ABSTRACT

Title of Document:	**BUILDING COMMUNITY: A TOWN HALL AND FIREWISE RESOURCE CENTER IN QUILCENE, WASHINGTON**
	Shannon M. Wing, Master of Architecture, 2006
Directed By:	Professor William Bechhoefer, School of Architecture, Planning, and Preservation

This thesis looks at redefining Quilcene, a small town on the Olympic Peninsula of Washington state. Once a center for logging, Quilcene has now become just another small, forgotten town along a highway. It needs help to bring back life and prosperity. I will focus on exploring the transformation by capitalizing on Quilcene's idyllic location.

In Western Washington many towns have sprouted in locations susceptible to fire and now suffer from a high risk of flammability. This thesis intends to explore the unique relationship between forests and the communities located on their fringe. I will examine the ways communities build in these locations and how to better prepare them for the possibility of fire.

I propose to design a Town Hall and Firewise Resource Center, a forum where the entire community and surrounding communities can come and learn about fire risks of the area as well as hold town meetings.

BUILDING COMMUNITY: A TOWN HALL AND FIREWISE RESOURCE
CENTER IN QUILCENE, WASHINGTON

By

Shannon M. Wing

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Architecture
2006

Advisory Committee:
Professor William Bechhoefer, Chair
Professor Ralph Bennett
Visiting Lecturer Robert Dorgan

Dedication

This thesis is dedicated first to my parents,

who have helped me achieve my goals

and supported me every step of the way.

Secondly, to Philippe Bishop,

who has helped keep me sane and upbeat

throughout this experience.

Acknowledgements

I would like to thank the following people for all their hard work in the final days before my final presentation: Jeannie Ahn, Sam Kang, Kim Singleton, Liz Maeder, Ali Hernandez, John Bryant, and Stacey and David Ko.

I would also like to thank my parents, Douglas and Glenna Wing, for working long, arduous hours, slaving over my model on the first week of their vacation. Thanks, I could not have done it without you.

To Philippe:

Thank you so much for your help throughout the final two weeks. My presentation would not have been so successful without all of your long hours and dedication to helping me get it done and finish my degree.

Table of Contents

List of Figures

Chapter 1: Introduction

Figure 1: A quirky sign painted on an overpass greets visitors outside of Quilcene, WA [author]

Quilcene needs help. Its story is similar to those of many other small American towns: its reason for being has disappeared. Logging faded away over the years as resources diminished and restrictions set in, leaving Quilcene stranded on along a highway but a shell of its former self. Yet the town still has potential, is spirited, and remains hopeful. Quilcene has already begun reinventing its image and exploring new economic opportunities. Right now, the three most pressing challenges Quilcene faces are:

    1) Planning for and managing its impending future growth,

    2) Planning for its site-specific fire risks, and

    3) Redefining itself and reconnecting the town as a whole

Impending Growth

Today, much of the Olympic Peninsula's economy is depressed but smaller towns, such as Quilcene, have really felt the brunt of this pain, as they have less resources and opportunities to affect change.

Growth in Quilcene has come to a virtual standstill. The county is no longer issuing building permits for individuals hoping to build in the area because of drinking water contamination. This, among other issues, has only continued to negatively affect economic development of the area.

The main hold-up in resolving this issue has been an intense battle over building a new public water system. It has been heatedly debated for several years and just recently has been approved. Many in the town believe strongly that, as soon as the work is completed, the town will begin to grow rapidly.

Fire Danger and Potential

The Pacific Northwest is no stranger to the threat of wildfires and the Olympic Peninsula is no exception. Quilcene rests at the edge of the Olympic National Forest, and in fact is bounded by it on two sides. It also lies in the rain shadow of the Olympic Mountains, setting up very dry, fire-friendly conditions.

Though there have been no major fires in the Olympics in the recent past, this does not preclude the possibility of a major blaze. It almost heightens the threat. Every year the forest does not burn, another year's worth of combustible material accumulates. Add this to the dry conditions of the area and the town's lack of a public water system with which to fight a fire, and Quilcene could be in trouble.

Reconnecting

Quilcene, though small in actual population, is very spread out. The boundaries of the town encompass 9.8 square miles of land; however, the majority of the population is clustered on a patch of land about one mile north/south by one half mile east/west. This area is regarded as the rural town center.
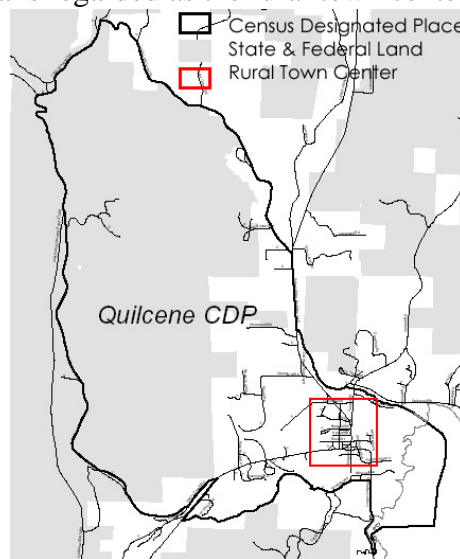
Figure 2: Since Quilcene is not incorporated, it is technically defined as a Census Designated Place. This diagram shows the actual boundaries of Quilcene in comparison to the more focused rural town center area. [Image courtesy of: Jefferson County and author]

Within this band of land, there are three distinct sections. There is the historic town site below the Big Quilcene River (see ref. 3 below) and then the more newly settled area. This is then divided in two by U.S. Highway 101, which cuts through the middle (see refs. 1 and 2 below).

Outside of the rural town center is another cluster of development; this has occurred along the Linger Longer Road which leads down to the town's waterfront (see ref. 4 below). The actual water is located about one and a half miles from the center of the current town site. This whole section has become very disconnected and relatively invisible to anyone who is not from the immediate area.
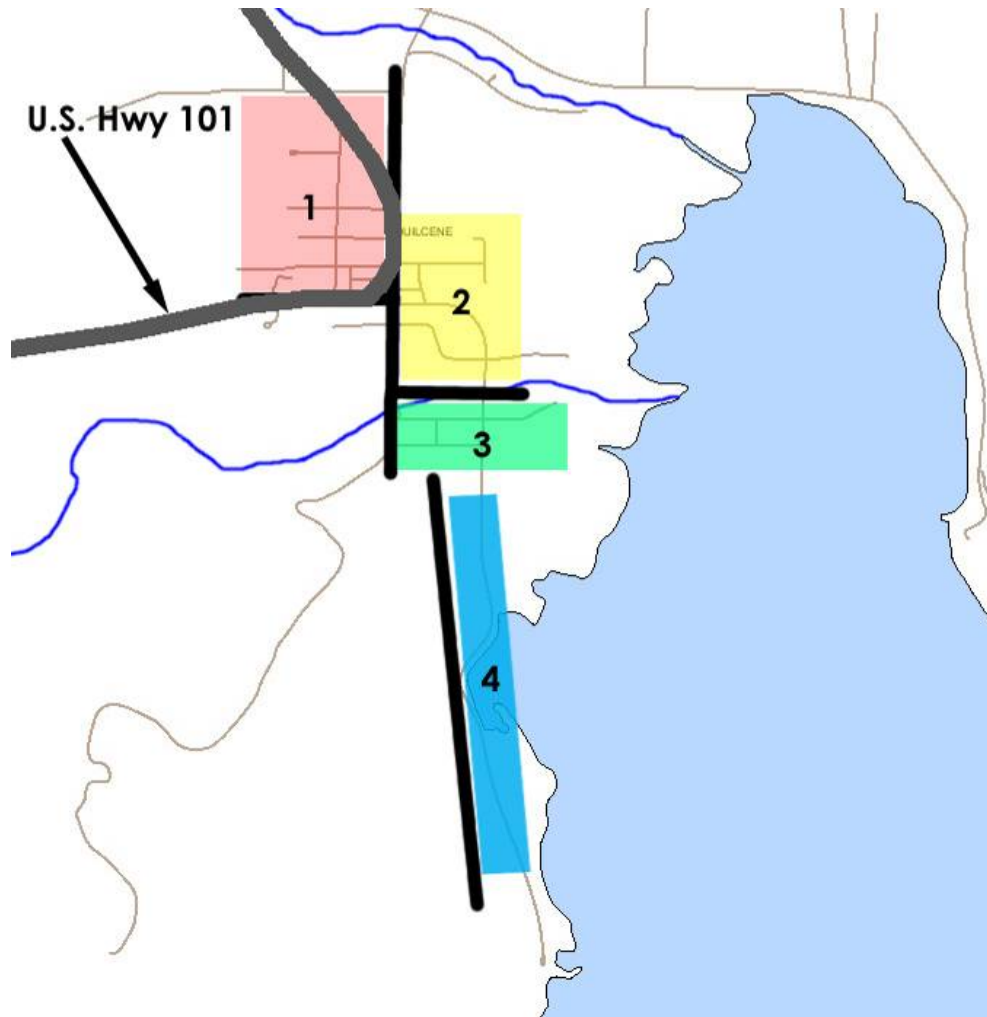
Figure 3: Diagram indicating the four disconnected pieces of Quilcene- 1) East of U.S. Hwy 101; 2) West of U.S. Hwy101; 3) Historic Quilcene: and 4) Linger Longer Road development. [Image courtesy of: Jefferson County and author]

Chapter 2: Location and Context

Location

Quilcene is located on the eastern edge of the Olympic Peninsula of Washington state. The Olympic Peninsula is surrounded on three sides by water and is often thought of as a world unto itself.[1] Quilcene is part of Jefferson County which extends from the Pacific Ocean across the width of the Peninsula to Hood Canal.

A vast majority of Jefferson County is designated as the Olympic National Forest and Park. It also acts as a barrier between the east and west sides of the county, with almost no development occurring in the center. Quilcene is one of very few communities that make up Jefferson County and sits in a perfect location to act as a gateway to the Olympic National Forest. It sits about twenty-five miles south of Port Townsend, an hour and a half west of Seattle, and ten miles north of Brinnon.

Though Quilcene's population is only 600 people, Jefferson County is characterized as rapidly growing and is currently ranked as the fifth fastest growing county in the state. Between 2000 and 2004, the county's population increased by just over eight percent.[2]

---

[1] Http://www.heartoftheolympics.org/
[2] Http://www.epodunk.com/cgi-bin/popInfo.php?locIndex=23024

Figure 4: National vicinity map highlighting the Olympic Peninsula in Washington State. [Map courtesy of: http://www.nwrc.usgs.gov/ and author]

Figure 5: State of Washington map highlighting Jefferson County and Quilcene. [Map courtesy of: http://baby.indstate.edu and author]

Figure 6: Olympic Peninsula map highlighting the specific location of Quilcene. [Map courtesy of: http://www.emeraldtowns.com]
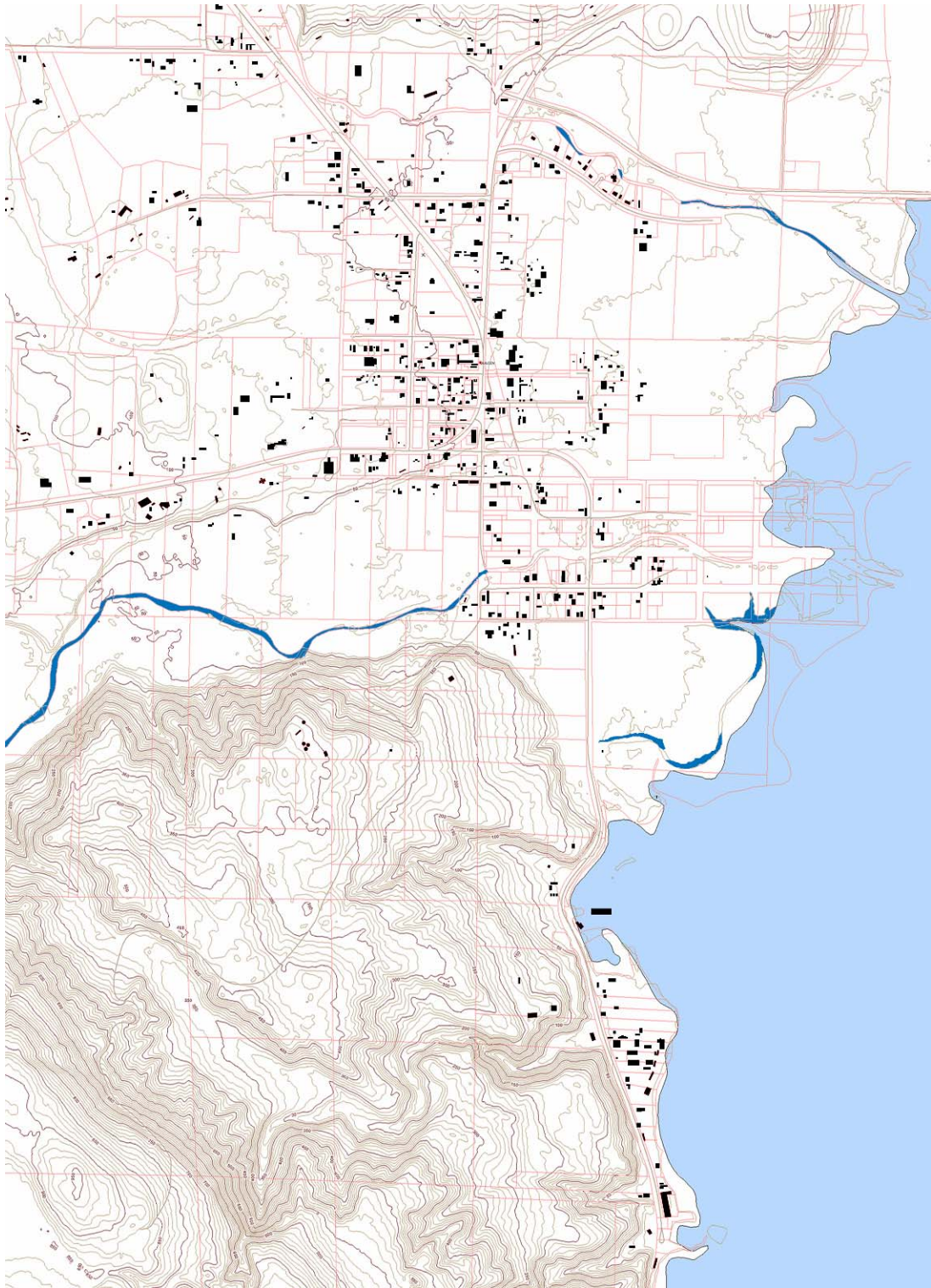
Figure 7: Figure-Ground map of Quilcene indicates location of town on Quilcene Bay and between the Big and Little Quilcene Rivers. [Image courtesy of: Jefferson County and author]

Transportation
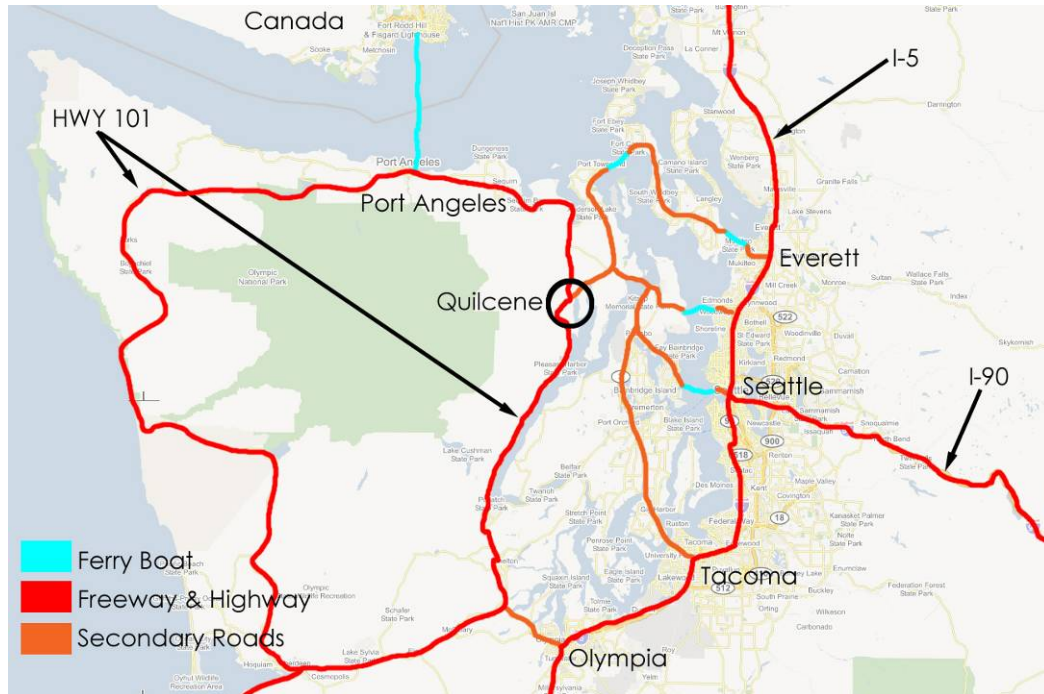
Figure 8: In order to get to Quilcene, one must usually employ two methods, car and ferry boat. In fact, there is only one way to get there without taking a ferry, and it takes considerably longer depending on one's starting point. [Image courtesy of: Google Maps and author]

Quilcene is situated along U.S. Highway 101, the famous tourist route that begins in Los Angeles, California and ends in Port Angeles, Washington. When the highway reaches Olympia, it makes a loop around the entire Olympic Peninsula.

U.S. Highway 101 slides over specifically to bisect Quilcene, in a sense, becoming the main street through town. As it enters/exits the southern edge of town, it dives immediately into the Olympic National Forest and Park while on the northern edge, the road splits in two, the highway continuing to the northwest and Center Road to the north. This road takes travelers through farmlands and valleys to the towns of Chimacum and Port Townsend.

9

Figure 9: Diagram showing the major road conditions at the entry and exit points of Quilcene. Refer to images below for reference. [Image courtesy of: Jefferson County and author]

Figure 10: Image shows U.S. 101 heading south out of town. Mt. Walker is shown in the distance (ref. 1). [author]

Figure 11: Image shows U.S. 101 heading south out of town into the Olympic national Forest and Park (ref. 1). [author]

Figure 12: Image shows U.S. 101 heading north out of town at the point where the road splits in two (ref. 2). [author]

Figure 13: Image shows Center Road splitting off to the north as U.S.101 veers to the left (ref. 2). [author]

Chapter 3: History

The Olympic National Forest suffered its earliest documented and most devastating wildfire in 1308; it is estimated that millions of acres of forested land on the peninsula were burned, nearly half of the Olympics[3]. This was followed 250 years later by another fire of similar magnitude. Then, starting in 1668, a series of wildfires repeatedly spread throughout the Peninsula destroying millions of acres; this phase lasted until about 1701.

