TOWN OF BARRE

Municipal Bldg.
Lower Websterville, VT 05678
802/479-2595

☐ Planning Commission
☐ Development Review Board
☐ Zoning Administrator

CERTIFIED MAIL

September 20, 2016

TO: Planning Commissions of the following:
(or Clerk of the municipality)

City of Barre, 6 North Main Street, Barre, VT 05641
Town of Williamstown, P.O. Box 646, Williamstown, VT 05679
Town of Berlin, 108 Shed Road, Berlin, VT 05602
Town of East Montpelier, P.O. Box 157, East Montpelier, VT 05651
Town of Plainfield, P.O. Box 217, Plainfield, VT 05667
Town of Washington, 2895 Vt. Rt. 110, Washington, VT 05675
Town of Orange, P.O. Box 233, East Barre, VT 05649

Executive Director, Central Vermont Regional Planning Commission, 29 Main Street, Suite 4, Montpelier, VT 05602

Commissioner, Department of Housing and Community Affairs, 1 National Life Drive, Davis Building, 6th floor, Montpelier, VT 05620-0501

FROM: Chris Violette, Planning Director

Enclosed please find a copy of proposed amendments to chapter 3 (transportation, sections 3.1,3.2,3.3,3.4), chapter 5 (preservation, sections 5.2 & 5.8) chapter 8 (energy, sections 8.3 & 8.5,) of the Town of Barre Municipal Plan. Also please be advised that the Town of Barre Planning Commission will hold a Public Hearing on these amendments in accordance to VSA 24 § 4384 (d) on Wednesday, October 19, 2016 at 7:00 p.m. in the Selectboard meeting room at the Town of Barre Municipal Building 149 Websterville Road, Barre, VT.

This Plan has been amended under the requirements of VSA 24 § 4384. The plan as amended makes no significant changes that would alter the plan being consistent with the goals of VSA 24 § 4302.

We encourage all of the above parties to submit comments or attend the public hearing.

Respectfully,

Chris Violette

Chris Violette
Planning Director

Report

Amendments to the plan relate mostly to energy, either the conservation of it or handling renewables. The proposed amendments also include additional language that enhances our efforts to preserve views and vistas important to Barre Town. This can be found in both sections 5.2 and 5.8 of chapter 5.

Chapter 3, transportation simply adds language that encourage the reduction of fossil fuel use and promotes bicycles, rail, and, shared commuting

Chapter 5, section 5.2 identifies areas important to Barre Town with regard to views and vistas and why the preservation is important for promoting the health and welfare of Barre Town. Section 5.8 identifies areas that are scenic in nature and limits development if of a certain size.

The Town of Barre, like many other Vermont communities, has struggled to find the right balance between supporting renewable energy and protecting our residents and the valuable assets of our community. As stated in the first line of the Town plan under section 8.5, Barre Town continues to support renewable energy. However, The Town of Barre has seen a significant spike in the development of solar generation plants and while solar is a very important contributor to renewable energy; it does not come without impact. As a result of this new found interest in the Town of Barre for solar development, the Planning Commission is proposing changes to chapter 8, especially section 8.5 renewable energy.

Proposed changes to chapter 8 include:

section:

8.3 – Promote energy conservation, commuter lots, charging stations, use of rail, and professional energy assessments.

8.5- Support renewable energy projects as long as they represent orderly development

To clarify the plans position that the extension of overhead 3-phase power into more rural areas to accommodate renewable energy is a negative impact with regard to aesthetics and is not allowed.

That the most appropriate location for solar arrays is on roof-tops and existing impervious surfaces. Also to encourage the use of existing topography and vegetation to help mitigate views of solar arrays and to avoid the use of agricultural lands for solar development.

Adds a good neighbor policy so that a landowner developing solar doesn't mitigate their own impacts by placing them on a neighbor.

Creates siting requirements for solar projects less than 15kW and projects larger than15kW.

Prohibits private solar development in the Wilson Industrial Park.

Prohibits solar projects larger than 500kW.

Suggest that the Town of Barre create a solar overlay district.

Requires a decommissioning plan.

3. TRANSPORTATION

3.1 HIGHWAY PLAN

Highways form the backbone of the transportation system in Barre Town. Proper location, design, construction and maintenance of this important public investment are essential if economic vitality, environmental preservation and quality of life are to be assured for the Town's citizens. A properly designed highway system contributes directly towards the environmental goal of reducing highway miles traveled using fossil fuels.

The Selectboard maintains an ongoing five-year highway improvement plan that contains specific projects and priorities. Since this is updated on a yearly basis, the improvement plan was not included in this Plan. Those interested in the Highway Improvement Plan should contact the Town Manager's Office.

