

COMMON CONNECTIONS:
Public Realm as Resource in a Vermont Village

by

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Abstract

In rural Vermont, public, outdoor spaces are an increasingly precious commodity to local communities and visitors alike. As the threat of urbanization spreads into Vermont, municipalities and residents must make careful land use and development decisions in order to preserve and/or incorporate such spaces into the local and regional setting. Throughout time, the social and political idea of *public access for the greater good*, has been defined as the Commons. The physical manifestation of this concept has also been called the Commons and has been reflected in the landscape in a variety of forms in both rural and urban environments. By melding Vermont's traditional form and value of the Village Common as civic center to the contemporary translation of the Commons as our shared access to cultural and natural heritage, Vermont village character and local community resources can be maximized and celebrated.

Table of Contents

Abstract.....	ii
Figure List.....	v
Acknowledgments.....	vi
Dedication.....	vii
Chapter 1 The Big Picture.....	1
Context of Project- Commons as Idea and Place.....	1
Scope of Project.....	7
Concept	
Goal	
Objectives	
Process	
Authors Definition of Commons	
Site Overview.....	9
Site Context	
Characteristic Overview	
Site Selection	
Scales of Design	
Chapter 2 Precedent Studies.....	13
Open Space at the Community Planning Scale.....	13
Amherst, MA	
Vermont Commons - Old and New.....	15
Shorhem, VT	
Intervale, Burlington VT	
Public Process in Village Design.....	17
Westport, CA	
Guiding Principles of Project.....	19
Chapter 3 Understanding the Site.....	20
Analysis.....	20
Social Assessment.....	20
Community Profile	
Community's Response to Site	

Policy Assessment	
Zoning and Ownership	
Environmental Assessment.....	27
Physical Assessment	
Biological Assessment	
Opportunities and Constraints.....	30
Site Goals, Objectives and Design Criteria.....	32
Program.....	33
 Chapter 4 Planning and Designing the Site.....	 34
Conceptual Design - Site Concept.....	35
Conceptual Design - Village Center.....	38
Bringing Concepts to Life -Design Decisions and Ideas.....	39
Future Development.....	39
Outdoor Places.....	43
Getting Around - Connections and Linkages.....	46
Trail Types	
Street Details	
Village Center.....	54
Understanding Where You Are - Materials, Site Unity and	
Being Unique.....	61
Project Conclusions.....	63
 Bibliography.....	 66-68
 Appendix I	
Commons Through Time.....	69
Appendix II	
Site Goals, Design Criteria and Design Strategies.....	70-73
Appendix III	
Detailed Program.....	74-76
Appendix IV	
Site Sections.....	77
Appendix V	
Act 250 Criteria.....	78

Figure List

Fig.1	Whitburn Bends Pond	p.1	Fig.37	Village Concept	p.39
Fig.2	Common Field Farming	p.2	Fig.38	Site Master Plan	p.41
Fig.3	Modern UK Commons	p.2	Fig.39	Proposed New Lots	p.42
Fig.4	Amherst Common	p. 3	Fig.40	Trail Map	p.44
Fig.5	Fair Haven Common	p. 3	Fig.41	Green Infrastructure	p.45
Fig.6	Original Shorem Common	p.4	Fig.42	Trail Treatments	p.46
Fig.7	Tinmouth Common	p.4	Fig.43	Woodland Trails	p.47
Fig.8a	Loss of The Commons	p.5	Fig.44	Village Trails	p.48
Fig.8b	Incorporating the Commons	p.5	Fig.45	Boardwalk Trails	p.49
Fig.9	Vermont's Greater Common	p.7	Fig.46	Swales	p.51
Fig.10	Mountain Top	p.7	Fig.47	Ferry Road	p.52
Fig.11	Placing Charlotte	p.9	Fig.48	Library Road	p.53
Fig.12	Site Map	p.10	Fig.49	Village Center	p.54
Fig.13	Street Scapes	p.11	Fig.50	Village Center Master Plan	p.55
Fig.14	Burns Parcel	p.12	Fig.51	Master Plan Detail	p.56
Fig.15	Town Field	p.13	Fig.52	Market Street	p.57
Fig.16	Amherst Open Space	p.14	Fig.53	Market Place	p.57
Fig.17	New Shorem Common	p.16	Fig.54	Community Gardens	p.58
Fig.18	Intervale Project	p.17	Fig.55a	Village Master Plan	p.59
Fig.19	Westport Village	p.18	Fig.55b	Meadow Boardwalk	p.59
Fig.20	Historical Charlotte	p.20	Fig.56	Enjoying Meadows	p.60
Fig.21	Vision Map	p.21	Fig.58	Entering a Place	p.61
Fig.22	Charlotte News I	p.22	Fig.59	Aesthetics of Place	p.62
Fig.23	Charlotte News II	p.23			
Fig.24	Charlotte News III	p.24			
Fig.25	Ownership Diagram	p.25			
Fig.26	Current Zoning	p.26			
Fig.27	Physical Features	p.27			
Fig.28	Biological Features	p.28			
Fig.29	Wetlands	p.29			
Fig.30	Agricultural Land	p.30			
Fig.31	Site Bubble Diagram	p.31			
Fig.32	Village Bubble Diagram	p.32			
Table 1	Parking Standards	p.33			
Fig.33	Regional Public Land	p.35			
Fig.34	Proposed Zoning	p.36			
Fig.35	Concept in Context	p.37			
Fig.36	Site Concept	p.38			

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For Hallie Young

Chapter 1

The Big Picture - Commons as Idea and Place

Context of Project

It is clear to me that exclusive private ownership of land and extraction of commodities in a market economy is a better-paved road to a bigger ruin. We need a mix of private and common interest in land that is appropriate to the world today, one that balances personal freedom and community responsibility, economic efficiency and ecological restraint. – Brian Donahue, *Reclaiming the Commons*

With the rapid expansion of urbanization, outdoor public land is an increasingly precious community commodity throughout North America. Its form and function within rural and urban places has constantly changed due to the natural evolution of how we live, work, and play. No matter these changes, public land consistently remains a shared social and cultural resource, potentially providing neighborhoods and villages with outdoor spaces in which to recreate, steward, socialize and celebrate. When this aspect of community design and planning is neglected, a multi-faceted resource is lost, not only for the present, but for generations to come (Erickson, 2003).

In rural Vermont, due to how large tracts of land have been divided, bought and sold, public land is currently found in all shapes, sizes and locations. While Vermont is famous for its rural villages that sit snug in the folds of the landscape, public access to this landscape is often hard to find within or adjacent to the village center. Historically, the village center, consisting of important civic and commercial buildings and perhaps two streets of residential, was immediately surrounded by privately owned farms (Albers, 2000). This is often still the case. At

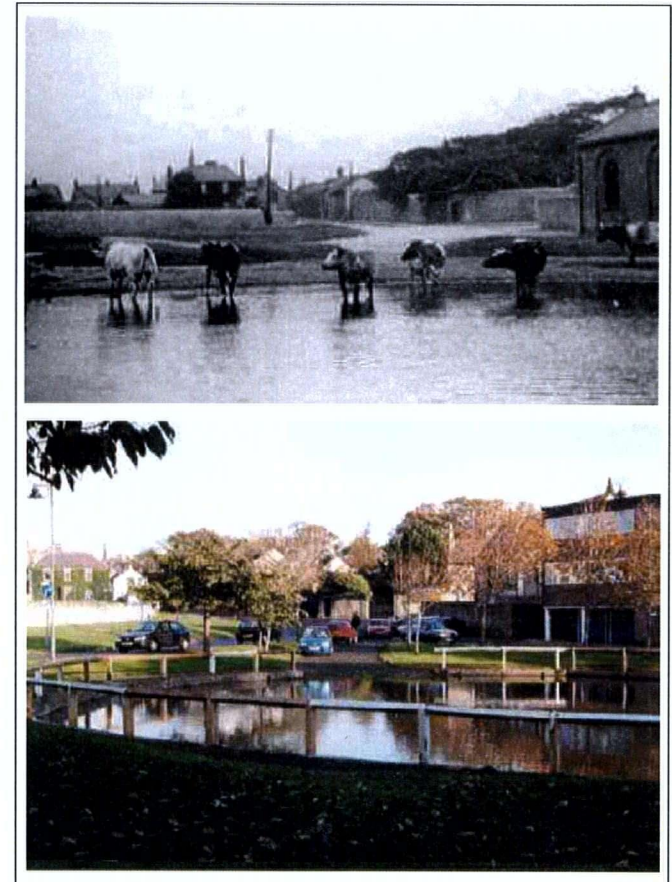


Fig.1 Whitburn Bends village pond, UK in 1900 and 2000. Over the past 100 years, this village common, like others has seen many changes. (website.lineone.net/~d.org/whitburn.htm)

the same time, new growth (subdivision of this adjacent farmland) and build out can contribute to this situation, and also increase fragmentation of the surrounding forests and fields as aesthetic, recreational, agricultural and ecological entities. In this way, new neighbors are not only disconnected from a civic heart, but the community at large loses an increased everyday intimacy, with the greater landscape of their home (Donahue, 2001).

Stemming from English roots, the social and political idea of public access for the greater good, has been defined as the Commons. The following is one definition found in the Labor Law Encyclopedia: *Commons are a subset of public goods; specifically meaning a public good which is not infinite. Commons can therefore be land, rivers and, arguably, money. "The Commons" is most often a finite but replenishable resource, which requires responsible use in order to remain available* (LaborLaw.Talk.com) Throughout history, the physical manifestation of this concept has also been called the commons and has been reflected in the landscape in a variety of forms in both rural and urban environments, from medieval farm fields to urban parks. This project explores the idea of the commons in both form and function within a Vermont village today and how the two together form an expanded civic environment. In order to better understand how the Commons – both as a societal value and a place, found its way to Vermont, below is a brief synopsis of this journey:

The World

Ancient agrarian societies all over the world depended on shared resources for growing crops and grazing sheep and cattle. In many rural areas of African, South American and European countries, different forms of 'common-field' farming continues today (Bromley, 1992). A system that peaked during the 13th-14th century in



Fig.2 Common-field farming is still an essential method of accessing a greater good, for many people around the world (www.gettyimages.com).

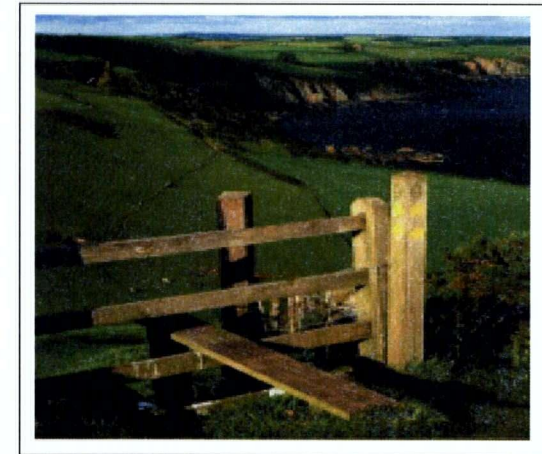


Fig.3 The commons in England, once left over grazing land turned to civic or private uses. Now National Parks and National Trust lands are known as 'the commons', as seen in this picture. (www.countrysideaccess.uk.gov)

England and continued into the early 19th century, the Commons was a way of securing resources, such as crops, livestock and timber for a greater number of villagers than was possible by singular energy on private land. The most well known commons system used throughout England was one in which land was divided among individuals, but the boundaries of which were open to adjoining properties, creating a larger 'common', where labor, earth, gravel and timber could be shared. Both public ownership of the land and private ownership, but common access of the land, were used as mechanisms to secure community equity and economic survival (Kerridge, 1992).

New England

When Europeans settled into what is now known as New England, they brought the idea of the commons with them. While the land used for the commons was typically left-over, unwanted land, it was maintained for shared agricultural needs, such as grazing cattle. However, as individualism was at the very root of the new colonies, this land management technique was quick to fade. The original commons were divided and sold to private owners, and a new common evolved into an auxiliary village space geared towards the communities civic desires (Akagi, 1924). These new 'town commons' or 'greens' were incorporated into original town plans and adjoined important civic buildings such as the church, school and cemetery. Occasionally, the town commons would continue to endure as an area where residents could freely acquire firewood, timber, and other building materials (Akagi, 1924).

Vermont

During the mid-1700's, Vermont was the wild west of New England. Initial European settlement in Vermont was focused on individual gain and survival and not yet on community life. Pioneer



Fig.4 By the late 1800's the commons in New England, like this one in Amherst Massachusetts, were primarily used for social events. (courtesy of Jones Public Library, Amherst, MA)

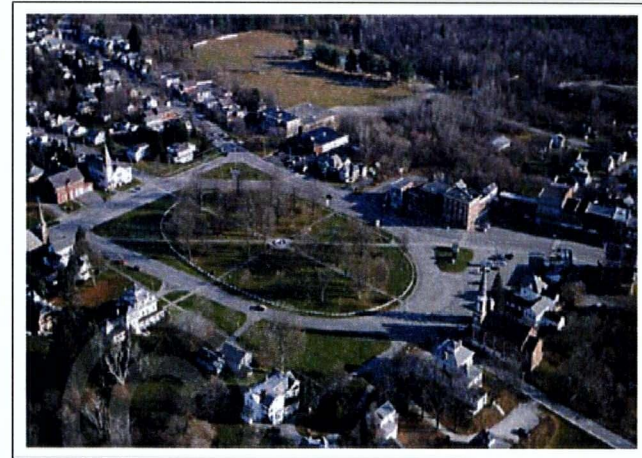


Fig.5 The traditional town commons seen in a current aerial view of Fair Haven Vermont, pop. 3,000. Built in the early 1800's. While conceivably pleasing in form, sits empty much of the year. (www.viewsfromabove.com)

families claimed sections of land, clearing it of trees and farming it until topsoil was depleted. It was a hard life where social activity happened in the kitchen or a couple miles down at the neighbors woodlot (Albers, 2002). Eventually, in the late 1700's and into the mid 1800's, compact village settlements were built in the valleys, designed by well-to-do merchants and infused with a sense of civic pride and puritan goodness. The public 'town common' or 'green' that accompanied many of these village plans were primarily used for social gatherings after church and special community events, reflecting civic ideals that evolved as a pioneer life gave way to structured settlement.

While the common is still amongst the iconic images of a Vermont village, their physical form often does not reflect the complete, contemporary translation of the idea of the commons in the landscape. While it is important to recognize the traditional Vermont commons as a valuable aesthetic and historical form, it is also important to place it into the context of Vermont's contemporary land use patterns and contemporary community needs.

In a paper regarding today's commons in the landscape, Alice Ingerson, of the Lincoln Policy Institute lists five new types of commons. These are: land trusts, incidental open spaces, cooperative housing, the use of urban public property by the homeless, and converted military bases (Ingerson 1997). In Vermont, the three most likely to be found are, land trusts, incidental open space and town commons. Most often these are found in the form of parks, shorelines, lakes, community gardens and trail networks. Even in Britain, the term 'commons' is now used to refer to National Trust Lands, National Parks and smaller municipal public open spaces (countrysideaccess.gov.uk, 2005). Commons such as these have both social, ecological and potentially historical value, and reflect a desire, today more than ever, to maintain public access to natural resources such

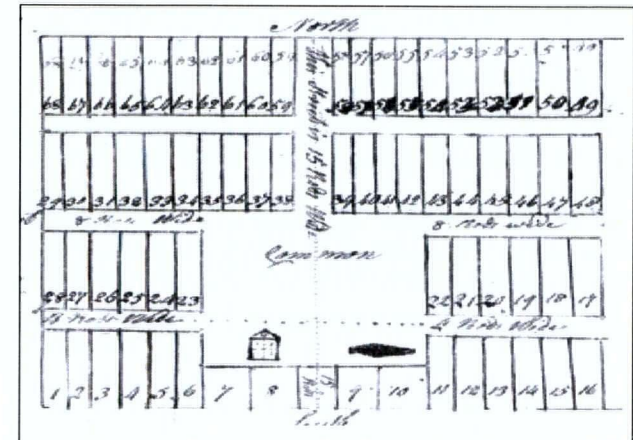


Fig.6 The land dedicated for outdoor civic activity was at the center of the village, as can be seen in this original plan for Shorem, Vermont. (image from *Around the Mountain*, 1992)



Fig. 5 While the village commons can be found in the smallest Vermont towns, such as this one in Tinmouth, Vermont, population 230, they are oftentimes disconnected from a greater network of community trails and/pathways. (photo by author)

as clean water, woods, soil, and fresh air. The Appendix I table compares the past and present function of the Commons, in a Vermont context, as it relates to the concept of the commons as greater public open space.

From the Appendix I table, it is apparent that many of the original values of 'the commons' and even some of the programs still apply to today. However, there are obviously greater total demands on the public commons as contemporary open space. Now, more than ever, the world is looking to rural communities to satisfy these demands. In order to do this, the commons must be multi-functional in character- catering to the ecological, social/cultural and economical needs of modern life. In Vermont, this means weaving, growing, and connecting valuable sections of public green space into our daily existence (i.e. our town and village centers). Not only is this economically beneficial (attracting tourists and sustaining local resources), but ecologically vital to the local region, maintaining and restoring ecosystem connections and wildlife corridors (Erickson, 2003).

While it is not a brand new idea to consider our natural resources and open space as entities of the Common, the application of this idea into design and development of modern communities seems harder to actualize. However, there are now thousands of people dedicated to such a cause. In Vermont alone, organizations and programs such as Vermont Smart Growth, Conservation Law Foundation, Vermont Land Trust, Vermont Natural Resource Council, Champlain Valley Green Belt Alliance, Vermont Housing and Conservation Board, Vermont Community Forests, Vermont Design Institute as well as local land trusts and passionate individuals are reaching for this end. A suburban farmer and author, Brian Donahue is one such individual living in Weston,



Fig.8a



Fig.8b

Fig. 8a and 8b Ecological and cultural resources can be incorporated into community planning, for greater public access, or divided, privatized and lost to the community as a whole . (courtesy of Burlington South Village)

Massachusetts. In his book, Reclaiming the Commons, he questions whether the lack of the commons (defined as publicly assessable and publicly managed land) within a village, town or neighborhood has, in part, contributed to the lack of community identity. In order to reverse the potentially ever creeping, anonymous suburban landscape, Donahue suggests the following:

"We must recover the traditions that once shaped places in distinctive ways, traditions reaching back in our peasant memory to dreams of both secure private ownership and access to commons, before the shopping malls and tract houses obliterate them. We must both honor and excel our rural forebears, who did not see clearly enough that excessive individualism in a market economy was the outstretched neck of agrarianism, unwary of the ax. We must rebuild functioning communities with closer ties to the land not just in nostalgic fantasy, not just in token preservation, but in substantial daily practice."

While this project ultimately results in illustrated design solutions for accessing the greater commons in one particular village, it is important to note that public involvement has been and is vital in actualizing the concepts proposed. As detailed in the following chapters, the study village, Charlotte, Vermont, promises great potential for exemplifying contemporary commons in part because public involvement is already high. This includes a recent participatory planning process regarding the study site. As Donahue suggests, the people are a crucial element in maximizing the commons, shaping them to the specific needs and desires of their unique community, and stewarding them into the future. It is also important to note that the concept of the commons, in this project, refers to shared access of land, and not shared ownership of property, as in the famous 'Tragedy of the Commons' (Hardin and Baden, 1977).

However, as part of the study site has been held in land trusts, the concept of joint ownership for a greater good, is not foreign to this

"What happens when the farmers and loggers are replaced by people who make their livings in more non-traditional ways? The idea that rural means agricultural and urban means industrial is etched in every American brain. What could it mean to be rural and yet not reliant on the land... can Vermont find a way of managing development that retains the physical beauty and strong sense of community that has distinguished it in the past."

- Jan Albers, Hands on the Land

particular village.

Scope of Project

Project Concept

By melding Vermont's traditional form and value of the village commons (green) as civic center to the contemporary translation of the commons as our shared access to cultural and natural heritage, Vermont village character and local community resources can be maximized. This project proposes civic and environmental functions for a centrally located parcel of publicly owned land in Charlotte, linking it to existing public space within and surrounding the village.

Project Goal

To explore viable planning and design ideas for incorporating accessible public outdoor space into the future development of Charlotte's village center in a way that responds to the contemporary needs, desires and concerns of the residents.

Project Objectives

1. Provide an example of how Vermont villages can plan for future growth in a way that maximizes the integrity of the village center, its community and the greater Vermont landscape while respecting the rural past.
2. Provide design solutions, in both written and graphic form (in a broad range of scales), that are understandable to the public at large.

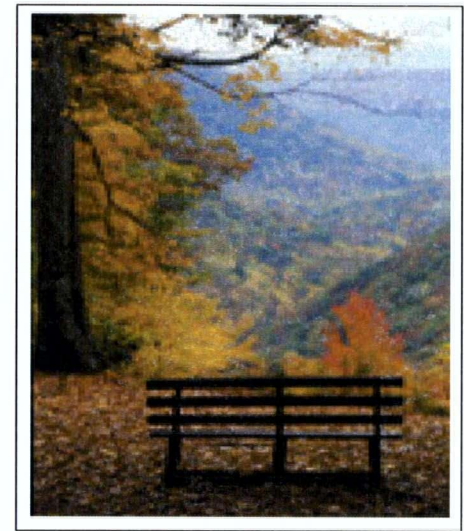


Fig. 9 The idea of a greater commons found in our woodlands, meadows, clean water and fresh air is alive and well in Vermont.