When logging started in the area, smaller fires also become a normal occurrence, usually caused by land clearing and reckless logging practices. In 1864, a small fire started in slash near the neighboring town of Port Ludlow burned several thousand acres in just two days: including Mt. Walker, Mt. Turner, and Quilcene Ridge. Two fires in 1925 burned thousands of acres of valuable timber.

Since then, the area has been plagued by many dry years where small fires have burned in the Olympics, including one in 1932 that perhaps proved to be the most threatening to the town of Quilcene. The most recent fire in the area happened in 2000: the Hurricane Ridge Fire west of Quilcene burned several thousand acres and challenged officials to gain control of an escalating situation.
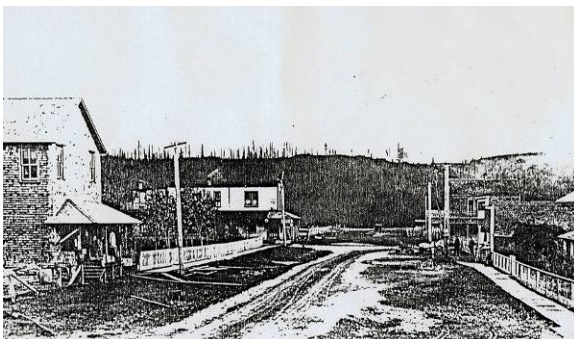
Figure 14: View of Quilcene and burned hillside in the background. [Image courtesy of: Jefferson County Historical Society (JCHS)]
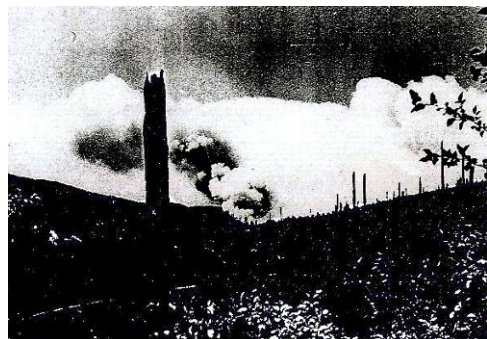
Figure 15: Unidentified fire burning near Quilcene. [Image courtesy of: JCHS]

How the Town Developed

Quilcene received its name from a tribe of Native Americans who used to live in the area: the 'Kolacenes'. Kolacene means 'People of the Salt Water'[4] which is fitting because the town rests at the edge of a salt water bay. The town was formally established in 1860 by a few New Englanders looking to make a new home for themselves on the western 'frontier'. The other primary reason that attracted settlers was the easy accessibility of virgin timber.

The town grew slowly at first but hopes were high that Quilcene would grow to become a great and prosperous city. An event that played an important role in this optimism was the knowledge that a railroad was being planned. The Port Townsend Southern Railroad Company, in conjunction with the Oregon Improvement Company, set out to build a line that would extend from Port Townsend, Washington (north of Quilcene) to Portland, Oregon (south). Quilcene was slated as one of the stops along the way.

In 1891, the tracks arrived in Quilcene. Unfortunately, they never made it any further. The railroad dream died when the Oregon Improvement Company went bankrupt and abandoned the project. This act had a devastating effect not only on Quilcene, but the entire area; many families were plunged into financial ruin and widespread depression set in around 1893. Yet hopeful residents still held out belief that more settlers would be attracted to and ultimately settle in the area, drawn by the abundant opportunities afforded through mining, farming, and logging.[5]

---

[4] A History of Quilcene: pg 129.
[5] Gen. Dev. Through the Early 1960's: pg 887.

In the early 1900's, several miners began staking claims in the nearby mountains and hope grew high once again that Quilcene would grow and prosper. This idea was aided by the Tubal Cain Mining Company choosing Quilcene as their headquarters for the refinement and smelting of gold, copper, iron, and manganese.[6] After several years, nothing had come of the investment and in 1920 the entire operation was abandoned as a loss.

Farming has always been an alternate source of income and food for the residents of Quilcene. Many families raised cows for food and dairy, as well as harvesting crops in the fertile soil of the river valley. Brush picking of huckleberry, salal, and sword ferns was also a focus for a few families, but to a lesser extent.[7] The first brush picking plant was built on the Little Quilcene River in 1940.

Quilcene has also relied heavily on its most abundant resource, timber. Logging became a staple of survival to not only Quilcene, but also many of the surrounding communities. The logging industry was able to sustain the town successfully for many years. In fact, logging is what attracted many of the town's settlers to the area in the first place.

---

[6] With Pride in Our Heritage: pg 165.
[7] With Pride in Our Heritage: pg 167.

Figure 16: Image showing the abundance and incredible scale of the amount of lumber available for the loggers of Quilcene. [Image courtesy of: JCHS]
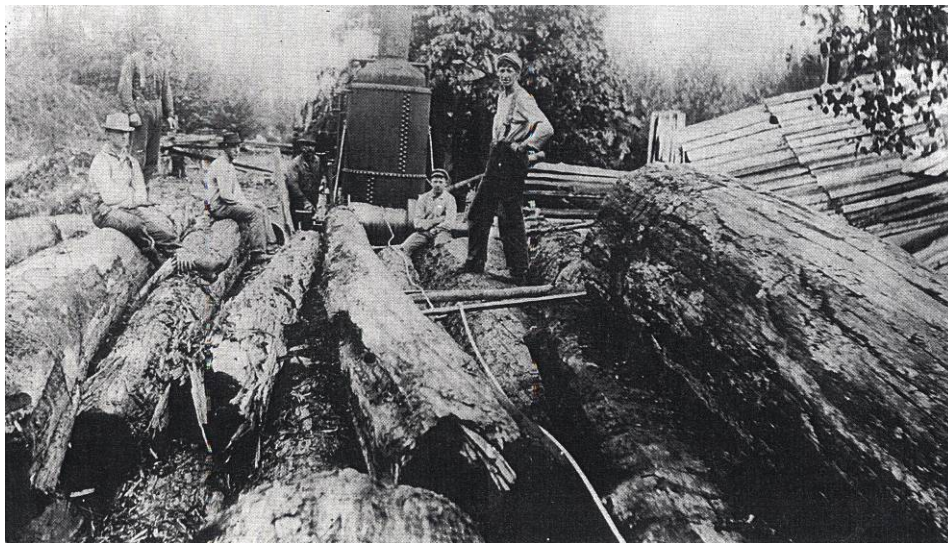
Figure 17: Historic logging photograph taken in Quilcene showing men cold-logging massive trees.   [Image courtesy of: JCHS]

There was a large shingle mill located in Quilcene operated by the Green Mill Company which employed around fifty men; the same company also operated two logging camps. At capacity, they were able to produce 150,000 cedar shake shingles daily. Also, in 1950, the Buck Mountain Logging Company moved into town. They became the major logging employer in Quilcene through the 1960's.

After mining proved a bust, there was another savior for the town, the federal government. It proved to be of vital aid to the town when it built a Fish Hatchery on the Big Quilcene River in 1911. Soon after that, the Forest Service Ranger Station and crew quarters moved into town and once again, during the Depression, a CCC Camp was established on Penny Creek just outside of town.[8]

Figure 18: Image showing the CCC camp on Penny Creek. The camp acted as a boon to Quilcene during the Depression. [Image courtesy of: JCHS]

Yet another industry began to take shape in the town in the early 1900's. In 1915, some residents began experimenting with propagating oysters in Quilcene Bay with little success. However, by 1934, a new species was introduced from Japan which seeded naturally in the warm waters of the bay.[9] This Olympic Oyster, as it is now called, has helped Quilcene become "famous".

---

[8] With Pride in Our Heritage: pg 165.
[9] With Pride in Our Heritage: pg 166.

How the Town was Envisioned

The population of Quilcene, according to the 1880 census, was sixty-five people. Just ten years later, the population was estimated by a townsperson to be closer to 500. Though this estimate is probably inaccurate, it shows how optimistic the people of Quilcene were about the future of their town. The population according to the 1910 census actually shows the number to be 215 people. While there was a consistent out-migration occurring, immigration was occurring simultaneously and the population actually continued to increase.

Paradoxically the Depression of the 1930's helped spur growth in Quilcene and the surrounding towns. Many city-dwellers sought refuge in the more natural setting, hoping to simplify their lifestyle, become more self-sufficient, and live off the land. Again during World War II, the population spiked as 1,500 troops were "billeted in the gymnasium and Forester/Masonic Hall in Quilcene as part of the Western Approaches Defense Program.[10]"

The reason people move to Quilcene now is generally to escape their current city-lifestyle. They enjoy the small-town atmosphere, peace, and friendliness Quilcene provides and appreciate the relatively slow pace of life, the other bonuses being the lack of traffic, smog, and crime[11].

The town founders fully believed Quilcene would grow into a modern-day metropolis (more like Seattle). In addition to the hope that the building of the railroad inspired, the town also showcased several pro-development amenities. Two newspapers, the Quilcene Queen and the Megaphone were published; a steamer ferry

---

[10] Gen. Dev. Through the 1960's: pg 889.
[11] Gen. Dev. Through the 1960's: pg 893.

called the Buckeye sailed daily to Seattle; and a popular tourist destination, the Linger

Longer Lodge, attracted many tourists from Seattle. Though the town never reached

its full "potential," it is interesting to examine the way the early founders promoted it

to the outside world.
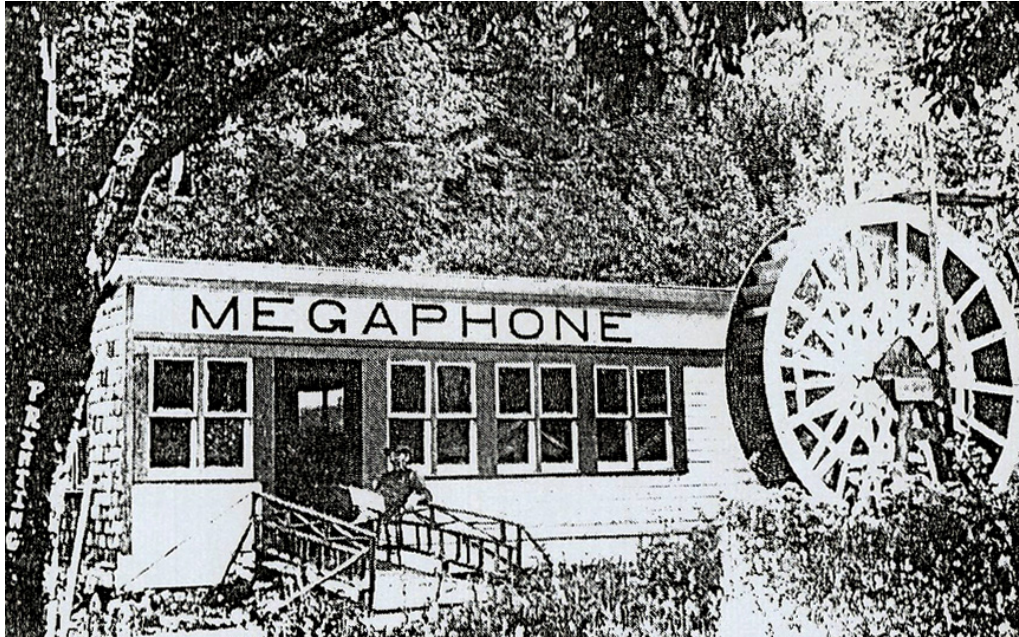
Figure 19: Image showing the Megaphone Newspaper located at the end of Linger Longer Road. It was powered by the waterwheel. [Image courtesy of: JCHS]

Figure 20: Image showing the historic and popular Linger Longer Lodge. The structure was located at the end of Linger Longer Road and owned by the owner of the Megaphone. The lodge burned down twice and was never replaced. [Image courtesy: of JCHS]
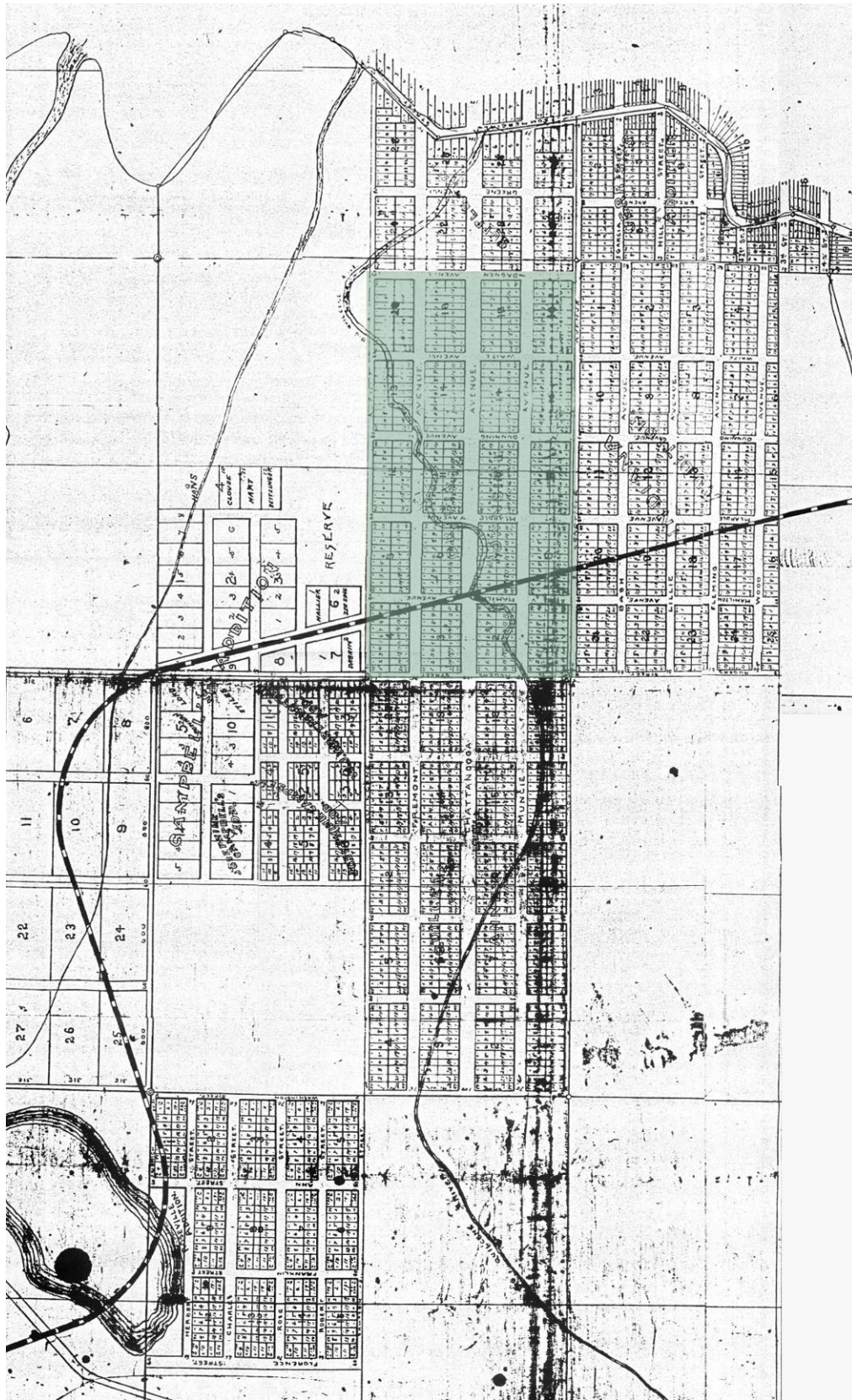
Figure 21: Historic plat map of Quilcene. Shaded overlay indicates area of town that was actually developed. The undeveloped portions stand as a testament to the optimism the residents had that Quilcene would develop as a major city. The dashed line on the map indicates where the railroad cut through town. [Image courtesy of: Quilcene Museum]

Movement of the Town

Quilcene presently sits on a different site than it was historically founded on. Initially, the town grew along and just south of the Big Quilcene River. Due to frequent flooding, however, the town moved to the higher plain north of the river by 1920. Another reason for this move was the creation of a new road which rerouted tourist traffic through the area.

Nowadays, Quilcene is a bit more spread out, but with a majority of the population residing between the Big and Little Quilcene Rivers. A couple of the original town blocks with houses are still being used.

