuration, road alignments, grade changes, and sight lines. Eliminating the Buttonball Road connection to Orange Center Road could help simplify this intersection while retaining residential access through Orchard Road, Oak Tree Road, and Lambert Road. Alternatively, installing a modern roundabout at this intersection might also be an effective solution.
6. **Derby Avenue @ Racebrook Road** – This intersection is congested during peak operations and would benefit from the addition of turn lanes, extension of storage for queues, and additional through capacity on Racebrook Road. The Town should work with the CTDOT to conduct a detailed study of intersection operations in order to identify specific lane needs and storage lengths.

**Derby Road at Racebrook Road**



7. **Derby Avenue @ Grassy Hill Road** – This intersection can also get congested due to the traffic volumes and would benefit from the addition of turn lanes on Route 121, and extension of storage for queues on Route 34. The Town should work with the CTDOT to conduct a detailed study of intersection operations in order to identify specific lane needs and storage lengths.

**Derby Road at Grassy Hill Road**



8. **Derby-Milford Road** – Overall traffic volumes and truck traffic have increased concerns about the configurations of this roadway corridor and the following strategies are recommended:
- Work with local and state officials to designate this roadway as a non-truck route and relocate heavy truck traffic to the Grassy Hill Road (State Route 121) corridor,
  - Work with Derby and state officials to improve the intersection of Derby-Milford Road at Route 34, and
  - Continue to pursue funding at the state/regional level to widen this road to provide shoulders and bike lanes and increase safety.
9. **Pavement Management** – Pavement can be expensive to maintain and it can become exponentially more expensive if simple maintenance tasks are deferred. Orange should continue to dedicate financial resources and manpower to maintaining local roads as cost effectively as possible.

<b>Address Overall Roadway Issues</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Encourage or require additional road connections in the Wheeler Farms Road area in the future.		
2. Encourage or require a road connection between Grassy Hill Road and Derby-Milford Road).		
3. Encourage or require a road connection between Edison Road and Bull Hill Road.		
4. Encourage or require the relocation of Old Tavern Road away from the Post Road / Racebrook Road intersection.		
5. Continue to dedicate financial resources and manpower to maintaining local roads as cost effectively as possible.		
<b>Suggested Initial Tasks</b>		
6. Investigate the need to simplify the five corner intersection of Orange Center Road at Mapledale Road.		
7. Work with CTDOT to conduct a detailed study of intersection operations at Derby Avenue at Racebrook Road.		
8. Work with CTDOT to conduct a detailed study of intersection operations at Derby Avenue at Grassy Hill Road.		
9. Work with local and state officials to improve Derby-Milford Road and designate it as a non-truck route.		

## Improve Route 1 Operations

Route 1 is a major commercial area in Orange and operations along the roadway are challenged by the number of driveways and the number of conflicting turning movements. Many people have expressed frustration about the challenges along Route 1.

In response to this situation, the Connecticut Department of Transportation (CTDOT) undertook a project to change the configuration of a portion of Route 1 (near the West Haven line). As a result of that project, the road cross section was changed to include turning lanes and, in some places, to add a center lane which provides for left-turns in either direction. Orange should continue to advocate for the CTDOT to make improvements to the remaining sections of Route 1 to address congestion and safety issues.

In addition, Orange should adopt a provision in the zoning regulations requiring consideration of “access management” as part of plan approvals along Route 1. Such regulations can be used to encourage or require driveway sharing and/or interconnected sites in order to enable access to land uses while maintaining roadway safety and mobility. Over time, this will help create situations where people may be able to travel between sites on the same side of the road without having to exit onto Route 1 to turn into the next driveway. In addition, it may allow for the number of driveways to be reduced over time.

**New 5-lane Section  
(Center lane = 2-way left turn)**



**Older 4-lane Section  
(No Center Lane)**



Improve Route 1 Operations		
Suggested Policies	Leader	Partners
1. Continue to advocate for CTDOT improvements to Route 1.		
2. Manage access along Route 1 to promote safety and mobility.		
Suggested Initial Tasks		
3. Adopt an “access management” section in the Zoning Regulations.		