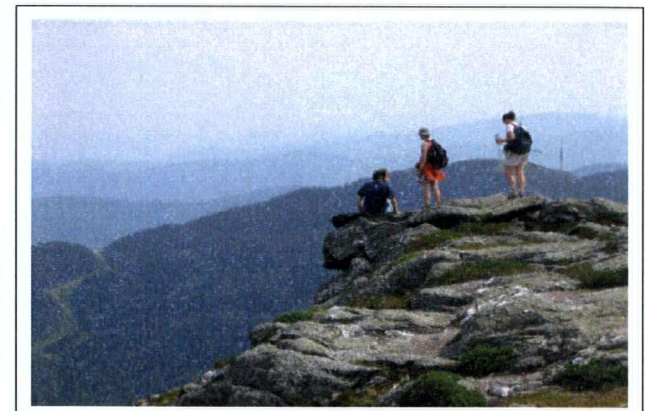
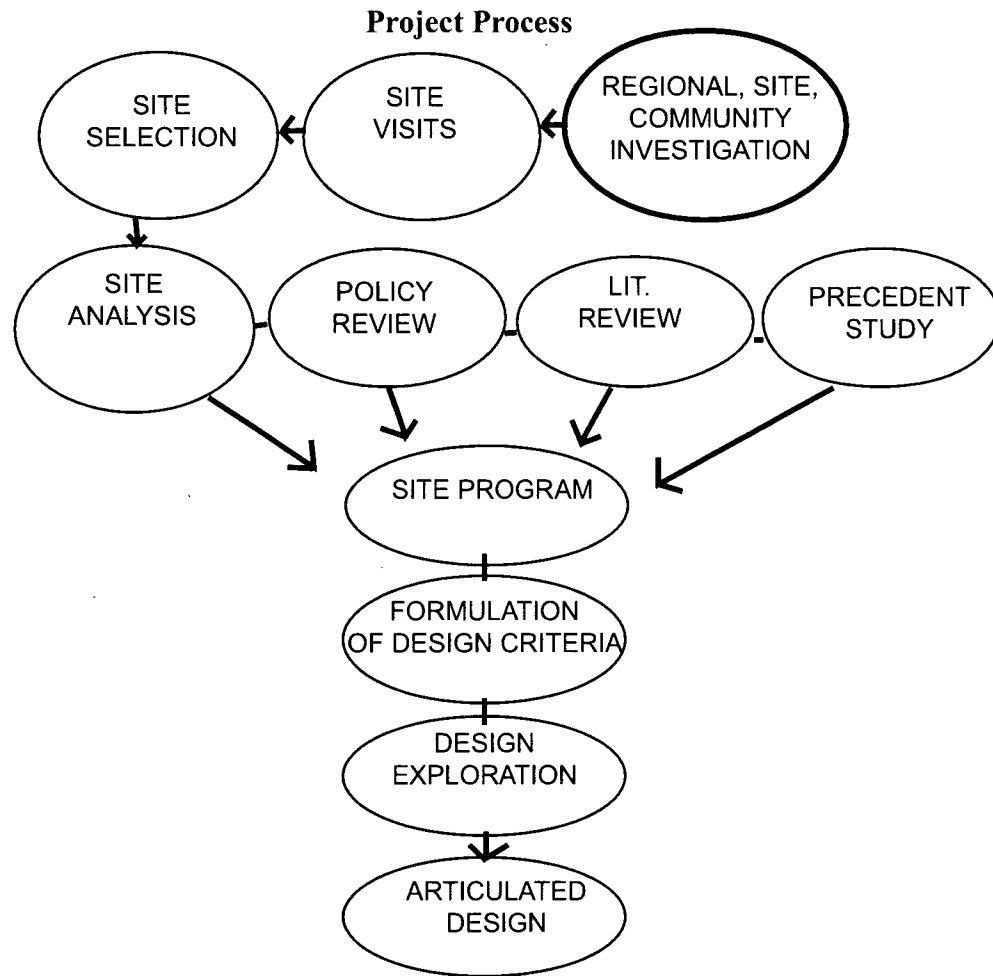


Fig.10 Urban and rural residents alike seek out open-space for recreation, relaxation and even production purposes. (photo by author)



Author's Definition of The Commons

For the purpose of this project, the Commons are defined as:

That land which is accessible to the public and ensures a specific community with any

or all of the following

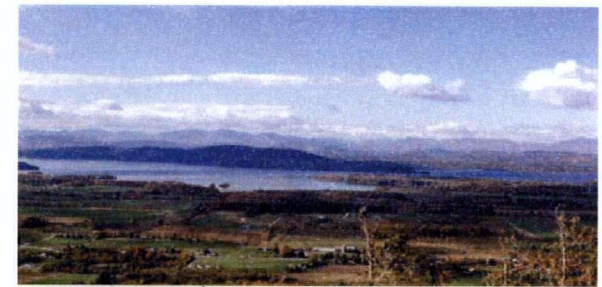
- natural resource heritage for now and future generations
- safe outdoor places to gather, socialize, recreate, or travel from point a to point b
- the preservation of a unique, agrarian place, collectively recognized by its community
- the opportunity to better understand, foster and participate in the surrounding natural and cultural landscape

Much of the guidance for creating the site goals, objective and design criteria came from policies already set in place by the Charlotte community. Outcomes from Charlotte's 2004 public planning process, regarding the Burns Parcel were directly incorporated into the formulation of all design proposals.

Site Overview

Site Context

This project will look at a site located in Charlotte, Vermont, a town located 10 miles south of Vermont's biggest city, Burlington (pop.49,000). Nestled in the Champlain Valley, Charlotte houses two small village centers, locally known as East and West Charlotte, and having a total population of 3,500. The study area includes a 55 acre parcel of woodland and wet meadow (Burns Parcel) owned by the town and also the adjoining private property (LeBeouf Meadow) that sits between Burns Parcel and the west village center. The entire study site is approximately 75 acres. For the purpose of this project, the west village will be referred to as Charlotte, as this is considered the civic and commercial center for the entire town. The



(www.virtualcities.com)



(www.hort.purdue.edu)

Fig. 11 Looking west over Charlotte in the Champlain Valley of Vermont, the Adirondack Mountains in the distance. This valley was the floor to the ancient Champlain Sea.

town hall, town green, library, post office, fire station and general store are located adjacent to the properties in question and will be considered part of the study site. While Charlotte is rural in character, known for its rolling farm fields and close vicinity to the shoreline of Lake Champlain, it sits directly off of Route 7, a major through road for the west side of the State, and as such is easily accessed by a lot of people. It is a beautiful place with stunning views at each new twist and turn in the road. Residents of Charlotte either travel to work in Burlington, work out of their homes, or are farmers in the area.

Characteristic Overview

Burns Parcel overflows with amenities: mountain and pastoral views (the Adirondack Mountains and Lake Champlain to the west, Pease Mountain to the east), existing trails through the woods, and significant wildlife habitat. It is home to a large tract of Clay Plain Forest, a rare, and important native ecotype of the Champlain Valley and Thorpe Brook watershed (Poleman, 2004). The wetlands associated with Thorpe Brook are classified as Class I (Sweeney, William 2000) and therefore can not be developed (according to Vermont's Act 250). Route 7 is located to the east of the study site, Ferry Road to the north (Charlotte's main street) and Greenbush Road to the west. At the southeast corner is an outdoor flea market that currently has no structures on it. The town rents this property out for \$200 a year. The south end of the property abuts Mack Dairy Farm, a conserved land. Both Ferry Road and Greenbush Road are paved, local roads, Greenbush also being home to a section of Vermont's Champlain Valley Bike Route.

The southwest corner of Burns Parcel and areas of the LeBeouf Meadows are well drained and appropriate soils for septic system needs, and are already for municipal waste treatment. Other areas of the LeBeouf Meadow are also home to critical wetland sites. For the sake of this

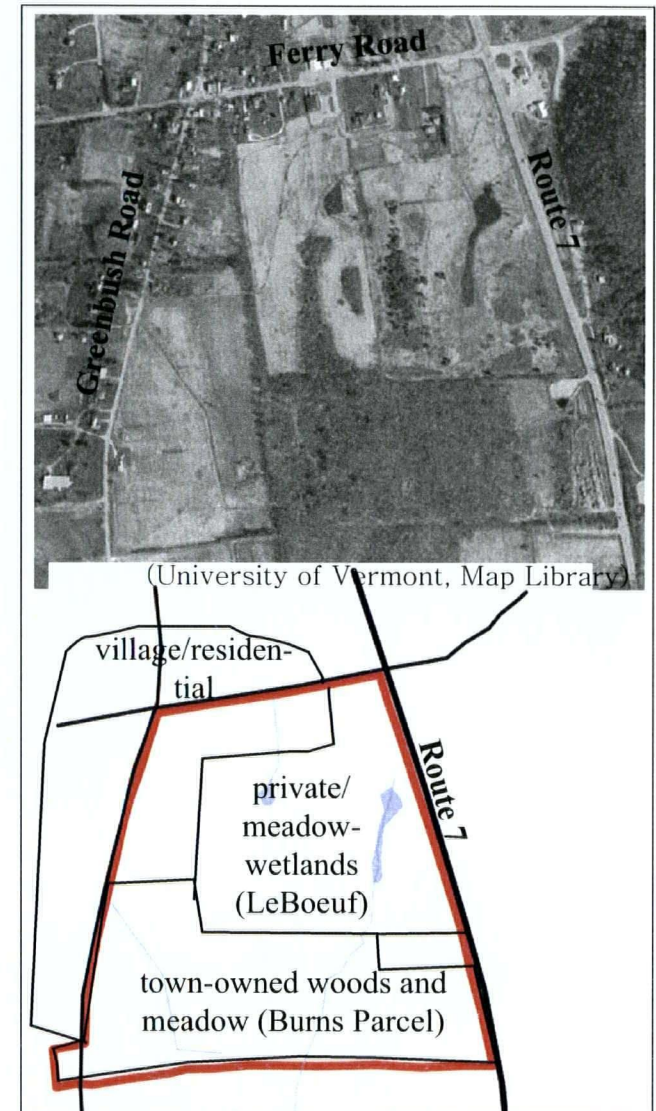


Fig. 12 The study area includes 55 acres of town owned forest, meadow and wetland and 25 acres of privately owned land, both adjacent to the village center.

project, both properties and their relationship to the village center, will be considered for future village planning and design scenarios.

Site Selection

Why Vermont? Last year the National Historic Trust named Vermont as one-in-eleven most endangered historic places in the United States (National Historic Trust, 2004). Due to topographical disadvantages for strip development, stringent land-use and environmental policy since the 1970's, and continued dependence on the natural landscape for survival (farming and tourism), comparatively, Vermont stands at the beginning of an uphill battle to save its historical heritage. In North America today, this is an exciting place to be. In many regards, Vermont's landscape has become healthier over the last 100 years. Vermont is far from perfect, but in comparison, many other states have already become inundated with suburbia, losing or jeopardizing most ecological, historical and cultural identities. Since the age of nine I have thoroughly enjoyed living, playing and working in Vermont. A lot of hard work and passion has been put into the making of the landscape of Vermont, which makes it an extremely identifiable place (Albers, 2000). This project is a small contribution to a state that has taught me a lot about quality of life, stewarding place, ecological wonders, and the beauty of human-scale design.

Why Charlotte? In October of 2004 the Vermont Design Institute, of Burlington Vermont, was asked to facilitate a public planning process with residents of Charlotte. The town wanted to consider wise land use decisions within the town as it related to the Burns Parcel and future village build-out. As I wanted to explore the topic of public realm within a Vermont village context, this site seemed to be a good fit. Not only was Charlotte considering what to do with a currently, publicly accessible piece of land,

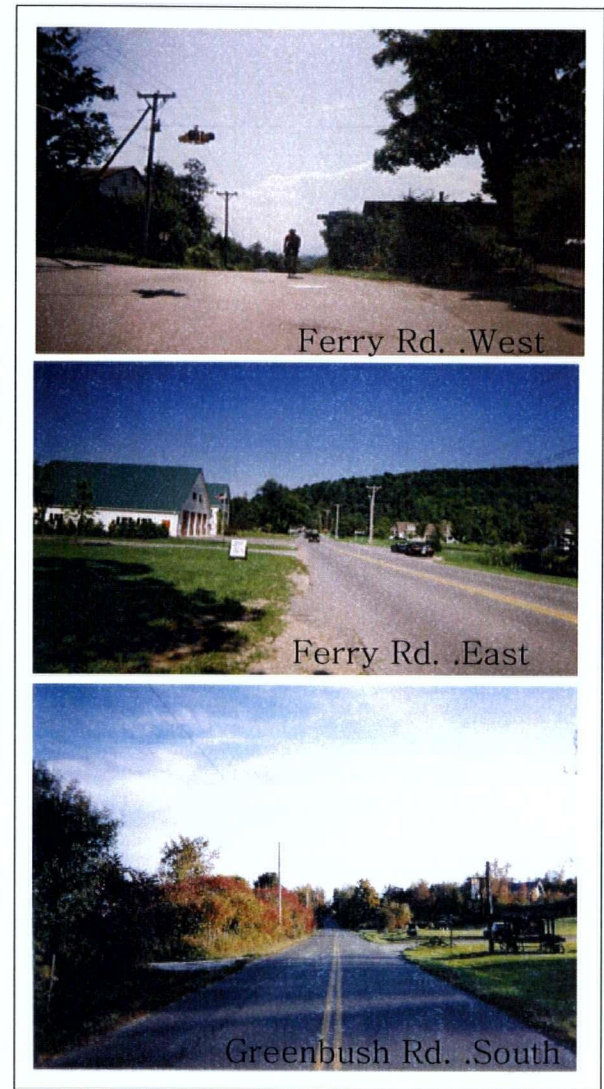


Fig.13 Ferry Road and Greenbush Road border the north and west of the study site. (photos by author)

the town was incorporating a democratic process in the planning stage and residents were interested in being involved. In this way, any design implementation to the village property would incorporate a layer of individual input, infusing the land with a sense that the community, as a whole, cared about it (Donahue 2001) (Hester 2003). Not to say that this is, by any means, an easy and automatically successful process, it does reveal genuine concerns and interests related to the users at hand – a crucial component to any good design. Once I embarked on research for this project it became obvious that Charlotte has a history of active participation in land use decisions and regulation, as well as a strong commitment to building a sense of community. My interest in the Burns Parcel also relates to its central location within a community and its advantageous adjacencies, potentially bringing greater open space networks into the village itself and expanding the civic amenities.

Scales of Design

This project works within two primary scales. Initially the study site of Burns Parcel and the adjoining private property (referred to as LeBeouf Meadow), was considered at a site planning scale. This scale considered regional land use patterns, ecological systems, greater circulation networks, zoning, development scenarios, and inter-site relationships. Within this analysis, three major civic activity and destination areas were identified and studied at a more detailed, site design scale. These areas included the village center – site of the town hall and village green, a site entrance at the flea market off of Route 7, and a third entrance to the site located on Greenbush road. Recreation trails, pedestrian pathways, streets and entrances were also considered at a this larger scale. The majority of detailed design focused on the village center.



Fig.14 Burns Parcel and the adjacent property is home to beautiful woods and meadows, all in the vicinity of the village center. (photos courtesy of Diane Gayer)

Chapter 2

Precedent Studies

There are a myriad of resources out there related to public space in rural places, most commonly referred to as 'open space planning'. However, as this project relates specifically to public open space within a village center, the following precedents set great examples. When picking precedents I looked for municipalities and/or organizations that had managed to create public, outdoor places immediately adjacent or at town centers that served the community in a diversity of ways. All the precedents provide a greater indoor/outdoor civic center for a town/village while connecting these spaces to a greater regional context. The following are brief descriptions of each precedent and how ideas from each were incorporated into the design solutions in this project.

Open Space at the Community Planning Scale

Amherst, MA

Amherst, Massachusetts has a long history of innovative town planning and land use regulation. Much of the town's public and private open space has been preserved within and around its village center. Amherst has a very active conservation committee and there are a number of helpful documents available as well as a plentitude of GIS maps regarding open space, interconnected recreation trails, and parks. Although this is not a Vermont town, Amherst sits in the context of the rural New England landscape, visually recognized for its agrarian and civic aesthetic for over 200 years. In this way, decisions made with respect to small village centers within their regional context, throughout New England



Fig.15 A woman grows flowers for farmers market in a field, walking distance from the center of town. (photo by author)

can be easily compared to decisions and processes that Amherst has adopted.

Amherst sets precedents for village center design not only within its regional context, but also at the site design scale. As an example, Atkins Corners, is an area just south of Amherst Commons and home to Atkins Market – a family owned and operated grocery store. A popular area, along a busy two lane road, residents were concerned that unplanned development around Atkins Market would ruin the rural charm of the area. Together, residents, planners and designers developed a plan that sets a better course for village-friendly development to occur around the market that incorporates the surrounding green landscape, vital to an appropriate scale and regional character. The following are design guidelines and strategies used in the planning and design of the future Atkins Corner Village, that are relevant to this project:

Relevant Design Principles:

1. Recognition of context
2. Treatment of Landscapes as interdependent and interconnected
3. Integration of the native landscape with development
4. re-use of already disturbed areas

(Andropogon Associates, Ltd.)

Relevant Design Strategies:

1. maintain views to surrounding hills
2. wetlands protected or created
3. views to landscape accessible through buildings
4. open space maximized – buildings clustered

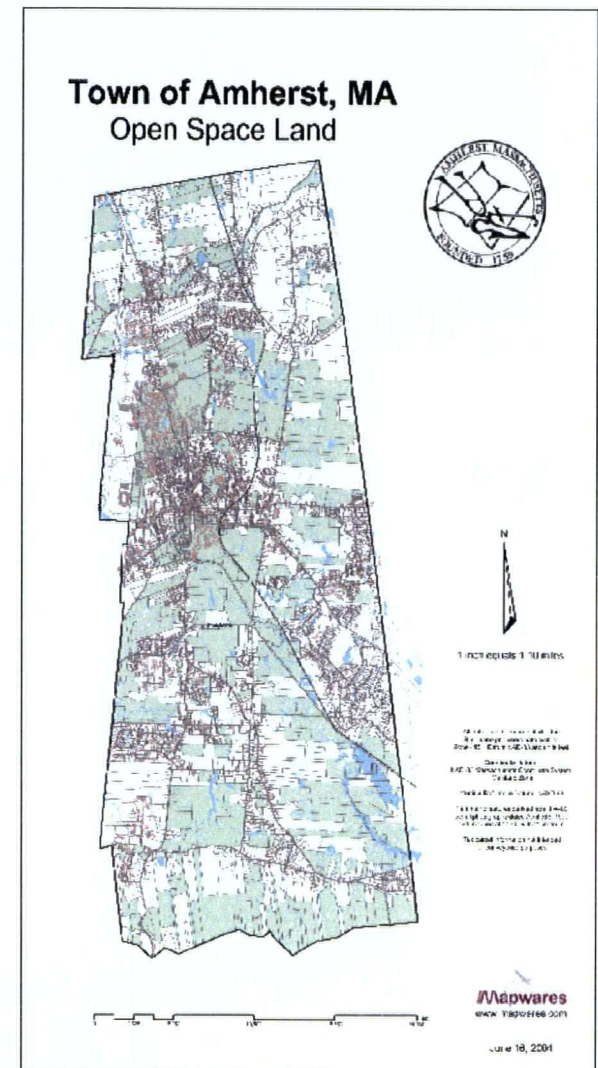


Fig.16 Conserved open-space, much of it publically accessible, surrounds much of the center of Amherst, MA. (www.amherst.gov)

5. hydrology exposed and expressed throughout site
6. bioswales and buffer strips incorporated into circulation routes
7. parking divided up into smaller areas – easily shaded, pedestrian friendly
8. permeable pavers for parking areas
9. parking available on Main Street
10. streets are curb less for better water infiltration into bioswales
11. buildings are no more than 2.5 floors high
12. new buildings fit the New England vernacular
13. buildings have porches/decks that connect with landscape

(A Workbook of Design Options for Sustainable Design: Atkins Corner Village Dodson Associates, Ltd. Landscape Architects and Planners, 2002)

Relevant Program:

Pedestrian friendly, ecologically and geographically sensitive New England village center

Vermont Commons - Old and New

Shoreham, VT

In 2002 Shoreham, Vermont, a village 25 miles south of Charlotte, went through a planning initiative for the rejuvenation of its town commons. The Shoreham Commons, as it is known, consists of eighteen acres of municipal land, twelve of which are the village green and the buildings located on this land: the fire department, town garage, library, town offices, congregational church, elementary school and also Newton Academy. All

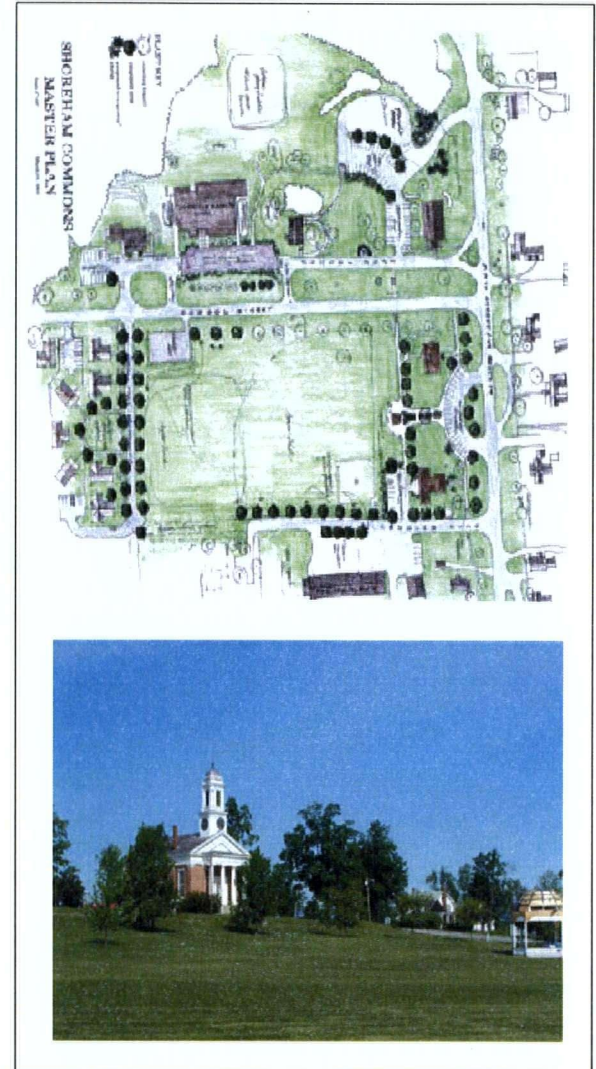


Fig.17 The Vermont Design Institute provided a master plan for the village of Shoreham, Vermont in order to re-evaluate the role of the commons. (courtesy of The Vermont Design Institute)

of these community buildings were built at different times, spanning 150 years. The goal of the planning project was to provide a framework for improving and expanding community services and municipal functions to best serve the citizens of Shoreham (Gayer, 2002). Although the amount of open space considered in this project is not as expansive as that potentially available in Charlotte center, this project sets a precedent for maintaining, yet embellishing upon historical character (however incrementally developed) of villages in the Champlain Valley region.

Relevant Program:

Multi-functional Community Green with scenic, historic and recreational function

Relevant Design Guidelines:

1. consider public open space design concurrently with future development scenarios, providing distinct delineation and natural buffers between residential areas and green space
2. provide easy access to village green space from all directions and from community buildings, so that it is utilized and active throughout the week by a diversity of users
3. create/restore community buildings to be flexible and adaptive spaces for a variety of community needs
4. recreational space

Intervale, Burlington Vermont

The Intervale Project, in Burlington, VT is a collaborative effort of Burlington citizens who wanted to see the reclamation of a large open space property that sits in the north end of town. It is a great example of a productive open space that also functions as a recreation area, and is currently shaping new, innovative civic and retail development within the city boundary. The property consists of 700 acres, much of which is leased as farmland by a number of small-hold operations and community gardens. Surrounding the farmland are woodland trails that run along the Winooski River – all of which is in walking or biking distance to the greater city of Burlington. The Intervale is a kind of common, such as identified by Alice Ingerson, in that it was a fragmented piece of open space that has been reclaimed. It relates to this project as it is a public, outdoor space, multi-functional in nature, which integrates and reconnects natural and social systems, maximizing both, within a town context. The Intervale is a superb example of what a 21st century common can be. Because this common is such a productive, participatory landscape, its programming harkens back to the commons of old, where public agriculture was the main function of such a space.

Relevant Program:

community gardens, recreation trails, abutting
farm fields, on-going community gatherings and events,
wildlife habitat, wetlands
(<http://www.intervale.org/index.html>)



Fig.18 The Intervale in Burlington, Vermont has re-defined the term 'commons', where joint access to property and joint ownership flourish on 700 acres, within the city of Burlington. (www.intervalefoundation.com)

The Public Process in Village Design

Westport, CA

Westport, CA is a very small town (approx. 240 residents) in Northern California that took part in a community planning process very similar to Charlotte. Although on the other side of the country, the scenario is also very similar. Randy Hester, a landscape architect and community planner from Berkley, CA led the residents of Westport through a design charrette in order to decide what to do with a centrally located parcel of undeveloped land. This precedent study gives clarity to the public process piece of this project and also gives design solutions to the challenge at hand.