Beyond the historic town site, much of the land near the river has become farmland. In order to reach the bay from Quilcene, it is necessary to drive about a mile down the Linger Longer Road before reaching accessible water. The town resides essentially at the edge of the bay, but much of the bay's northern half is comprised of mud at low tide.
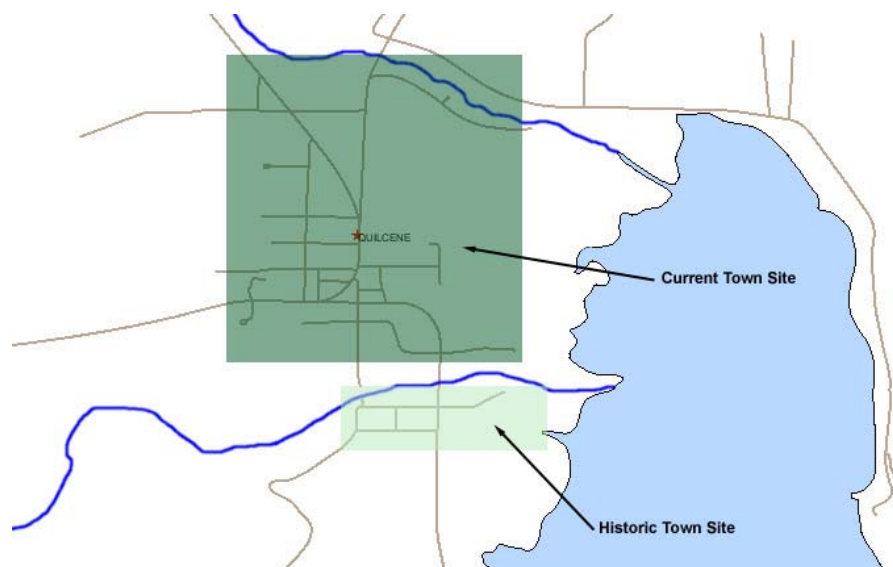
Figure 22: Diagram showing the locations of the historic and current town settlements, as well as their relationships to one another and the surrounding area. [Image courtesy of: Jefferson County and author]
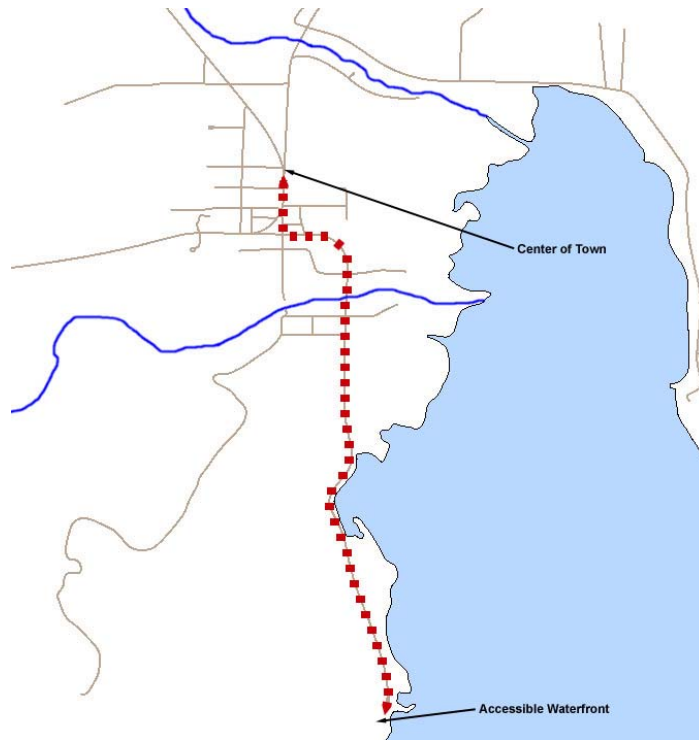
Figure 23: Diagram showing the distance of the center of Quilcene from the beachfront and marina. [Image courtesy of: Jefferson County and author]

Figure 24: Diagram showing the amount of Quilcene Bay that is mud versus salt water at low tide; at high tide the entire bay is covered in water. [Image courtesy of: Jefferson County and author]

Sustaining the Town

By 1970, the majority of the population had begun to shift from logging (which then only employed around 30% of the town) and farming as a way of life to jobs in the "public" employment sector, such as working for the U.S. Fish Hatchery, the U.S. Forest Service, the State Shellfish Laboratory, and the School District.[12] With 40% employed in the public sector and 30% in logging, the remaining percentage is generally employed in private (family) businesses, several of which are specifically geared to the tourism industry.

Recently, Quilcene has become known worldwide for their oysters. Quilcene Bay, as well as Dabob Bay, is home to several varieties of oysters sold around the world. Most readily available are the Pacific Oyster, which is also known as the Quilcene, and the Olympic Oyster, purportedly these two varieties are among the most popular. Quilcene is also home to the world's largest oyster hatchery. In 1978, the Hilton Coast Seafood Company opened their own hatchery on the bay which is capable of producing over thirty billion oysters per year.[13]

The Olympic Oyster is especially rare and unique. It is Washington's only native oyster species. Almost wiped out by habitat invasion by non-native oyster varieties, it is beginning to make a comeback in the waters around Quilcene. The Pacific Oyster, originally from Japan is special and profitable to Quilcene because it is one of very few locations where it has been proven to seed naturally in the warm waters of the bay.

---

[12] Gen. Dev. Through the 1960's: pg 890.
[13] http://www.coastseafoods.com/quilcenes.htm

Chapter 4: Site, Town, and Personality

We're all here because we're not all there.

- Anonymous

The rural town center of Quilcene is nestled between two rivers in a gently sloping valley, one river is to the north and one is to the south. These are called the Little and Big Quilcene Rivers (respectively). Bordering it to the east is Quilcene Bay, which is part of a network of bays and inlets coming off of Hood Canal, Admiralty Inlet, and Puget Sound. The western side is backed by a low mountain called Green Mountain, with bigger Mt. Walker just beyond Big Quilcene River.
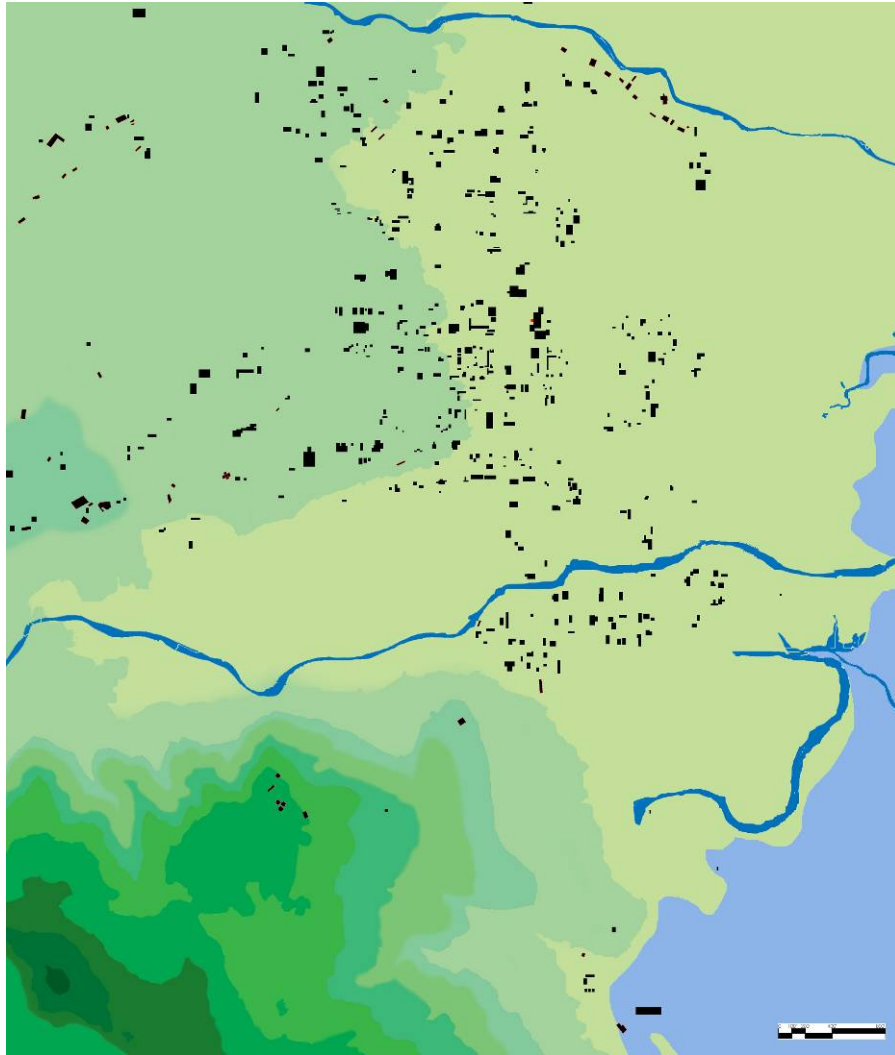
Figure 25: This diagram conveys the extensive geographical features surrounding the town of Quilcene, demonstrating how the town is bounded on all sides by either hills or water. The difference in elevation from the west side of the town to the bay is approximately 100 feet. [author]
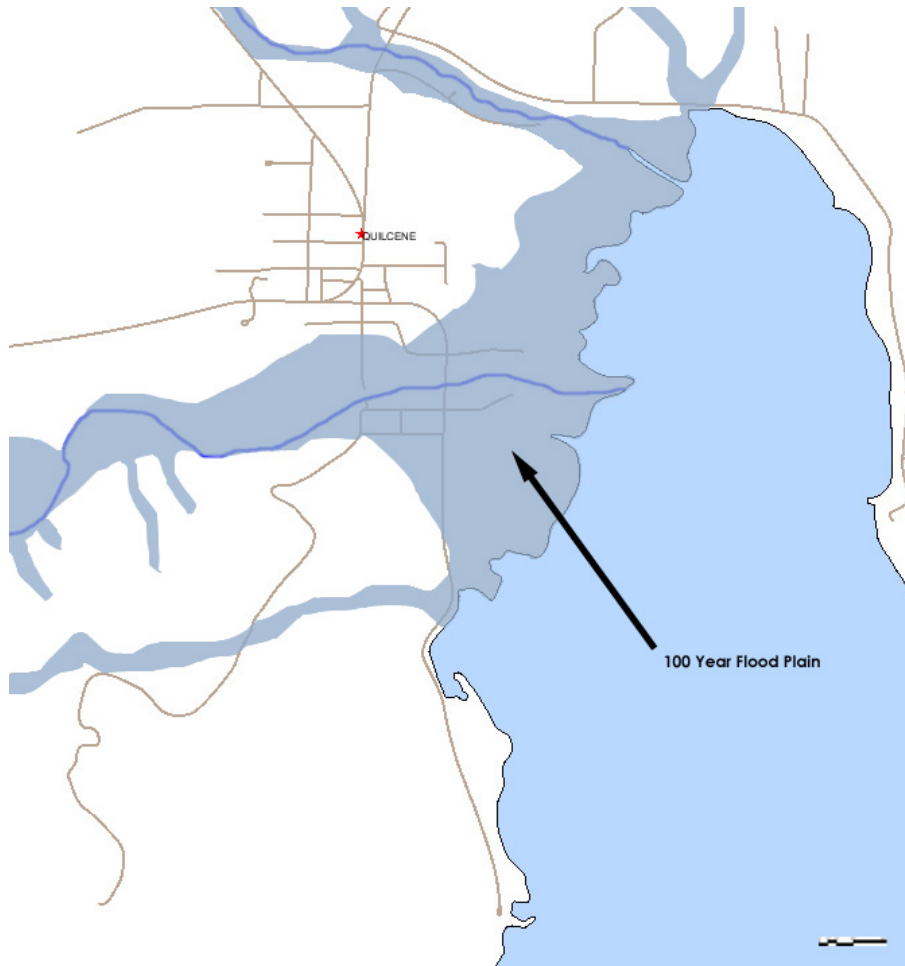
Figure 26: Diagram showing 100 year flood plain and the parts of Quilcene affected by it. Flooding on the Big Quilcene River motivated the original settlement of the town to move north in the early 1900s. [Image courtesy of: Jefferson County and author]

The Town

Existing Conditions

Quilcene enjoys a certain "undeveloped" characteristic. The streets are without sidewalks, crosswalks, street lights, or any other furniture. Instead, one will find grass, shrubs, and trees right up to the road's edge. Most of the buildings are very simple, small wooden structures of one or two stories maximum; this includes both residential and commercial structures. The majority of the historic buildings still standing in Quilcene are in the worst shape of any there and badly need rehabilitation.

Figure 27: Image shows typical road conditions in Quilcene. [author]

Figure 28: Image shows typical road and intersection conditions in Quilcene. [author]

Figure 29: Image shows U.S. Highway 101 heading into Quilcene from the south. The building to the right is the historic Whistling Oyster restaurant. [author]

Figure 30: Image shows typical commercial buildings along Hwy 101. [author]

Figure 31: Image shows the Historic Quilcene Hotel located just off Hwy 101. [author]

Figure 32: Image shows a typical house and street relationship in Quilcene. [author]

Figure 33: Image shows a typical house and yard condition in Quilcene. [author]

Structure
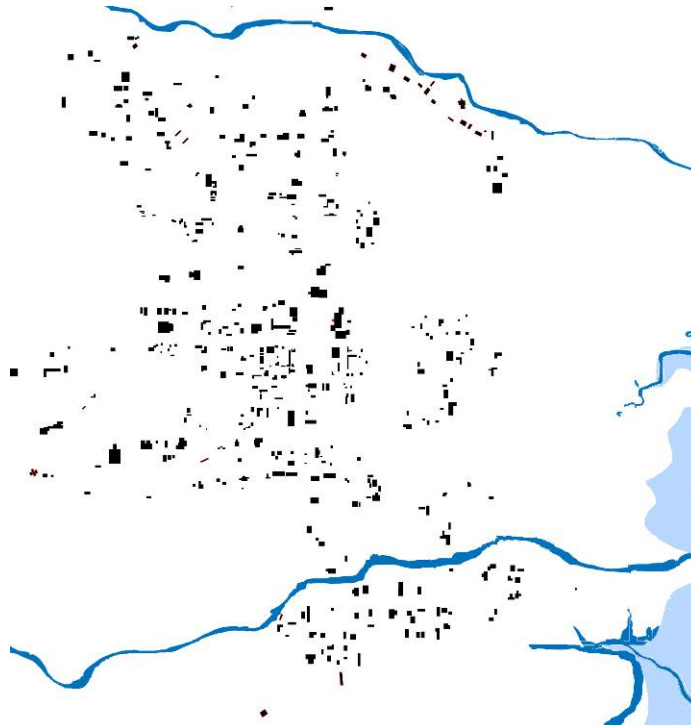
Figure 34: Diagram showing buildings in Quilcene. Indicates a clear clustering of "density" in the center of town. [Image courtesy of: Jefferson County and author]

Figure 35: Diagram showing existing street system and hierarchy in Quilcene, also relationship with U.S. Hwy 101. [Image courtesy of: Jefferson County and author]
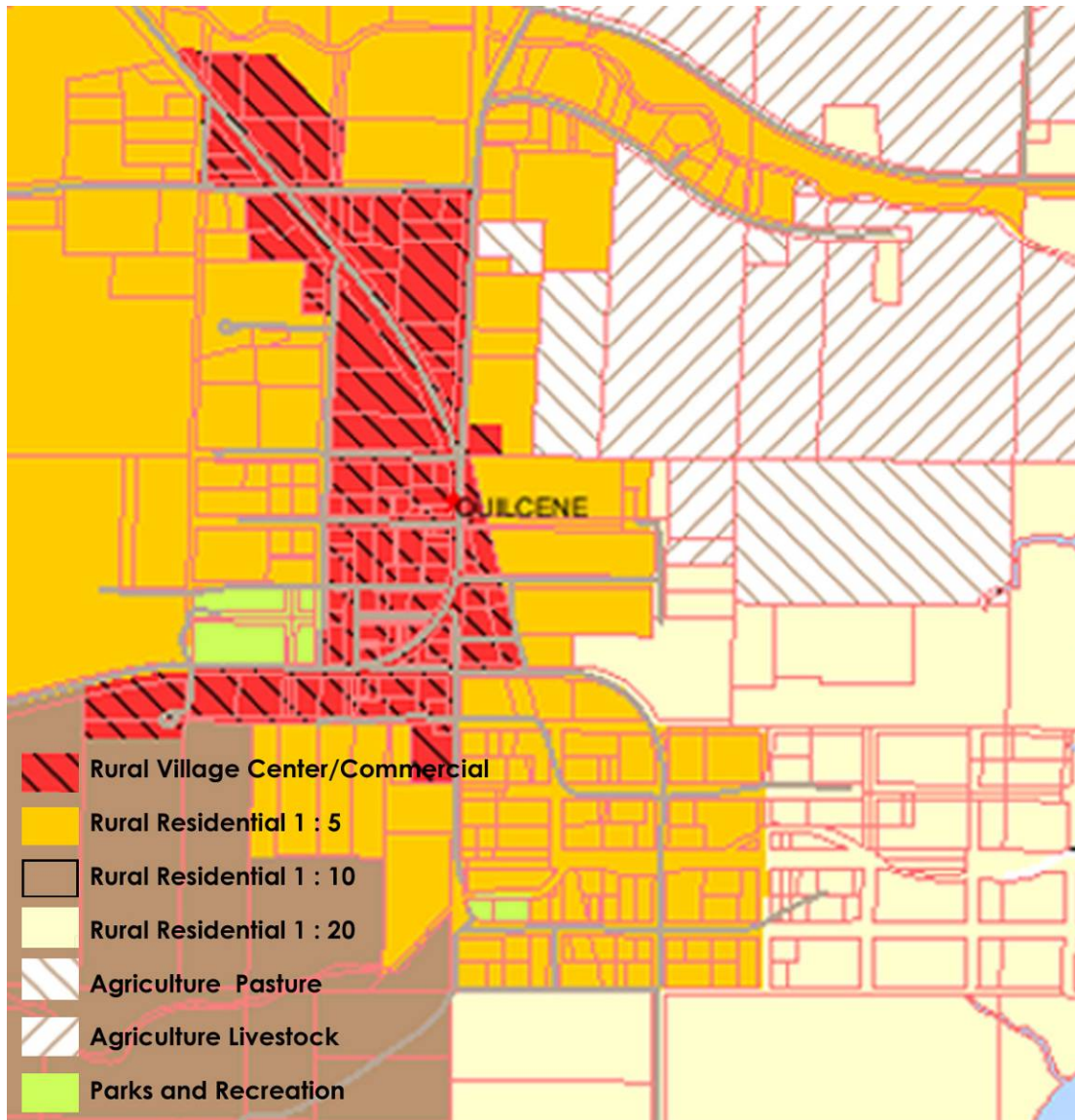
Figure 36: Diagram showing the designated zoning and land uses in Quilcene currently. The town consists of mainly commercial (red), residential (yellow, brown, and beige), and agricultural land (brown stripes). The commercial district is clearly demarcated along U.S. Hwy 101 from entry to exit of town. [Image courtesy of: Jefferson County]
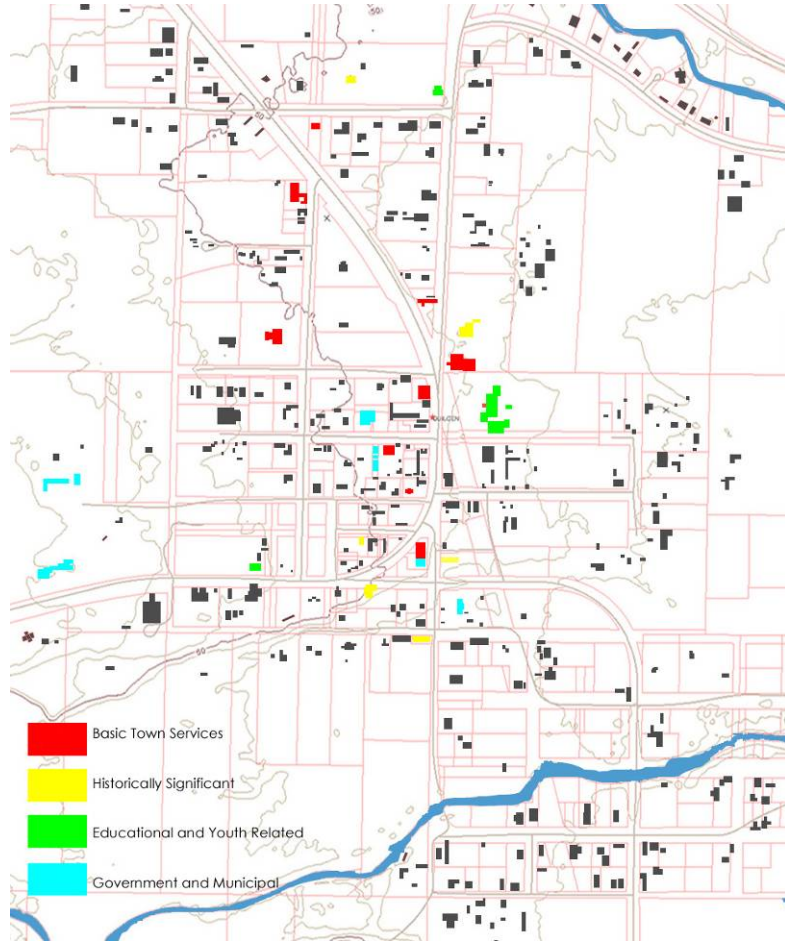
Figure 37: Diagram showing the notable building locations within Quilcene. These buildings represent government and municipal services, educational and youth services, basic town services, and historical sites. [Image courtesy of: Jefferson County and author]