## Consider Traffic Calming In Residential Areas

The Town of Orange has fielded some complaints about traffic in residential neighborhoods.

Orange is located between the Naugatuck River valley communities (Derby, Shelton, Ansonia, Seymour, etc.) and communities along and near the shore (New Haven, West Haven, Orange, and Milford). Orange also is a conduit for traffic to and from Woodbridge and Bethany. As a result, quite a bit of traffic travels to and through Orange on a regular basis.

An evaluation of traffic volumes from CTDOT data does not seem to indicate that traffic volumes are an issue on local roads. Overall, the main issue appears to be one of traffic speed and behavior.

To help manage traffic flow through Orange, it may make sense to implement “traffic calming” techniques in the future where traffic speed is an issue. The following type of approach can help slow or reduce motor vehicle traffic and improve safety for pedestrians and bicyclists:

- Education - inform residents about how they as motorists can help to ease traffic impacts in their neighborhood through changes in behavior and attitudes, and informs them about neighborhood traffic management activities and opportunities
- Enforcement - enlist the assistance of the Police Department to focus enforcement efforts in key areas
- Engineering – the use of traditional traffic management measures as well as newer approaches, such as traffic calming

A thoughtful approach to implementing traffic calming is recommended. Without proper planning and appropriate use, some traffic calming devices can have unintended consequences and negatively impact residents, emergency responders, bicyclists and other road users.

Orange can take a pro-active approach to traffic calming, with a structured program which considers technical aspects such as traffic volumes, speeds, and proximity to neighborhood pedestrian generators, as well as public support for the project. This collaborative approach with residents seeks to preserve neighborhood character while solving traffic issues.

### Traffic Calming

According to the Institute of Transportation Engineers, traffic calming is the “combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.”

Consider Traffic Calming In Residential Areas		
Suggested Policies	Leader	Partners
1. Consider traffic calming in residential areas.		

## Possible Traffic Calming Techniques - Education

The primary purpose of education initiatives is to provide information that increases driver awareness and motivates people to alter their behavior.



**Neighborhood Meetings** - A neighborhood meeting can raise awareness of the issue and involve residents in identifying possible approaches.



**Neighborhood Newsletter** - A newsletter can share information about safety concerns, information on traffic speed and volume, and proposed responses. In addition, traffic and pedestrian safety basics can be covered.



**Radar Speed Sign** - These signs, which may be portable, use radar to provide motorists with an electronic display, alerting them if they are exceeding acceptable speeds.



**Signage** - Traffic signage, if warranted, can inform drivers of school zones, pedestrian activity, school crossings, and bike routes. Installation of stop signs for speed control or unreasonably low speed limits is not recommended.

## Possible Traffic Calming Techniques - Enforcement



**Speed Enforcement** - Enforcement of speed limits and other traffic laws in neighborhoods can help slow traffic and help police learn when and where to focus their traffic calming efforts.

## Possible Traffic Calming Techniques - Engineering



**Narrowing Travel Lanes** - Wide travel lanes can encourage faster travel speeds. Narrowing the travel lane through the use of pavement markings, landscaping, or curbing can calm traffic and provide space for pedestrians and cyclists.



**Textured/Colored Pavement** – Changing the texture / color of pavement for even a small area (or another type of “gateway” feature) can send a visual cue that a driver has entered a traffic-calmed area.



**Mini-Roundabouts** - A mini-roundabout is a street intersection feature which requires vehicles to slow down and navigate around the island in an intersection and yield to vehicles already in the roundabout.



**Temporary Constriction** – Temporary constriction of the travel lanes (curb extensions, bulb-outs, chicanes, etc.) will slow traffic and deter traffic whose destination is not in the neighborhood. These could be moved around as necessary.



**Permanent Constriction** – Permanent constriction of travel lanes (choker, chicane, etc.) will also slow traffic and deter traffic whose destination is not in the neighborhood. However, this can be an issue for snow plowing and emergency response.