In 1991, the Selectboard adopted a Highway Ordinance intending to assure new roads are built in accordance with sound engineering practices to protect existing roads from overweight vehicles and to clarify responsibilities for class 4 roads and trails.

Highways are classified first as urban or rural, and then into one of four functional categories: controlled access highways, arterial, collector and local. Controlled access highways and arterials are main roads whose primary purpose is the efficient movement of vehicles. Collector highways feed the arterial system and also provide land access to a significant degree. Local highways are primarily oriented toward land access.

Most of the roads in Barre Town fall into the local classification but a significant number are also collectors or arterials. For example, Cummings Road and the Plainfield Brook Road are both Class II roads but in addition, traffic counts indicate that the roads carry high volumes of traffic to/from Plainfield.

- These roads should be reviewed in the future as collector highways needing improvements. A few of the Town highways and all of the State highways passing through Barre Town are classified arterials.

The Selectboard formed the Ancient Roads Committee on January 29, 2008. This committee is designed to research roads which have fallen from use 150 years ago, and over which legal rights for a road remain over the property. The Vermont State Legislature which is trying to clear up this dilemma for towns and property owners. This committee has been researching to declare right-of-ways on all ancient roads in the Town. These roads will be reclassified or retained by the Town at this time.

Federal and State Highways

Two US highways and three State highways lie within Barre Town. With the exception of a short US RT 2 segment which connects to no town highway, these arterial highways are the principal means of access in and out of Barre Town. They provide the principal travel routes for inter-town trips whether for work, shopping or entertainment. Although these highways are of great significance to the Town, maintenance and construction of them is the responsibility of the state. There are 11.572 miles of US and State Highways in the town. US and State Highways within Barre Town are illustrated on the region map in the map section of this document (Map 1).

• US RT 302, arterial highway, runs generally east and west passing through East Barre Village. To the west, it provides a connection to Barre City and access to Berlin and Montpelier. To the east, it runs through the Town of Orange and provides access to the Connecticut River Valley and New Hampshire.

• US RT 2, an arterial, provides a link between Montpelier and St. Johnsbury, has a very short segment which passes through the northwest corner of the Town.

• VT RT 14, an arterial, runs north and south through Barre Town and Barre City. RT VT 14 serves as a vital link

between the northern half and the southern half of Barre Town. It connects to Williamstown and points south, and in the north it provides access to East Montpelier where it intersects US RT 2.

• VT RT 63, an arterial, is better known as the South Barre Access Road and provides important linkage to Interstate 89 (a freeway). VT RT 63 is the only controlled access highway within Barre Town. Access is prohibited except at approved public highway intersections.

• VT RT 110, a collector highway, provides access to the Town of Washington south of East Barre.

Town Highways

The town highway system is the network of roads that all town residents rely on for personal land access, travel to other places within the Town, convenient travel to adjacent towns and connection to the State highway system. All town highways are categorized into one or another of the following classes for the purpose of receiving highway aid:

Class 1 Highways

There are no Class 1 town highways in Barre Town.

Class 2 Highways

Are considered the most important town highways and serve as trunk routes within the Town and between Barre Town and surrounding towns. They are generally the more heavily traveled routes in town. They have an all-weather surface, and provide links between major business and residential centers within town. The Selectboard determines which highways will be designated as Class 2, subject to approval of the State Transportation Board. There are 21.56 miles of Class 2 highways in Barre Town.

Class 3 Highways

Are all traveled highways other than Class 1 or 2. The Selectboard, after conference with a representative of the State Transportation Board, determine which highways will be designated Class 3. Construction and maintenance of Class 3 Town Highways is the primary responsibility of Barre Town but state highway aid is provided to assist in the expense. There are 73.62 miles of Class 3 Town Highways in Barre Town.

Class 4 Highways

Are all other town highways and pent roads. The Selectboard determines which highways will be designated Class 4. There are currently 4.89 miles of Class 4 roads in Barre Town.

Town Highway Bridges

Providing safe and adequate bridges for the highway transportation system is extremely important.

- Adequate periodic maintenance of bridges is essential to avoid catastrophic or costly loss. There are two bridges and 22 major culverts on Barre Town highways. The two bridges are both located in South Barre, one on Snowbridge Road the other on Bridge Street. Long in need of replacement, the Bridge Street Bridge was replaced by the State of Vermont in 2013. Barre Town paid 5% of the total cost.
- Continued maintenance and inspection of bridge and culverts is necessary to ensure an adequate and safe transportation network.

Legal Trails: There are 1.06 miles of legal trails in the Town. The Selectboard is reviewing unidentified corridors for possible inclusion into the Highway system.

Town Highway System Deficiencies (Map 6)

- Identification and prioritization of system deficiencies is necessary to guide Town officials in the effective use of limited highway budgets. Top priority should be placed on projects which will preserve the existing facilities and enhance safety. Periodic inspection of roads and bridges should be carried out to determine those needs. Periodic bridge inspections by the State Agency of Transportation provide critical maintenance information on structures. These activities should continue. In addition, the Town should continue the formal pavement management system to assist in making optimal use of limited resources.