Amenities

At the end of Linger Longer Road is where the Megaphone, Buckeye, and Linger Longer Lodge were located. Since then, they have been replaced by new uses. Linger Longer Road dead-ends about a mile outside of town, where visitors can find several amenities to both the town and potential tourists. There is a lookout point with information on the bay as well as an area for recreational oyster digging and clamming. A little further down the road is the local yacht club. Shortly thereafter

begins the oyster industry area. There are many buildings on both sides of the roads

geared toward supporting this industry in Quilcene. At the end of the road is the

Quilcene Boat Haven, which harbors about thirty-five boats at a time. There is also a

public swimming beach with stunning views of the Bay and Olympics. A small

campground is also located directly behind the beach where many families stay

during the summer months.
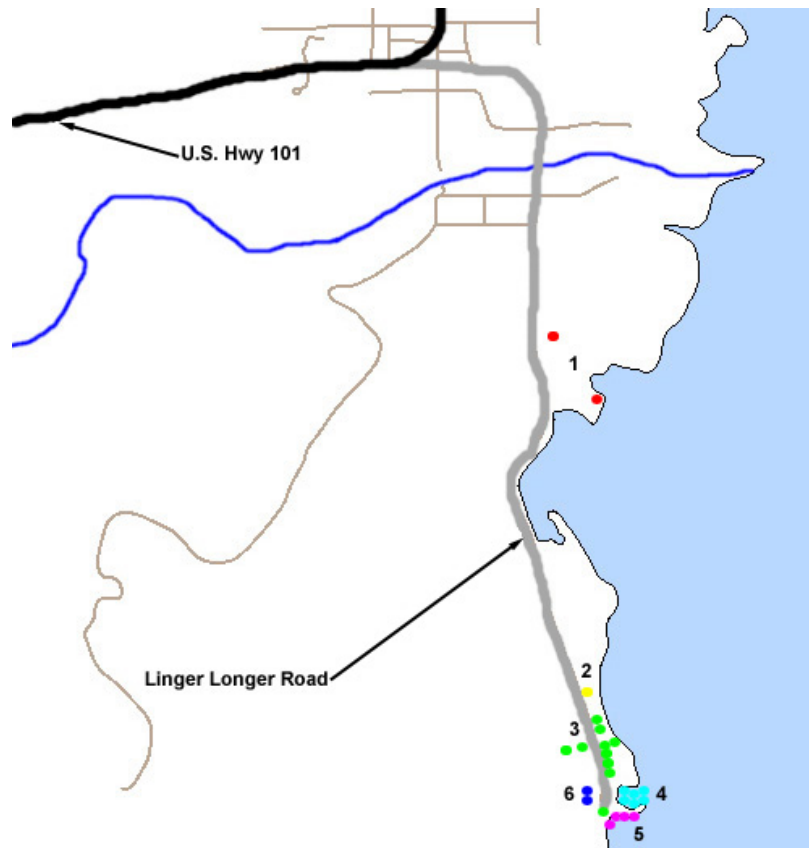
Figure 38: Diagram highlighting the different uses along the Linger Longer Road from the rural town center to the waterfront, the different amenities are referenced to the following images. [Image courtesy of: Jefferson County and author]
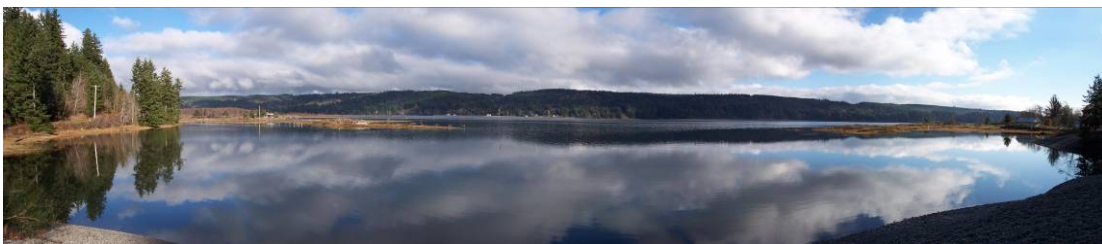
Figure 39: Image shows view east out towards the opposite side of Quilcene Bay from the Lookout Point on the Linger Longer Road (at high tide) (ref. 1). [author]

Figure 40: Image shows view south towards the mouth of Quilcene Bay from the Lookout Point (at low tide) (ref. 1). [author]

Figure 41: Image shows Lookout Point info board (ref.1). [author]

Figure 42: Image shows view of the yacht club on the bay (ref. 2) [author]

Figure 43a-c: Images show some of the newly developed oyster industry buildings along the Linger Longer Road (ref. 3). [author]

Figure 44: Image shows the Quilcene Boat Haven with oyster tanks in the background (ref. 4). [author]

Figure 45: Image shows public swimming beach with views out towards the mouth of Quilcene Bay (ref. 5). [author]

Figure 46: Image shows campground located directly behind beach (ref. 6). [author]

31

Other amenities the town has to offer in terms of the natural beauty and surrounding are plentiful. There is the bay, available for both swimming and boating opportunities. There are also several trails available in the area as well as the nearby Olympic National Forest and Park. Hiking, biking, and camping are all very common in Quilcene. Also, Mt. Walker is just outside of town and offers amazing views of the entire area. The Olympic Music Festival has grounds about ten miles outside of Quilcene to the north; this event typically draws many tourists as well as local citizens during the summer months.

Figure 47: Image shows the view from the top of Mount Walker. Quilcene is visible below, at the edge of the bay. [author]

Quilcene does not have any public parks of its own, only one campground with very limited services, so it is generally not used. The nearby town of Brinnon's parks are a more typical stop-off point for summer tourists. The two rivers in town are also fairly neglected by tourists, with a minor amount of rafting and fishing occurring.

Addressing the Issues

Quilcene currently has no public water or sewage system. Almost every home has its own well and septic tank[14]. This has begun to have a tremendous impact on the town. Prospective builders have found it increasingly troublesome to obtain building permits from the county because of the difficulties entailed in meeting septic tank regulations. The town is already built to a barely manageable level from this standpoint. As it is now, many homes are still operating with a polluted water supply.

The town has been enmeshed in a battle over whether or not to incorporate a public system for the last several years. Proponents feel that a water system would "improve fireflow capabilities, lower insurance rates for homeowners, create more lending opportunities for new construction and remodels, and generate much-needed economic development opportunities.[15]" However, opponents feel that the cost of building the system will be too great for the community and will essentially cause them to have to pay for their water when they are currently getting it for free. There is also a fear that the town will grow to the point of losing its small town appeal.

The water issue has really created several problems for the town. It has increased its fire risk and sponsored sprawl, which has left the town feeling without a center and disconnected from itself. Once the water system is in place, the town will be able to correct some of these problems. In the last few years, the town was successful in finally pushing the water system plan through and grant money is currently being allocated to help pay for the endeavor.

---

[14] Gen. Dev. Through the 1960's: pg 896.
[15] Newspaper: 6/24/98

Residents

Quilcene's residents are largely comprised of a group of long-time residents and families, many of whom have been living in the area since the town was founded. They exhibit a particular pride in their heritage and have begun working to preserve and promote it. The community is fiercely independent and self-sufficient, a place where neighbors help one another when needed. The people work hard and still live off the land to some respect, with a majority raising some kind of garden or livestock. This also helps to alleviate the pressures of lower salaries.

Over the past few decades, economic conditions have left the community feeling disheartened. Though, with the advent of the oyster industry, the community is putting its complete faith behind it. They are hopeful to see their town grow, prosper, and ultimately maximize their potential.

Tourists

The summer months typically bring many visitors to and through the town of Quilcene. The Ranger Station in Quilcene records these numbers into the thousands. Many of these tourists are just passing through on their way to the Olympic National Forest and Park but some do come to take advantage of the other amenities of the area. Some of the other activities that bring people to Quilcene are their annual festivals and events: the Quilcene Heritage Days in April, Olympic Music Festival performances from June to September, the Quilcene Fair and Parade in September, and the Emerald Towns Forest Festival in December.

Chapter 5: Vernacular and Typology

"A house can never be as beautiful as a tree."

-Pietro Belluschi

Regional Vernacular of the Pacific Northwest

Historical

The early settlers in the Pacific Northwest were faced with many challenges. When they began to build their homes they realized there were none of the building materials they were accustomed to building with before, such as brick.[16] Due to the easy access to and abundance of timber, it was the obvious choice for a building material. The houses the settlers constructed were typically of a simple nature and shape, like the saltbox type, and clad in fir, pine, or cedar.

Traditional

Pacific Northwest Regionalism began to emerge as a prominent "style" in the late 1930's and 1940's thanks to Pietro Belluschi and John Yeon. They were among the first generation of modernists in the region to characterize this style as having close integration with the landscape, post-and-beam construction, and the use of natural native woods.[17] Traditionally, inspiration for this style has derived from the region's simple utilitarian and shed forms, such as barns, covered bridges, lumber mills, fish canneries, and fire watchtowers.

Today

Important features for today's Pacific Northwest Regional style include its ability to weather well, its durability, its site responsiveness, and its site sensitivity. Spatially, the style can be characterized by sharp lines, revealed structure, dynamic roofs, open plans, and a sustainable attitude. Some of the typical materials used

---

[16] Contemporary Homes of the Pacific Northwest: pg 12.
[17] Miller Hull: pg 11.

include: native and natural woods, heavy timber, concrete and CMU, and corrugated and non-corrugated metal. Overall, the style conveys a simple, raw, organic nature that embraces the specificity of place of the Pacific Northwest Region.

Regionalist Response Precedent

The Cabin at Elbow Coulee is a fitting example of the ideals that embody the Pacific Northwest Regional style. Designed by Balance Associates, Architects of Seattle and completed in 2002, the cabin is located in Winthrop, Washington in the northern Cascade Mountains. Though the cabin is only 1,400 square feet, the site on which it sits is seventeen acres. The cabin was sited based on where it would inflict the least amount of disruption to the existing natural features of the site.

The important goals of this project were integration of the building into the site, the relationship between the interior spaces and the exterior surroundings, the use of passive solar heating strategies, the use of durable and long-lasting materials requiring a minimal amount of upkeep, and the use of recycled and processed woods.[18] In order to achieve these goals, all rooms were created with doors connecting to the outdoors. The materials used were logs, sawn beams, rough-formed concrete, and corrugated metal.

The cabin also employs several sustainable design features such as using salvaged boards, wood remnants, and high performance glazing. The landscaping is also wholly consisting of native species. The majority of the glazing faces either east or south to take advantage of passive solar heating and the roof is designed specifically to deal with the snow and climate of the region.

---

[18] http://www.woodmags.com/wdb/magazine_rack/2003_winter_22/cabin/index.php3
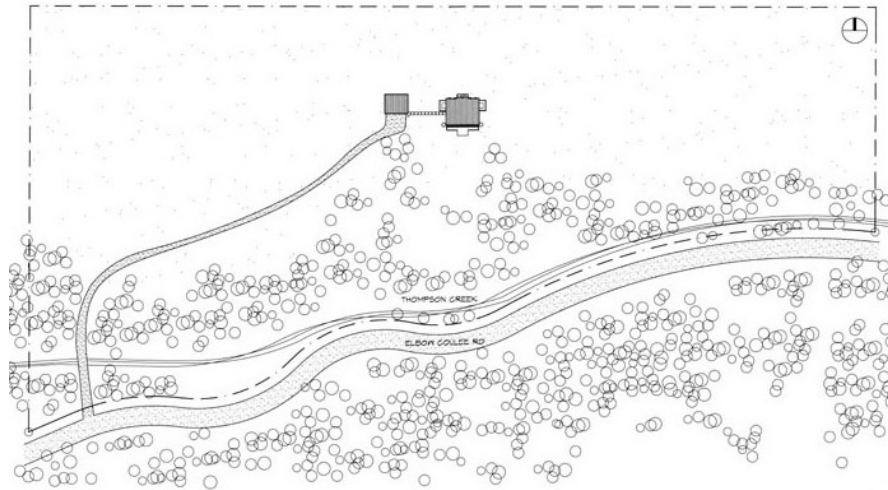
Figure 48: The site plan of the Cabin at Elbow Coulee indicates its placement in regard to the surrounding site features. [Image courtesy of: http://www. woodmags.com/wdb/magazine_rack/2003_winter_22/cabin/index.php3]

Figure 49: Images depict the cabin during various times of the year, highlighting the cabin's durability. [Image courtesy of: http://www. balanceassociates.com]

Figure 50: Image shows the natural material choices for the cabin. [Image courtesy of: http://www.balanceassociates.com]

Types of Buildings in Quilcene

In Quilcene, there are four main building types. They range in timeframe from historic to recent, as well as varied style and material choices. Each responds to a different component of life in Quilcene. The four dominant building types are:

38

1) Historical Saltboxes from the Past

Figure 51: Examples of typical saltbox style buildings in Quilcene. Typically these are the older structures in town and vary in upkeep. [Images courtesy of: author and Quilcene Museum]

2) Cabins and Heavy Timber Structures
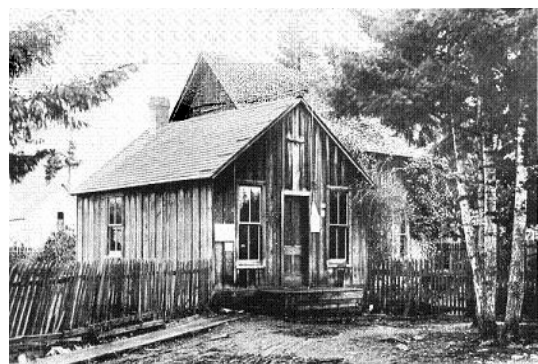
Figure 52: Examples of typical heavy timber and log-cabin types of structures in Quilcene. They are not as prominent as the saltbox style. [Images courtesy of: author and Quilcene Museum]

3) Industrial Shed and Barn Structures

Figure 53: Examples of the popular utilitarian inspired roofs and structures in Quilcene. These buildings are more for commercial or industrial uses. [author]

4) Roadside Architecture

Figure 54: Examples of current roadside buildings along U.S. Hwy 101. These buildings tend to be some of the newer and least appealing structures in Quilcene. [author]

Chapter 6: Analysis of Precedents

Port Gamble

Location:

Port Gamble is located in western Washington, at the northwestern tip of the Kitsap Peninsula. It also sits at the mouth of Port Gamble Bay, along the waters of the Hood Canal.

Owner:

Established as a company-owned mill town by the Puget Mill Company in the 1850's, it has now been restored and is operated by Pope Resources as a 120-acre National Historic Landmark[19].

Goals:

The town was created in order to provide close and convenient housing and services for the employees of the Port Gamble Mill. At its most prosperous, the mill employed about 250 people, and the owners believed that if its employees were well cared for, then their business would profit.[20] The streets follow a simple grid, with commercial and service buildings located along or near the main street and housing further down and on surrounding blocks.

---

[19] http://www.portgamble.com/
[20] http://www.historylink.org/essays/output.cfm?file_id=5487

Description:

The worker's families lived in the town which had a church, a hotel, a medical clinic, schools, social clubs, a theater, a general store, a post office, and a cemetery.[21] Among the first few buildings to be built were the general store, which sits at the end of the main street, the cookhouse, and the bunkhouse. The general store became the centerpiece of the town, a place for employees and their families to purchase food and supplies, as well as gather information on the outside world. Other notable buildings located on Port Gamble's main street were the community hall, the masons lodge, and a market place.

Relevance:

Port Gamble's main street reflects qualities important to the goals for reconnecting Quilcene. Having a main street and its associated building types clearly allows it to act as a spine for the community, a gathering place. Port Gamble serves as inspiration for the possibility of creating a main street and a new center in Quilcene.
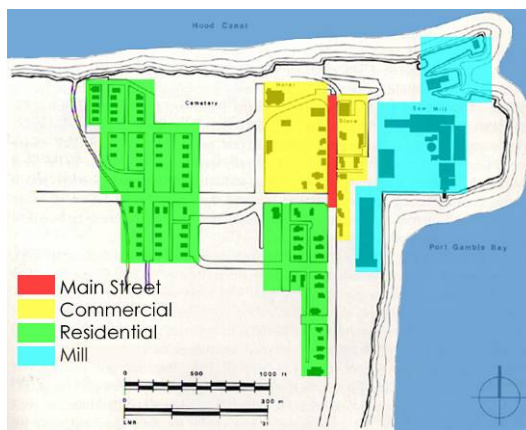
Figure 55: Diagram showing different uses on and around the main street. [Image courtesy of: The Company Town and author]
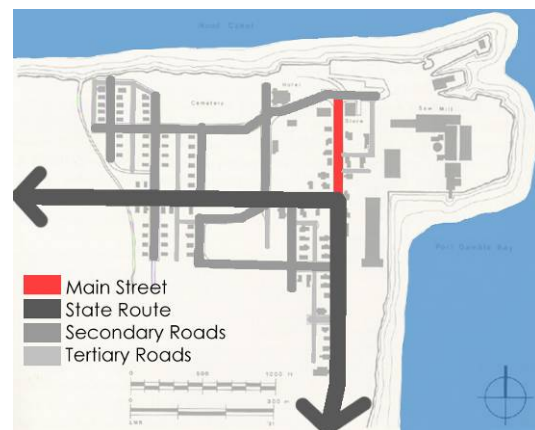
Figure 56: Diagram showing the relationships between the main street and the rest of the town grid.

[21] http://www.historylink.org/essays/output.cfm?file_id=5487

Firewise Precedent

What is a Firewise Community?