**Speed Bump / Hump** – Temporary or permanent raised sections of roadway which can deter speeding and cut-through traffic. However, this can also create issues for snow plowing and emergency response.



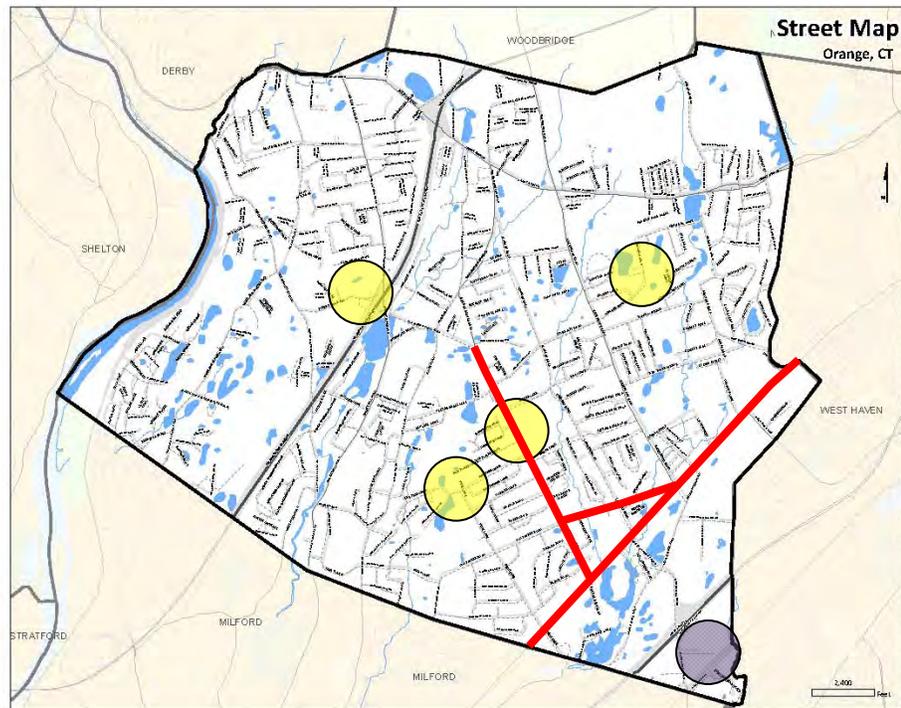
**Road Closure** – A partial closure (diverter) or a full closure should only be used as measures of last resort and only considered if other less restrictive physical measures have failed.

## Consider Providing For Pedestrians

Orange does not presently have much in the way of an organized system of sidewalks or pedestrian trails. As a result, there is not as much pedestrian activity as is evident in similar communities.

During the planning period, Orange may wish to consider the possibility of establishing:

- A sidewalk system along both sides of Route 1 to allow for people to walk between nearby properties,
- A sidewalk connection from Route 1 to the Old Tavern Road Recreation Area,
- A sidewalk connection from Orange Center (or the High Plains Community Center) to Old Tavern Road and Route 1,
- Sidewalks near the proposed train station and Yale West Campus,
- Sidewalks near local schools and the community center, and/or
- A trail system within and between open space areas.



Consider Providing For Pedestrians		
Suggested Policies	Leader	Partners
1. Consider making more provision for pedestrians.		

## Consider Providing For Cyclists

In recent years, there has also been increased interest among Connecticut residents in bicycle usage for recreation, occasional errands, and even for commuting.

The Connecticut Department of Transportation created a statewide database which classifies state highways by potential suitability for bicycle usage (the map may be found on-line at <http://ctbikemap.org/bikemap.html>). That classification system considers traffic speed and the width of the roadway shoulder area to suggest potential suitability. Orange may wish to enlist a committee comprised of local cyclists to look at local streets and establish a comparable system of bicycle routes in Orange, coded by potential suitability.

Orange may also wish to pursue designation as a bicycle friendly community. An organization called League of American Bicyclists evaluates and designates communities that apply for bicycle-friendliness. In Connecticut, Simsbury (bronze) and South Windsor (bronze) have been so designated.