- Secondary priority should be given to those projects which will relieve congestion and provide greater capacity. Identification of those needs requires careful consideration of many factors, including current system capacity, present and future growth, desired lines of travel, and sources and availability of funds, character of the area (i.e. residential neighborhoods). Several alternatives should be investigated in finding solutions to a given problem, and public input into the location and design processes should be actively solicited.

- Present deficiencies which are presently apparent involve the efficient movement of people from major population centers within town to the major arterial highways in the area. Most significant examples are: (1) travel between the Websterville/Graniteville area and I-89, (2) travel between the Websterville/Graniteville area and VT RT 14 in Barre City, and (3) travel between the Trow Hill area and US RT 302 in Barre City.

- Another present deficiency involves travel between the northeast portion of Barre Town and US RT 2 in Plainfield. The improvement of US RT 2 and VT RT 14 in the East Montpelier area may provide an attractive alternative to the present unpaved rural roads connecting these areas. The intersection of VT RT 63 and Miller Road continues to be a high accident location. The Town would like to work with the State of Vermont to figure out a remedy which would increase safety at this site. VT RT 14/Bridge Street/Sterling Hill Road intersection is also a high crash location. Plans are well in the works to perform a slight realignment and make overall improvements to the intersection including signalizing. Finally, Mill Street at VT RT 110 is currently a Y intersection which makes for poor sight distance. Plans call for this intersection to be realigned into a T. All of these projects are important to and highly supported by Barre Town with regard to safety and economic development. It is hoped that the State of Vermont will make these improvements a high priority.

- In addition to these deficient categories, system needs may arise as a result of planned development. These needs should be carefully analyzed to ensure that the developer is assessed a fair share of the costs of needed improvements. All such improvements should be constructed to the Town's established standards.

Recommendations for Future Improvements

- Future improvements to the Town Highway System may come about as a result of relocation or widening of existing facilities or as a result of new development. Relocation or widening should be done within existing rights-of-way whenever feasible. It should be accomplished with minimal disturbance to homes, businesses, streams, ponds, wetlands, schools and public recreational facilities and to important historic and archaeological resources. Highway location and construction should also be accomplished in such a way as to minimize encroachment on agricultural and significant forest areas, and with minimal adverse impact on ground water, scenic trees and vistas. Conservation of resources should be a goal in all highway construction and rehabilitation. The reuse of pavement grindings for surfacing shoulders or parking lots is to be encouraged. New roadways which will eventually be taken over by the Town should adhere to the same location, design and construction standards as indicated above.

3.2 ACCOMMODATION OF TRUCKS, BICYCLES, AND PEDESTRIANS

Trucks

It is important that adequate highways be provided to support safe and efficient truck travel because trucking is vital to the economic vitality of the Town. Therefore, it is necessary to identify those routes principally used by trucks to

ensure that they are properly constructed and maintained for safe use by everyone.

Principal Truck Routes

The principal truck routes on Town highways are (list may not be inclusive):

No excess weight permits necessary (Legal Load Same as State Highway (LASH)):

Quarry Hill Road; Graniteville Road (to #773); Websterville Road; Pitman Road; Parker Road;

Others that would require an excess weight permit:

Farwell Street; Pine Hill Road; Plainfield Brook Road; East and West Cobble Hill Road; Windywood Road; Cummings Road; Hill Street; Airport Road; Upper Prospect Street; Morrison Road; Bridge Street; Church Hill Road; Cogswell Street;

Excess weight permits are issued by the Town Manager.

Bicycles (Map 5)

This section deals with shared use of roads between vehicles and bicycles, not bike paths. Bicycles provide a clean, economical and energy efficient mode of transportation. They are a primary means of transportation for many and have become an increasingly popular form of recreation and transportation for adults. The hilly terrain found in much of the Town does not encourage long, cross-town trips. Therefore, in addition to the limited bike paths that have been constructed to accommodate bicycles, safe and convenient bicycle routes encompassing Town roads should be provided or developed in the Town.

Bicycle traffic can be expected on nearly all, if not all, of the highways within the Town. The reasons for bicycle trips range from commuting to recreational. The commuter rider desires the most direct route with few interruptions, whereas the recreational rider is riding for pleasure and a specific route has less importance. Riding ability differs greatly among bicyclists. Some feel comfortable riding on a busy highway, other riders prefer to ride on a quiet street or rural road.

The planning and design of bicycle facilities whether they are improvements to existing highways, provisions included in new highways, or separate exclusive routes for bicycles need to accommodate a broad range of bicyclists.