The Firewise Organization is a national organization sponsored by the National Wildland/Urban Interface Fire Program. It was set up to help educate homeowners, builders, and designers about the specific challenges and needs of fire-prone areas. The Firewise Communities Program is part of that organization. Their mission is to specifically help communities grapple with these same issues and take appropriate measures to prevent disaster.

> "When adequately prepared, a house can withstand a wildland fire without the intervention of the fire service. In fact, a house and its surrounding community can be both Firewise and compatible with the area's ecosystem. The Firewise Communities/USA recognition program enables communities in all parts of the United States to achieve a high level of protection against wildland/urban interface fire as well as sustainable ecosystem balance. Firewise Communities/USA program provides residents of the wildland/urban interface with the knowledge and skill necessary to make it happen.
>
> Firewise Communities/USA is a unique opportunity available to America's fire-prone communities. Its goal is to encourage and acknowledge action that minimizes home loss to wildfire. It teaches you to prepare for a fire before it occurs. The program adapts especially well to small communities, developments and residential associations of all types. Firewise Communities/USA is a simple, three-legged template that is easily adapted to different locales. It works in the following way:
> - Wildland fire staff from federal, state or local agencies provides a community with information about coexisting with wildfire along with mitigation information tailored to that specific area.
> - The community assesses its risk and creates its own network of cooperating homeowners, agencies and organizations.
> - The community identifies and implements local solutions."[22]

---

[22] Http://www.firewise.org/usa/

Excess vegetation on road shoulders is removed.

Cedar shake roofs are replaced with a non-flammable, Class A alternative.

Driveways, non-flammable walkways and other pathways can halt the spread of a wildfire.

Careful spacing of trees and shrubs lowers wildfire potential.

Rockeries can interrupt a fire's pathway to a house.

Fuels are chipped/removed immediately after cutting.

Wood is piled away from the house.

A three-foot fire-free area is created on all sides of the house.

Dead leaves and branches are removed from trees, shrubs, and plants within the home ignition zone.

The home ignition zone is free of fallen leaves and needles.

Indigenous wildflowers and native plants are excellent Firewise choices.

Green lawns and irrigated areas serve as fire breaks.

Fuels are thinned at the edge of the home ignition zone.

Deciduous trees (generally a Firewise choice) are carefully spaced within the home ignition zone.

Figure 57: The recommended Firewise Community Practices homeowners and communities should take to appropriately protect themselves from wildfire danger. [Images and information courtesy of: http://www.firewise.org/usa/]

Lummi Island Scenic Estates

Location:

Lummi Island is one of the San Juan Islands located in northwest Washington State. It is just off the Bellingham Bay.

Participants:

The project is an ongoing joint juncture between the residents of Lummi Island Scenic Estates and the Washington Department of Natural Resources (DNR).

Goals:

The community wanted to create a balance between employing Firewise practices and maintaining the natural habitat and beauty of the environment surrounding them. The goals of the DNR and the Firewise Organization are to educate as many residents in a community as possible, assist the community in their projects, and sponsor community involvement as a whole. Therefore, community involvement is essential to the success of any Firewise project.

Description:

The Lummi Island Scenic Estates are situated on the southern end of the island, which is mostly comprised of dense vegetation, including: Douglas Fir, Western red cedar, red alder, big leaf maple, Western hemlock, and various native shrubs and ferns.[23] The development itself rises 600 feet up the side of Lummi Mountain from the coastline. The steep terrain of the development in combination

---

[23] http://www.firewise.org/usa/

with the dense vegetation has produced a ladder fuel situation. Another problem is the isolation of the community from the mainland, making it hard to receive emergency fire assistance in a timely manner.

After a close call with a fire nine years ago, the community decided to become involved with the Firewise organization through the state's DNR. The process entailed a series of training sessions, open houses, video education evenings, and safety home information paperwork and videos for the whole community[24]. Now a series of annual and monthly events are set up for the community and DNR to come together and work on fire mitigation techniques in the community. Lummi Island Scenic Estates now holds an Annual Chipper Day to correspond with Firewise Awareness Week. The participants are successfully able to clear their yards and neighborhood streets of excessive debris. The chipped woody-material, once removed, is then found new uses for.

Relevance:

This Firewise project demonstrates the necessary organization, research, and community involvement needed in order to successfully implement fire mitigation techniques. It also highlights the general goal of maintaining the existing natural character of the area while still implementing the various Firewise practices. Both of these key issues will play an important role in successfully Firewising Quilcene.

---

[24] http://www.firewise.org/usa/

Figure 58a-c: Images depict the typical conditions on Lummi Island as well as the steps being taken by the community to successfully Firewise it. [Images courtesy of: http://www.firewise.org/usa/]
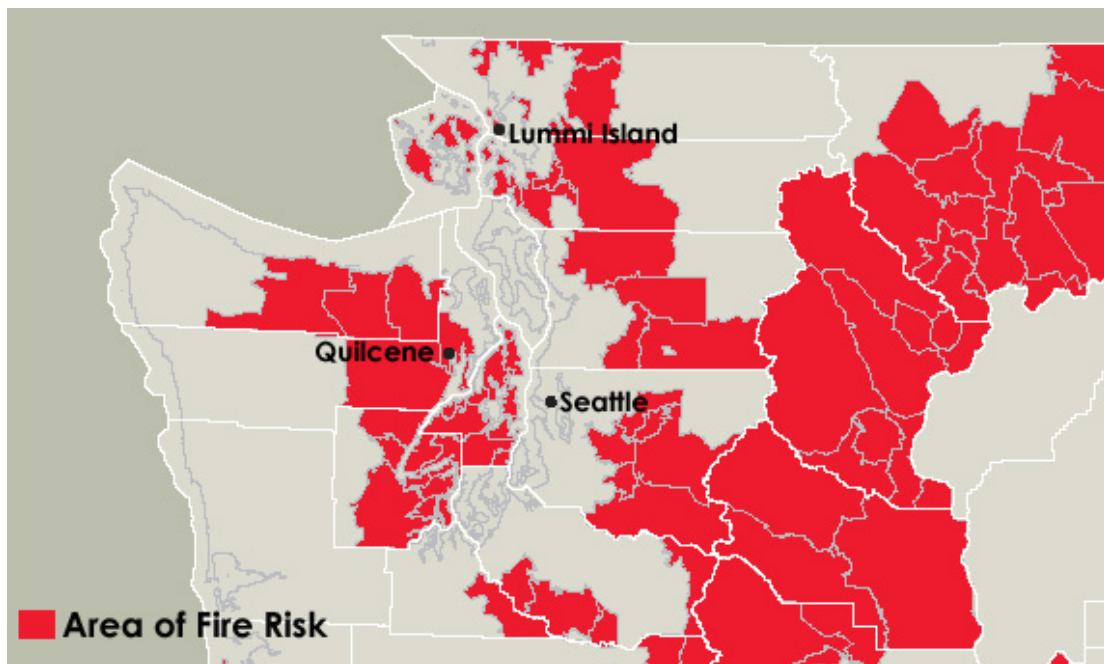
Figure 59: The red areas indicate places in the state at risk of wildfire. Both Quilcene and Lummi Island fall within this zone. [Image courtesy of: Washington DNR and author]

Figure 60: Image shows the different areas of a home to focus Firewising efforts on to better escape damage. [Image courtesy of: http://www.msnbc.msn.com/id/3072203/]

Bainbridge Island City Hall

Location:

The Bainbridge Island City Hall is located in Winslow, Washington. It is situated at the crossroads of two main streets and just a few blocks away is the main ferry terminal and crossing point to Seattle.

Architect:

Miller Hull Partnership

Goals:

The essential goals for designing this project were making sure that the scale was appropriate with the surrounding context, consolidating scattered departments throughout the city into one building, creating a strong civic presence, and linking the environment and social ideals through a green agenda.[25]

Description:

The project program consists of roughly 24,000 square feet of useable space and sits on a five acre site in the middle of town. Because the site is located at the center of town, the architects had to find a way to fit their building into a context of low-scale retail and residential projects.[26] The project also served to create a new civic plaza for the town. The architects focused on the regional and historical

---

[25] Miller Hull: pg 212.
[26] Miller Hull: pg 206.

vernacular to influence the form and style that the project would take. The project is characterized by its barn like shape with a narrow open plan, gabled roofs, and long open porch. The building is organized around a narrow double-height open space, which is essentially an interior street. This space is primarily public, with all the departments, offices, and meeting spaces organized to either side and at the end.

Since a strong environmental approach was desired, the architects focused on three main areas in which to include environmental design aspects into the project. They emphasized the use of certified wood, maximizing natural daylighting, and careful evaluation of indoor air quality.

Relevance:

The Bainbridge Island City Hall combines many elements particular to the signature building in Quilcene. It successfully melds a larger civic building into a smaller scale context through not only the massing, but the regionalist response. The program and clear organization scheme are also very similar.
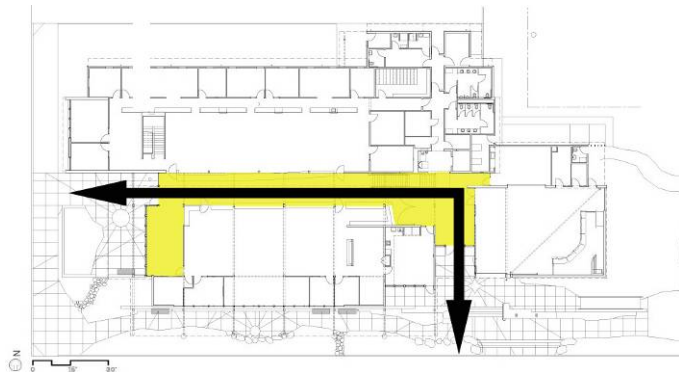
Figure 61: Diagram indicates public and circulation space within the building. [Image courtesy of: Craig Curtis of Miller Hull]
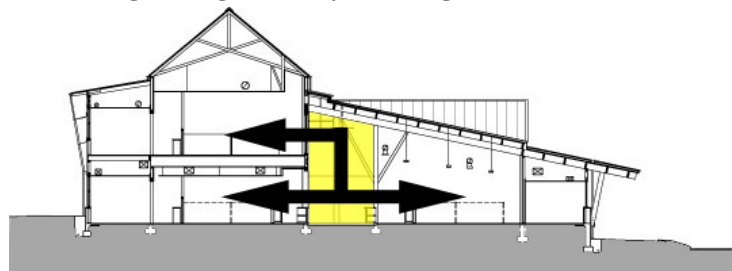
Figure 62: Section indicates public and circulation space within the building. [Section courtesy of: Craig Curtis of Miller Hull]
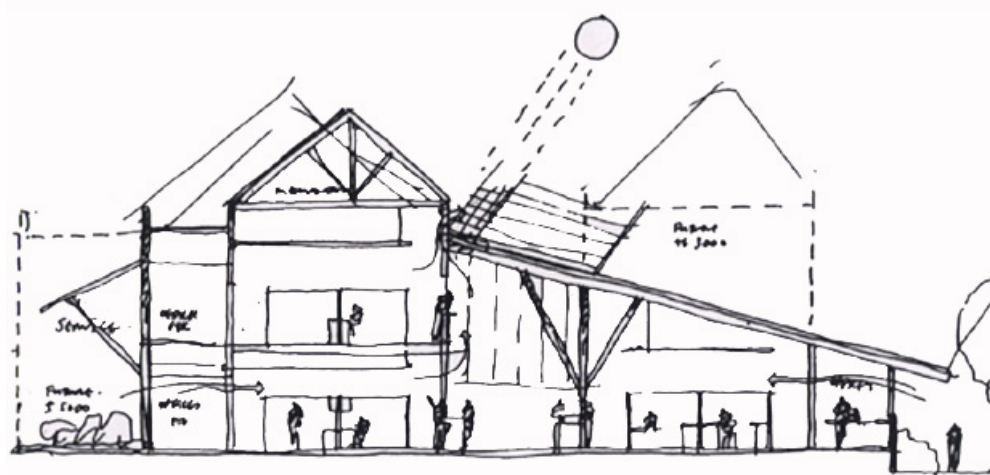
Figure 63: Sketch indicates level of thinking about daylighting and other environmental features, as well as the vernacular shape of the roof. [Image courtesy of: Miller Hull: Architects of the Pacific Northwest]

Mayor & City Administrator
Administration & Finance
Public
Kitchen & Support
Council Chambers
Building & Planning department
Public Works / Engineering
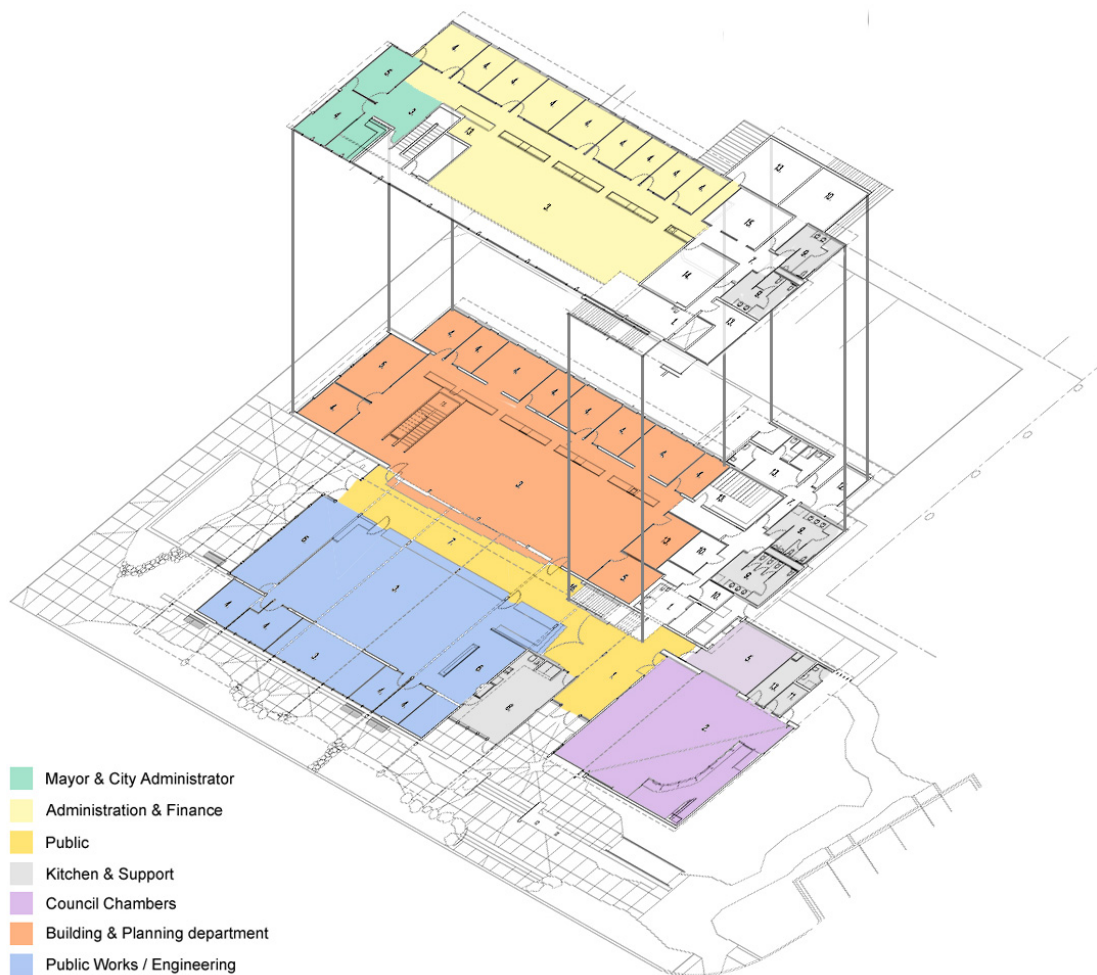
Figure 64: Program diagram indicates which types of functions are grouped together as well as the basic organization of the building. [Image courtesy of: Craig Curtis of the Miller Hull Partnership]

51

Program for Bainbridge Island City Hall

Space Summaries[27]

1.   City Hall

    Executive/Legislative   = 4953   sq. ft.

    Finance & Administrative Services   = 4038   sq. ft.

    Planning & Community Development   = 5656   sq. ft.

    Public Works   = 3506   sq. ft.

    Public Safety   = 6016   sq. ft.

    Municipal Court/Judicial Department   = 1884   sq. ft.

    Common Area   = 3478   sq. ft.

    Total Net Useable Space   = 29,530 sq. ft.

    Total Gross Square Feet   = 34,255 sq. ft.

2.   Exterior & Unfinished Mechanical   = 1450   sq. ft.

3.   Storage Space at Other Sites   = 1635   sq. ft.

---

[27] Following information courtesy of Craig Curtis from the Miller Hull Partnership

Regionalist Response

Figure 65: Elevation depicts regional character of the building's façade through form and material choices. [Image courtesy of: Craig Curtis of the Miller Hull Partnership]

Figure 66: Image shows the building's overall scale and relationship to the street. The form is kept simple and small to match existing context. [Image courtesy of: <u>Miller Hull: Architects of the Pacific Northwest</u>]

Figure 67a-c: Images indicate material choices and detail connections important in Pacific Northwest Regionalism. [Images courtesy of: http://www.millerhull.com/html/mh.htm]

Fire Station and Culture House

Location:

The Fire Station and Culture House is located in the small town of Hittisau, Vorarlberg in Austria. It is located at the edge of a steep slope and lies in the center of the community.

Architect:

Cukrowicz . Nachbaur Architekten

Goals:

The competition required completely different local government functions to be combined into one building in the center of town[28].

Description:

The way the architects have combined the separate functions is very telling even from the exterior of the project. The way the different program elements are split apart is done horizontally, with the fire station functions occurring on the lowest level and the culture house functions on the two floors above. The two are differentiated in other ways as well. The fire station faces out onto the main road on one side and slides back into the slope on the other, but the culture house opens in the

---

[28] Detail Magazine: pg 607

opposite direction and addresses the town with a large glass façade.[29] Lastly, the exterior finish materials designate more clearly which part of the building serves which function. The fire station uses more rough and massive materials such as concrete, galvanized steel, and glass, while the culture houses uses only timber materials and is clad in Silver Fir.

Relevance:

This project takes two completely separate functions and elegantly combines them into one building. It does this while simultaneously allowing each function its own identity through orientation, entry, and material choice. The Fire Hall in Quilcene will need to employ these same principles to its design.