Relevant Design Principles:

1. community development must be inspired by ecology, integrated with traditional forms of the village
2. consider the community the best community resource
3. design must be a harmonious integration of all scales, from watersheds to building alignment
4. village center must be grounded in everyday life
5. use local resources – natural, human and manufactured wisely and inventively

(Westport Community Design Team – University of California, Berkeley, Crafting Westport, Technical Report Five from the Pea Patch, 2003)

Relevant Program: flexible outdoor space in village center, trail network connected to village center, flexible community building/space

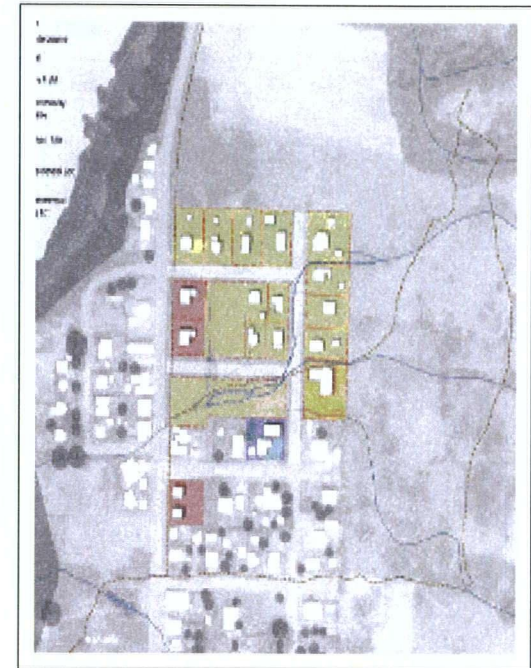


Fig.19 A community in California used the traditional New England town common as their centralizing form for new village and local trail development. (curtesy of Westport Community Design Team, University of California, Berkeley)

Guiding Principles of Project

While each of the precedents listed is not an exact replica of Charlotte's scenario, the focus of *this* project, relevant information has been gleaned from each of them and applied to the design challenges for Charlotte. Specific design guidelines have been used from these precedents, but most importantly the precedents helped in the formulation of six guiding principles. These are as follows:

1. Maximize community resources – intellectual, experiential, cultural, and natural
2. Allow ecological systems to run their natural course
3. Create flexible, multifunctional spaces
4. Make interconnections at all scales
5. Treat outdoor spaces like rooms within the village
6. Support visible activity at, from, and to, the village center

Chapter 3

Understanding the Site

Analysis

Social Assessment

Community Profile

"Charlotte shoulders its way between the glitzy refinement of Shelburne to the north and the blue-collar panache of Ferrisburgh to the south, trying to find a happy medium between the two extremes, and forging its own peculiar character in the process. This is a town dominated by rural landscapes, by farmland, hills, and orchards; it is also - quietly, to be sure - part and parcel of Vermont's Gold Coast. Small farms and modest homes are here, as they have always been; but they often sit cheek and jowl with more stately mansions." Vermont Magazine

As can be seen in the above quote, Charlotte is not suffering a rural decay. Chartered in 1762, Charlotte is situated in the idyllic and adored Champlain Valley. Originally, it's four corners, now the junction of Ferry Road and Greenbush Road was home to the local tavern, a warm hold up for those shipping goods across Lake Champlain. While Charlotte has seen a lot of change since then, the tavern still stands (now a family home) and much of the land around it is still productive farmland, as it was in days gone by.

To better understand Charlotte, below are some vital community statistics:



Fig.20 Charlotte residents have a long standing history with the land they call home, as a place to enjoy and recreate and also as a place to make a living. (curtesy of Charlotte Library Collection)

Average Age:

36

Race:

97% white

Place of Birth:

48% out of state

49% in state

3% out of country

Education:

18.5% high school diploma

22% college or associates degree

32.4% bachelors degree (18% VT)

23.5% masters degree (11% VT)

Median Household Income:

age 35-45 \$67,000 (\$47,000 VT, \$50,600 US)

age 45-54 \$88,000 (\$52,000 VT, \$56,000 US)

age 75+ \$19,000 (\$21,000 VT, \$22,000 US)

Housing:

average cost of house \$500,000 (\$183,000 VT)

summer home \$775,000 (\$275,000)

Transportation:

1,563 out of 1,859 working population drive to work

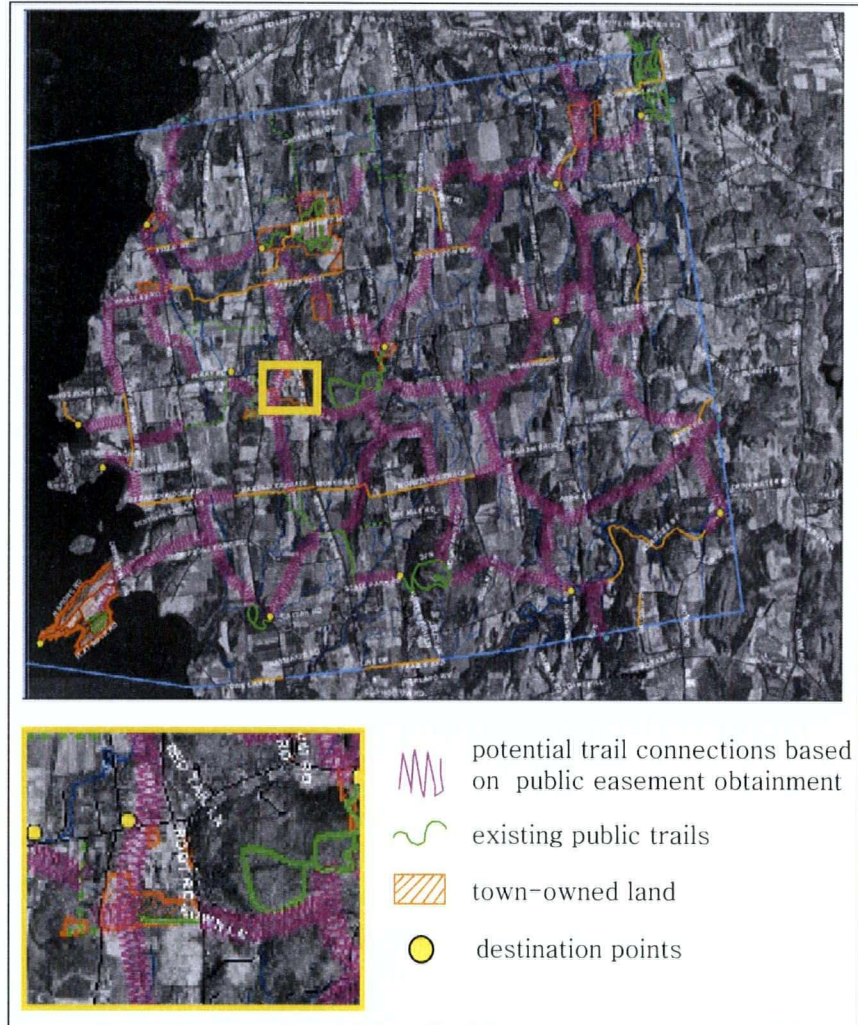


Fig.21 This 'vision map', created by a member of Charlotte's Trails Committee reflects the dedication already in place in Charlotte to maximize their regional and local recreational and ecological public resources (image by Brooke Scatchard)

234 work from home
 51 walk to work
 0 use public transportation (none currently available)

Work:

44% professional specialty occupations
 16.3% sales
 8-10% agriculture (16 dairy farms and numerous other agricultural enterprises such as orchards and organic vegetable and flower farms)
 7.7% craft and repair

Jobs available in Charlotte:

approximately 500 jobs, 102 businesses in operation, mostly out of the home
 (Charlotte Town Plan, 2002) (US Census, 2000)

From the above statistics it is easy to see that Charlotte does not necessarily represent the typical Vermont living. Comparatively, Charlotte has a collective income far above the Vermont median. This is largely due to its close proximity to Burlington, where the availability of a diversity of jobs is most probably the largest in the state, but also due to wealthier families moving into the area from wealthier states. Also notable is the large discrepancy in median income for those 45-55 (\$88,000) and those over 75 (\$19,000). While this does imply that many Charlotte residents are living comfortably, it also means that the price of living in Charlotte could easily be unobtainable for others, especially for seniors and young families in the area. Because of this, providing affordable housing is an essential element to Charlotte's town planning if they are to create a livable community for a diversity of residents.



Fig.22 Charlotte residents took part in an intensive design workshop and a number of public hearings between October and December of 2004 to understand how best to manage their village-land. (The Charlotte News, 2004)

Luckily, Charlotte has an extremely active town planning commission and residents alike. The town also boasts of a recreation, conservation, a trails committee and recently, a Burn's Parcel committee. From the most recent town plan and up-to-date land use regulations it's also easy to see that, as a municipality, Charlotte has gone to extensive lengths, not only to identify itself, but to put policies into effect that go a long way in stewarding a much loved rural environment. The planning commission recognizes that any future development must be carefully considered in order to fulfill the needs and desires of the Charlotte citizens, while also protecting the natural processes occurring on and off site (Hamilton, Linda 2004). The Vision Map, shown in Fig 21, is a great example of just how dedicated residents are to making Charlotte a great place to live. The Vision Map was created by the Charlotte Trails Committee and shows a potential trail network that extends across the entire town—both the east and west village, and the surrounding countryside. The Trails and Conservation committee are currently seeking right-of-way permission from private landowners in order to make this Vision Map a reality.

Community's Response to Site— Public Planning for Public Land

As mentioned in Chapter 1, in the Site Selection section, the town of Charlotte held a public planning process to better understand the potential future of the Burns Parcel property. The planning process was made up of town meetings, a design workshop and follow-up discussions. Four Design Teams were formed to look at several village scenarios, looking at the Burn's Parcel and LeBoeuf Meadow in tandem, due to their proximity to the village center. A composite drawing was then created by the Vermont Design Institute that reflected the

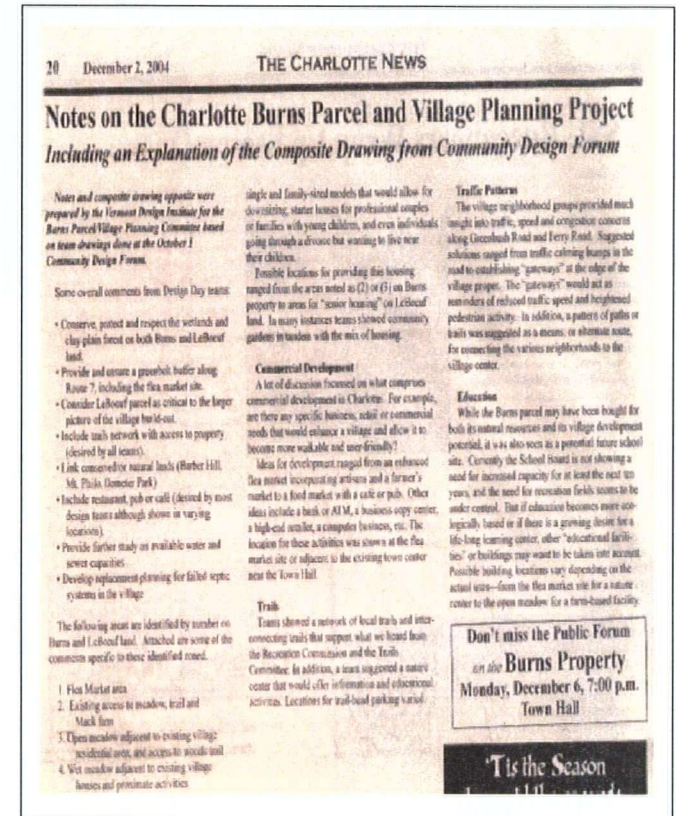


Fig.23 Municipalities can glean a lot of information and even find direction for land-use planning if residents are involved in a directed planning and design process. (The Charlotte News, 2004)

collective thoughts from the workshop. The intension of the workshop was for the town to better understand the needs and desires of the community, before land use decisions took place behind closed doors. The following outlines the **major outcome of design day discussions, as it relates to the Burns Property:**

- conserve, protect and respect wetlands of both LeBoeuf and Burns Property
- provide green buffer along Route 7
- consider LeBoeuf property crucial in bigger picture of village build out
- include trail network to access property
- link existing conserved land (Mt. Philo, Demeter Park, Barber Hill)
- incorporate Restaurant, Pub or Cafe into new village plans

Comments on housing:

- affordable housing noted as much needed addition to village
- housing options needed for downsizing, young couples and single persons
- community gardens available for the above mentioned residents

Comments on Commercial:

- retail mentioned as welcomed (by most, but not all) were: ATM/Bank, copy center, computer store, artisan and farmers market

Comments of Education:

- School Board does not see need for a new school for at least another 10 years
- future school, with strong agricultural/ecological focus would be a

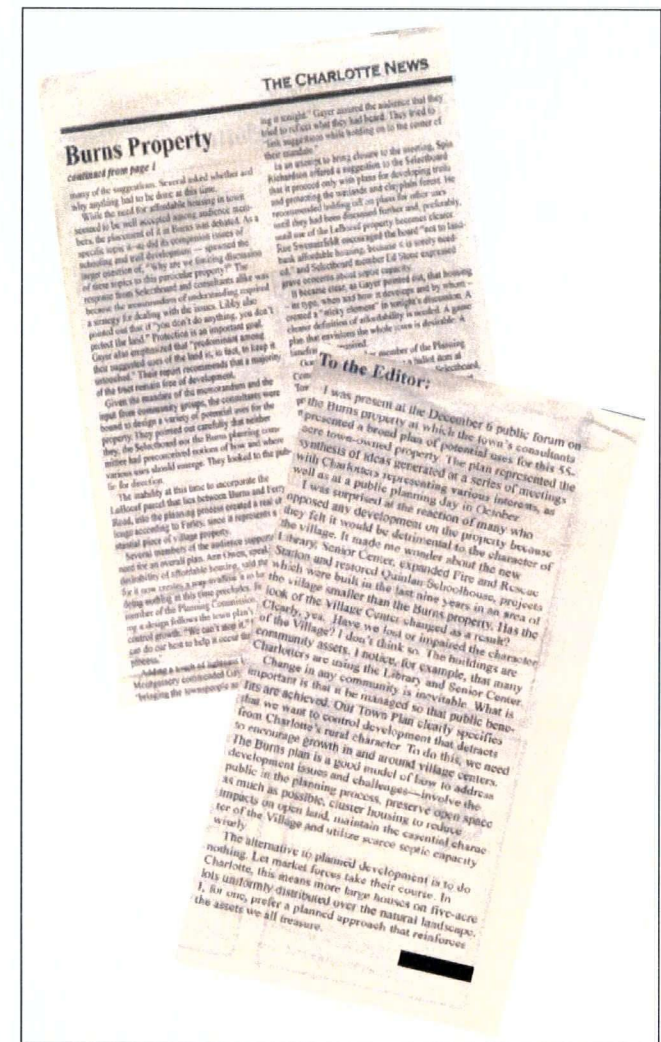


Fig.24 Letters to the Editor in the Charlotte News reflect how passionate residents are about future development decisions and the potential loss of a 'rural character'. (The Charlotte News, 2004)

good fit for property

- nature center for public education also a possibility

Comments on Trails:

- network of trail wanted throughout town and connecting to existing trail networks

Comments of Traffic Patterns:

- congestion on Ferry Rd. and Greenbush Road noted
 - 'gateways' needed to better define village center atmosphere in order to slow traffic and make for a more pedestrian friendly environment
- (Charlotte News, Dec. 2004)

The outcomes of the design day as well as town meeting discussion topics and letters to the editor in the local newspaper, suggest residents are passionate about what goes on around town. It goes without saying, that this passion will, of course, support opposing opinions when it comes to land use change... such are the growing pains of Vermont and the rest of the world.

Policy Assessment

In its vision for the Town's future, the Charlotte Town Plan builds on its most valuable characteristics - rural landscape and environment, diversity of its population, small town character, history, and active participation by citizen volunteers. Essential components of this vision are:

1. To reinforce historic settlement patterns by focusing

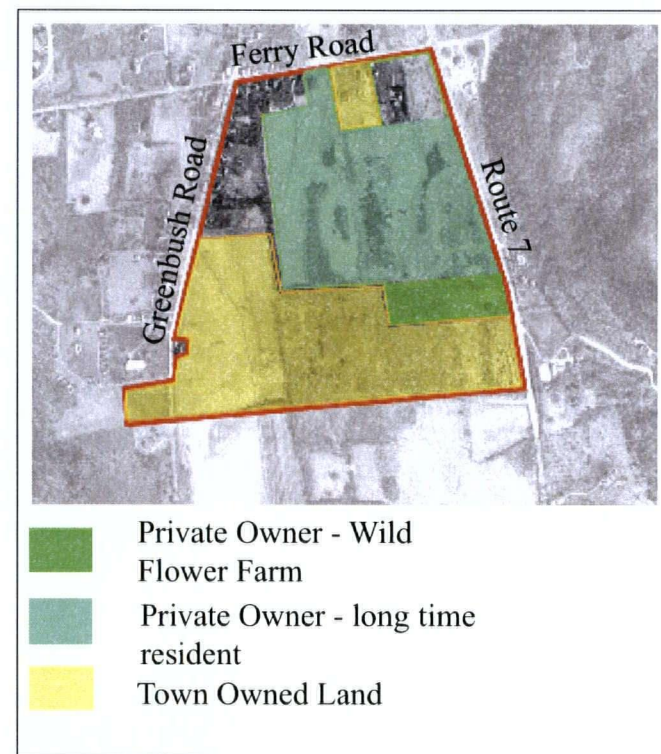


Fig.25 The study site for this project, as in Charlotte's public process, looks at both private and public land to develop a greater understanding of how each plays a part in determining the future face of the village. It also allows for best-case scenario planning.

- growth in village centers and promoting a town center
2. To maintain and enhance the scenic beauty and open land of the Town through protection of working farmland and the creation of conservation areas;
 3. To recognize and preserve the Town's unique environmental and cultural resources through both regulatory and non-regulatory actions
 4. To promote social, economic, cultural and racial diversity and sense of community through actions that encourage affordable housing, enhance the agricultural economy, provide essential commercial services, and enable environmentally sensitive rural enterprises
 5. To enable access and appropriate use of open land and recreational resources, both public and private;
 6. To plan for capital improvements consistent with the fiscal ability of the Town; and
 7. To promote community interaction and spirit.

(Charlotte Town Plan, 2002)

Existing Zoning

As can be seen in Fig. 26, much of the study site is currently zoned as commercial, including the entire edge running along Route 7. This in itself does not correspond with the town's vision of having a green buffer running along the Route 7 corridor. It is obvious that the current zoning was adopted from previous state zoning regulations that ran all retail along the busiest road. This is the root cause of 'strip development', and if put into play, would contradict much of the town's vision for the future (as can be seen in the previous section).

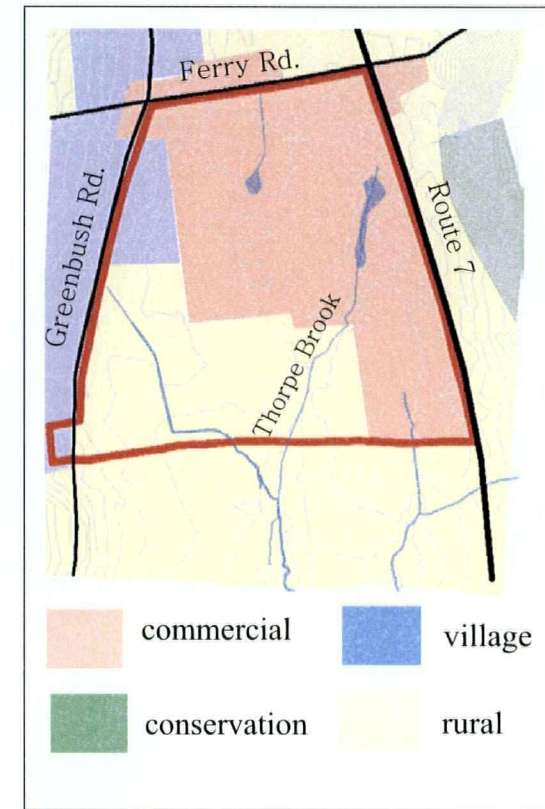


Fig.26 The current zoning does not represent Charlottes' town vision for densifying the village center and conserving ecologically sensitive environments.

Comparing Fig. 26 and Fig.29, it can also be seen that the commercial zoning covers wetland areas that are currently in private ownership and therefore would not be able to be developed anyway. While the commercial zoning is not very helpful in predicting future land use, the village zoning can help gauge where the historical village settlement patterns can still be recognized. This is helpful in knowing where, if possible, to densify the village center – a goal of the town plan. If any of the study site is to be preserved from future development, according to Charlotte's Land use policies, it must be zoned 'conservation'. Currently Pease Mountain, on the far right of the zoning map, is the closest conservation land to the village center.

Environmental Assessment

Physical Factors

Charlotte, Vermont sits in the fertile Champlain Valley and was originally the floor to the glacial Lake Vermont, and later the Champlain Sea. Due to this geological history, deep, clay soils are predominant. Barber Hill, southwest of the study site is a rare volcanic rock outcropping. Pease Mountain, to the east of the site is Monkton quartzite (Poleman, 2004). Typically this region offers the mildest climate in the state, with the longest frost free seasons and narrowest range of temperature extremes (Lapin, 1998). However, typical Vermont seasons will put Charlotte under snow for at least three months of the year, with winter temperatures dipping into the negative numbers.

The study site, in particular, is low-lying depressions within the valley, with a slope no greater than 5%, except in some areas along the banks of Thorpe Brook and other drainage ditches. Both drainage

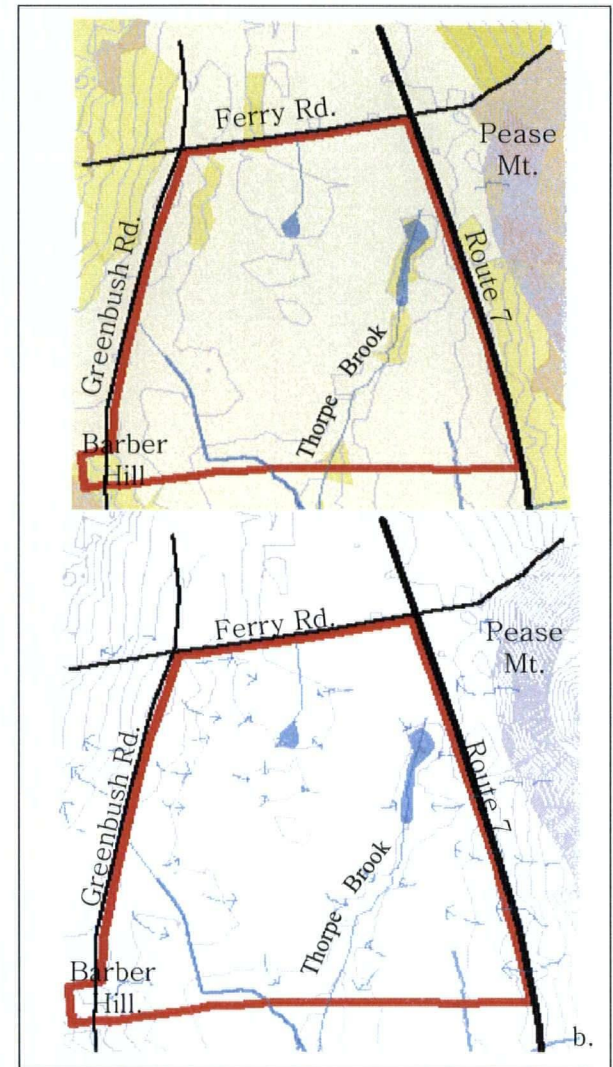


Fig.27a. This slope diagram shows the relative flatness of the low-lying study area (the lightest shade having a slope no greater than 5% and the darkest shade having a slope of 15-25% slope. Fig.27b shows the corresponding hydrology of the site.

ditches and one of the ponds on site are remnants of an agricultural past, but still used today to drain water from surrounding roads and fields.