- Designating certain roadways as principal bicycle routes can be effective in discouraging bicycle traffic on otherwise hazardous roadways. The principal routes must be generally hazard free in order to encourage the more serious rider to take a less direct route.

- Some bicycle paths are physically separated from the highway and can be either within the highway right-of-way or within a separate right-of-way. If bicycle paths are less than 5 feet from highways, physical barriers such as fences or guardrail should be considered in order to divide the two distinct facilities.

- There is no completed bicycle route network within the Town. Most of the highways used by bicyclists do not have sufficient shoulder width to safely accommodate them. Most of those highways which do have wider shoulders do not have markings or signs delineating a preferred bike route.

Recommendations for Future Improvements

- The Town should identify roads that would be conducive to bike travel that also fit into a master plan of creating interconnected bike routes.

- Future improvements should begin with a needs analysis; facilities should be developed based on the results of

this study, as well as accessibility to existing and future facilities in adjoining communities; routes should be located to improve accessibility to natural, scenic areas and bicycle traffic generators such as schools, parks, playgrounds, and major employment centers;

- New roadways which are built and existing roadways which are improved should include provisions to safely accommodate bicycles. Old railroad beds and Class 4 Town Highways provide excellent opportunities for bike routes.

- Bike path from East Barre to the elementary school created.

- Both State and Federal funds are available for construction of bike paths. Cost of long-term maintenance and overall safety of all path users should be considered during the review process of any proposed path, as well as community benefits.

- Parking areas for vehicles should be conveniently located along bike routes to accommodate both the recreational rider and the commuter; this is an important consideration given the steep grades which separate much of the Town as well as separating the Town from neighboring communities. Consideration should also be given to a parking area at the bottom of Richardson Road or one in the Cobble Hill area for scenic rural trips. A well planned bicycle path system, with multiple nodes connecting to vehicle park-n-ride will allow residents to minimize their use of fossil fuels.

- Any new bike path should be planned with consideration for additional width, signing, and striping in order to facilitate sharing the facility with bicycles, pedestrians, and joggers.

- A bicycle path connecting the Trow Hill area to the Websterville area should be planned and constructed.

- Adding a bicycle corridor along Route 14 using existing right-of-ways should be considered.

Pedestrians (Map 5)

Pedestrian walkways are an important and integral part of the transportation system.

- The construction of these facilities should be considered for the safety and convenience of pedestrian and vehicular traffic.

- These byways should be provided for in those areas where the volume of traffic warrants the cost and utilization of land for them.

Sidewalks are the most formal means of delineating walkways to separate pedestrian and vehicular traffic. They are generally needed in areas of moderate to high density development. These facilities are found in a wide variety of types as to width and surface materials and should be designed in accordance with acceptable standards to satisfy traffic volumes.

- Sidewalk improvements should be planned at the same time that road improvements or other construction projects are planned.

Footpaths are informal pedestrian walkways which may be utilized to move traffic between points or as nature trails and other recreational purposes. These paths generally have specific uses and are not necessarily associated with the need to separate pedestrian and vehicular traffic. Easements should be acquired or dedicated and maintained for the public use of these footpaths.

Shared use paths serve as part of a transportation circulation system and support multiple recreation opportunities, such as walking, bicycling, etc. Shared-use paths should always be designed to include pedestrians even if the primary anticipated users are bicyclists.

Recommended Future Improvements

- Future improvements may be either in the form of reconstruction of existing transportation facilities or new development.

- Consideration should be given to pedestrian needs, such as provision of wider, raised sidewalks, in the case of reconstruction or relocation of existing highways. The design of highway projects should include an analysis of pedestrian byway needs.

- All new and reconstructed sidewalks should include appropriate ramps at crosswalks and side streets to allow their use by the mobility impaired.

- Sidewalk Improvement - There are areas of the Town that are deficient in providing facilities for pedestrian traffic. Areas of primary concern are South Barre along VT 14 beginning at the existing sidewalk (at the intersection of Sterling Hill Road) north to Barre City at Parkside Terrace and south from the end of the existing sidewalk to Kings Row near the Williamstown town line and also along Richardson Road from the City line northerly to the intersection of Misty Mountain Drive.

Additional areas that should be incorporated into a study of pedestrian traffic facilities are along the through highways in East Barre, Bridge Street to the bridge, Upper Graniteville and Upper Websterville. East Barre is currently being studied for a sidewalk project on Mill Street from VT RT 110 to intersection of Websterville Road and then along Websterville Road to the post office.

3.3 PUBLIC TRANSPORTATION

Public transportation facilities in Barre Town are limited and the terrain of the Town is not conducive to many types. The three types of most significance to Town residents are discussed in the following paragraphs.