<b>Consider Providing For Cyclists</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Consider bicycle usage when undertaking roadway projects.		
2. Encourage provision for bicycles in public and private activities.		
<b>Suggested Initial Tasks</b>		
3. Inventory and categorize roads for potential suitability for bicycles.		
4. Consider pursuing designation as a bicycle friendly community.		

## Promote Transit

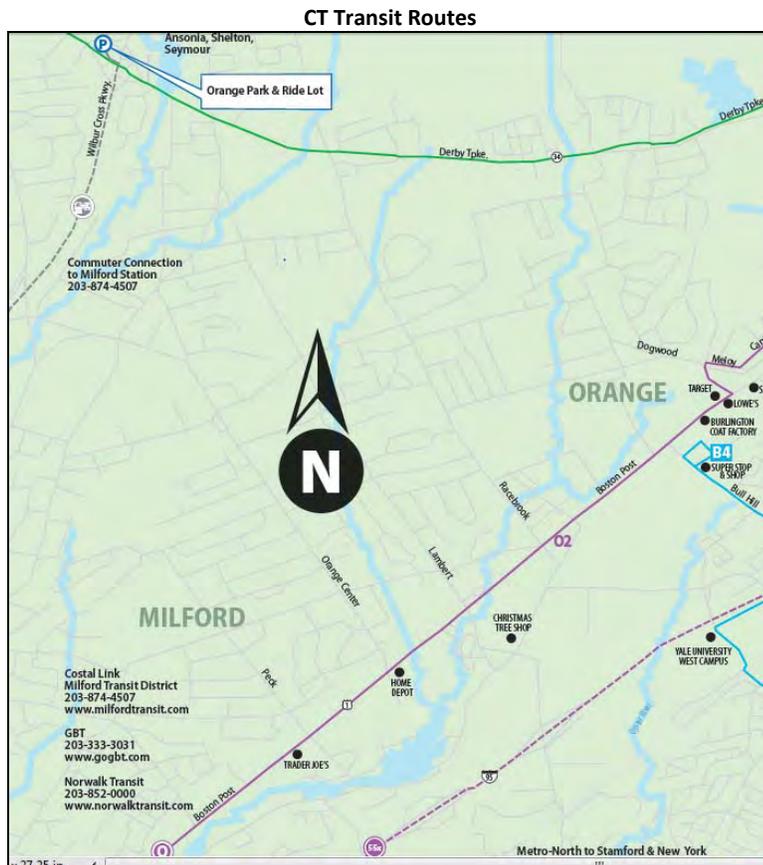
Having transit available within a community provides transportation choices for people who might not otherwise be able to get around. This can benefit local workers and local businesses as well as the young, the old, and the disabled.

### Bus Transit

At the present time, Orange is served by the Connecticut Transit system (CT Transit) as follows:

- F-6 Route— Service between New Haven and Seymour via Route 34
- O-2 Route – Service between New Haven and Milford via Route 1
- B-4 Route – Service between New Haven and West Haven via Bull Hill Road

These routes can help address transportation needs of residents and businesses and should be maintained and enhanced.



### Train Service

The Metro-North Rail Line, which provides train service between New Haven and Grand Central terminal in New York City, runs through Orange. However, there is not a rail station in Orange at the present time. The Connecticut Department of Transportation recently opened a rail station in West Haven and is considering the possibility of opening a rail station in Orange. The addition of a rail station would be of significant benefit to Orange residents and businesses and should be supported.

### Dial-A-Ride

The Community Services Department provides rides to the elderly and people with disabilities for medical appointments, the Senior Center, local shopping centers, and personal errands (if time allows). The three “lift-equipped” vehicles provide about 3,500 trips per year. This service should continue to be provided.

### Commuter Parking / Transportation Demand Management

There is a commuter parking lot in Orange on Greenway Road (at the Route 34 / Wilbur Cross Parkway interchange). Orange should advocate for additional park and ride facilities at appropriate locations (such as the I-95 interchange at Marsh Hill Road) to reduce single occupancy trips.