Biological Factors

Burns Parcel consists of second growth forest, wetlands, streams and meadow land. It is surrounded by a diversity of natural areas, including Pease Mountain, Mount Philo State Park further to the east, and Lake Champlain. The entire area is rich with a diversity of habitat types, most likely supporting populations of water fowl, raptures including bald eagles, amphibians, macro-invertebrates, and mammals, large and small. In many ways the study site sits at the junction of forest and lake, and this location provides a critical connection for wildlife and humans alike. This characteristic must be considered carefully during the design process, in order to connect this property to its regional, ecological setting as thoroughly as possible.

The Clay Plain Forest, making up most of Burns Parcel (see Fig 28) is now a rare forest eco-type that once covered much of the Champlain Valley. Due to extensive agricultural practices in this area for the past 200 years, this rich ecosystem is now only found in fragmented parcels (Champlain Valley Clay plain Forest project, 2003). The Champlain Valley Clay Plain Forest Project is a research and advocacy group that works with volunteers on behave of this forest type in order to restore, steward and connect this ecosystem across the Valley. Plants associated with this forest type and found on the Burns Property include: basswood (*Tilia americana*), sugar maple (*Acer saccharum*), red maple (*Quercus rubra*), American elm (*Ulmus americana*), shagbark hickory (*Carya ovata*), and swamp white oak (*Acer bicolor*) (Lapin, 1998) (Poleman, 2004). The oldest trees found on this property are two

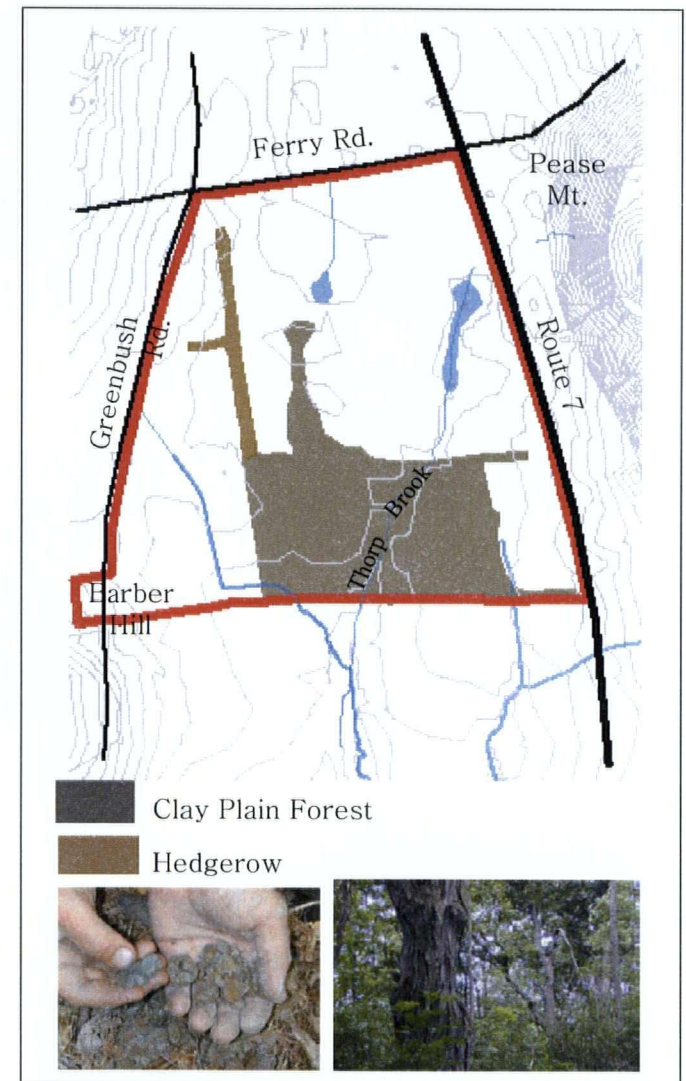


Fig.28 The Clay soils known to this area are home to the native Clay Plain forest and also well known for extremely fertile agricultural land (photos courtesy of Champlain Valley Clay Plain Forest Project).

red oaks estimated to be 200 years old, and sit at the corner of southwest property lines. Smaller trees on site include Musclewood (*Carpinus caroliniana*), Hophornbeam (*Ostrya virginiana*) and witch-hazel (*Hamamelis virginiana*) (Lapin 1998, Poleman, 2004). Over 60 herbaceous species grow within this forested site, including two uncommon sedge; the Minnesota sedge (*Carex albursina*) and Gray's sedge (*Carex grayi*) (Lapin, 1998). This forest type provides wildlife with a large supply of nut crops, close proximity to water, a moderate climate, and a diverse landscape for foraging and refuge.

The wetlands associated with the study site, both on the Burns parcel and private parcel are considered Class I (significant wildlife habitat) and sit within a major wildlife corridor that runs diagonally, southwest to northeast and vice-versa (Charlotte Town Plan, 2002), (Lapin, 1998). Plant species associated with the wettest parts of the site include sensitive fern (*Onoclea sensibilis*), lady fern (*Athyrium filix-femina*), wood-nettle (*Laportea canadensis*) and fowl mannagrass (*Glyceria striata*) and common cattail (Lapin, 1998).

Other important eco-types found on the study site are the open meadow – both dry and wet, and hedgerows. Both of these are essential habitat for song birds, such as the cardinal, tufted titmouse, and hermit thrush, raptures – owls and hawks, and also to wild turkeys and small mammals such as voles and mice. The wet meadows are home to a diversity of wetland grasses, such as mentioned above, and also to amphibians such as frogs and salamanders. Specifically, the Jefferson, blue-spotted, and red back salamander, the gray tree frog, wood frog, spring peeper, northern leopard frog, green frog and bullfrog (Lapin, 1998). Hedgerows act as movement corridors for wildlife as well as perching and nesting sites for birds of prey (Smith, 1998).

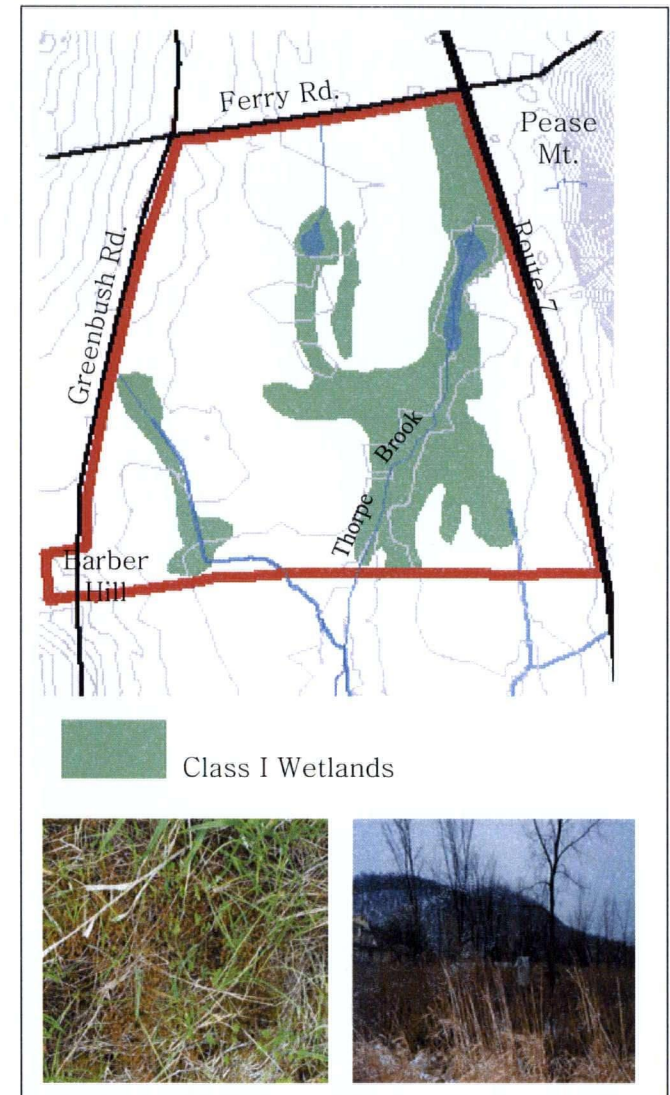


Fig.29 While wetlands can be seen as a limiting factor to future development, they can also guide well-sited development and are in themselves vital to a high quality water source. (photos by author)

Summary of Opportunities and Constraints

Site Planning Scale

Major land-use restrictions that must be considered when proposing uses for Burns Parcel and LeBeouf Meadows include; sensitive wetland and stream habitat, rare forest type and limited septic soils for future development.

Opportunities for future development are clearly defined by those areas that are neither critical wetland, Clay Plain forest nor prime agricultural soil. The remaining land available for building, that would also support a historically dense village center, sits to the east and south of residential properties at the corner of Greenbush and Ferry road. The hedgerow that runs parallel to Greenbush would act as a natural buffer and public right-of-way between existing residential and any new residential that may occur. While Charlotte's land-use regulations, as well as the 10 criteria of Vermont's Act 250, are a good foundation for any land-use proposals, the current zoning, as mentioned previously, does not correlate with either of the aforementioned criteria. The 10 Criteria of Act 250 are listed in the appendix V.

Biologically and physically, the study area offers a plentitude of natural wonders and aids in the overall rural aesthetic that Charlotte wishes to maintain. Important vistas to note are those views from Barber Hill, looking both northwest and northeast, and views across the meadow south from the town hall area. All surrounding roads should also be considered for their high visual quality as rural greenways and gateways into and out of the village center.

Lastly, it is necessary to consider Vermont's four seasons, each bringing certain challenges and opportunities when designing for

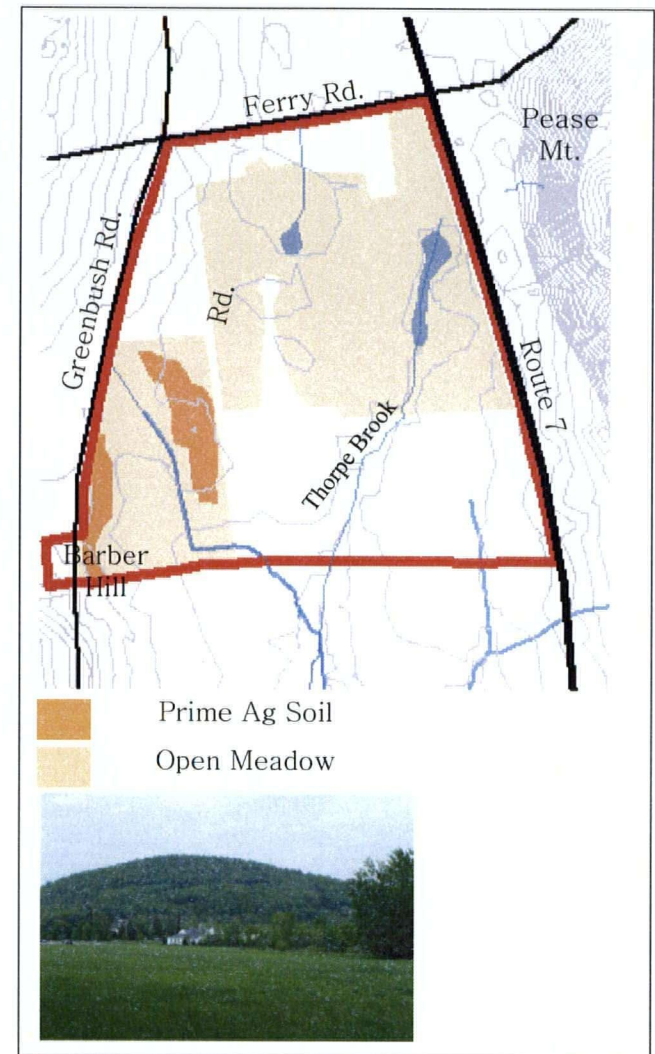


Fig.30 Wet meadows and old farm fields sit adjacent to the village center (photo courtesy of Diane Gayer)

people's enjoyment of a place. For example, spaces designed for people also need to accommodate large amounts of snow in the winter, mud and rain in the spring and places to enjoy the fall colors come October.

Village Center

The beauty and essence of this project lies in the fact that the site in question lies at the heart of Charlotte. People naturally bump into each other going to the post office, the library, or running in for a carton of milk at the general store along Ferry road, not to mention events already in motion at the senior center, fire station and the daily activity at the Charlotte Child Care Center and The Flying Pig bookstore.

There is able opportunity to capitalize on this high level of community activity. Currently, however the formal outdoor public spaces tied into Ferry road are not connected to a greater pedestrian network or to larger public green space, even though the proximity of the latter is extremely close by. The village green, created in the late 1990's when both the library and town hall were built, does not currently have a designated pedestrian path to or from it, apart from the sidewalks running from the library to the town hall, at the side and rear of these buildings. To the west are a wide drive and two asphalt parking areas, one behind the town hall and one behind the post office. Having such a wide paved area immediately west of the green gives the green little definition, and/or defined entry way from the west, and separates the post office from its two neighboring civic buildings. This also gives priority to cars in the town center,

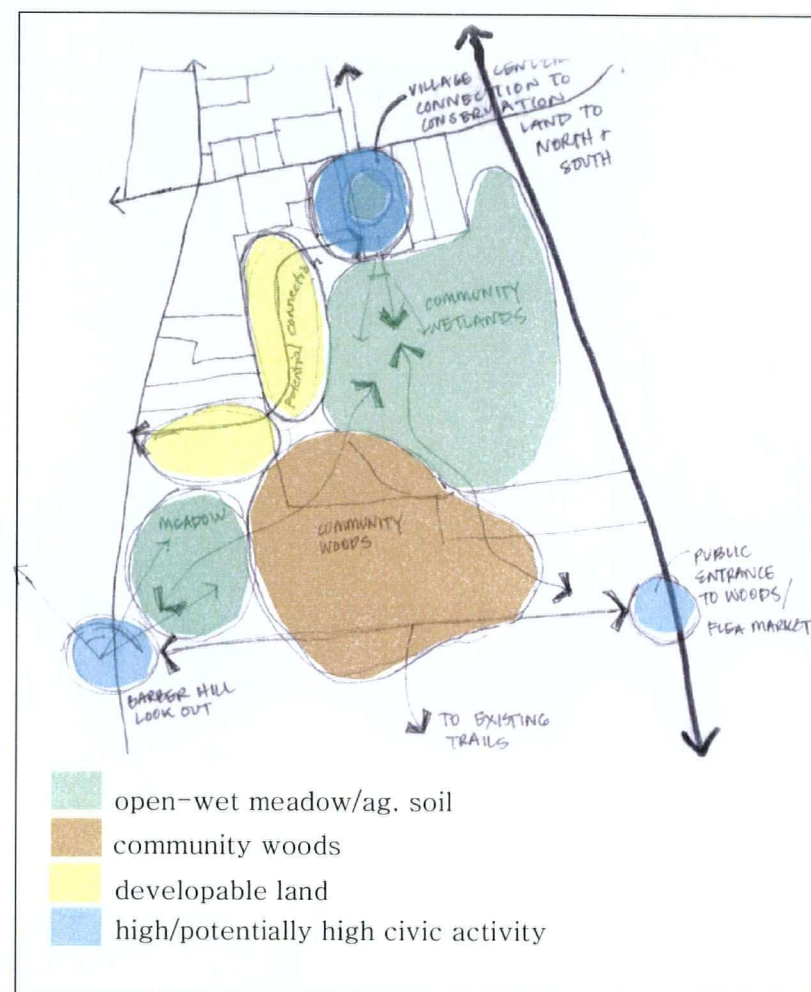


Fig.31 This simple bubble diagram shows the general delineation of types of spaces within the study area based on physical, biological and social character.

rather than a balance of both cars and also pedestrians and/or bikes. It should be noted that small foot bridges are currently in place for pedestrians to cross over a grass swale that also runs along the western edge of the town green. Currently there are no sidewalks along Ferry Road. Ferry Road is currently 20 feet wide. Between this width and the open north edge of the green, there would be ample room for sidewalks/paths in this central area if the town so desired. Both social and ecological connections to the south (Demeter park) and west (Burns Parcel) of the town green could also be made.

Site Goals, Objectives and Design Criteria

The final piece to this research project is to propose design solutions that are both appropriate to the regional and site biological, physical and social make up, and also accommodate the proposed site program. The Appendix II chart outlines a systematic approach to reaching the ultimate goal of sound design decision. Here, design criteria (the how-to-design) is reached by understanding the goals, objectives and policies that bound the site (Condon, 2005). The chart also includes design strategies – the specific design decisions that were made within this project, to meet the design criteria.

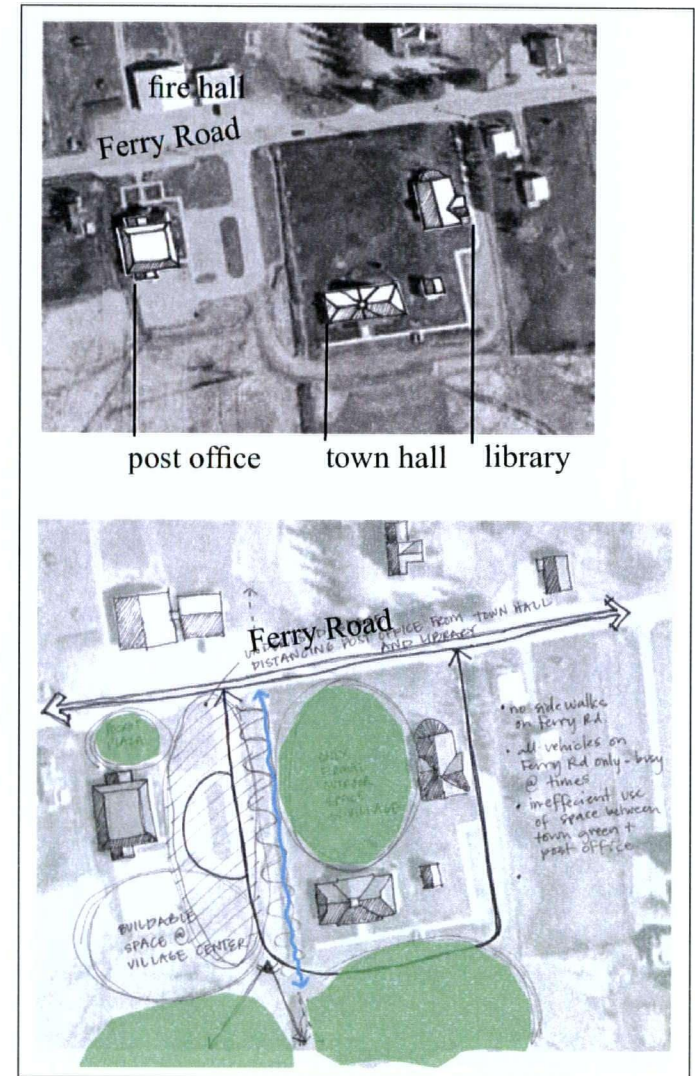


Fig.32 A closer look at Charlotte's village center shows existing outdoor spaces that could benefit from increased definition and interconnection.

Program
Charlotte's Greater Village Commons

- a series of dynamic, connected civic and conservation spaces in the heart of Charlotte

Community identified needs, site opportunities, and precedent generated program all play a role in informing the program for the site in question. While members of the community differ in opinion on how to go about developing or protecting land, most agree that the natural systems and open space currently in place within or adjacent to the village, both private or public, are of utmost importance to the character of the town. This, along with town and state policy that does not permit development on wetland or natural heritage sites (clay plain forest), which make up much of the study area, supports a program with a high ecological/conservation bent. This being said, Charlotte does have a need for affordable housing, and according to their 2002 Town Plan, a desire to densify their village center in order to preserve historic settlement patterns (Charlotte Town Plan, 2002). To satisfy community need and respond to the character of the land, a series of public, outdoor spaces are proposed linking village spaces to the landscape that immediately surrounds it – a greater village common. These public places require a network of trails that connect to existing trails, right-of-ways, village residences (existing and proposed), and to village services and amenities. See Appendix I for detailed programming information.

As in all programmed public areas, special consideration needs to be made for parking demands, as it relates to proposed program. Table 2 shows the specific parking requirements for each site program, according to Time Saver Standards.

PARKING SPACE REQUIREMENTS		
WHAT	STANDARD RATIO	Requirement in Charlotte
Town Hall	1.5 space/ea. employee	15 spaces
Library	1 space/300sq. foot	15 spaces
Post Office	1 space/2 employees	4 spaces
Market Place	6 spaces/1000sq.ft	24 spaces
Senior Housing	1 space/3units	7 spaces
Conservation Area	1 space/2 acres	27 spaces
TOTAL SPACES NEEDED =		92 spaces*

(Landscape Architecture Time Saver Standards)
 Table 1. Parking has been divided up into small areas throughout the site. 136 parking spaces have been proposed throughout the study site, including on Ferry Street, in front of the village green.

Chapter 4

Planning and Designing the Site

The Big Idea – Charlotte's Greater Common

Conceptual Design

From the research and analysis collected, it is evident that the village of Charlotte has the best of both worlds: land that can't be developed, but offers a beautiful community resource close to town, and land that can be developed that will enhance and support a vibrant, active village center. Together, these two findings support the concept of Charlottes' Greater Commons, where private land consumption is minimized and public outdoor space is maximized for social and ecological function. The Greater Commons house all connected, public, outdoor places from the village center and beyond. These include Post Office Plaza, Village Market Place (proposed), Village Green, Town Hall Meadow (proposed), Open Meadows, Wetlands and Burns Parcel Woods (Burns Forest), and also trails to Demeter Park, Pease Mountain, Mount Philo and Barber Hill Lookout (proposed). Supporting community buildings that complete the Greater Commons as civic space include the post office, town hall, library, Charlotte Child Care Center, Senior Center, Fire Station, The Old Brick Store, Flying Pig bookstore, Charlotte Café (proposed), Charlotte Senior Home (proposed), and the Market Buildings (proposed).

Before delving into detailed design, a conceptual diagram of Charlottes' Greater Commons was done at various scales. Fig. 33 shows how the concept works within a larger context of public outdoor space within the entire town of Charlotte, Figure 34 and 35

Review of Guiding Principles

1. Maximize community resources – intellectual, experiential, cultural and natural
2. Allow ecological systems to run their natural course
3. Create flexible, multifunctional spaces
4. Make inter-connections at all scale
5. Treat outdoor spaces like rooms within the village
6. Support visible activity at, from and to the village center

zooms in further to the study site itself. Finally, figure 36 shows how the concept of the Greater Commons transfers to the smaller scale of village center, where the village center houses increased social and ecological function within itself, as well as being a vital part of a larger social and ecological system – the Greater Commons. At this conceptual stage of design, the written and diagrammatic explanations hope to capture site goals and objectives from afar, using the six guiding principles as an all-encompassing measuring stick for success. To review the guiding principles formulated in Chapter 2, they are: *1. Maximize community resources - intellectual, experiential, cultural and natural 2. Allow ecological systems to run their natural course where ever possible 3. Create flexible, multifunctional spaces 4. Make social and ecological inter-connections at all scales 5. Treat outdoor spaces like rooms within the village 6. Support visible activity at, from and to the village center.* While some of these principles relate more to the public process piece of designing a unique place, for example: “maximizing the communities intellectual resources”, most can be recognized at this conceptual stage. The following describes the concept of the Greater Commons in detail, first at the site scale and then at the village center scale.

Site Concept

The study site is seen as a series of outdoor spaces, with both ecological and social function – where certain places have higher ecological character than social character and others work in the reverse.