Figure 68: Diagram showing orientation of separate program functions in relationship to the town. [Image courtesy of: Detail Magazine and author]
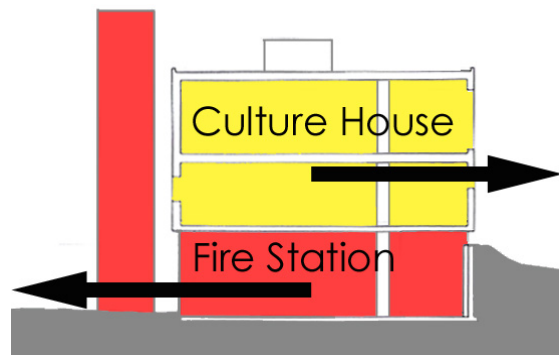
Figure 69: Section showing relationship and orientation in relationship first to each other and second to the town. [Image courtesy of: Detail Magazine and author]

Figure 70: Image of fire station façade. Materials are rougher and more utilitarian in appearance than those of the culture house above. [Image courtesy of: Detail Magazine]
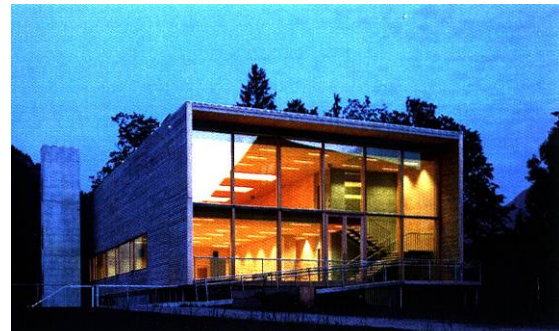
Figure 71: Image of culture house main façade. Materials are softer and more artistic with a large glass front sending an inviting message to the town. [Image courtesy of: Detail Magazine]

[29] Detail Magazine: pg 607

Chapter 7: Program

Town Hall and Firewise Resource Center

Development Concept

The Fire Hall is a building that will become the focal point on Quilcene's new Main Street. It will encompass two separate functions, both of which will work to serve the town and the community at large. The Fire Hall is comprised of a small town hall component and a new educational resource center for the Firewise Organization.

Since the town is unincorporated, there is no mayor or any of the typical departments one might find in a town hall: such as planning, community works, and public safety. Those departments can be found in the county seat, which is Port Townsend (located twenty miles to the north). This town hall would serve primarily for the chamber of commerce and as place for the community to gather and hold public town meetings. Currently the chamber of commerce is housed in the Forest Ranger Station at the edge of town. The space there is very crammed and they are forced to hold their meetings all over town, wherever they can find space. The town needs a place to come together as a community and talk about important issues.

The Firewise Educational Resource Center would serve as a Northwest headquarters building for the Firewise organization. Their purpose would be specifically geared toward educating the community and the surrounding area about wildfire danger and the steps they can take to protect themselves against that danger. There would be exhibition spaces, classrooms, a library, administration offices, and a large meeting space for lectures or emergency meetings located in this component.

Firewise Resource Center

Programmed Spaces (Interior)

Assembly Space for 250 people	1500 sq. ft.
Exhibition Space	1500 sq. ft.
Classrooms (4 @ 250 sq. ft. each)	1000 sq. ft.
Offices	1000 sq. ft.
Storage	400 sq. ft.
Conference Room	1000 sq. ft.
Workshop Space	900 sq. ft.
Library	800 sq. ft.
Store	650 sq. ft.
Break Room	400 sq. ft.
Café	1200 sq. ft.
Collection/Drop-off Center	250 sq. ft.
Restrooms (Public and Private)	500 sq. ft.
	11,100 sq. ft.

Programmed Spaces (Exterior)

Outdoor Exhibition Space	**1500** sq. ft.

Town Hall

Programmed Spaces (Interior)

Assembly Hall for 350 people	2100 sq. ft.
Council Chambers	750 sq. ft.

Administration	450 sq. ft
Offices (4 @ 200 sq. ft. each)	800 sq. ft.
Archives	500 sq. ft.
Mail Center	250 sq. ft.
Restrooms (Public and Private)	<u>500 sq. ft.</u>
	5350 sq. ft.

Shared Program (Interior and Exterior)

Outdoor Plaza	variable
Foyer	500 sq. ft.
Information Desk	200 sq. ft.
Mechanical	400 sq. ft.
Server Spaces	400 sq. ft.
Parking	<u>variable</u>
	1500 sq. ft.

Circulation (Interior)

20%	**3590** sq. ft

BUILDING TOTAL

Interior	21,540 sq. ft.
Exterior	1500+sq. ft.

Figure 72: Graphic program diagram showing the topologic relationships of different programmed spaces. [author]
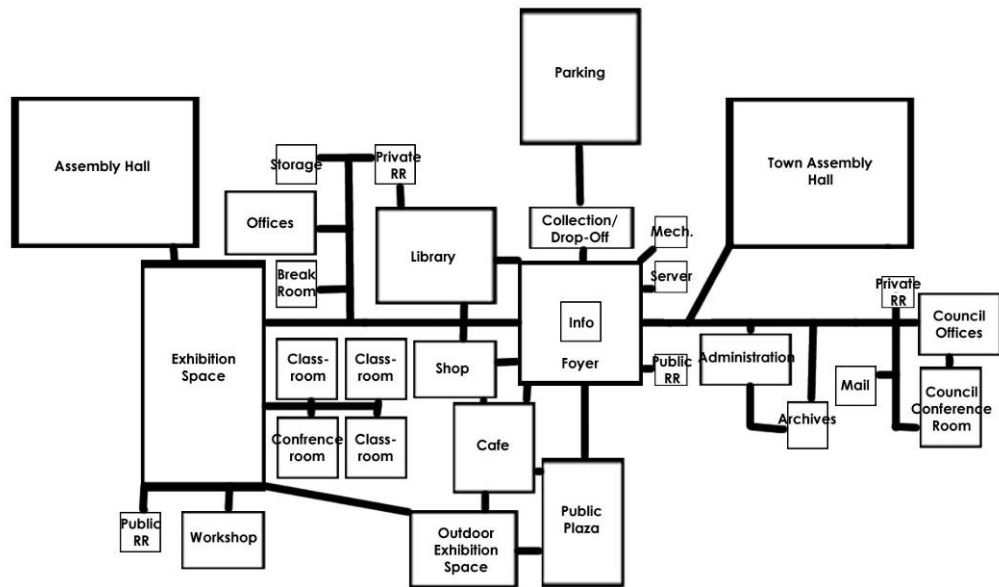
Chapter 8: Design Goals and Strategies
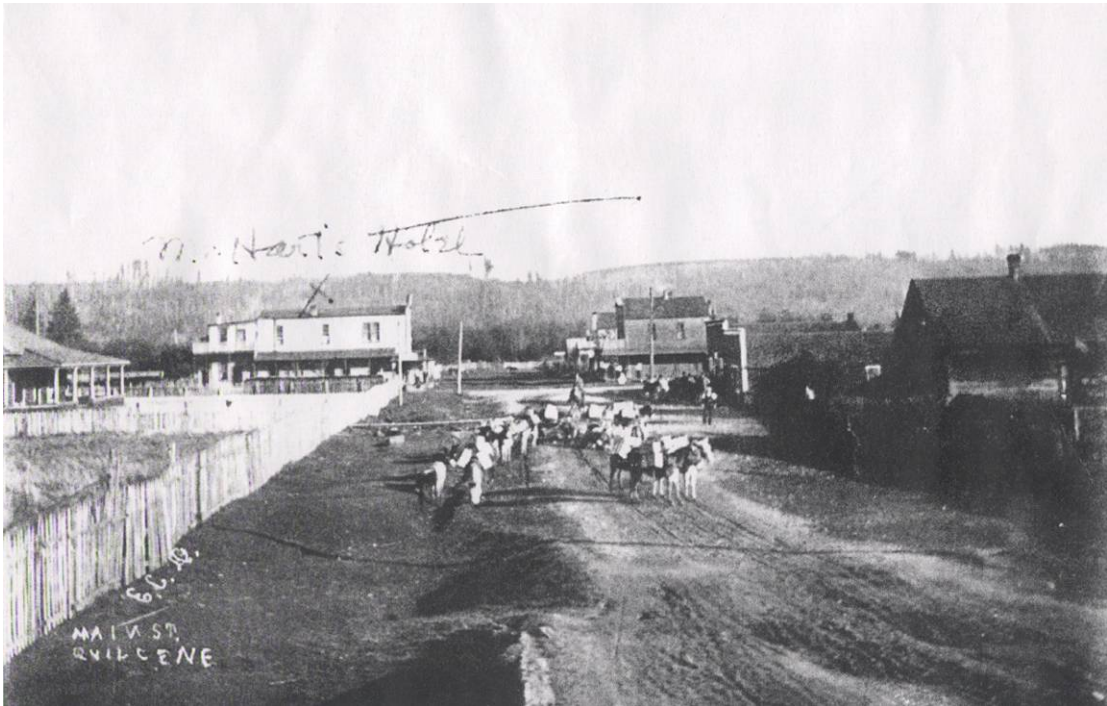
Figure 73: Quilcene's Main Street circa 1910. [Image courtesy of: Port Townsend: The City that Whiskey Built]

Design Goals

In looking at redefining Quilcene it is important to recall the three main challenges first identified at the beginning of this thesis. First, the problem of planning for and managing the impending future growth of the town; second, planning for the site-specific fire risks the town faces due to its proximity to the Olympic National Forest and lack of a water system; and three, reconnecting the separate and distinct pieces of the town back together to make a whole and cohesive community.

Starting Point

Jefferson County created a Comprehensive Master Plan for the entire county in 1998. The Plan identifies Quilcene as a sub-area of interest for a few reasons; first, because of its distance from Port Townsend, and secondly because of their distressed economy due to the recent decline in forestry and fishing employment.[30] The county also recognizes that Quilcene sits in a unique position (on U.S. Highway 101 and the Hood Canal and at the edge of the Olympic National Forest and Park) to serve visitors to the region and to help build a more diversified economic base because of this advantage.

From this assessment, the county then defined the commercial core, or Rural Village Center (RVC), of Quilcene. Within this zone is where all their planning decisions have fallen. They explain that while the boundaries of the RVC are irregular, they were simply following the existing commercial development pattern

---

[30] Jefferson County Comprehensive Plan: pg. 3-14.

and did so in order to prohibit continued sprawl.[31] RVC's are defined as providing

for a mixture of commercial, residential, and community/public services uses. In

addition, land for new social programs (i.e.-clubs, churches, etc…) are to be

designated and set aside in order to meet projected population growth and to help

preserve the community's identity.
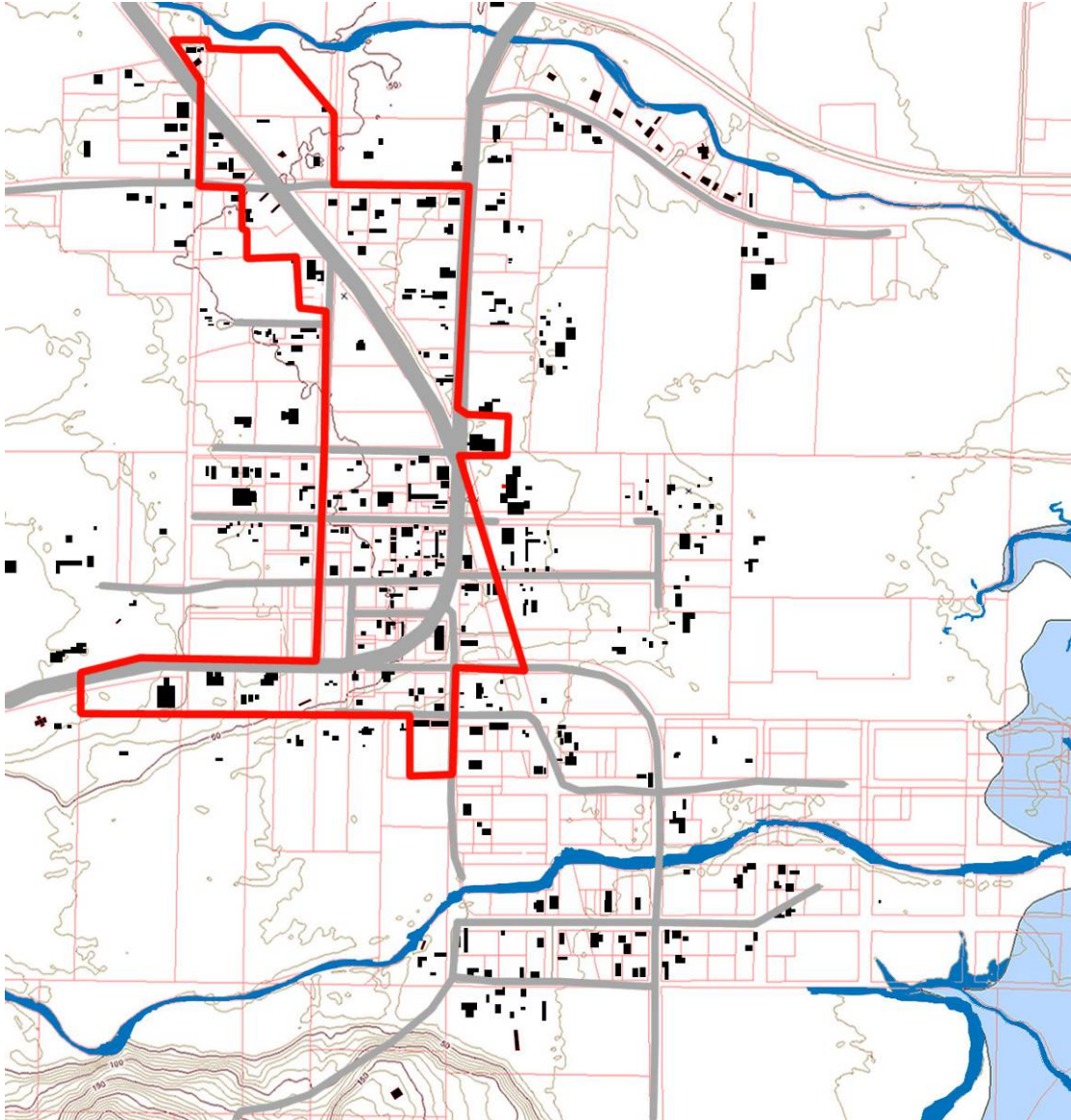
Figure 74: Diagram indicates where the county has defined the RVC for Quilcene. Their idea is to capture and promote the growth along U.S. Hwy 101 with new infill structures and services. This thesis will propose an alternative RVC for Quilcene, within which all aspects of this project will occur. [Image courtesy of: Jefferson County and author]

[31] Jefferson County Comprehensive Master Plan: pg 3-15.
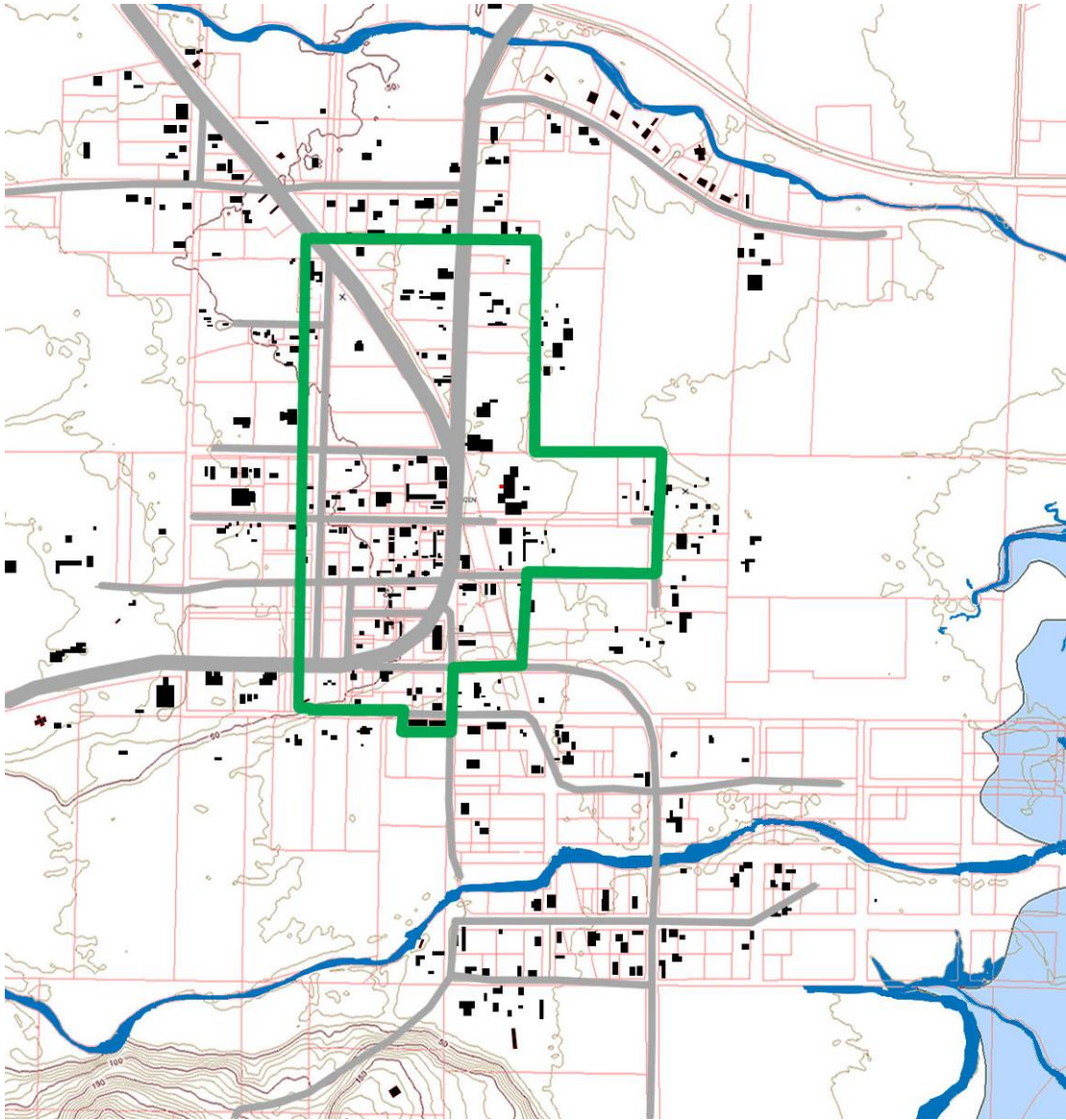
Figure 75: Diagram indicates where this thesis intends to define the RVC of Quilcene. Intended to increase density and raise land values on adjacent properties along a more centralized piece of the highway. [Image courtesy of: Jefferson County and author]