The Town and local employers should encourage and provide incentives for carpooling, use of mass transit (including bus shelters), walking and biking, flexible working hours, compressed work weeks, and telecommuting.

<b>Promote Transit</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Encourage maintenance and enhancement of CT Transit bus service.		
2. Support establishment of a rail station in Orange.		
3. Maintain dial-a-ride services for those who need them.		
4. Support establishment of additional park and ride lots.		
5. Encourage carpooling, use of mass transit, walking and biking, flexible working hours, compressed work weeks, and telecommuting.		
<b>Suggested Initial Tasks</b>		
6. Consider ways to establish bus shelters along Route 1.		



# UTILITY INFRASTRUCTURE

## Overview

The availability of utility infrastructure – water, sewer, electricity, and communications, for example – has a significant influence on overall public health, safety, welfare, and quality of life. Even though some of these utilities may be provided by private companies, their availability is important for residents, businesses, and visitors to Orange.

The Plan of Conservation and Development looks at the availability of these utilities (both capacity and location) to ensure they are adequate for community needs.

**Public Water**



**Public Sewer**



**Electrical Service**



**Wireless Communications**

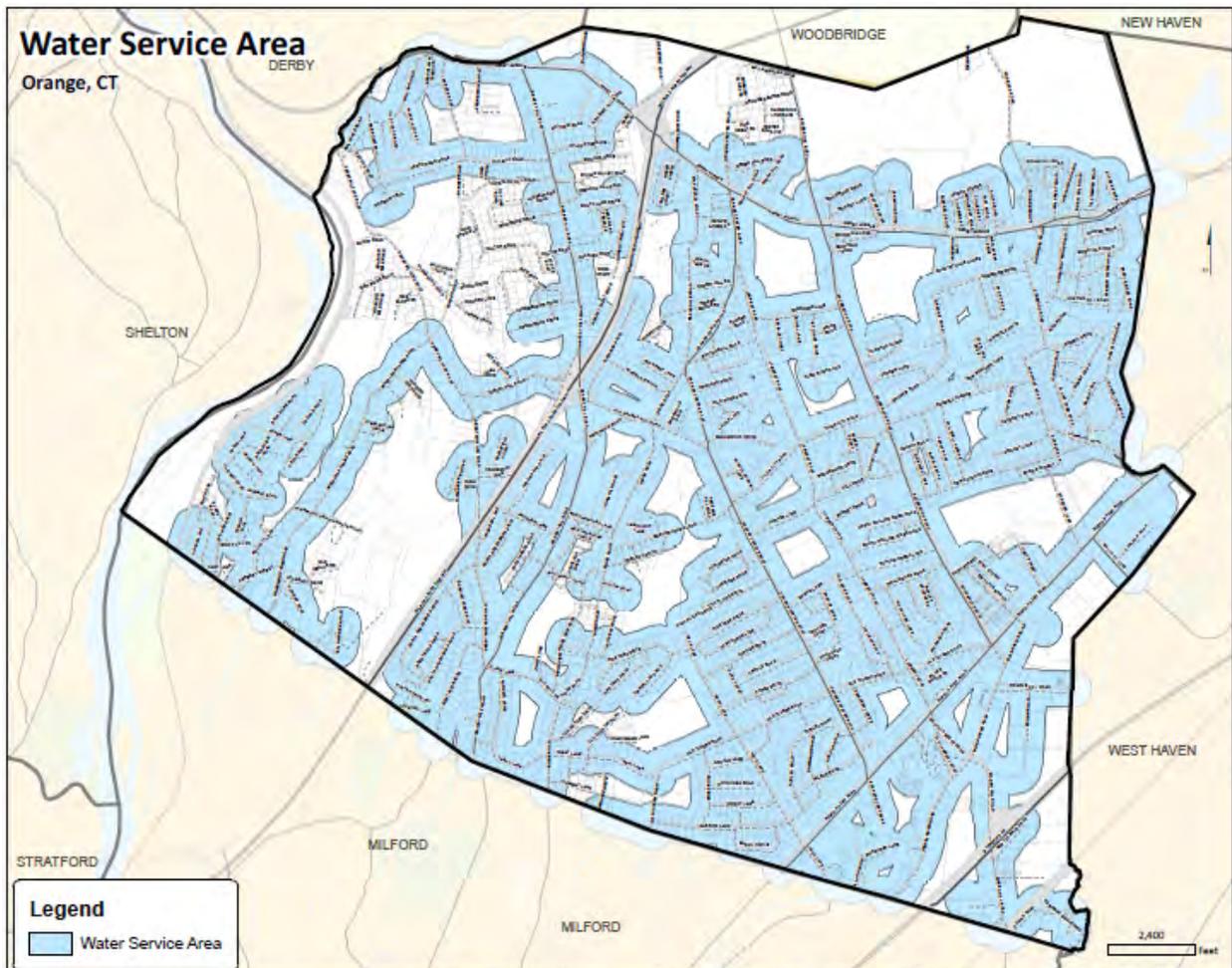


## Extend Water Supply

Much of Orange is served by public water provided by the South Central Regional Water Authority (SCRWA). Water quality is reported to be good and adequate capacity exists to supply additional customers in all service areas. The availability of an adequate water supply to help meet domestic needs and fire protection needs is extremely valuable.

Expansion of water service is most likely to occur as part of new development or specific projects to address system issues.

Although no expansion is planned by the SCRWA at the present time, opportunities to expand the service area (and interconnect water lines) should be explored.



At the present time, Section 382-22 of the Subdivision Regulations indicates the following:

A. Water supply. Public water supply shall be provided to all lots when located within an area served by public water supply. For proposed lots in an area not presently served by public water, the preferred option is to provide public water to all lots in the new subdivision by extending the public water service area. In the event the Commission finds, based upon evidence submitted by the applicant, that the extension of public water lines would pose extreme difficulty, the Commission may, at its own discretion, consider the following alternative: Provide each individual house with fire sprinklers in a design approved by the Fire Marshal of the Town of Orange. The Plan and Zoning Commission shall make the final determination if the applicant has sufficiently demonstrated that it would be extremely difficult to extend the public water lines after receiving input from the Regional Water Authority, the Fire Marshal, and the Director of Health or his agent. Use, location and design of individual on-site wells on lots shall be approved by the Director of Health of the Town of Orange, or the authorized agent of the Director, in accordance with the State Public Health Code.

The Commission should continue to require or strongly encourage the extension of public water as part of new developments.