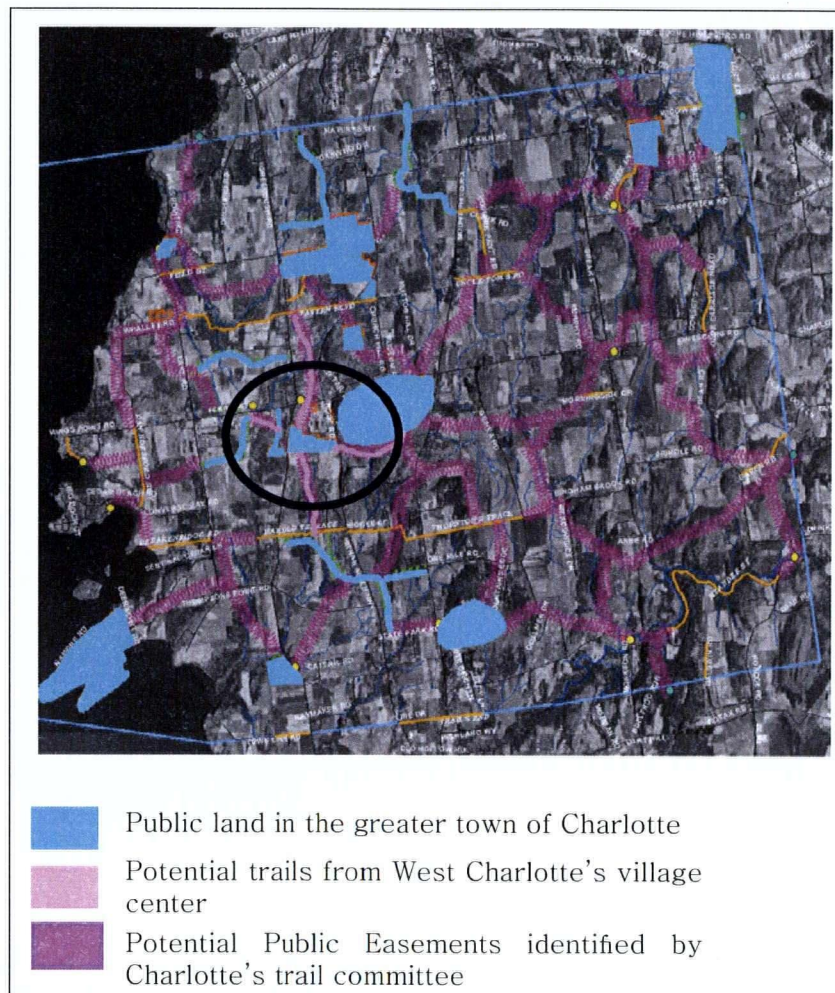


Fig.33 Based on the community Vision Map, the village center of Charlotte can potentially connect trail users to a regional network of public lands.

There are three major hubs of human activity (social character), where entering the study site and prolonged gathering would naturally occur, based on specific site adjacencies. While each hub is civic in character, there is a uniqueness to each, again, depending on its place and relationship to the site in its entirety. The most prominent civic hub (1.) identified is that at the heart of the village center, connecting the village green to a larger network of public open space, for both social and ecological purposes. This will be a celebrated entrance space for both locals and visitors alike, and the largest gathering zone within the study site. Hub 2. is directly off of Route 7, where the Charlotte Flea Market is currently located. Because of the proximity to Route 7, a major state through-way, this is an extremely public entrance to the woods of Burns Parcel. This area acts as a draw and welcome to the village of Charlotte and any trail networks (and any other program) that begin here. Hub 3. is the only entrance directly off of Greenbush Road. It is a smaller, more subtle entryway to Burns Parcel to the east and Barber Hill to the west, and is intended for local use and those biking through on the Champlain Valley Bike Route. The design of these three areas will be discussed in greater detail throughout this chapter.

Land allocated for either conservation or development, is done so in correspondence with existing site character and again, site adjacencies. Future building sites were based on the fact that they would not compromise sensitive natural systems and would support Charlottes' desire to densify the village center. Similarly, land allocated for conservation and recreation land was done so in correspondence to ecological systems already in place.

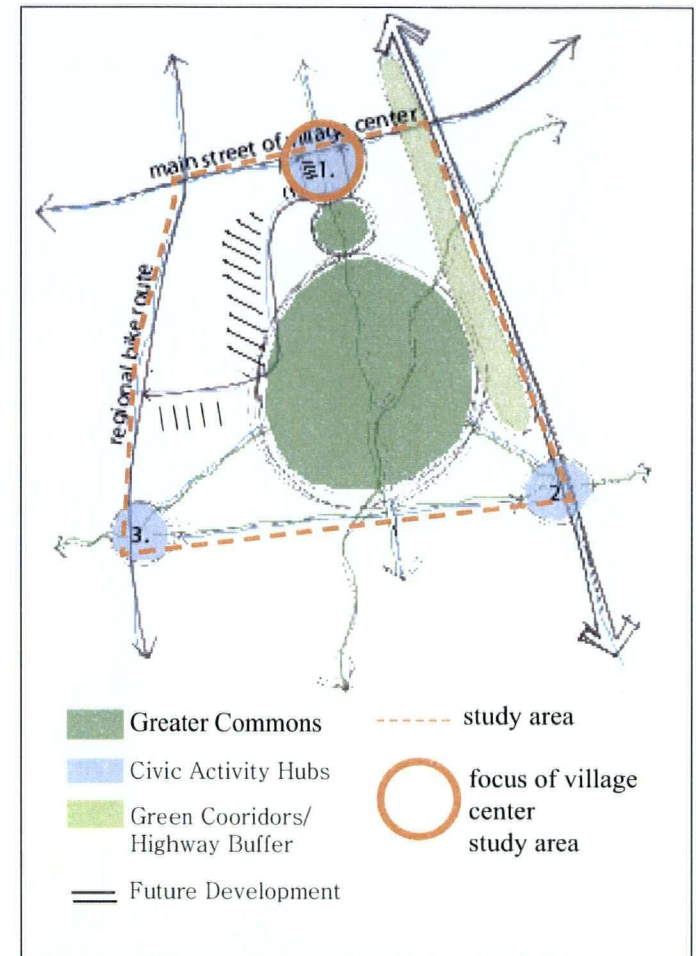


Fig.34 The concept of the Greater Commons at the site scale

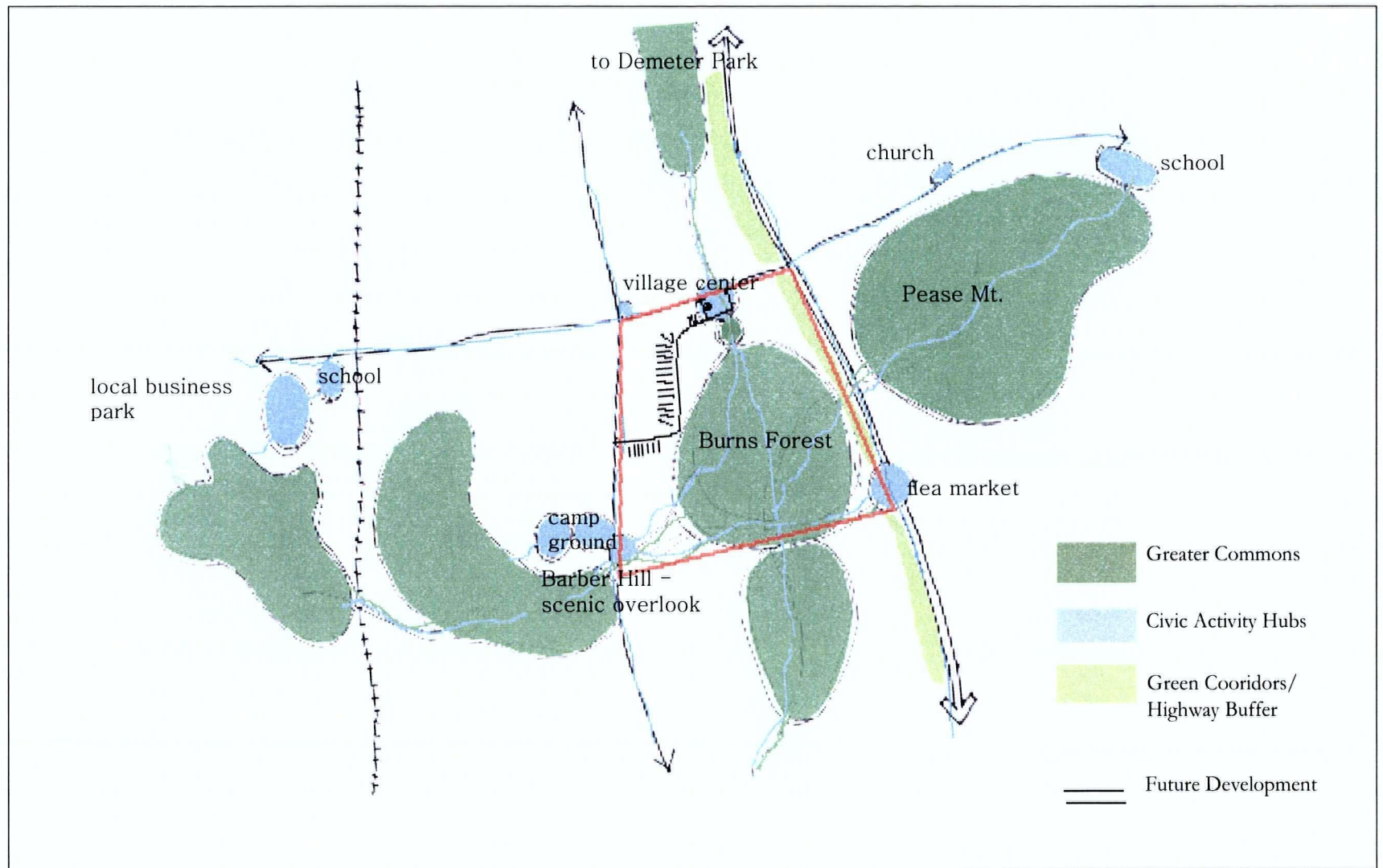


Fig 35. Design concept as it relates to a larger context of open space, civic hub connectivity, and both wildlife and human movement through site.

Linear connections respond to existing desire lines (of humans, wildlife and abiotic movement) found in the landscape, and also in response to the need to balance the protection of ecosystems with human enjoyment of these systems. A new road is proposed to intensify activity in the village center, and to enable future development at this heart. In this proposal the new road also acts as a visible boundary between development and conservation land.

Village Center Concept

The village center works as an integral piece within the conceptual design of the entire study site as the most significant human activity hub. However, when studied at a greater depth, this area also reveals its function as a base location for connecting people and nature to a larger system of trails and green infrastructure, respectively.

As the existing village green sits adjacent to the proposed conservation area, and already is intended to bring an outdoor civic character to the village environment, it is important to make a significant connection – visually, socially and ecologically, to these two elements of the study site. Doing this satisfies the main project objective to maximize Charlotte's accessible, public space and resources within and from the village center. It also intends to expand the significance and function of this historical outdoor space.

While it is necessary to acknowledge daily activities already in place within this town hall/village green area, the concept proposes ways in which to bolster successful function, activity and aesthetics in this area now and into the future.

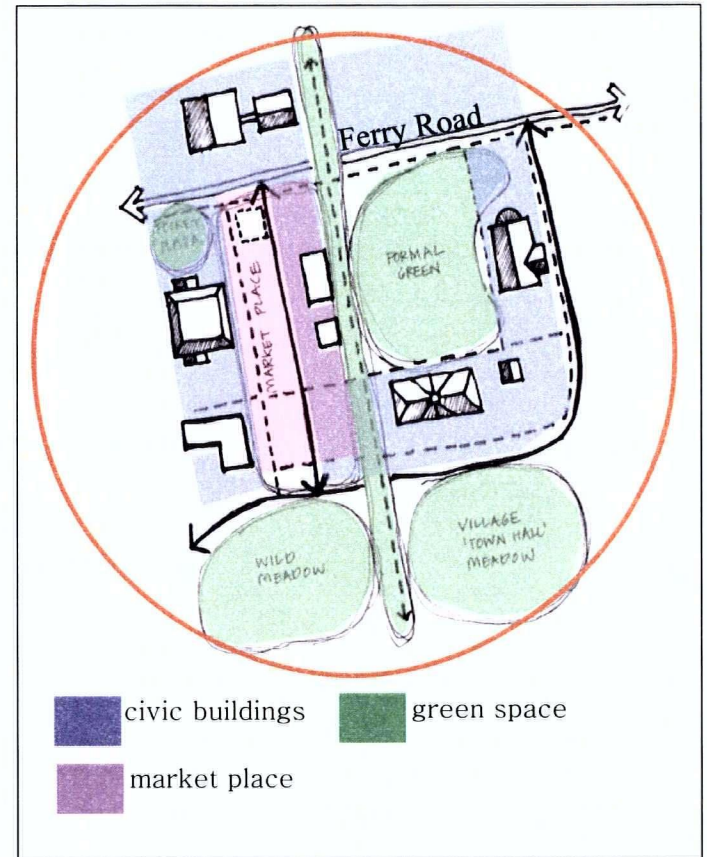


Fig.36 The Greater Commons concept maximizes civic and outdoor spaces at the heart of a village and beyond.

Bringing Concepts to Life – Design Decisions and Ideas

Revisiting Project Goals, and Objectives

Building from the conceptual design, the following section explains the design decisions in detail. This section expands on the design strategies listed in the Appendix II table. As shown in this table, all of the design decisions (strategies) are direct outcomes of the goals and objectives for the study site, supporting town or state policy, and the design criteria (guided by precedent studies and literature review). Working with a large study site, such as this, it quickly becomes evident that each design move is interwoven into the next one, together fulfilling the overarching site goals to: *protect the Clay Plain forest ecosystem, protect Thorpe Brook and associated wetlands, clarify land allocated for future development, design economical solutions and enhance the sense of local identity and heritage*. However, each design move is aimed at specific goals and objectives. In order to bring clarity to this, corresponding goals and objectives will be listed after each design decision described below.

Site Scale

Future Development – Acreage, Frontage and Housing Types

Currently, Charlotte's zoning for residential property is at a 5 acre minimum (Charlotte Town Plan, 2002). However, to be able to ensure Charlotte's ability to conserve greater amounts of open space (i.e. ecological and cultural resources), and to densify the village center, rather than expand it in all directions, this project proposes a re-zoning for residential property, in the village center, to no greater than two acre lots, with a minimum of 100 feet frontage width (Condon, 2005). Creating narrower, longer lots provides the opportunity to put the far end sections of all adjoining properties in a conservation or right-of-

way easement, even though privately owned (Arendt, 1999). This would support secured ecological and pedestrian connections even within residential areas. Overall, the residential development proposed minimizes land consumption and supports greater activity of residents at the village center, encouraging residents to walk to the library or the general store instead of drive. It also offers a wonderful opportunity to access recreation trails right in your back yard. All of this provides individual residents with a sense that they are connected to a greater social and physical whole (the commons). The level of participation or connection within this whole, will obviously vary with each individual (Donahue, 2001). Of course, densifying development will also bring a greater return to the developer, making a smaller buildable area monetarily worthwhile (Arendt, 1999).

In order to make strides ahead of sprawl, not only must future zoning be re-analyzed within Vermont villages, but how and what we build must also support a more sustainable growth. This is to say that housing design must respond to the local environment—physical and biological, and to the real needs and desires of the people at hand. It must correspond to the fact that family size, make up and occupations have changed over time (Albers, 2000). In Charlotte's case, the public planning process revealed a need for single occupancy homes, live-work spaces and affordable housing for families and seniors. A discrepancy in Charlotte's median income, by age, also supports this. All of these residents do not need large, four bedroom homes, but instead smaller, flexible living units close to village services and amenities, and outdoor places to recreate.

It is argued that conservation land in the heart of a village will, for better or worse (depending if you own or trying to buy), raise

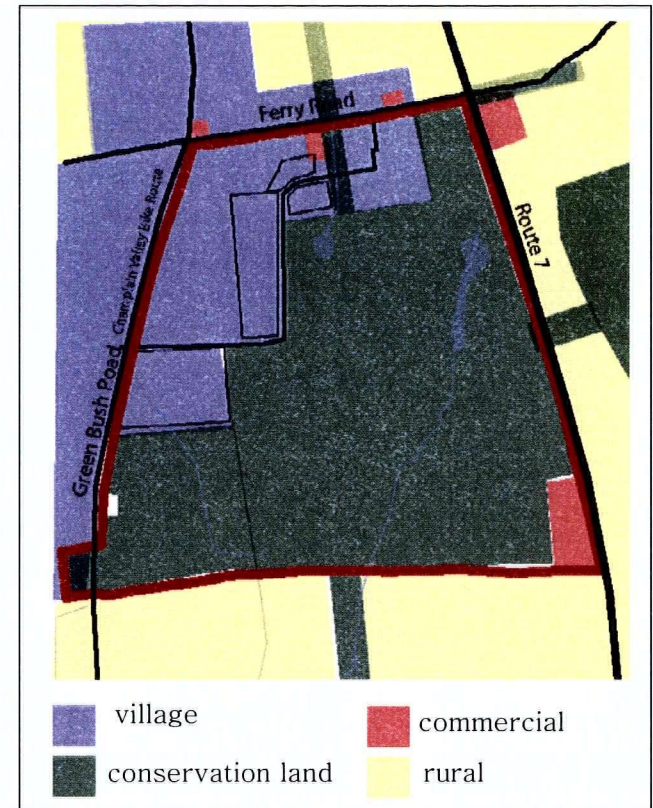


Fig.3 In order to apply new ideas to future village development, a re-zoning process most often needs to occur. The concepts proposed in this project would increase both village center and conservation zoning.



Fig. 38 Proposed Master Plan of West Charlotte Village Center

property values (Arendt, 1999). Property values in Charlotte are already above the Vermont and even National average. In this project, more, smaller, affordable homes and/or living units within duplexes or housing cooperative are proposed to ensure satisfactory monetary gain for the developer, but also to support a greater diversity of residents— young, old, single and married. Such a move supports the greater commons concept and would, no doubt, attract buyers and visitors with a welcoming demeanor. It is important to note that affordable housing does not mean forgoing an appropriate vernacular design. New homes, be they large or small, duplex, cottage or cooperative, can be designed to marry traditional and contemporary styles, fit in with the existing buildings, or bring a welcome freshness or creativity to a place. Eventually such development can support a sustained economical and social security into the future of a village, town or city (Vermont Housing and Conservation Board, 2004) (University of British Columbia, 2002) (Alexandar, 1977).

Goals and Objectives achieved:

Preserve Clay Plain Forest ecosystem

Support efforts to protect interlinking natural systems at a regional level

Clarify Land Allocated for Future Development

provide physical framework for future development

Conserve maximum amount of open space as is appropriate to current/future growth trends

enhance the village center as recognized social/cultural hub

Enhance the sense of local identity and heritage

To provide spaces that encourage social exchange and participation

Design Economical Solutions

To provide solutions that are assessable to a broad range of Vermont communities and individuals



Fig.39 Well planned residential development can enliven a village center and preserve large amounts of open space.

To provide solutions that are sustainable

Outdoor Places

When public outdoor places are considered as rooms within the village, as one of the guiding principles suggests, it is less likely that details such as how you enter or leave, what you do in that space, and its relationship to adjacent spaces, are forgotten (Alexander, 1977). The proposed design in this project looks at a series of outdoor spaces that, starting at the village green, transition from formal to cultivated (community gardens) to wild (streams, woods and wetlands). The wilder the spaces, the more they transform into places dedicated more to ecosystems and wildlife and less to people. Due to the nature of ecological function and wildlife needs, the edges of these spaces or 'rooms' become increasingly less abrupt the further away from intense human activity. Each space has been considered in its ability to make the user feel like they are somewhere special, and could, for one identifiable reason or another, only be in Charlotte, Vermont. Ways this has been accomplished are by creating distinct edges to spaces, using structures and materials to distinguish spaces and uses of space, and/or creating unique gateways into each space. Natural site characteristics will also bring obvious distinction from one place to the next.

As mentioned before, the Clay Plain Forest (Burns Forest) are protected for their significance as a rare natural space, and house a limited trail network. It is open to the broader public, from an entrance at Route 7, but is most likely be used frequently by local residents. These woods are home to two-hundred year old oak

trees that members of the community are already very protective of. Burns Forest is intended to be a sanctuary that honors the natural history of the area, and gives the local community the opportunity to celebrate and take pride in 'their' Clay Plain Forest. This sets a precedent for other local communities to support regional efforts to protect and restore other fragmented Clay Plain Forests in the valley. An outdoor classroom space has been proposed for the public entry way into Burns Forest from Route 7 (Flink, 2002). While the details of this particular proposal have not been calculated, it is thought that a simple, sheltered structure, or even small classroom building /nature center would be an ideal public gate house into this Charlotte conservation area. This allows users to understand the significance of this small tract of woods, the greater natural history of Charlotte in general, and get a sense for the dedication Charlotte residents have for caring for the local landscape.

All wetlands and meadows protected as conservation land are done so in direct association with Burns Forest. As explained in the connection and linkages section below, each ecotype, from hedgerow to meadow, wetland to woods, work together for optimal function (Smith and Hellmund, 1996). On a social and cultural level, trails meandering through woods, past 200 year old oaks, through meadows and along side a babbling Thorpe Brook will offer users an interesting and varied journey – full of changing sights, smells, textures and sounds – all of which will vary from season to season. Again, details for public facilities have not been worked out within this project. However, to demonstrate Charlotte's dedication

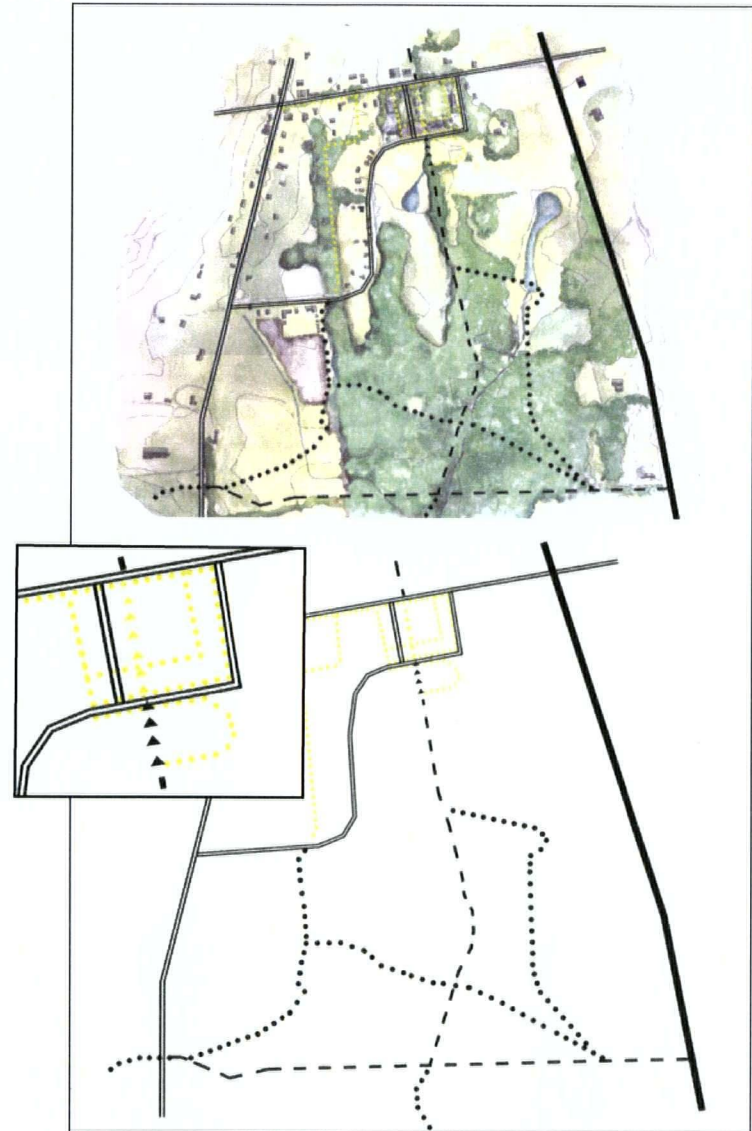


Fig40. A carefully considered trail network can connect a village to its local and regional landscape. See pages 48–50 for detail trail illustrations of trail types.

to stewarding their surroundings, composting toilets would seem an appropriate fit where such facilities are needed. Composting toilets can be clean, economically and environmentally efficient, and introduce visitors to a vast array of alternative technologies that fit with the town's ultimate goals and objectives of conservation and clean water.