Town Transformation

One opportunity for transforming the current town would be to investigate the addition of a new Main Street for Quilcene. Currently, U.S. Highway 101 acts as Quilcene's main drag. Due to the nature of the highway and the number of vehicles that come through town on it, it is ineffective in properly serving the town; it ultimately acts as a divider. A new Main Street would allow civic, municipal, government, public, and otherwise "town designated" services to move off U.S. Highway 101. This then allows all the drive-by attractions such as hotels, restaurants, gas stations, etc… to remain where they will receive the maximum amount of tourist attention.
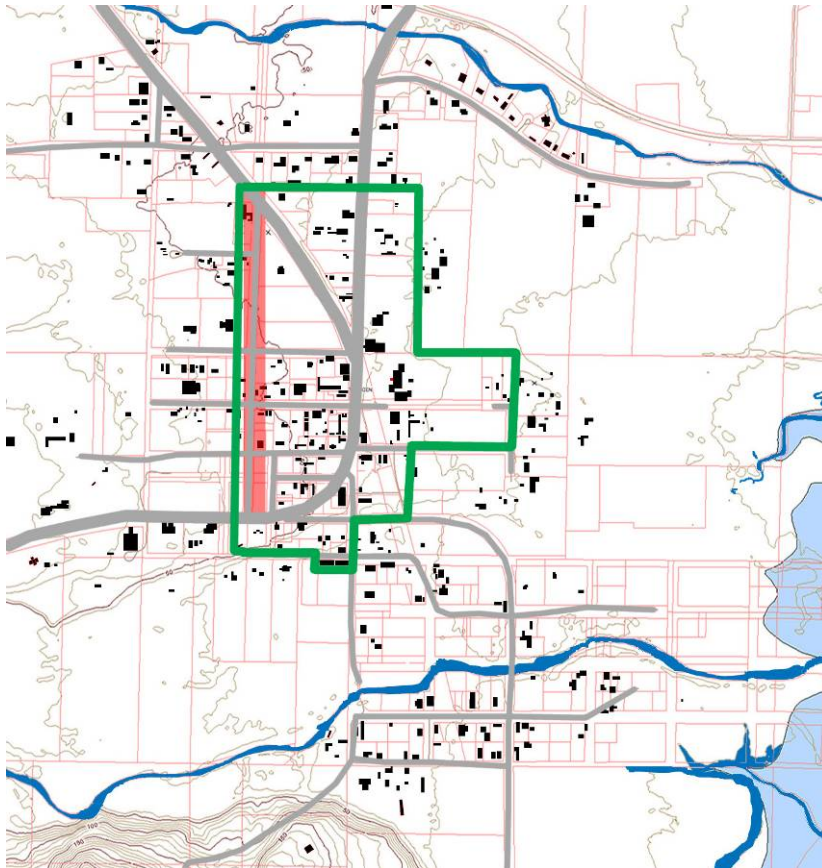
Figure 76: Diagram showing one option for the placement of a new Main Street in Quilcene. This north/south option already houses some commercial town services and is one of the more traveled roads in town. It is also convenient to the highway. [Image courtesy of Jefferson County and author]
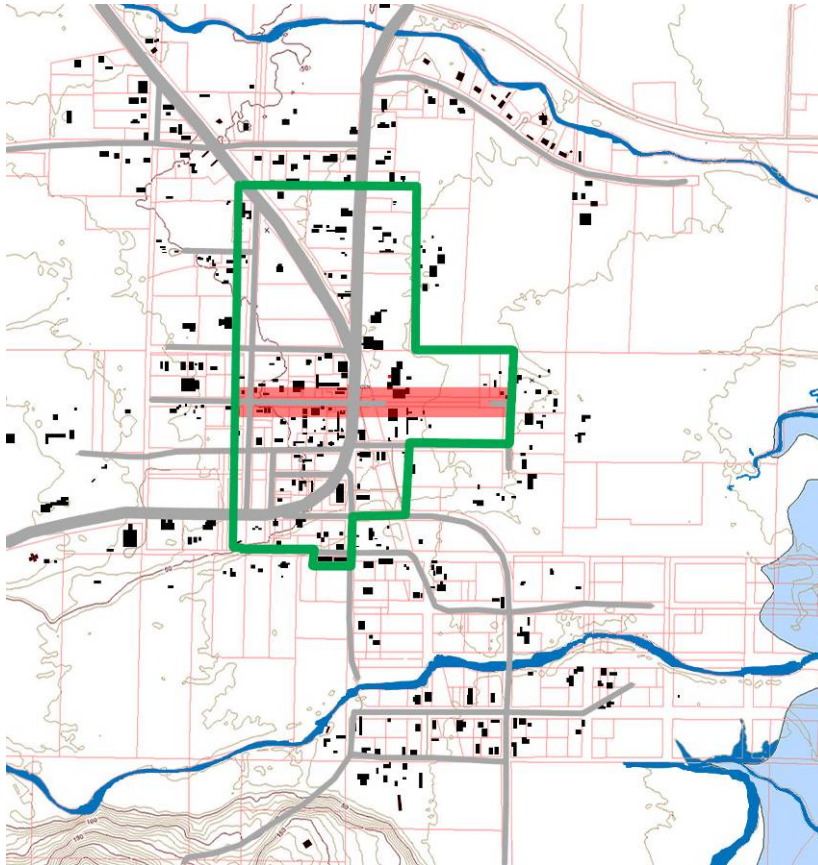
Figure 77: Diagram showing another option for the placement of a new Main Street in Quilcene. This east/west option offers the amenity of making a connection to the bay, which the town has never had before. There are also current municipal buildings located on this street. [Image courtesy of: Jefferson County and author]

The second component of this transformation will be to fully implement the Firewise Planning Principles discussed earlier in the town. This will mostly govern spaces in the public domain such as streets and sidewalks, ensuring that they meet the specified criteria set forth by the organization. It will also influence landscaping and plant choices. Part of the process will be organizing the community to designate specific days for everyone to come together to clear extraneous vegetation and debris from their yards and the roads in an attempt to help mitigate the wildfire threat.

The third component of transforming Quilcene would be an attempt to reconnect the pieces. By locating the signature building in an appropriate relationship with the new Main Street and creating a new public park for the town, the location of this signature building and park could act as a collector or focus for the town to try to bring all the elements together. Another aspect of reconnecting the town will be identifying infill lots available for densifying the existing housing areas.
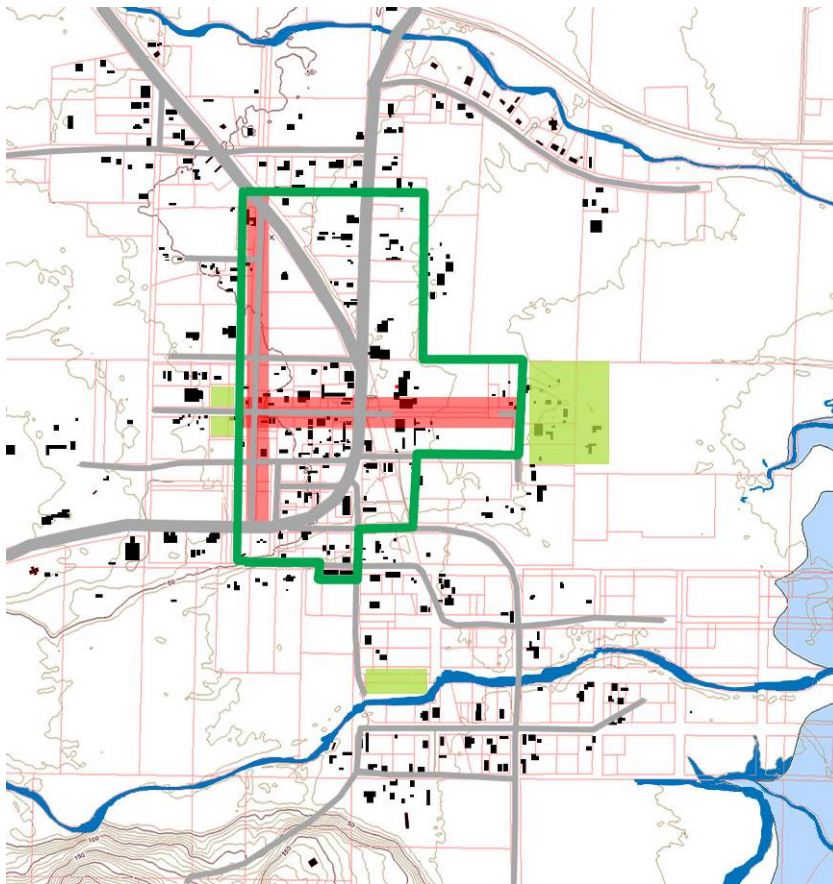
Figure 78: Diagram showing the possibilities afforded through the combination of two Main Streets. This would allow a more thorough connection of the town, it would also allow for a prominent crossroad. Both Main Streets would fall within the newly defined RVC and promote higher densities and more varied uses along the different streets. Also shown are three potential sites for a new public park. [Image courtesy of: Jefferson County and author]

Signature Building

      The Fire Hall (or Firewise Resource Center / Town Hall) is a new signature building this thesis proposes for the town. It will incorporate functions associated with a town hall as well as a resource/education center for the Firewise organization. It will be located based on the redesign of the town and act as a beacon for the town and surrounding communities.
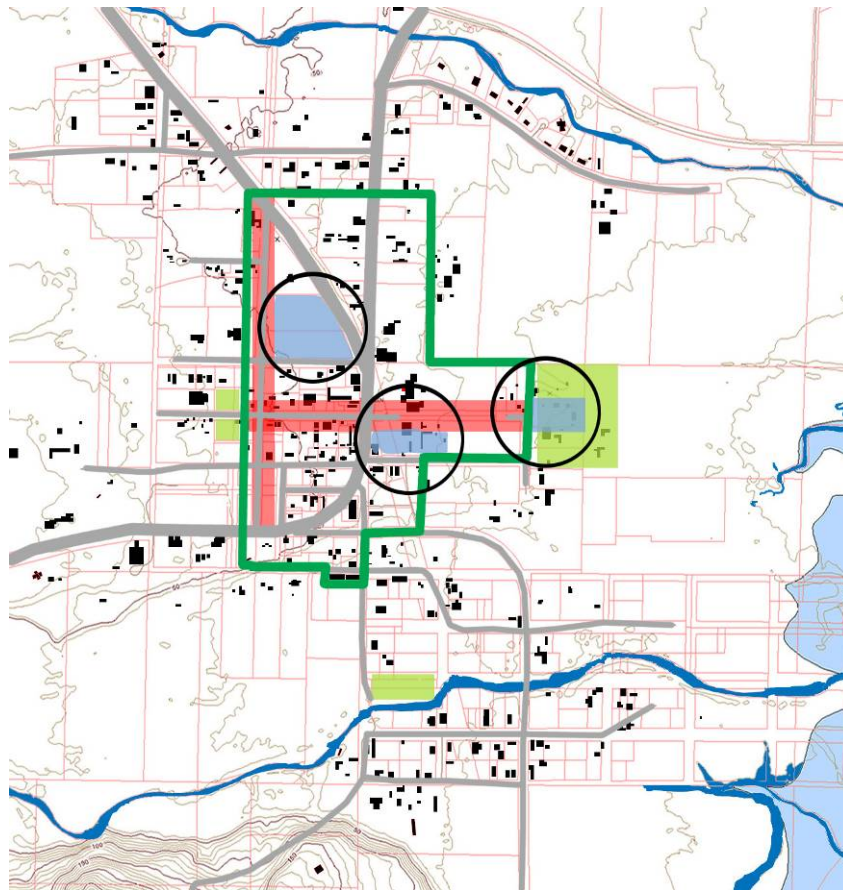
Figure 79: Diagram showing three possible site locations for the Fire Hall. Each one is associated with one of the two Main Streets and resides within the newly defined RVC.   [Image courtesy of: Jefferson County and author]

Other Areas

As part of an overall scheme for the town, certain places of interest will be identified. These spaces will carry potential for future development and revitalization efforts. A schematic attempt will be made at suggesting uses or functions for these places of interest. One of these potential spaces includes the waterfront.

Design Strategies

Urban Design

This thesis began the urban design approach by analyzing the amount of open space currently within the scope of study for the town, first looking at all available un-built property, then analyzing it in more detail by existing land plats.
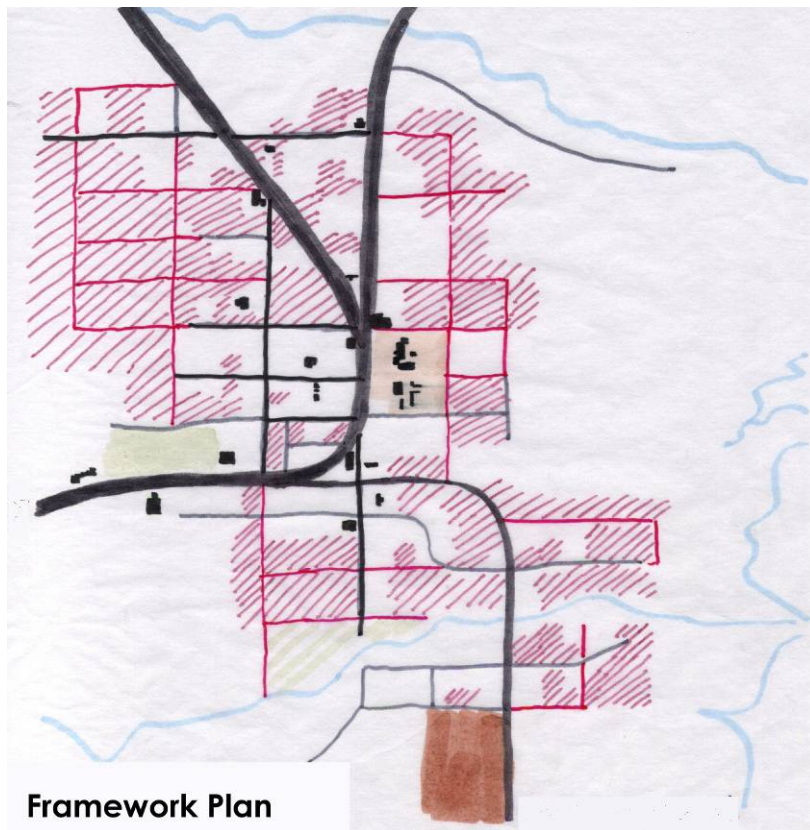
Figure 80: This diagram shows the extension of the existing town street grid. Red streets represent new streets and notable buildings are shown in black. It also analyzes the amount of currently unbuilt property (hatched area) along these streets. [author]
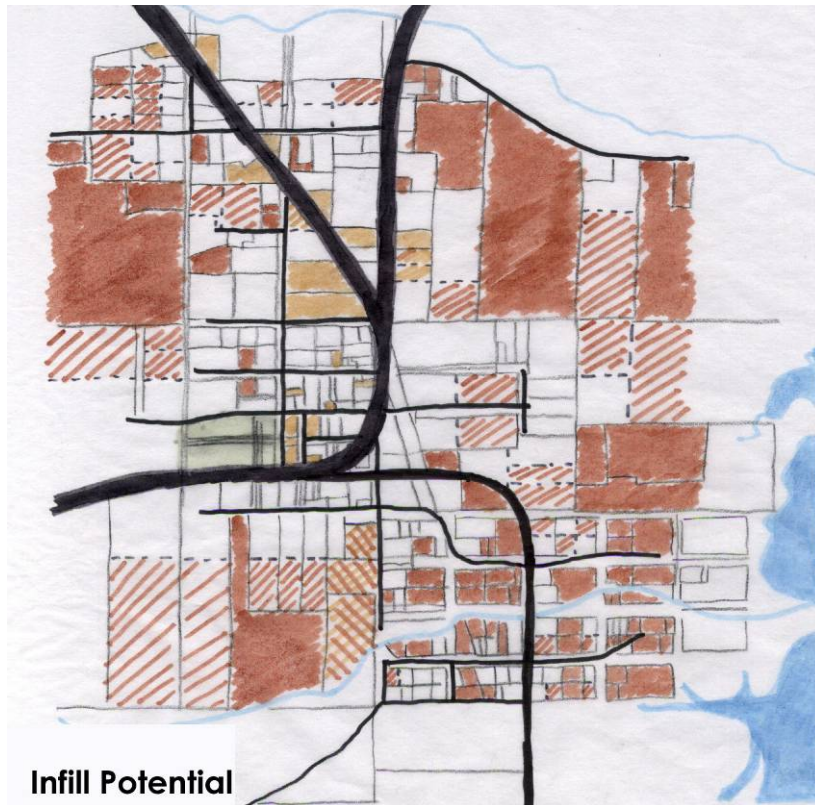
Figure 81: This diagram looks at the unbuilt pieces of land more closely. Solid brown indicates an existing plot that is completely vacant, hatched brown indicates potential to subdivide or buy part of lot which is already built on. The same conditions are illustrated for commercial uses in the gold color. [author]

This thesis also analyzed the way in which the town might grow over a period of time or phases. These decisions were based on which Main Street was developed, so that each variation in Main Street schemes would result in a separate pattern of growth and development.

Figure 82: This scenario implies that if the north/south Main Street is pursued, development would first occur in this portion of the town (shown in purple) with other phases developing afterwards. [author]

Figure 83: This scenario implies that if the east/west Main Street is pursued, development would first occur in this portion of the town (shown in purple) with other phases developing afterwards. [author]

The next step for this thesis will be fully exploring what these Main Streets are like: what is their character, what are the uses along them, who will be using them, etc… Once these questions are answered, the site for the Fire Hall will become clearer. Whichever site is selected, it should be in a position to give a sense of presence and identity to the Main Street.

Signature Building

Three sites are currently in analysis for the final selection. Two sites correspond with the east/west Main Street, and one corresponds with the north/south Main Street. There is alternately an option of placing the Fire Hall at the confluence of these two Main Streets.