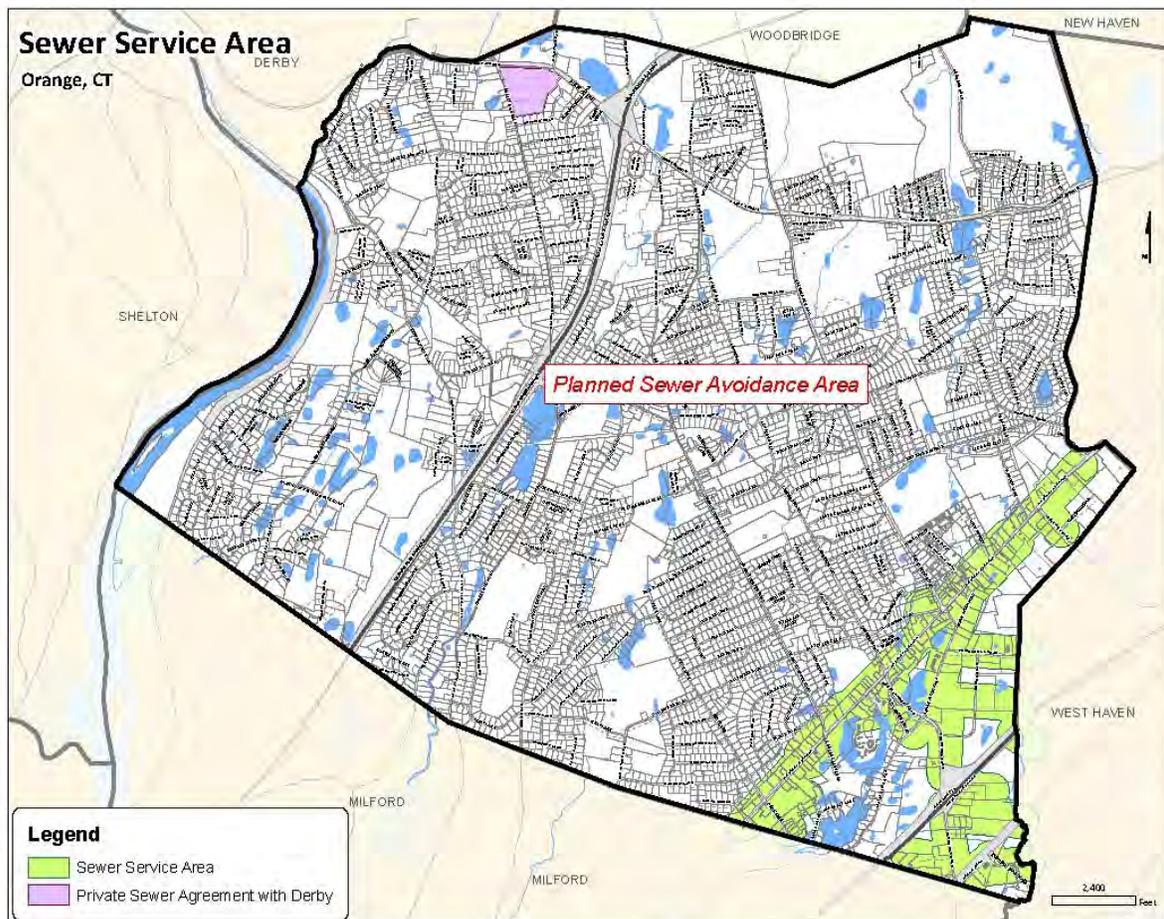
Protection of water quality, which is also important, was addressed in the "Possible Conservation Strategies" booklet (Report #5).

<b>Extend Water Supply</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Require and/or strongly encourage the extension of public water supply in Orange.		

## Manage Sewage Treatment

Practically all residential areas in Orange utilize on-site septic systems to treat sewage waste. This arrangement is the primary reason behind the minimum lot size requirements in residential districts since a lot must be capable of accommodating a primary septic system as well as a reserve area in the event the septic system needs to be repaired or replaced.

It is the long-term goal of the Town to continue this approach and ensure these septic system areas are “sewer avoidance” areas in the future. To help do this, Orange may wish to consider establishing a septic management program whereby all septic systems in Orange are required to be pumped and inspected on a regular basis (say once every three years) to ensure they are functioning correctly.



Two areas in Orange are not served by septic systems.

One area is the “Economic Area” along the Post Road (Route 1) and areas south. The Town of Orange entered into an Agreement with the City of West Haven in 1985 whereby the Town can send up to one million gallons per day (1.0 MGD) of sewage waste to the West Haven treatment facility for treatment and discharge. At the present time, Orange is only using about 350,000 gallons per day to serve the uses in the “Economic Area.” As a result, Orange appears to have ample capacity to serve the buildout potential within this area and to otherwise meet community goals.

During the planning period, it may make sense to consider expanding the sewer service area to include areas near the Post Road in order to help accommodate new land uses or promote new development patterns. This was done in 1991 as part of an amendment to the Agreement between Orange and West Haven.

There is another area of sewer service in Orange as well. The “Fieldstone Village” development at the corner of Grassy Hill Road and Route 34 entered into a private arrangement with the City of Derby but this arrangement was limited to that specific development.

<b>Manage Sewage Treatment</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Continue the use of septic systems in most areas of Orange.		
2. Promote “sewer avoidance” in most areas of Orange.		
3. Maintain sewage capacity at the West Haven treatment facility to help accommodate land uses in the “Economic Area”.		
4. Maintain sewage capacity at the West Haven treatment facility to help accommodate new land uses or promote new development patterns where desired in Orange.		
<b>Suggested Initial Tasks</b>		
5. Consider establishing a septic management program.		