Goals and Objectives achieved:

Preserve Clay Plain Forest ecosystem

Continue to provide an important resource for wildlife and support for adjacent ecosystem health

Provide forest as a cultural heritage to the town of Charlotte now and for future generations

Support efforts to protect interlinking natural systems at a regional level

Protect Thorpe Brook and associated wetlands

Secure Thorp brook watershed and encompassing watershed health and function

Provide critical wetland habitat for associated wildlife

Ensure healthy streams and wetlands as a cultural heritage to the town of Charlotte now and for future generations

Enhance the sense of local identity and heritage

To build on physical, cultural and ecological character already in place

To provide spaces that encourage social exchange and participation

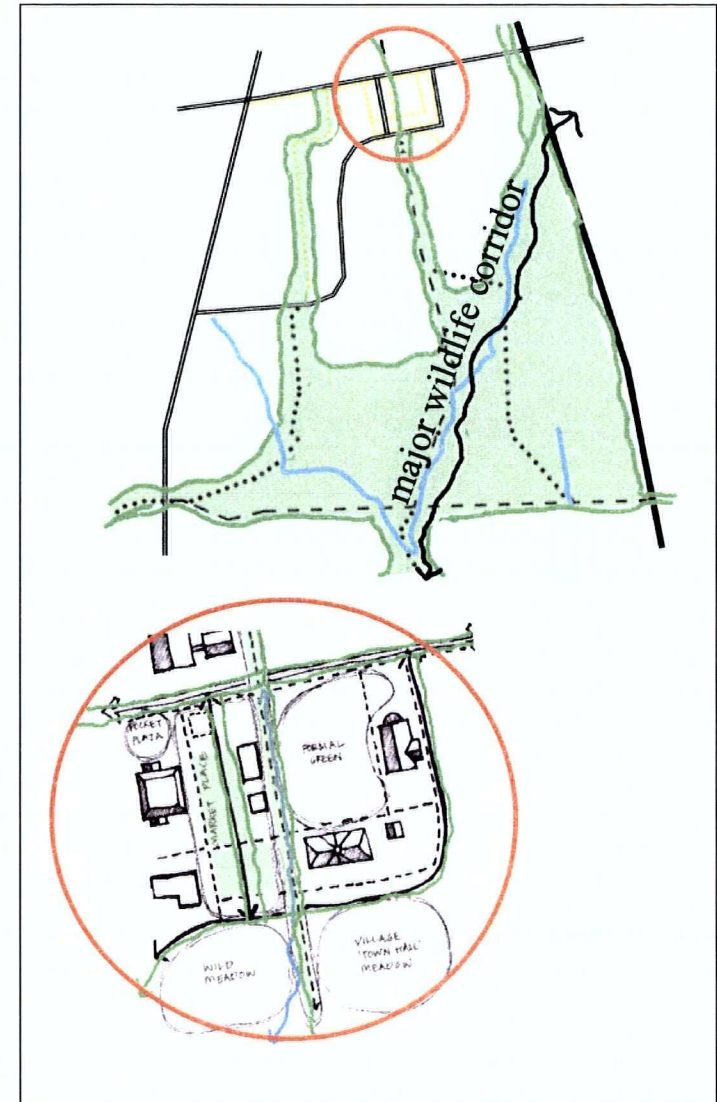


Fig.41 A conservation area in the heart of a rural village creates green conduits for people, wildlife and natural systems alike, as shown in green in the above diagram.

Getting Around - connections and linkages

Many of the ecological and social connections made within the proposed design could well be considered part of a village greenway, in that the trail networks and ecosystems protected act as conduits for the movement of water, plants, animals and people (Smith and Hellmund, 1993). In Daniel Smith and Paul Hellmunds book, *Ecology of Greenways*, they suggest that greenways perform six basic functions: habitat, conduit (people and nature), barrier (inhibit wildlife flow), filter (vegetation as water filter, soil and sediment buffer for streams etc), a source (of water, wildlife populations for adjacent areas, food and habitat, native and invasive vegetation), and/or sink (capturing water on-site, or a mortality sink for wildlife if not designed to support biodiversity). They also suggest that the most important aspects of balancing the dual function of greenways – as recreational and ecological systems is maintaining habitat that functions properly for native species. This demands the protection or restoration of certain dimensions and arrangement of natural areas, for example: trails running along the edge of a riparian zone should allow for the landscapes natural ability to filter contaminants before runoff reaches the river. This would call for a gradual vegetated buffer between a trail and a river (Smith, Hellmund, 1993). The most important overall ecological structure of any greenway is that its total width be wide enough to support interior species as well as edge species (typically edge species are more likely to be invasive, hardy species) – this goes for both plants and animals (Smith, et al., 1993) (Forman, 1994).



(photo by author)



(photo by Diane Gayer)

Fig. 42 Diversifying trail character allows for appropriate response to a varied landscape, and offers a more intriguing journey to the trail user.

While considerations such as these have been made throughout this project, the specific course of trails, apart from the proposed trail-heads, demands detailed ground truthing, and was not a component of this project at this time. For the sake of this project a trail network was given an approximate placement at a scale of 1:2500, based on major land forms and characteristics known (see Fig.40 p.44).

Trail Types

While there are several existing trails through the woods of Burns Parcel, four typical types of trails are proposed for the whole study site. These trails respond to both the physical and biological nature of the specific area on site, the aesthetic and social nature of the specific site (from formal village green to nature trail), and also to specific user groups, i.e. seniors and small children, dog walkers or cross country skiers etc.(Flink, 2001) (Rutledge, 1971). A 2004 trail-user survey, created by the Charlotte Trails Committee, was also used as a trail design guide. The trail types are as follows:

Type A – Main Woodland Trail/Park Entrances:

This mown trail, partially in existence, runs from the Flea Market entrance to Greenbush road, and also from the center of this trail north to the village lookout tower (proposed). Measuring approximately 2m/6–7ft wide, and perhaps a little wider at entrance points, this trail forms the main route of the Greater Commons trail network . Its width allows for ease of passing of two trail users, coming from opposite directions—either on foot, bike, horse or skis. Clearing height for such user groups should be maintained at 2.7m/8 1/2 feet high (Fink, 2001). Where mowing is not appropriate, due to leaf litter or wet soil, the

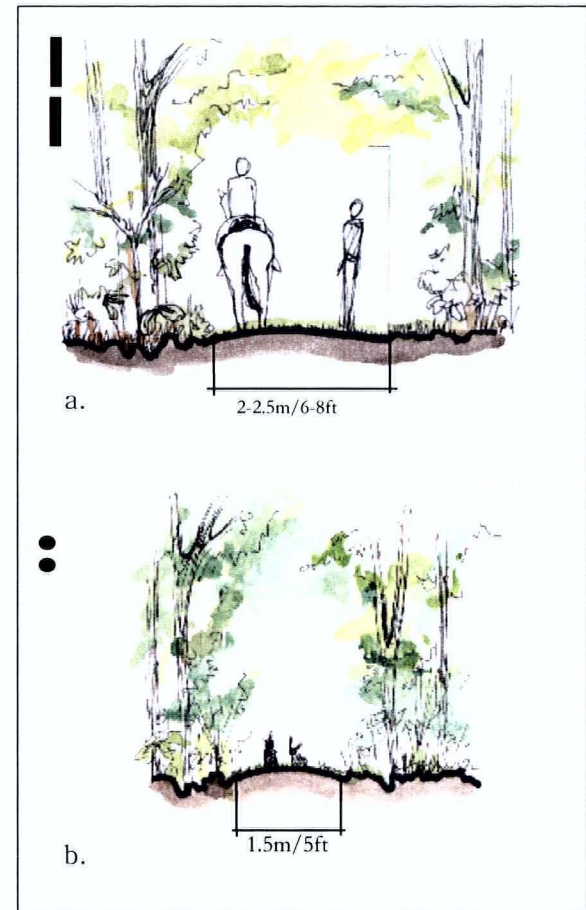


Fig.43a shows the widest trail width, appropriate only for the major entrances and trail routes through Burn Forest and meadows if it is to be maintained as a wildlife refuge. 43b shows a narrower trail for loops away from the main trail.

trail can be left as is, or simple plank bridges can be placed, so as to maintain health of wet vegetation and decrease the likelihood that the trail will be widened by diverted traffic (Smith and Hellmund, 1993). As pioneering, non-native species are more likely to grow in disturbed, cleared areas of any woodland, care should be taken in maintaining trails in a way that does not easily support invasives. Edges of the trail would never be hacked back, but selectively trimmed, to ensure a healthy vertical stratification of species from ground cover to hard wood trees (Smith et al., 1993).

Type B – Narrow Woodland or Meadow Trail:

This is not a multi-use trail, but a narrower side trail for foot or single track cross-country skiers who want to take an extra loop before returning to the main trail home, or take a quiet walk by Thorp Brook. It could also be maintained by mowing or bark mulch, where appropriate or just by trimming back vegetation and branches when necessary. This trail is proposed as an education loop near the proposed outdoor classroom at the Route 7 entrance, and several other loops throughout the Burns Parcel Woods, LeBeouf Meadow and wetland areas. These trails run through and along a variety of ecological zones that make up the Greater Commons. They give trail users the chance to experience the varied character of the property within a guided, low-impact scenario (Flink, 2000), (Smith et al., 1993).

Type C – Village Pathway:

This trail type is proposed for the walking loop within the village green and also circling the edge of the town hall meadow. The path material is crushed stone for smooth, level

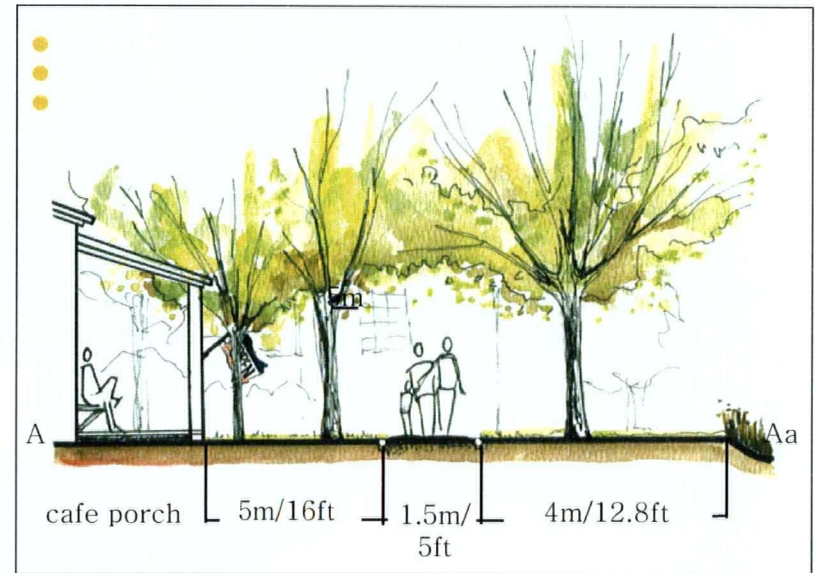


Fig.43 A crushed stone path is set in from the road and wraps around the village green.



Fig.44 A crushed stone walking loop is also proposed to connect from the senior center to a meadow behind the town hall. (photo by author)

walking with a 1.5m/5ft width. This is a suggested minimal width for two people walking side by side, or one wheelchair or stroller (Flink, 2000). Crushed stone is found easily in Vermont, looks clean, and is permeable. Its permeability allows water to filter into the ground at a much slower rate than if hitting a hard surface, such as concrete.

Type D – Village Boardwalk:

This special boardwalk trail flanks the western edge of the village green, sitting in close proximity to the market buildings. The boardwalk is flush with the ground plane to the west and lies along the upper edge of the existing vegetated swale to the east. It is 2m/6.2ft wide, acting as an important promenade through town and into the adjacent open spaces. The material used has a deck-like effect that is fitting for the overflow of visitors on market day from the market buildings and village green. A boardwalk running right through town also brings the prominent characteristics of Charlotte's wetland landscape to a visual forefront, especially highlighting the cattails and sedges that will line this important axis. In order for the boardwalk to maintain a level plane for a clean formal appearance, pin foundations are proposed at 12 foot intervals. This way the trail will remain level, even through winter frost heaving (www.pinfoundations.com).

Type E – Meadow Boardwalk:

This 1.5m/5ft boardwalk trail continues from the village green boardwalk to the south, on the other side of Library Road and into the Town Hall Meadow. At this point the trail is not flush with the meadow plane, but raised slightly. This is done

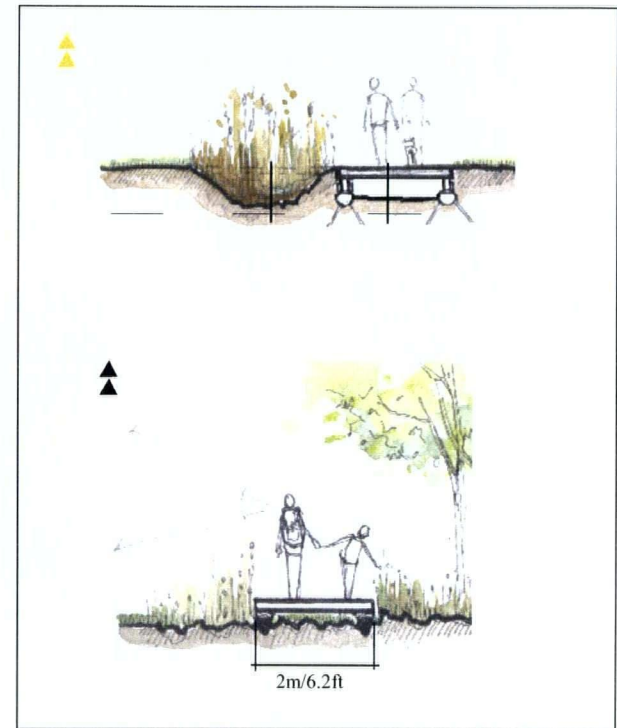


Fig.45 Board walk trails bring definition to a space, are fun to walk on and when raised from the ground, can protect delicate vegetation from being trampled.

not only to create the effect that the path is floating through swaying meadow grass, but elevates the trail above any moisture- protecting the vegetation underneath. This trail runs along the eastern edge of a line of trees that currently exists in this area, and defines the Town Hall meadow as a recognizable place. This boardwalk terminates at the proposed lookout tower at the south edge of the meadow.

No matter how brilliant their design, village streets and pathways can in no way mirror whole ecosystems or function as the most ideal wildlife habitat. However, using a green infrastructure approach to roadway and pathway design, increased ecosystem performance/function can be supported, rather than degraded (Metro, 2000). Examples of such design decisions include curb less streets, permeable surfaces or minimal paved surfaces, vegetated swales, varying heights of canopy coverage, and a connected pedestrian network (Center for Landscape and Livable Environments, 2002)(Erickson, 2002)(Livable Oregon Inc, 1996). By linking natural systems to a continuation of green fabric within village centers, the village becomes connected to its surrounding landscape both visually and functionally. Examples of such are discussed within the following section and used throughout the proposed design. All streets and pathways have also considered aesthetics, scales and circulation appropriate to this rural Vermont village.

Goals and Objectives achieved:

Preserve Clay Plain Forest ecosystem

Support efforts to protect interlinking natural systems at a regional level

Provide forest as a cultural heritage to the town of Charlotte now and for future generations

Protect Thorpe Brook and associated wetlands

Secure Thorp brook watershed and encompassing watershed health and function

Ensure healthy streams and wetlands as a cultural heritage to the town of Charlotte now and for future generations

Enhance the sense of local identity and heritage

To provide spaces that encourage social exchange and participation

To build on physical, cultural and ecological character already in place

Design Economical Solutions

To provide solutions that are assessable to a broad range of Vermont communities and individuals

To provide solutions that are sustainable

Street Details

On the larger scale of Charlotte as village, Route 7, Ferry Road, and Greenbush Road play a vital role in bringing life to the center. Two new roads have also been proposed, one an extension of the library and town hall driveway, to connect with Greenbush road (Library Road), and a short road (Market Street) to bring life to the western edge of the village green, as well as to access the proposed market buildings, cafe and senior home. This street can be easily closed off to traffic on market days (besides vendors) or for special events. In doing this, the street both extends and connects the village center common as a car-free block from post office to library...with lots of fun in-between, such as a grand farmers market or even an indoor dance.

Ferry Road, currently approximately 12m/40 feet wide, has been cut down in travel width to 9m/30 feet, to allow for parallel street parking in the village green area. While it could maintain a greater width at either junction, narrowing the road in the center of the village allows for parked cars to slow traffic down and announce to travelers that pedestrians might be around and about (Metro, 2002).



Fig.46 Using vegetated swales along roadways and in parking lots allows for ground water to be replenished incrementally and connects the built environment to the softer surrounding landscape. (photo by author)

This additional parking also accommodates people traveling to Charlotte for Farmers Market and other functions held at the new market buildings. The 3m/7ft width allocated to parking is gravel with a cedar tie placed as a flush edger to the village green swale running parallel to the parking spaces.

Proposed Market Street is a narrow, 6m/20ft wide street with no curbs (Metro, 2002) (Livable Oregon Inc, 1996). It is intended to be an alley-like local connection between proposed residential on Library Road and Ferry Road, as well as a through road for pedestrians and bikers within the village. It also allows a quick, easy alternative access to the proposed senior housing for emergency vehicles. Parking on this street would happen front end-in, on grass pavers that lie flush with the road in front of and opposite to the market buildings. On market days Market Street could accommodate vendor parking only and be closed off to village traffic, with little or no disturbance to village traffic circulation.

Proposed Library Road runs from the library entrance-way to Greenbush Road, taking its queue from an old farm track still seen today. Placing a road here allows for increased development to take place at the heart of the village without compromising critical ecological features in the area. It too, is a narrow, residential street, 8m/25ft wide, and could incorporate traffic calming bumps to further ensure slow traffic speeds for the safety of pedestrian usage (Livable Oregon Inc, 1996) (Metro, 2002). Front-end-in parking also occurs on this street outside of the town hall and conservation area entrance and also near the library. This kind of parking is yet another method to slow traffic down and signal to drivers

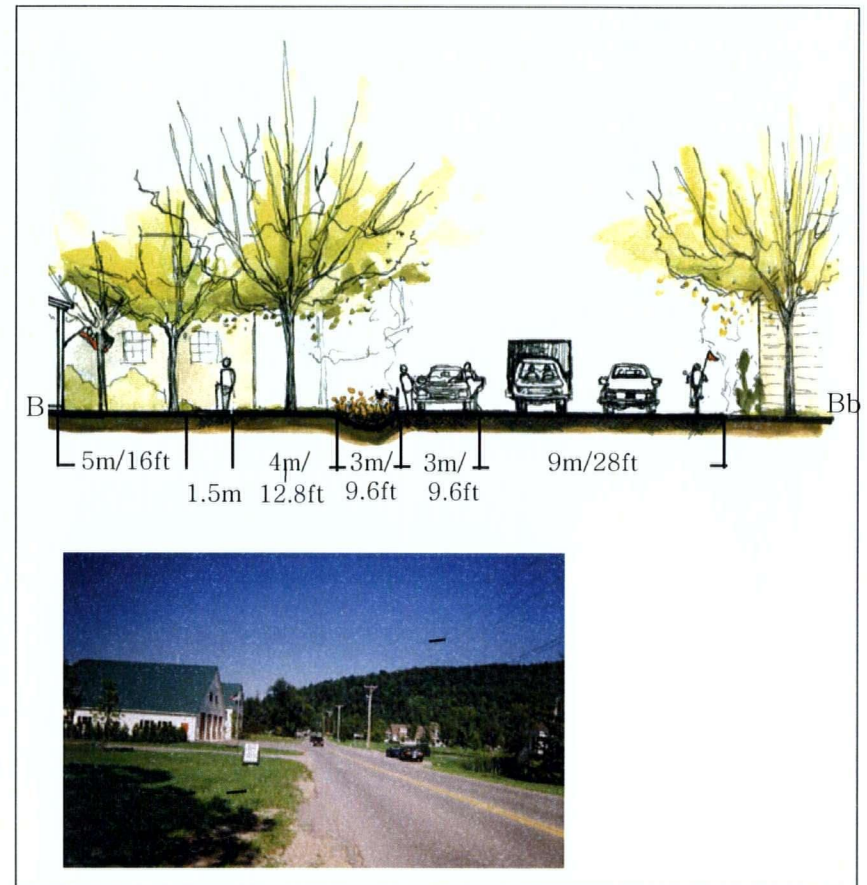


Fig.47 On-street parking is proposed on Ferry Road from the post office to the eastern edge of the village green. This hopes to encourage social activity at the center and to slow moving traffic through a pedestrian friendly environment. (photo by author)

that this is a highly active zone for parking, trail users and other pedestrians in the area (Livable Oregon Inc, 1996).

Goals and Objectives achieved:

Preserve Clay Plain forest ecosystem

Support efforts to protect interlinking natural systems at a regional level

Protect Thorp Brook and associated wetlands

Secure Thorp brook watershed and encompassing watershed health and function

Ensure healthy streams and wetlands as a cultural heritage to the town of Charlotte now and for future generations

Enhance the sense of local identity and heritage

To provide spaces that encourage social exchange and participation

Design Economical Solutions

To provide solutions that are assessable to a broad range of Vermont communities and individuals

To provide solutions that are sustainable

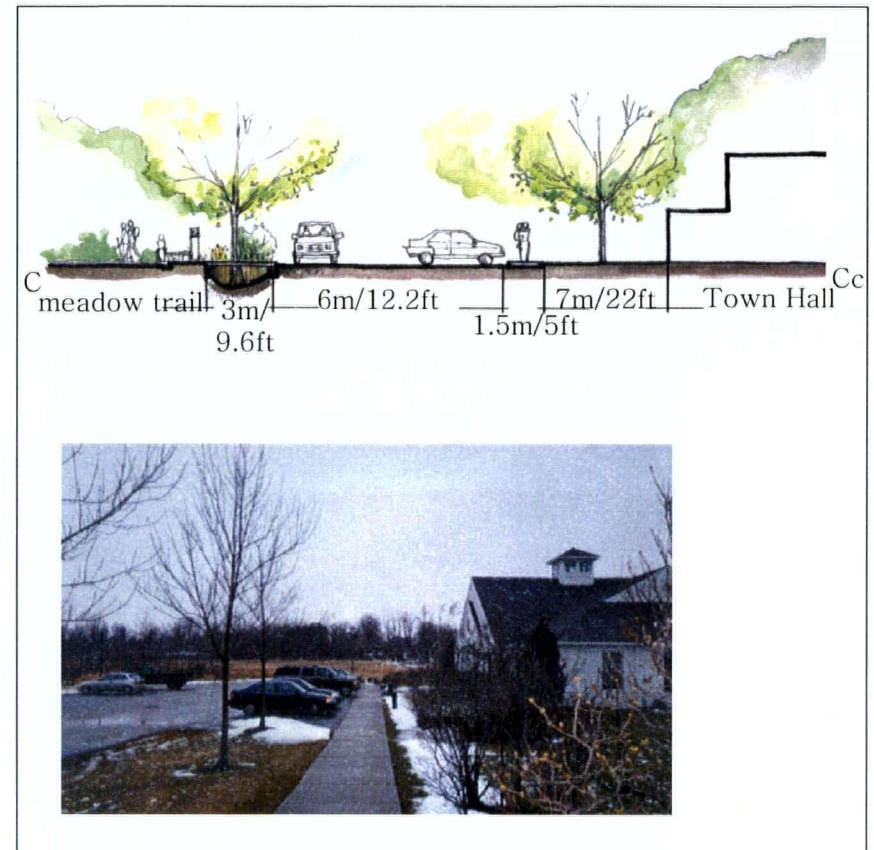


Fig.48 Proposed Library Road is a continuation of the drive and parking for the Library and Townhall, and would wrap around meadows and woods to Greenbush Road. (photo by author)

Village Center

As mentioned in the 'village center concept' section of this chapter, the village center is intended to function as a base location for connecting people and nature to a larger system of trails and green infrastructure. As the base location, the design decisions made hope to exude an active civic character – supporting indoor and outdoor festivals, markets, community classes, and casual daily use of outdoor spaces by the public.