Air Transportation

Air transportation services are available at the Edward F. Knapp State Airport in Berlin and the Burlington International Airport in South Burlington. Access to the latter is attained primarily by Interstate I-89. Access to the E. F. Knapp Airport is gained most directly by use of Airport Road and Morrison Road (TH 7). Timely and adequate maintenance of these two routes is very important for a large number of Barre Town residents for airport access and for access to the hospital and shopping mall in Berlin. A twenty year plan for the airport was recently completed. It includes provisions for major improvements and expansion in the future.

Rail Transportation

Passenger transportation via Amtrak is available to Town residents in nearby Berlin. This rail access provides service south to the eastern U.S. seaboard and north to St. Albans. Passenger service within The town itself is not considered feasible at this time.

Rail freight service is presently available via the New England Central Railroad to the Websterville and Graniteville areas. Use of those facilities for hauling granite other heavy industrial products into Barre City and beyond has the potential to relieve the Town highway system of much wear and tear. Moving large, bulky products by rail is far more energy efficient than using truck transportation.

- Continued and expanded use of such facilities should be encouraged.

- Industrial growth should be encouraged primarily in those areas currently served by or close to rail transportation. As demand for rail service develops, the frequency of rail pick-up will increase, making rail transport as reliable as truck transport.

- A common unloading/loading area along the rail line in the Wilson Industrial Park should be explored to allow greater access to the line for business located within the park.

School and Commercial Bus Transportation

School bus transportation for Barre Town Middle and Elementary School students is currently provided at Town expense. This service benefits the Town in several ways. It provides a safe and dependable way to pick up and transport children to school, it is more economical than transportation of children by private automobile, and it reduces the amount of traffic congestion and air pollution which would result from private automobile transportation.

- Although private transportation to the school is becoming more popular, for all the reasons listed previously, public busing should continue to be a high priority.

Public bus transportation services are provided locally by GMTA (Green Mountain Transit~~portation Authority~~) and other privately owned bus/van companies.

Commuter Services

The State of Vermont currently operates several commuter or ride share parking lots in the area. There is one such lot located along South Barre Road (VT RT 14) in South Barre near VT RT 63 and another just west of East Barre along US RT 302. VTrans also provides ride share parking lots in the adjacent communities of Berlin, Montpelier, East Montpelier, Orange, and Williamstown. This leads to a reduction in vehicle miles traveled.

~~The~~ Green Mountain Transit ~~Authority~~ currently operates a ride share pool and the Wheels Program for seniors. These types of programs greatly increase the mobility of Barre Town residents who are limited in their personal resources or access to family vehicles. This also reduces the demand of private vehicle use and its associated fossil fuel use.

- ~~The~~ GMTA should be encouraged to continue its services and if possible expand them in the future as funding becomes available. One such beneficial expansion to consider would be expanding bus service into South Barre

Other Transportation Proposals

The Town may also wish to look into the following:

- Study functional efficiency of highways as well as quality/materials standards;
- "Flex-time" – staggered work hours at granite manufacturing facilities and Industrial Park businesses to reduce peak hour congestion;
- Specific intersections and roads which need improvements to improve traffic flow/safety and efficiency;
- Support improvements to the Beckley Hill/US RT 302 intersection;
- Continue to support and be involved with the Quarry Hill Road/Quarry Street Intersection upgrade at South Main Street (RT 14) which is proposed for construction in 2016;
- Add Traffic Safety Committee review requirements to Subdivision Regulations;
- Include a review of engineered traffic and warrants for signals
- Developers putting in new roads should continue to pay for stop, speed limit and street signs and traffic

signals as warranted. This should be required as a condition to subdivision approval;

- Developers putting in new curb cuts from driveways should utilize shared driveways design whenever possible to eliminate curb-cuts off the roadways.

- The Town should encourage developers of commercial solar arrays to incorporate a plan to install public access charging stations within Town limits.

- The Town should encourage businesses within the community to install charging stations.

3.4 TRANSPORTATION GOALS

- Preserve existing roads, bridges, and culverts by regular maintenance and continued inspections.
- Maintain the formal road plans to ensure good quality roads and to help make optimal use of limited resources.
- Explore whenever practical ways to help reduce deficiencies as noted herein.
- Road projects should have minimal impact to the public, natural resources, and recreation.
- All new Town roads developed to a standard as called for by Town Code.
- Plan road projects with bicycles and pedestrians in mind.
- Encourage and support public transportation initiatives.
- Encourage residents to reduce their use of transportation related to fossil fuels

5. PRESERVATION

5.1 INTRODUCTION

Barre Town is rich in natural resources and areas of natural beauty as well as in numbers of historic sites and structures within its land mass of 30.70 sq. miles. This plan touches on examples of some of those and recommendations for preserving these unique assets where possible.