## Improve Storm Drainage

Storm drainage is not often thought of as a utility (since property owners typically do not pay for it) but it is part of the infrastructure system we rely upon to support our overall development pattern.

The challenge with the overall drainage system in Orange is that increasing development (impervious coverage) over time has increased the amount of runoff and increased the peaking of runoff. Both of these situations have resulted in downstream flooding problems and resulted in the need for expensive solutions. There has also been growing awareness of the impacts of stormwater runoff on water quality.

The “Possible Conservation Strategies” booklet (Report #5) suggested that “low impact development” strategies would be appropriate for Orange to consider. These strategies seek to more closely mimic the way that the natural water cycle works by recharging groundwater at the place the raindrop falls rather than attempt to collect it, accumulate it, and then discharge it.

**Typical Drainage Outlet**



**LID Approach (Rain Garden)**



<b>Improve Storm Drainage</b>		
<b>Suggested Policies</b>	<b>Leader</b>	<b>Partners</b>
1. Address storm drainage issues in Orange.		
2. Transition over to an LID-based drainage approach.		
<b>Suggested Initial Tasks</b>		
3. Incorporate LID stormwater management standards into land use regulations.		

## Encourage Extension Of Natural Gas Service

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Natural gas service is available in some areas of Orange and service is provided by Southern Connecticut Gas (SCG). Yankee Gas Service Company provides gas service in Derby and so some of their gas lines are located along Route 34.

Natural gas is desired by more customers these days since prices have dropped in recent years. In addition, people have found that natural gas appliances can be available (heating, cooking, bathing, etc.) even when electrical service might be interrupted following a storm. Orange should encourage the extension of natural gas service within the community so that residents have a choice of energy systems.

Encourage Extension Of Natural Gas Service		
Suggested Policies	Leader	Partners
1. Encourage and the extension of natural gas service in Orange.		

## Maintain Electrical System Reliability

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As society has become more dependent on electronic devices, the reliability of the electrical system is an important consideration. The electrical distribution system is most vulnerable in areas where the electrical wires are overhead. While new electrical service must be underground in Orange, a number of areas are served by overhead wires.

Since it is likely to be too expensive to relocate the electrical wires underground, the utility companies will seek to trim vegetation to maintain reliability. This can have an impact on the overall character of the community. Orange should continue to seek an appropriate balance between electrical reliability and community character.

Maintain Electrical System Reliability		
Suggested Policies	Leader	Partners
1. Continue to seek an appropriate balance between electrical reliability and community character.		

## Continue To Improve Communications

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Telephone service (“land line”) and cable television service is presumed to be available to all properties in Orange. As a result, people have the ability to communicate with others and/or receive communications should they choose to do so.

In this day and age, more and more people are relying on wireless devices to communicate because of the convenience involved. It can also enhance public safety since people are more likely to be in a situation where they can call for assistance or be located. Ensuring that Orange has reasonable wireless communications service availability will be important to the overall quality of life in the community.

The Connecticut Siting Council has jurisdiction of new wireless towers except “municipal towers” (towers to be established by or for a municipality) and panel arrays established on or within existing structures.

Orange’s Zoning Regulations include standards for telecommunications facilities, which provide standards for facilities not subject to State jurisdiction.

In the future, it is anticipated that there will be growing interest in “backfilling” between existing cellular towers in order to improve overall service availability in areas that need it and to avoid capacity constraints due to increased demands on bandwidth or tower capacity.

Orange should seek to balance the demand for wireless services and the public safety benefits with the visual and other impacts of new installations.

Continue To Improve Communications		
Suggested Policies	Leader	Partners
1. Encourage the maintenance of telephone service.		
2. Encourage the maintenance of cable television service.		
3. Seek to balance the demand for wireless services and the public safety benefits with the visual and other impacts of new installations.		