The village green acts as the formal, front door, outdoor space – a traditional role for a 'green' throughout Vermont's history. While the green rolls out before the town hall, it currently has little definition or special features drawing residents to use this space. Planting large deciduous trees around this space with an interior pathway system brings definition and an instantaneous purpose and dimensionality to the space. With a defined outer edge (large trees and shaded path) and civic buildings on three sides, it now has outer and interior spaces. In this there is seemingly more sheltered and protected space for outdoor community events or even a nice summer reading spot for one (Alexandar, 1977). Formalized plantings of smaller fruit trees such as cherries and apple trees are proposed to pick up a pattern already begun in front of the library. Similar pocket-orchards are proposed in front of the north end of the market buildings and again in front of the post office. Not only do these plantings further bring a formalized shape to this civic center, but reflect an agricultural practice that has been synonymous within the Champlain Valley Area for many years.

The proposed 'Market Place' is that space that extends

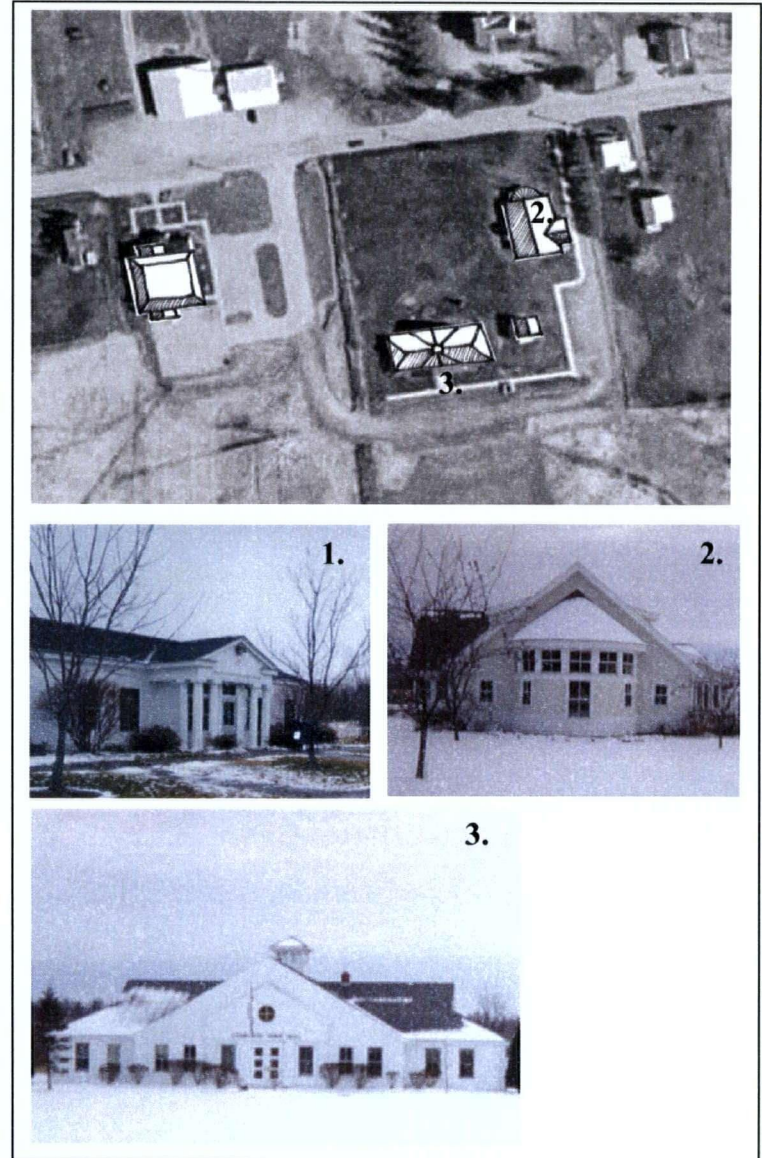


Fig.49 The buildings around the current village green are significant components of a lively civic center. 1. post office 2. library 3. town hall, all of which were built in the 1990's.

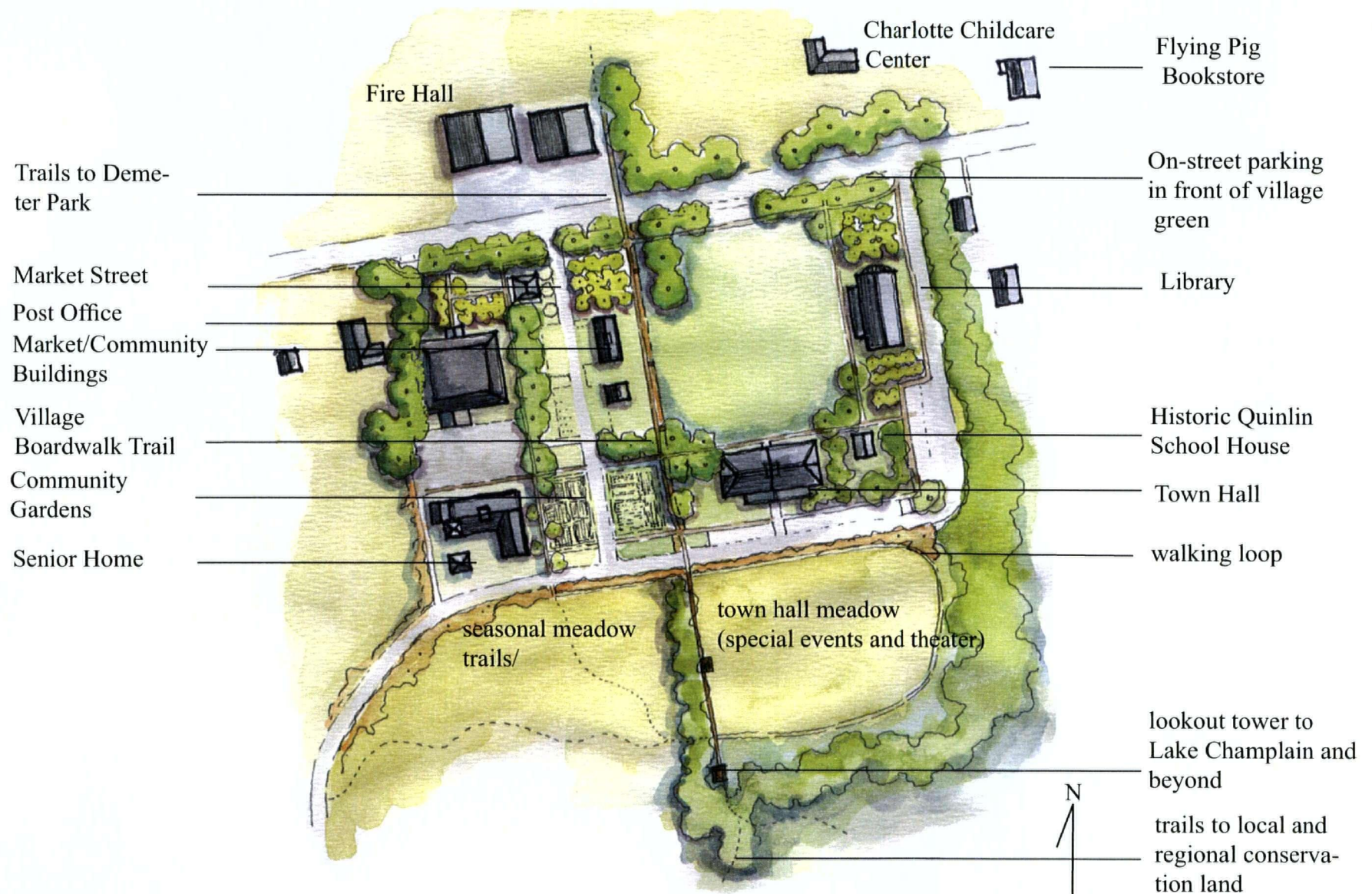


Fig.50 Village Center Master Plan



Fig.51 Village Center Master Plan – detail

from the village board walk to the trees lining the west side of Market Street. As mentioned previously, this space has the dual ability of tightening the village green space, and also expanding it, when necessary, into a dynamic, bustling village-wide affair.

The market buildings are proposed to sit along the western edge of the village green, the eastern edge of the proposed Market Street. In this placement these community buildings have the ability to have an important face and connection with both the green itself and also the post office, cafe and street to the east. While these buildings could be extremely permeable on market days – through open garage doors and porches – they also provide both east and west spaces with a well defined edge, making them more understandable, satisfying spaces in and of themselves (Dodson and Associates, 2003)(Alexander, 1977). The final role the market buildings have, in connection with the greater commons, is that they sit, like gate houses to the village boardwalk trail that extends beyond the village green to wilder outdoor spaces to the north and to the south.

A small cafe is proposed to sit kitty corner to the entrance to the post office. While the Old Brick Store offers a plentitude of goods and acts as an important social hub at the corner of Ferry and Greenbush road, there are currently no small cafe's in Charlotte. A cafe in this location would only build on the market theme of Charlotte's civic center – this is a place to grow local food, buy local food – why not eat local breakfast here too? The location also picks up on the existing daily activity that already occurs at the local post

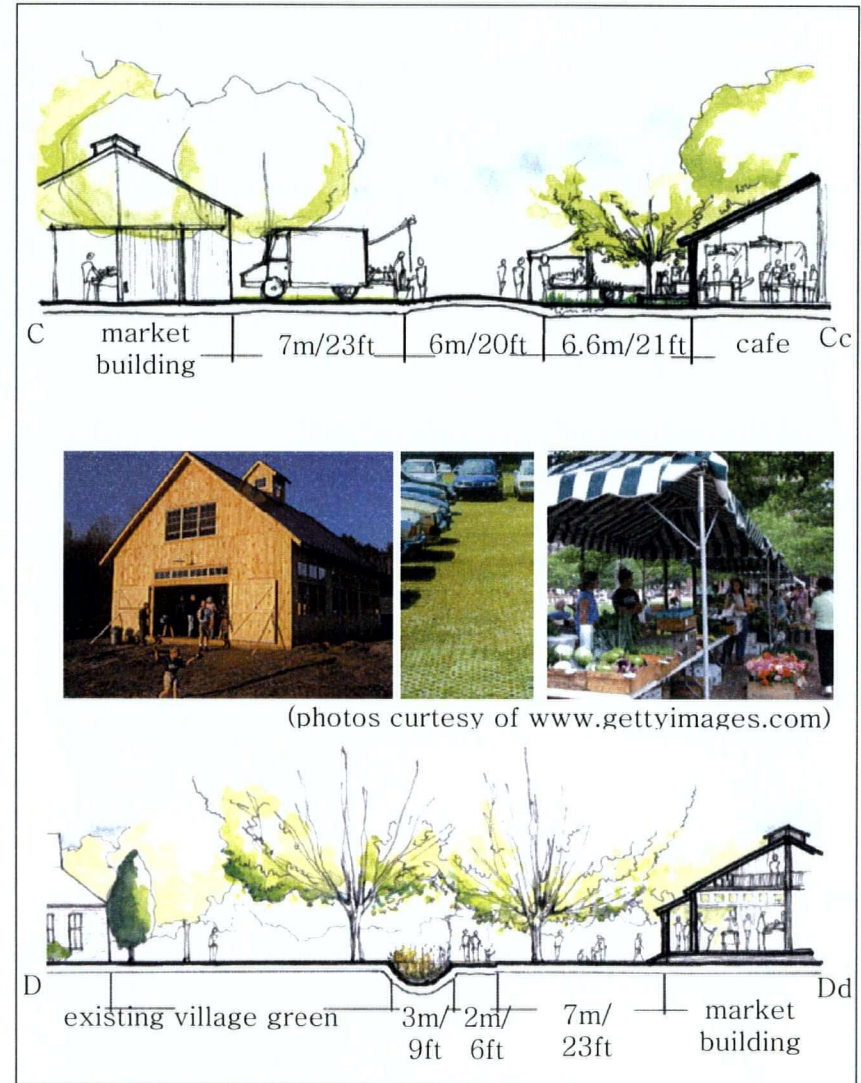


Fig.52 Proposed Market Street can be closed off with little interruption to village circulation

Fig.53 Proposed market buildings would open out onto the village green to the east and Market Street to the west

office. The cafe is proposed to slow and celebrate this daily energy within the village and could greatly enhance the current post office plaza currently in place at the post office entrance.

The proposed senior housing to the south of the post office, and west of the town hall acts as a cornerstone to the entire village center precinct, infusing it with a sense that this is a place for people to stay and enjoy. Community gardens proposed within this property and immediately opposite, on the east side of Market Street, connect this residential space with a more communal space just across the street.

Community gardens are proposed at the southern end of the market place. While given a clean-cut, geometric frame-work in which to be improvised, the community gardens represent the productive landscape of this region, and visually and emotionally connect to the greater agricultural landscape of the region. Places such as these support a civic nature within the village center and provides increased opportunity for intergenerational interaction, community stewardship and an intimate connection and pride in ones place , not to mention a shared common resource (Donahue, 2001) (Alexandar, 1977) (Albers, 2002). Visually, the community gardens act as a punctuation to the southern end of the market place and a transitional space between formal front to informal backyard of village, looking out toward the wilder meadows and woods beyond. They are intentionally placed between new village housing, including senior housing and the other civic services of the village.

Following the Village Boardwalk Trail south, over Library Road, a mowed meadow falls away to the east of the trail. Halfway along the boardwalk the trail widens into a 5m x 5m (16 ft square) deck with steps to sit on or enter the meadow, further inviting visitors for blanket picnics, casual evening performances or a quiet lunch break. As

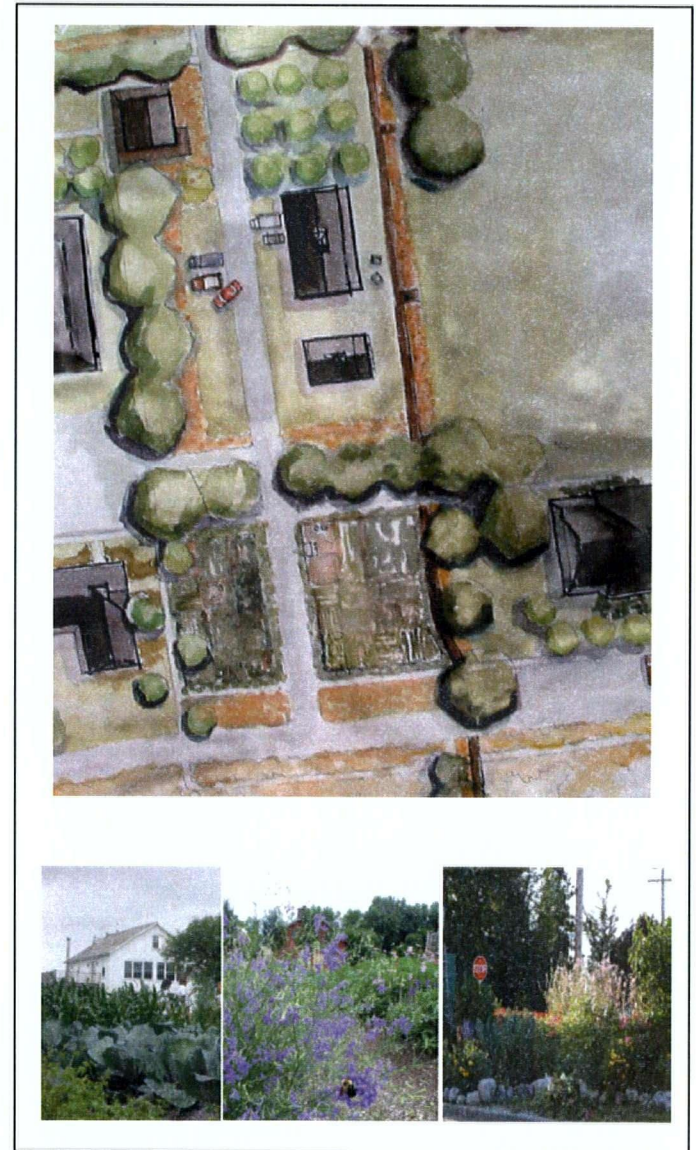


Fig.54 Community gardens appropriately punctuate the south end of the Market Place. (photos by author)

mentioned before, a crushed stone walking trail also loops this meadow to allow a diversity of users to experience this quiet clearing close to the village. Its purpose varies from the village green, in that it is a much wilder, larger space, where people could find quiet, private spaces within, and yet still be close to the village.

A look out tower is proposed at the terminus of the Meadow Boardwalk Trail. Not only does this draw people from the village center into the surrounding landscape, but brings the viewer into immediate contact with Charlottes' greater, regional surroundings. This plays on the idea that our surrounding landscape is a common heritage to anyone with the eyes to see it, noise to smell it and nerves to feel the breezes that roll down the mountains and across the lake. Providing a lookout tower acknowledges the relative flatness of the site, and celebrates the astounding topographic change just over the hill, including beautiful views across Lake Champlain, the Adirondacks to the west and Green Mountains to the north and east.

West of the Town Hall Meadow lies another meadow. This meadow has been left for potential agricultural purposes, more community gardens in the future, or just to simply be a beautiful meadow in the midst of everything. It is often the lack of structure and domestication that allows Vermont's landscape to enter the hearts of its residents and users (Albers, 2002). Design decisions such as this one, attempts to acknowledging this fact. Seasonal trails could be mowed through this meadow, if it was not too wet, or ski trails could be formed during the snowy months.



55a. Village Master Plan



55a. and b. A defined trail extending from the village center out into the landscape beyond offers residents and visitors alike the opportunity to experience the greater landscape of their home.

Goals and Objectives achieved:**Enhance the sense of local identity and heritage**

To provide spaces that encourage social exchange and participation To build on physical, cultural and ecological character already in place

Design Economical Solutions

To provide solutions that are assessable to a broad range of Vermont communities and individuals

To provide solutions that are sustainable

Clarify Land Allocated for Future Development

enhance the village center as recognized social/cultural hub

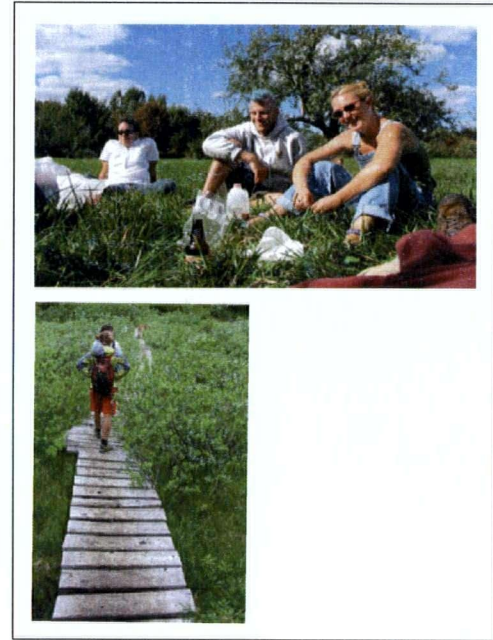


Fig.56 A public meadow adjacent to a rural village center offers a green oasis to stop, have lunch with friends or access a greater trail network. (photos curtesy of David Hohen-schau)

Understanding Where You Are - Materials, Site Unity and Being Unique

As this study site is quite large it is important to unify the site in ways that bring clear visual connections from one end of the site to the other. One way to ensure this is by being consistent with materials chosen and what they are chosen for. For example, if black, metal bike racks are used at the Market Place, they should also be used at all other entrances to the Burns Parcel woods. A family of such elements should be chosen that include bench style, trash bins and composters, bike racks and signage. It is also important to remember that Charlotte prides itself on its rural character, and as such, elements should perhaps elevate these features already in place, rather than distract from them.

With that said, in order to ensure that Charlotte's village center and Greater Commons is, without doubt, a unique place, a layer of design must come into play that is entirely made up of 'the people' of Charlotte. As there is an active community of artisans in this area, putting forth a proposal for the design of beautiful, hand crafted trail markers and signage is not out of the question. Given certain criteria, artists and designers could propose work that would lend a unique layer within the landscape.

Other ways for the people to be integrated into the Greater Commons, other than using the space, is for the building and maintenance of spaces to be celebrated community events, where residents are given the opportunity to contribute. In this way, an immediate collective ownership and pride is bestowed

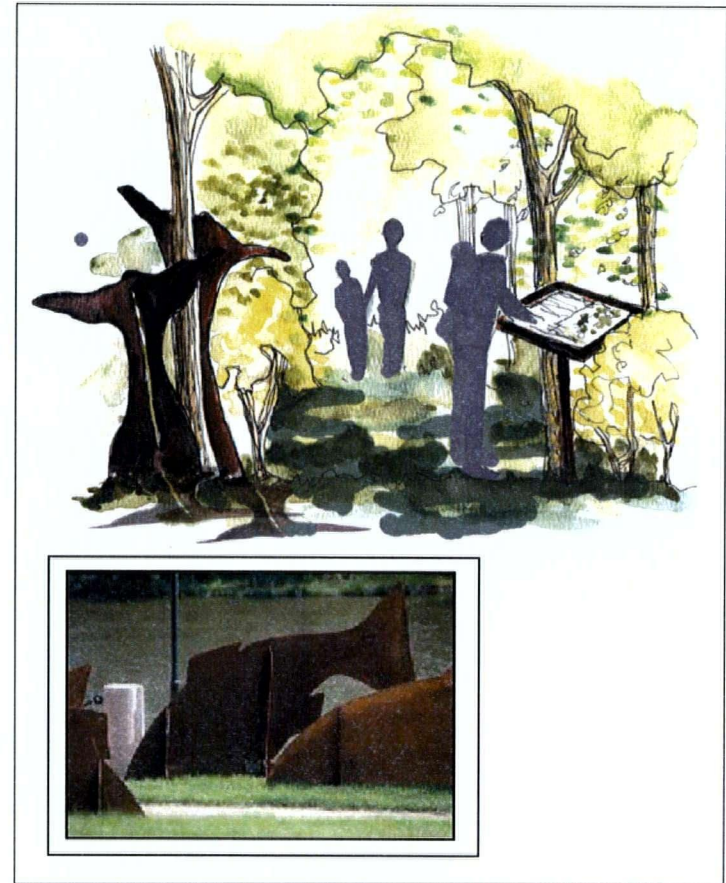


Fig.57 A subtle, well crafted entrance-way can make a place intriguing and identifiable, and incorporate the talents of the local population with the history of the site. (photo by author)

upon the site (Donahue, 2001) . In Charlotte, volunteering to invest in your community is not a new idea, and people are willing and ready to become involved. As long as structures and materials are kept simple this is an entirely possible scenario.