Barre Town's early development occurred without much concern for aesthetics. Early settlers' needs were heavily agricultural and deforestation occurred in order to accommodate pastures and fields for livestock and land for growing of food. Granite quarrying developed in the Town during the 19th and 20th centuries further baring the land.

As time progressed – so did appreciation for natural resources and the history of the area and in recognizing our multi-national culture prompted in large part by immigrants who came to work in the granite industry. Within the last 25 years the Town has shown a marked increase in aesthetics and protection of natural areas. Recent development has been conceived and planned with "the view" and "green spaces" as dominant factors. Some developments have incorporated restrictive covenants concerning the height and placement of structures thereby protecting views of neighbors and passers-by. Aesthetics have also made their way into local zoning and state development laws.

5.2 SCENIC AND HISTORIC FEATURES

Quarries

Most notable of all Barre's scenic resources are the quarries from which are built such fine granite structures as the Vermont State House in Montpelier, the renown Robert Burns statue located on the grounds of the Vermont History Center in downtown Barre, thousands of cemetery memorials and commemorative structures throughout the country, and hundreds of other granite-faced, granite-trimmed buildings throughout the world. The Wells-Lamson Quarry, now dormant and owned by the Rock of Ages Corp. is notable because at over 600 ft. deep, it is among the deepest granite quarries in the world. A few "quarries" are not the expected holes in the ground that later quarrying methods came to develop but rather, were "walls" of granite from which stone was taken.

Views and vistas

The Town of Barre is bound on two sides (East and West) by South to North oriented ridgelines with elevations of 1200' to 1800'. The center of town, referred to as Millstone Hill, is elevated with valleys on either side as much as 600' or more below. This geography has blessed Barre Town with a natural "rim" nearly surrounding the valley below. Views from elevated areas of Barre Town are also among the most recognized scenic assets of this community. Notable scenic views include Camels Hump in Huntington, Spruce Peak in Plainfield, the Worcester Mountain range to the North, and the Orange Highlands to the East including the Knox Mountains. The lights of the City of Barre add to the evening and nighttime vistas. Any development within Barre Town that impedes or degrades these views is considered to be a negative impact. ~~which was blessed with a geography that created a natural "rim" nearly surrounding the valley below - once a part of the original Wildersburgh, the lights of the City of Barre now add to the evening and nighttime vistas. Notable within the views are Camel's Hump in Huntington (sometimes shown on maps as "Couching Lion"), Spruce Peak in Plainfield, the Worcester Mountain range to the west, and the Orange highlands including the Knox Mountains to the east.~~

These views sheds are considered an important part of our scenic resources and a valuable part of our quality of life as well as a sense of pride setting Barre Town apart from other towns. People respond positively to places that are visually appealing thus many people live in or move to Barre Town for these wonderful views and what that means to their quality of life. Businesses have also relocated to Barre Town for these same reasons. While scenery is important to the overall quality of our community, scenic vistas and view sheds are often destroyed during rapid change, both by nature and society. Protection of these assets is an important component to smart development and

preserving scenic beauty. In this context, protecting views may be considered an extension of the concept of promoting the general health and welfare of Barre Town.

Roads and waterways

Within the Town are a number of beautiful maple tree-lined dirt roads such as upper Cassie Road, Sunset and Neddo Roads, Phelps Road, Little John Road and Snowbridge Road. Peck's Pond, Bolster Reservoir, Gunner and Scott's Brooks, Jail Branch River, and Windy Wood Pond are examples of other scenic areas.

5.3 HISTORIC AREAS

Villages

Early development of Barre Town occurred in village areas surrounding employment centers. These villages eventually developed their own names and post offices within the Town - Graniteville, Websterville, South Barre and East Barre. Within them are examples of early quarry workers homes, usually similarly constructed, such as on the east side along Cogswell Street in Upper Graniteville. Another popular house style is the Sears Roebuck and Montgomery Ward early version of pre-fabricated houses (available with plumbing and electrical if one chose to purchase the whole package) such as the house at 54 Brook Street in Websterville. The South Barre village has notable large wood framed houses thought to be custom built - one at the corner of Saeger Lane and South Barre Road (VT RT 14) dating to 1803 and two side by side on the west side of VT RT 14 at 397 and 411 South Barre Road, one of which local lore relates was a safe haven offered as part of the Underground Railroad which moved African American people to safety in the north.

Also a part of village history is the traditional churches such as the East Barre Congregational Church and First Presbyterian Church in Graniteville. Traditional construction also remains for several grocery stores such as 34 Church Hill Road in upper Websterville, now the Millstone Hill Touring Center. Scattered throughout the town are barns that remain though the "farming" may have stopped some years ago – examples are the Swift barn on Swift Road, the Usle "Strawberry Grove" barn at 109 West Cobble Hill Road, and the Paquet Farm at 179 Morrison Road established in 1909 in the South Barre area.