Goals and Objectives achieved:

Enhance the sense of local identity and heritage

To provide spaces that encourage social exchange and participation

To build on physical, cultural and ecological character already in place

Design Economical Solutions

To provide solutions that are assessable to a broad range of Vermont communities and individuals

To provide solutions that are sustainable



Fig.58 Materials already chosen by the village for one public place may guide material choice for a new project.

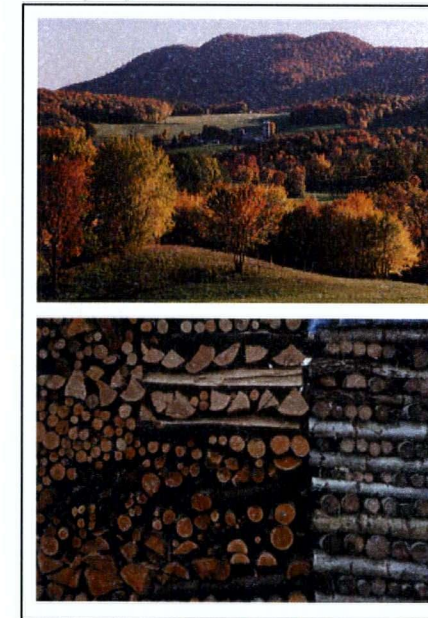


Fig. 59 Local landscape character, such as texture and topography can be celebrated and highlighted in any local conservation area, making it unique. (www.gettyimages.com)

Project Conclusions

The challenge of this project is in its multi-faceted nature. While the concept is quite simple – to maximize public outdoor places and civic space within the community, the application of this concept, over multiple types of spaces, takes a lot of exploration and understanding. Such an understanding must span from current zoning policies, to ownership history, to ecology of the landscape and community needs. In order to cope with such an expanse of concerns it was necessary to chose one area for detailed design.

The village green is a great place to start for many Vermont villages when exploring ways to bolster residents' connection to public outdoor space that supports a vibrant community environment. Creative greenway connections, in the form of pedestrian pathways, bikeways and re-designed streets, to and from this space, (such as explored in this project), can still respect the historical nature of the village green, while expanding its function as a 21st century epicenter for social and ecological connection. If a village has no village green, then simple connections can be made through roadways, lanes and public right-of-ways, making all these places more pedestrian, bike and wildlife friendly.

This project also looks at Vermont public open space from another angle: any outdoor public space, even if not adjoining a village center, must be seen in an openspace/natural resource planning context, connecting small parts of a greater green network across an entire bioregion – for greater social/cultural and ecological benefits (Smith et al, 1997) (Erickson, 2004). All protected open space forms a link in a chain that provides substantial wildlife habitat, watershed protection, recreation outlets and a visual resource (University of Oregon, 2001) (Erickson, 2004).

Whether looking at space within a village or not, the fact remains that our land-use decisions need to be carefully guided to maximize our natural and cultural resources in both the public and private sector, in order to benefit a greater number of individuals now and many years to come. This kind of thinking is most critical when allocating land for development and when deciding the details of how development and building is done, i.e. how lots are divided, what types of families will be supported, and what materials will be used. All of these decisions affect land and resource consumption (locally and globally), public access to open space, and our ability to feel part of an invested community. For such shifts to occur requires that the public realm and resources (the commons), be elevated in importance in the minds of individuals and municipalities as a whole (Donahue, 2001).

Due to Charlottes' available resources, the program for *this* project is able to go beyond the village green into a series of connected outdoor spaces –Charlotte's Greater Commons, that includes civic, conservation and residential spaces that are all physically connected to the village heart, including the traditional village green. The planning and design incorporated into this project is also able to capitalize on a wealth of already established civic resources, making the entire study area a dynamic and convenient space for public use.

If a community decided to apply the ideas formulated within this project they would most likely need to do so incrementally, starting with the basic land-use framework of re-zoning and other policy oriented changes. Once this step is taken, the other necessary moves can fall into place, as long as there are enough community members supporting the plan and funding is available.

Vermont's small villages and open spaces, be they woods,

wetlands, meadows or farm field, are gifts not to squander. While over the years Vermont's landscape has been victim to degradation and depletion, the landscape that currently exists is part of an historical, cultural and ecological heritage that is rare and beautiful (Albers, 2000) (National Preservation Trust, 2004). However, change is inevitable and Vermonters, new and old alike, must push their comfort and energy levels in cultivating and/or supporting creative development and zoning policies and techniques in order to preserve land, support local agri-business and be able to offer an affordable existence to young and old alike.

Ever since Native Indian families lived along the land's many waterways, the people of this geographic area have found inventive ways in which to survive and thrive. While our challenges have changed, our need to be inventive has not, if we are collectively able to enjoy the landscape and support the neighbors that make this state what it is. As Jan Albers states in her book, *Hands on the Land*:

"The decisions that will determine how much of our landscape heritage is retained will be made by everyone in the state, according to what they build, where they build it, where they shop, how much they drive, and the ways they chose to play in nature. We many not all have dirt under out fingernails, but every one of us has our hands on the land."

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Appendix I Commons Through Time

THE COMMONS in the LANDSCAPE			
PROGRAM		VALUE	
PAST	PRESENT	PAST	PRESENT
<p>Shared agricultural fields</p> <p>shared natural resource supplies- (timber, stone, soil)</p> <p>community gatherings- (school events, picnics, harvest festivals)</p>	<p>public recreation 'enjoying nature'</p> <p>protecting wildlife habitat</p>	Social Values	Social Values
		equitable – all had access supported civic pride and activity provided a place to enjoy the outdoors	equitable – all should have access supports civic pride and activity (Donahue, 1999) provides a place to enjoy the outdoors provides visual enjoyment and aesthetic
		Economic Values	Economic Values
		Safety net for local food supply and demand Supplied local resources to all – timber, stone, rocks	safety net for local food supply/demand sustains local resources – water, timber, recreation outlet 'rural character' attracts tourists and home buyers keeps residents in town (Arendt, 1999)
	<p>community gatherings (school events, picnics, local farmers markets)</p> <p>tourist attraction</p>	Ecological Values	Ecological Values
		n/a – concept slow to occur (Albers, 2001)	maintains wildlife habitat preserves storm water infiltration provides continuum of regional green networks (Erickson, 2004.)

Appendix II Site Goals, Design Criteria and Design Strategies

Site Goal - what do you want to do?	Objectives – why do you want to do this?	Supporting Policy and/or Town Objectives (as found in Town Plan 2002)	DESIGN CRITERIA	DESIGN STRATEGIES What was done.
Preserve Clay Plain forest ecosystem	<p>Continue to provide an important resource for wildlife and support for adjacent ecosystem health</p> <p>Provide forest as a cultural heritage to the town of Charlotte now and for future generations</p> <p>Support efforts to protect interlinking natural systems at a regional level</p>	<p>5.5.1 – 5. Development shall be limited in those areas of Town in which there are areas of high natural resource value</p> <p>5.5.2 – 10. Work to implement, in conjunction with the Conservation Commission and the Recreation Committee, the Trails Plan which connects cultural and recreational areas while protecting natural resources in the Town.</p>	<p>Minimize infrastructure within the forest area</p> <p>Provide low-impact opportunities to enjoy the forest while providing natural buffers to the most sensitive habitat</p>	<p>Planning Scale</p> <ul style="list-style-type: none"> -conservation areas include the most sensitive property resources - proposed development allows conservation land to be one large block, connected to a greater open space system (Arendt, 1999) -provided space for outdoor education programming for local schools and community members -considered trail networks as wildlife corridors and recreation trails simultaneously (Flink, 2001) <p>Village Scale</p> <ul style="list-style-type: none"> -use of low-impact boardwalk foundation pins (www.pinfoundation.com, 2005) - minimized amount of built trail within forest, except boards over wet areas to decrease vegetation trampling - provided a choice of trails, to decrease over trampling on any one trail way and to minimize wondering off trails into wildlife areas -high activity areas are designed outside of forest area (Flink, 2001)

Protect Thorp Brook and associated wetlands	<p>secure Thorp brook and the greater Lewis Creek watershed health and function</p> <p>provide critical wetland habitat for associated wildlife</p>	<p>5.5.1 – 5. The Town will work with town, county, state and federal agencies and citizen organizations to monitor and restore water quality in the town</p> <p>2. Buffer zones will be required around key natural resource areas to limit potentially damaging encroachment [Section 5.12 of Zoning By-Laws].</p>	<p>reveal functions of wetlands ecosystem to park users while respecting space needed for healthy ecosystem function</p> <p>provide places to observe wildlife associated with wetlands</p> <p>incorporate ecological function into design</p> <p>use low-tech, permeable trail materials</p>	<p>Planning Scale (see above – forest protection often = wetland protection)</p> <ul style="list-style-type: none"> - proposed development away from wetlands, according to Act 250 -limited land clearing on entire site -denser development proposed (Metro, 2002) (Arendt, 1999) -Provided trails that gave access to wildlife watching and Brook exploration at limited access points - native, existing vegetation maintained and augmented at different areas across the site (Flink, 2002)

				Village Scale - use of boardwalks over wet meadows - use of porous materials (gravel or gravel pavers for parking, grass, crushed stone, boardwalks) to allow water seepage and filtration (Flink, 2002) - (3-4m/12ft, 2-6% slope) vegetated swales incorporated into road ways and pathways (Metro, 2002) - use of low-impact boardwalk foundation pins (www.pinfoundation.com , 2005) -streets designed without curbs to increase storm water flow into bio-swales -trees planted for shade and precipitation interception (Metro, 2002)
Design Economical Solutions	To provide ideas that are assessable to a broad range of Vermont communities and individuals To provide solutions that are sustainable	Obj. 3.2 Where possible reduce fiscal burdens on the Town and associated burdens on residents and encourage fiscal responsibility.	use materials that are easily accessible, easily transported and support a local/regional economy use durable, local materials build lo-tech structures and details suitable for community members to construct if desired design to welcome people into	Planning Scale -design and programming support activity/exchange within village center -conservation land within the village center attracts home buyers (Arendt, 1999 p. 5) -more, smaller lots on developable land could allow developer to provide needed affordable housing at village center (Arendt, 1999, p.51)

			the village	Village Scale -Elements- benches, trail markers, bike racks designed with locally assessable material or recycled material -Elements, including boardwalk easily constructed, potentially incorporating community members -Boardwalk foundation pins can be walked on to site and hammered into ground (www.pinfoundations.com) -
Clarify Land Allocated for Future Development	provide physical framework for future development Conserve maximum amount of open space as is appropriate to current/future growth trends enhance the village center as recognized social/cultural hub	5.2.1 - 3.Strict limitations on residential development outside the village areas will be placed on land containing prime or state wide agricultural soils or with significant environmental or natural resource value 5.2.3 - 2.Sites for elderly and affordable family housing shall be consistent with the Town land use plan. Such sites should be primarily in village areas where moderate density housing is envisioned that is convenient to municipal, commercial, and transportation services. Affordable and elderly housing may also be enabled in rural settings in PRDs or PUDs; such designs will be required for major subdivisions. 7. Higher densities in village areas, village design guidelines, and expanded and effective techniques and regulations to preserve farms and open space will be established as a "package." These three pieces of the package must	intensify development at the village center connect new infrastructure and trail networks to each other and to existing village center incorporate gateway markers at points of entry into village center	Planning Scale -Used new farm road as visual delineation between areas proposed for development and village conservation land (Gayer, 2004) -conservation areas include the most sensitive property resources - proposed development allows conservation land to be one large block, connected to a greater open space system (Arendt, 1999, p.120) existing community services (Arendt, 1999 p.44) Village Scale -Conservation edge clearly marked by celebratory entrances and public amenities

		function jointly to support the overall pattern and scale of development desired by residents and be reflective of the natural environmental conditions.		
Enhance the sense of local identity and heritage	<p>To build on physical, cultural and ecological character already in place</p> <p>To provide spaces that encourage social exchange and participation</p>	<p>5.2.1 - 4. Subdivisions, which through cluster housing designs economize on roads, utilities, and services, and protect scenic beauty, agricultural lands, and natural resource areas, will be strongly encouraged during the development review process, and in most instances, required in a form and character suitable to the rural character of the Town</p> <p>Obj: 2.9 - Encourage citizen participation in the development, adoption, and implementation of the plan and its implementing by-laws and programs.</p> <p>Obj: 3.3 Enable and support continued strong and vital voluntary participation in local government</p>	<p>maintain view-sheds</p> <p>maximize existing natural features</p> <p>incorporate local historical, cultural character and local knowledge within design concept, materials and elements</p>	<p>Planning Scale</p> <ul style="list-style-type: none"> -Designated highest elevations for viewing distinct landscapes – such as Lake Champlain and Pease Mountain, surrounding meadows, village center and local farms -Kept critical wildlife habitat in tact -provided local network of trails and pathways that connect to regional networks -design to the historic settlement pattern of dense village center (Flink, 2002 p) (Arendt 1999 p. 108) <p>Village Scale</p> <ul style="list-style-type: none"> -Maintained and enhanced view-sheds to LeBeof and Burns Parcel meadows from village green and market buildings (Dodson and Associates, 2003) -enhanced historical aesthetic and function of the village green (Gayer 2003) - incorporated buildings into the civic center that support community activity (café and flexible market/classroom buildings) -proposed buildings maintain a consistent scale and vernacular of existing buildings

				<p>-provided a series of places for people to be out and about within their village (sidewalks, parks, trails, meadows, woods, market, café porches, post office plaza) (Dodson and Associates, 2003)</p>
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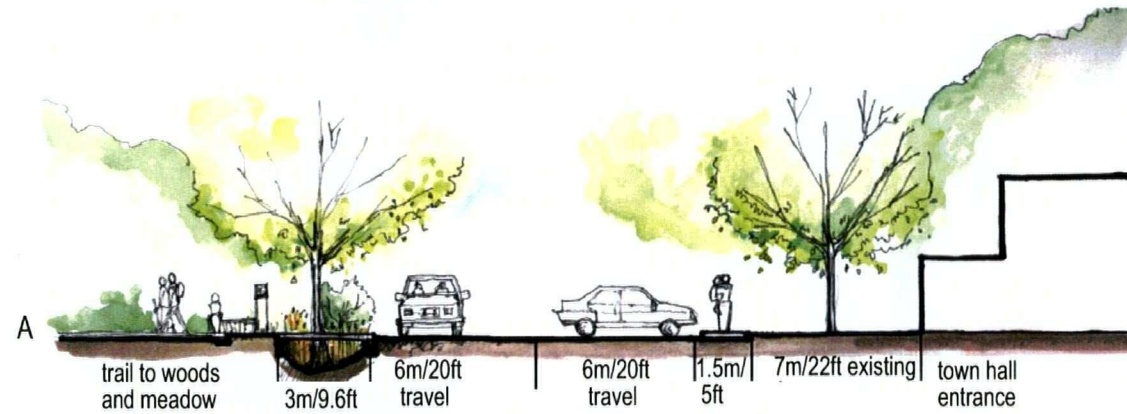
Appendix III Site Program Details

WHERE	WHAT	ELEMENTS	QUANTITY	QUALITY
TOWN HALL/VILLAGE CENTER	Market Place	Market Building	2	Buildings will line market street and west side of village green, post and beam style- barn like in feel, but with winterized flexible indoor/outdoor spaces for farmers market, craft fairs, art exhibits, community classes, workshops etc.
		Outdoor Vending Space	20-25spaces	
		Benches	6	
		Bathroom Facilities	4 stalls	
		Bike Racks	3 (5 bike ea.)	
		Trash/Compost Receptacles	4	
	Community Gardens	Compost Receptacle	2	Community Gardens act as an active edge and punctuation to the south end of market street, and also a transition from formalized village green to wilder village commons/conservation area, while investing in the agricultural legacy of the area in an alternative manor for nearby residents. This area may be of particular interest to adjacent senior residents/senior center members and future school.
		Delineated Plots	1, potentially 2 80'x65' spaces (25 12'x16'plots in each area)	
	Lunch area for town employees	Low Fence		
		Picnic Tables	3	
	Mini-Orchards	Trash/Compost Receptacles	1	A nearby, pleasant area to relax, have lunch and perhaps meet with a colleague through out the work day.
		Hardy Fruit Trees	2 areas – 6-9 trees each area	
	Post Office Plaza			These formal gardens pick up a pattern that begins with the existing fruit trees currently planted in front of the library, and of course the orchards famous to the entire region. They also provide mini edible alles appropriate surrounding the farmers market area.
		benches	2-3	
	Post Office Plaza			This is a small place to sit and wait for a friend or bump into someone while picking up your mail, or if you are visiting, to sit and look at a map after you have had lunch at the café. It extends the entrance to the post and acknowledges that this is a very active hub for the village

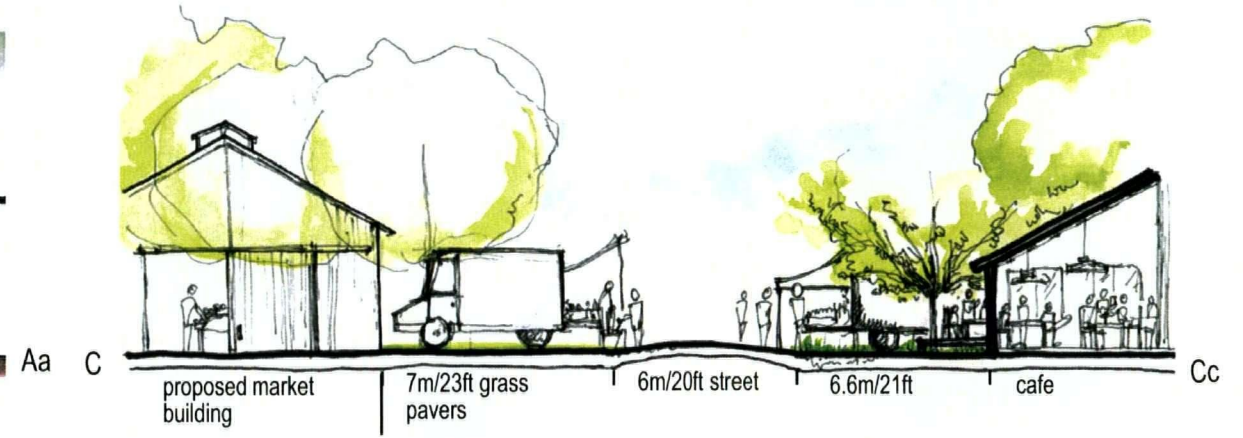
	Central Trail	Boardwalk, (existing) mini bridges over swale		This trail brings definition to the east side of the market place, where it meets the existing 3 meter wide swale running through the village green. It plays a significant role in bringing a clear connection between the village center and its connection to a greater network of trails.
TOWN HALL MEADOW (s)	Entry way	Sign Seating Boardwalk Trail	1 for 2 or 3 length of meadow	The entry way to the meadows is intended to be subtle, yet celebratory with a welcoming kiosk designed by a local artist and in keeping with the materials and signage style used throughout the conservation site.
	Sitting/Performance Space	Deck	5x5 wood decking	
	Senior trail	Trail markers		See info. on signage listed above.
ROUTE 7 ENTRANCE/FLEA MARKET	Flea Market Space – Existing Potential Office Building rental space- with environmental theme/demo building/appropriate small business rent	Vendor spaces Office Building (future)	Existing To scale with other town buildings	
	Public Gateway	Signage Parking Bike Racks	Throughout site 20 spaces 2 (5 per rack)	Signage in-keeping with that of entire site, however, this entry way is considered the most public entry from Route 7 to Charlotte Commons, and there for signage should be larger and prominently placed
	Outdoor classroom	Covered Structure Public facilities (composting toilet) Trash Bin/composter	20'x20' approx For 15 or less 1 2	This can be a simple structure built on the edge of the forest for use by local school, volunteer, environmental research groups or rainy day picnics etc.

GREENBUSH ENTRANCE/CONNECTION w/ BARBERHILL ROAD	Picnic/Viewing Space to Lake Champlain	Bench	1	This entrance is the smallest of the three entrances to the Charlotte Commons and is programmed for infrequent use by cyclists and residents strolling to see the sunset.
		Composting toilet	1	
		Signage	2	
		Bike rack	1	
		Parking spaces	5	
CLAY PLAIN FOREST	Sitting circle	Seats/benches	Enough for 12	For the most part, the forest is purposely left alone to be the wonderful woods that it is. S sitting circle will provide the community with a destination place within the forest, giving the sense that the forest is a great place to go to and enjoy.
	Multi-use trail (bikes, horses, ped.) and smaller foot trails	Trail markers		

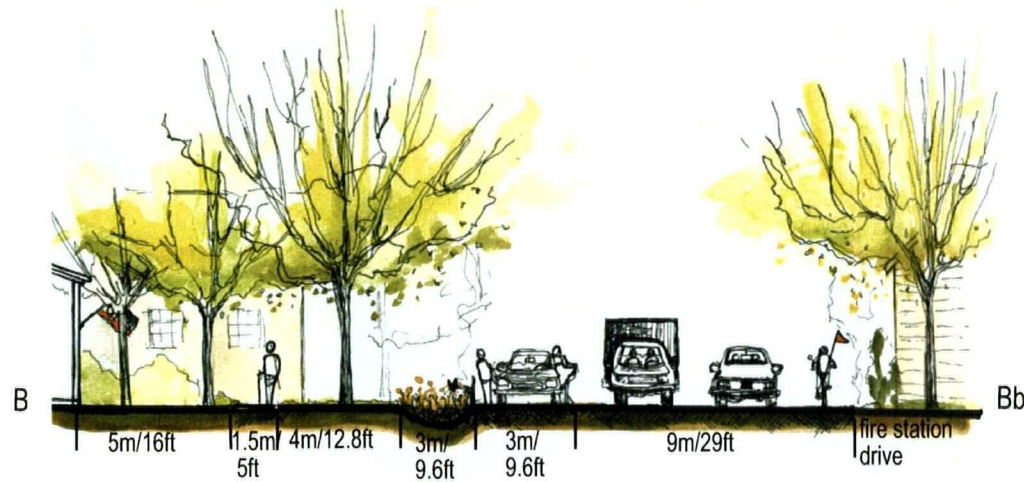
Appendix IV Street Sections



Section A, Aa- Library Road, looking west



Section C, Cc - Market Street, looking south



Section B, Bb - Ferry Road, looking west



Section D, Dd- Village Green Boardwalk and Market Building, looking south

Not to scale - scales vary

Appendix V

Criteria of Act 250

Development...

1. will not result in undue water or air pollution
2. has sufficient water available for the needs of the subdivision or development
3. will not unreasonably burden any existing water supply
4. will not cause unreasonable soil erosion or affect the capacity of the land to hold water
5. will not cause unreasonably dangerous or congested conditions with respect to highways or other means of transportation
6. will not create an unreasonable burden on the educational facilities of the municipality
7. will not create an unreasonable burden on the municipality in providing governmental services
8. will not have an undue adverse effect on aesthetics, scenic beauty, historic sites or natural area, and
8(A) will not imperially necessary wildlife habitat or endangered species in the immediate area
9. Conforms with the Capability and Development Plan which included the following considerations:
A) The impact the project will have on the growth of the town or region; B) Primary agricultural soils;
C) Forest and secondary agricultural soils; D) Earth resources; E) Extraction of earth resources
F) Energy Conservation G) Private utility services; H) Costs of scattered developments; J) Public Utility Services;
K) Development affecting public investments; and L) Rural growth areas.