Town Forest

The newly acquired (2012) Town Forest, 355 acres in size, gives visitors a very real sense of following the paths of industrial history as they ramble on through old railroad beds, over steel cables, and up onto grout piles of long ago that now offer scenic lookouts such as the stunning Empire Lookout at the northeast corner of the Forest. On hot days, visitors can stop by a cool spot created by ice deep inside some of the large grout piles. Throughout the Town Forest are some 70 early and very early quarries that supported small, often family-run, stone businesses.

Stone Walls

Prized among the "locals" also are the numerous stone walls throughout the Town traversing fields and woods – built to clear fields and mark boundaries of land owners.

Cemeteries

These are a treasure of the examples of the work of exceptional artisans, present and past. Older stones are of particular interest because they were carved without benefit of modern methods but rather using the very basic tools of the industry at that time. A rich history can be gleaned from the cemeteries of West Hill (Perry Road), Wilson (Websterville Road), Saint Sylvester (Websterville Road), and Maplewood (Farwell Street). Singularly situated off Miller Road is the family plot of Col. Nathanial Sherman, early settler, whose relative Jonathan Sherman reportedly chose the name "Barre" in the legendary "naming of Barre fight".

- Explore state and federal funding for restoration such as Grants Administration for non-profit or Town-owned historic structures and the Tax Reimbursement Act for Commercial Structures, etc.

- Encourage the preservation of our heritage through support of existing efforts that do that such as the Vermont Granite Museum of Barre, the Barre Heritage Festival, etc.

- Encourage the preservation of stone walls when considering subdivisions.

- Undertake the planting and re-planting of maple trees along roadsides in cooperation with arbor programs and other possible funding.

- Establish and enforce enhanced penalties for damage to cemeteries caused by vandalism and carelessness.

- Take steps to assure public access to "nature" - swimming holes, fishing, trail walking/biking, picnic areas, river parks, etc.

- Encourage stream bank preservation and buffer zones.

- Preserve public use of Ancient Roads -- roads appearing on maps but not currently suitable for vehicle use.

- In all matters of historic preservation, Town officials are encouraged to partner with others of the same purpose so as to maximize results toward achieving the goal of preservation.

5.8 SCENIC PRESERVATION

As noted above in 5.2 views and vistas, Barre Town's visual beauty is an asset which must be protected ~~the Town has to offer to any prospective resident or employer who is considering relocating to the community. The determination of aesthetic value is very subjective. It is very difficult to impose fair and uniform aesthetic standards on proposed projects within any community.~~ Therefore, the Town of Barre's policy regarding aesthetics is one of encouraging enhancement and conservation of natural areas, the, environment, and views, ~~and vistas rather than one of imposing penalties and restrictions.~~ Of particular interest are the following areas of town:

- Western ridge: Commonly referred to as West Hill, this ridge runs from Vt Rt. 63 north to the boundary line with the Town of Berlin.

- Eastern ridge: Encompassing Taplin Hill, Trow Hill, and East Hill, from US Rt 302 in East Barre north to the boundary line with the Town of Plainfield in the vicinity of the Pinnacle (elevation 1821').

Any area that is visible from an opposing ridge or face more than one mile away.

Any development that displaces more than 2 acres of natural land or vegetation is discouraged and at a minimum shall be subject to site plan review with special emphasis on size, bulk, location, heights, setbacks, construction material as they relate to how a project may be seen.

- ~~Development should not be restricted by aesthetics alone.~~

Any development above the ridgeline shall be limited to established height regulations.

The following are goals and recommendations regarding scenic preservation in the Town of Barre:

- Consider aesthetic upgrades and visual enhancements on Town owned land and right-of-ways.

8. ENERGY

8.1 OVERVIEW

Energy is an important component of any town's vitality. An energy plan is important to promote numerous benefits which include municipal cost savings, increased revenues, a strong economy, greater energy independence and security, local influence over energy facility siting, more efficient communities, healthier communities, a clean environment, and regional coordination and collaboration. State incentives may be available to communities that have energy plans.

To a large degree, energy costs are not controlled by a municipality; they are dictated by outside sources. The number one demand for energy use in Vermont is in transportation. Heating is second followed by electrical use. So, while Barre Town and its residents may not be able to control the cost of energy, they can always look toward conservation and fuel switching as a way to cut cost and meet many of the benefits mentioned above.

- Other methods of energy conservation can also be encouraged such as the use of renewable energy sources and energy efficient buildings. Promoting these things can also lead to job creation for the local work force.

8.2 ENERGY OPPORTUNITIES

Most of the opportunities for energy savings are within the confines of the private sector in transportation, homes and commercial and industrial properties. However, there are a few opportunities for the municipality to save energy as well. They include the following:

- Encourage cluster housing and neighborhood commercial services along established transportation routes;
- Encourage the development of pedestrian and bike paths and park and ride facilities throughout town;
- Promote public transportation and ride-sharing;
- Promote the use of energy efficient street lights in the community;
- Purchase the most energy efficient or alternative powered municipal vehicles that will, at the same time, perform the necessary functions of the particular department.

8.3 ENERGY CONSERVATION

The greatest impact on reducing dependence on fossil fuels, both domestic and foreign, is to decrease the overall demand for energy through conservation. Conservation also produces the most economic gain because it represents money not spent for energy. Basic conservation efforts involve little or no monetary investment, but most likely will involve changes in both culture behavior and life style. Additional efforts require an investment in reducing the energy requirements of buildings.

While the Town of Barre cannot require energy conservation by citizens of the Town, the Town can certainly actively promote energy conservation measures. This can be achieved through zoning bylaws, encouragement and listing resources in the Town Newsletter, and on its Town website.

Transportation

Private Sector

While public transportation; buses and trains provide minimal opportunity in Barre Town for energy conservation, there are several options available to residents to reduce the use of private motor vehicles. The first is to utilize formal "park and ride" lots for carpooling. There are two established VTRANS commuter lots in Barre Town. One is located on US RT 302 in East Barre, near the intersection of VT RT 110. The second is located on VT RT 14 adjacent to VT RT 63 (across from McDonald's). Though while not located in Barre Town, ~~a third VTRANS lot is located in Berlin on VT RT 62~~

allowing fringe siting along wetlands or in wetland buffer zones.

All solar projects shall be decommissioned at the end of their useful life and the property shall be restored to its pre-project condition. Developers of all projects 150kW or greater shall provide the municipality with appropriate assurances to guarantee funding exists to decommission the project. Decommissioning includes, but is not limited to, proper disposal and/or recycling without burdening the Town.

For the purpose of this plan, either the Selectboard or the designed appropriate municipal panel shall be deemed to represent the voice of the communities "average person" with respect to the "Quechee Test" when evaluating the aesthetics of a proposed solar array.

Wood

Wood is available as both firewood and pellets. Generally firewood is produced in or within a few miles of Barre Town which minimizes transportation costs and supports a local economy. Firewood removal from forest land is also an important tool for forest, wild life, and agricultural land management. While using fire wood for heat in stoves and inside boilers is a logical step to replace or supplement fossil fuels, outside wood boilers have their own particular set of issues. Generally the flue pipe (smoke stack) is short and in certain meteorological conditions can cause significant ground level smoke plumes to the detriment of the neighbors. Outside wood boilers used in the summer for hot water production can also create low lying smoke plumes.

- There may be zones where these devices may not be compatible (high and very high residential).
- Zoning regulations should be reviewed to define the appropriate use of outside wood boilers.

Pellets at this point are not produced locally so not unlike fossil fuels there is transportation cost associated with them. But still they are a renewable energy source and do replace fossil fuel usage. Pellets .burn more efficiently than firewood and hence is less of a concern for contributing to chimney fires reducing demands on the fire department

At this time there is little opportunity for hydroelectric production due to small size of the streams and rivers in the Town, and the extensive and expensive permitting (state and federal) required.

- Should Barre Town ever establish a larger water supply system (from wells), an in-line electric generating system in the water transmission pipe may be worth considering

Geo-thermal heating is a clean, emission free technology which has minimal impact on adjacent property owners and Town services. Federal tax incentives may be available to installing a geo-thermal heating system. A state permit may also be required to operate a geo-thermal system.

Recommendations:

- Continue to inform the public through zoning of State Residential Energy Standards and the requirement that new construction meet those standards.
- The Development Review Board should encourage developers (residential and commercial) to utilize energy efficient insulation, weatherization, heating and lighting in all projects.
- The Town should encourage the use of the Energy Efficient Mortgage Program which helps home owners finance energy efficiency improvements at lower than normal interest rates. The Town also encourages use of CAPSTONE Community Action (802-479-1053) ~~CVCAC~~ Weatherization and Energy Efficiency Services ~~Programs~~ for eligible residents;
- The Town should encourage developers to design subdivisions for appropriate solar orientation and the use of solar hot water systems and photovoltaics when appropriate.

- Building designs should include roof construction capable of supporting solar panels.

- Selectboard should create an Energy Committee comprised of Town citizens and officials to explore ways to make the Town government operations more efficient in the use of energy.

- Encourage homeowners to have a whole house energy audit performed to review: lights, insulation, weatherization, heating, appliances.

- The public should be encouraged to use more efficient transportation methods.

- The public should be encouraged to utilize renewables whenever appropriate.

- The Town should encourage developers of commercial solar arrays to incorporate a plan to install public access charging stations within Town limits.

- The Town should encourage businesses within the community to install charging stations.