Site one is located at the eastern terminus of the east/west Main Street. The positive aspects of this site are that it allows for a connection to the bay that never existed before. It would also create a strong civic presence at the end of the street, which already houses some municipal services including: the school, the fire station, and the police station.
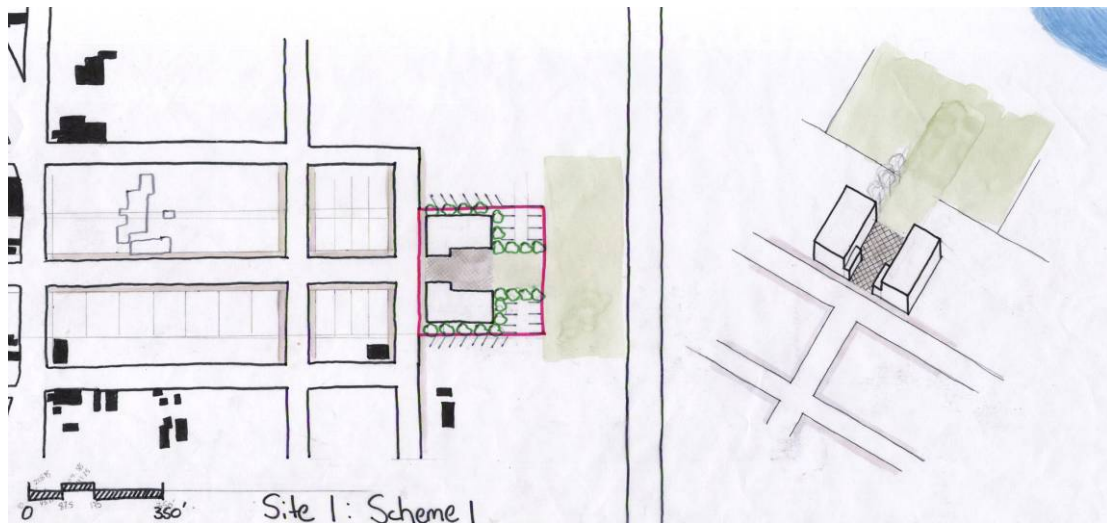
Figure 84: Site 1, Scheme 1 [author]
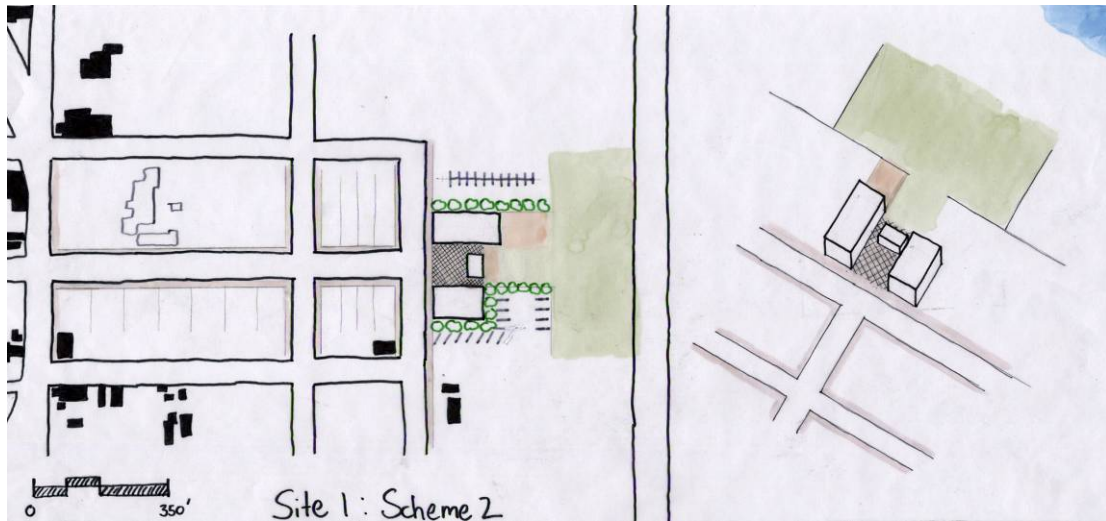
Figure 85: Site 1, Scheme 2 [author]
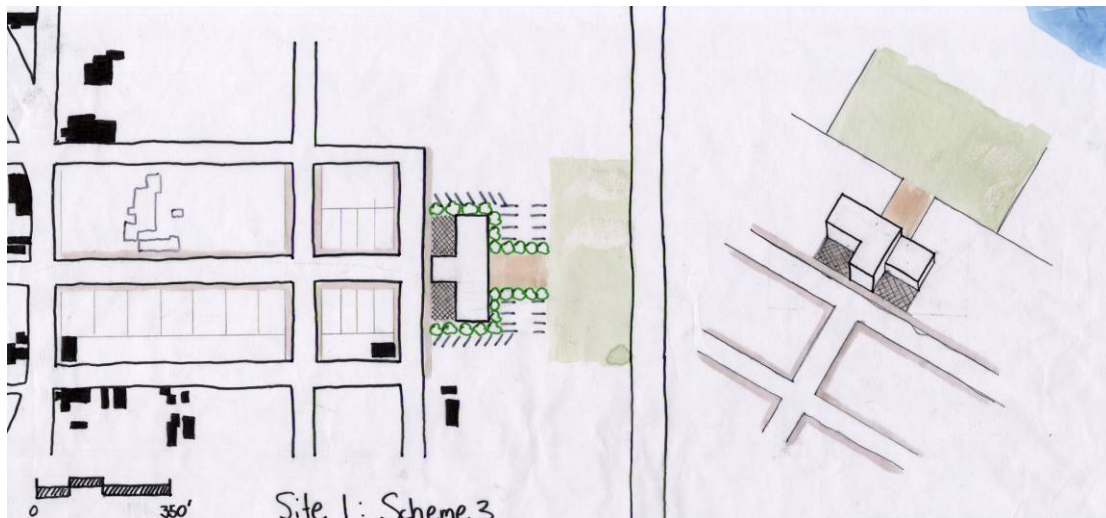
Figure 86: Site 1, Scheme 3 [author]

Site two is located at the corner of U.S. Highway 101 and the new east/west Main Street. The positive aspects of this site are that it is located along the highway and the Main Street, so it sits in an ideal position for both functions of the program. Also, it would be more easily viewed by the general and visiting public. It would also be located across the street from the current school house, which has an opportunity to be rehabilitated.
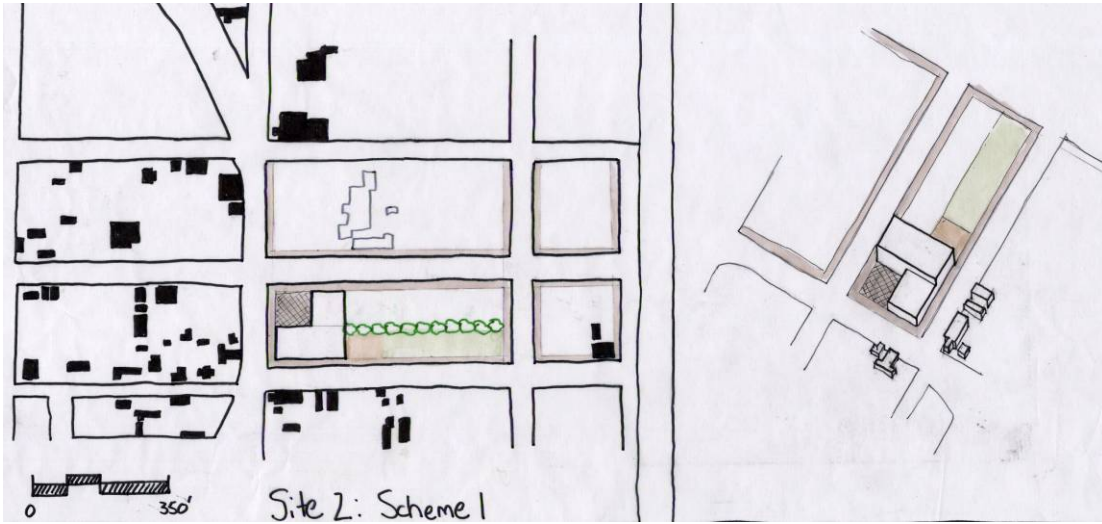
Figure 87: Site 2, Scheme 1 [author]
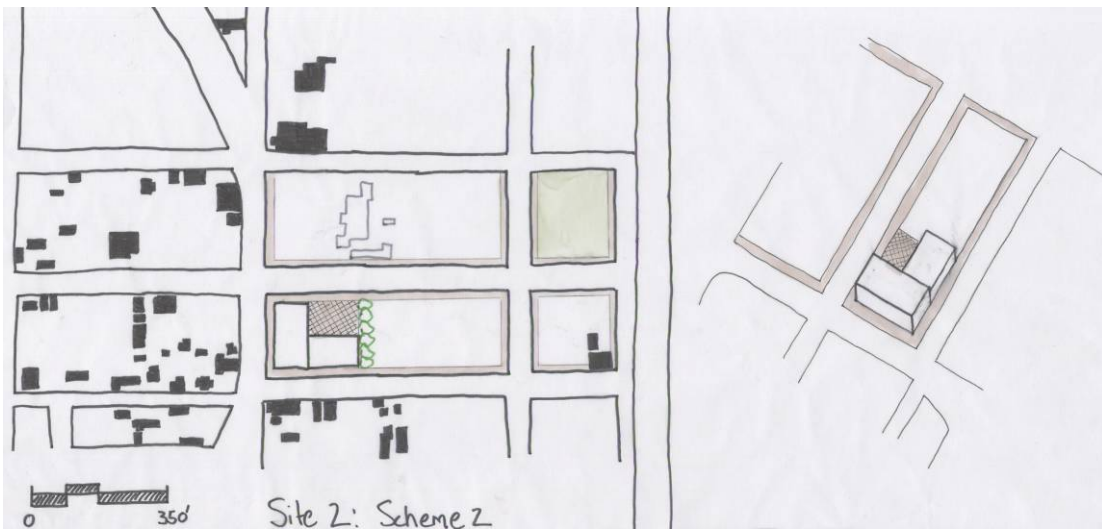
Figure 88: Site 2, Scheme 2 [author]

Figure 89: Site 2, Scheme 3 [author]

74

Site three is located at the intersection of U.S. Highway 101 and the new north/south Main Street. The positive aspects of this site are that it is also right at the main entry/exit point at the north end of town, so it will be viewed and easily identifiable by many people.

Figure 90: Site 3, Scheme 1 [author]
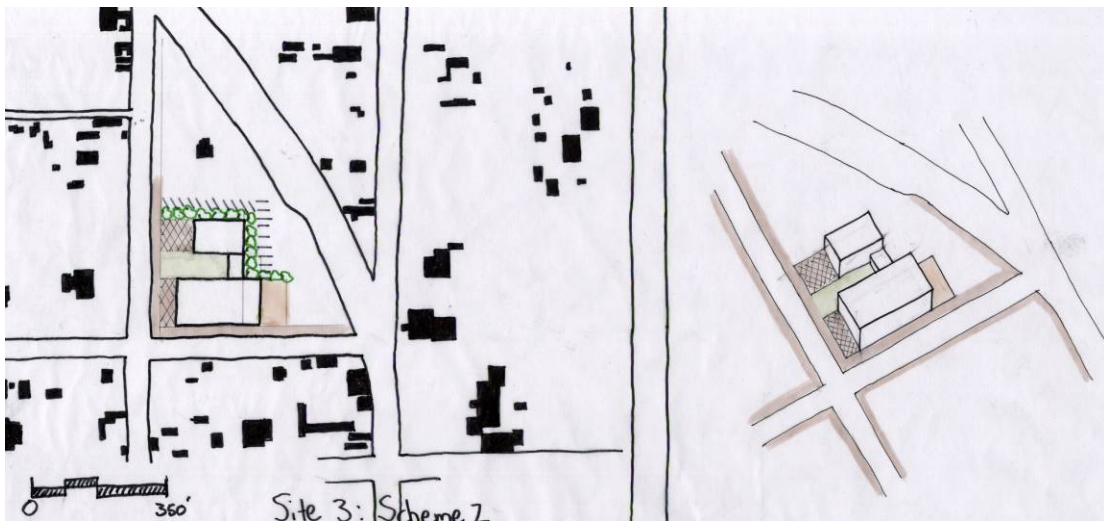
Figure 91: Site 3, Scheme 2 [author]
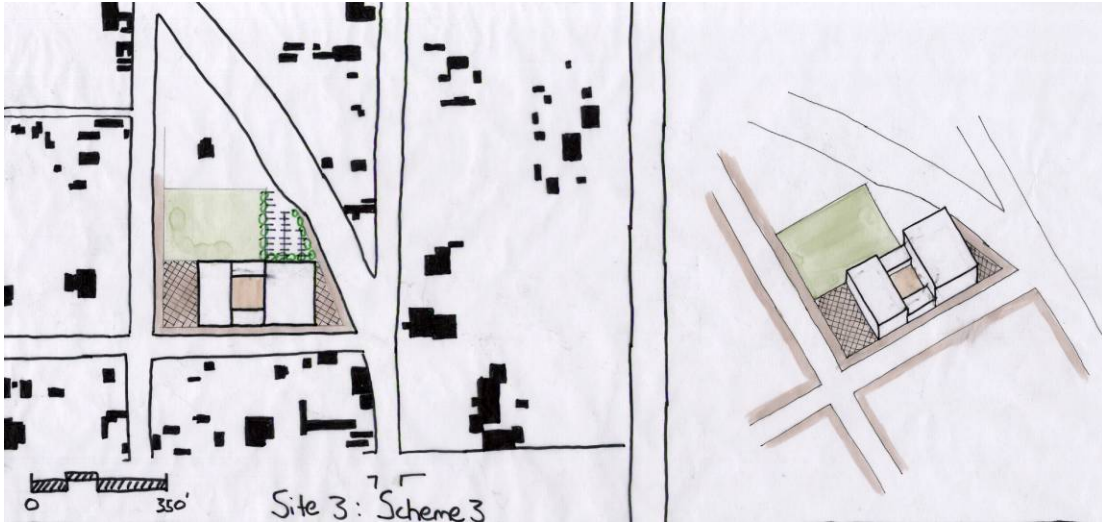
Figure 92: Site 3, Scheme 3 [author]

Chapter 9: Design Conclusions

"I dwell in possibility."

-Emily Dickinson

What this thesis set out to do has essentially been accomplished. Though some of the design and planning decisions have changed since the beginning of this process, the goals set forth have held steadfast in their conviction to the end. The town of Quilcene has accomplished its Firewise directive, they have grown significantly, they have recaptured connection to the bay, and they now have a building at the heart of their town which will act as a center to draw the community together.

How to Firewise Quilcene

The Firewise initiative of this thesis played a large role initially, especially during the town planning process. It helped to dictate where to apply the most stringent regulations regarding lot size and setback requirements based on the town's surroundings. It also helped in selecting which types of trees and other vegetation to use in the town, as well as an acceptable spacing strategy for planting them.

The ability of the Firewise program to adapt differently to different towns needs depending on their particular circumstances was a great benefit to the effort. By analyzing other town's successes and failures with the program, this thesis was able to craft a singular solution about regarding the best ways for Quilcene to become a Firewise Community.

COMMUNITY STORIES: QUILCENE...

Washington State currently contains ten recognized Firewise communities. Western Washington is home to nine of these. Though typically not thought of as having as severe a risk of fire as Eastern Washington, there are several factors that come into play which make Quilcene and other communities like it in the Pacific Northwest highly susceptible.

Quilcene Facts (current):
  Located in the WILDLAND/URBAN INTERFACE ZONE
  Located in the RAINSHADOW of the Olympic Mountains
  NARROW & OVERGROWN ROADS with little organization
  NO ACCESS TO RELIABLE WATER SOURCE

Other Communitites (solutions):

River Bluff Ranch (Spokane), WA
  -Building covenants regualting fire resistant roofing, deep side yard setbacks, defensible space requirements, and vegetation maintenance

Wilderness Ranch, ID
  -Organize two clean-up days (spring/fall) for removal of yard tand roadside debris

Verandah, FL
  -Incorporated new and existing nature trails into fuel break strategy

Figure 93: Lessons learned from other Firewise Communities, and how they apply to Quilcene's current conditions. [author]

HOW TO FIREWISE QUILCENE

1. **Firewise Covenants** mandated by the community
   a-Fire resistant roofing or roof sprinklers required
   b-Deep side yard setbacks on the outer edges of town
   c-Defensible space requirements around homes with increasing severity on the perimeter of town
   d-Vegetation maintenance required on a monthly basis
2. Improved **Road Conditions**
   a-Widening of all roads
   b-Addition of new roads to improve circulation and organization
   c-Sidewalks added to increase fuel break distance
   Natural Defenses
   a-Use of nature trails on edge of town as fuel breaks
   b-Use of native vegetation highly recommended
4. **Community Involvement**
   a-Community created evacuation plan and notebook of all homeowner locations
   b-Monthly newsletter distributed to all residents letting them know of upcoming events , issues, or Firewise news
   c-Organized clean-up days (fall and spring)
   d-Community information board to display current fire conditions or pertinent weather information

Figure 94: Four steps for Quilcene to achieve an acceptable Firewise Community rating. [author]

Framework Planning

It was important for Quilcene to change its existing pattern of growth. Currently, the town continues to expand along the U.S. Highway 101 corridor, which is only serving to stretch it out and leave it with no sense of center. Though the new town plan occupies about the same amount of space as it did before, the density has increased significantly. After analyzing components such as density, land use, amenity access, and overall town connectivity, a revised town plan was proposed. It is important to note that the overall framework of the proposed town plan is based on the existing road and block structure currently existing in Quilcene.

BEFORE: SCATTERED DENSITY   AFTER: CLEAR DENSITY
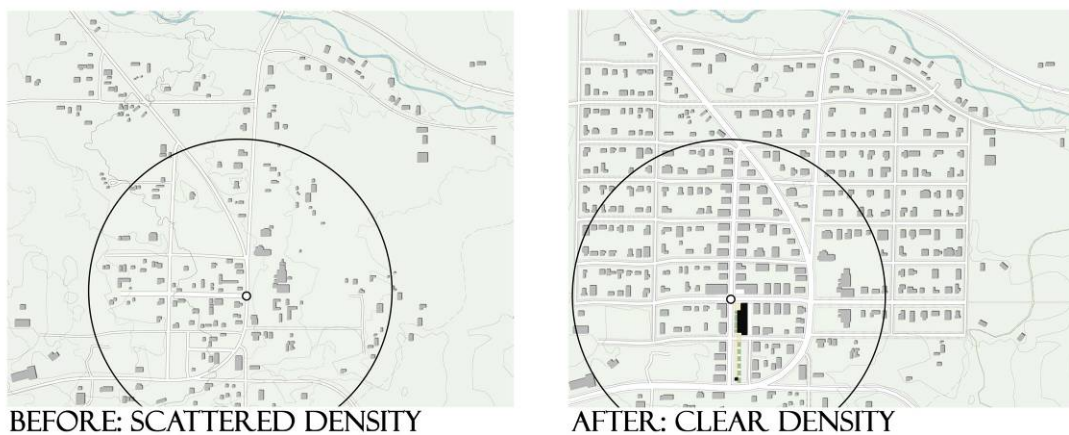
Figure 95: These before and after diagrams illustrate the clear difference in both density and organization of the town. Before, the town did not exhibit any real build-up of density. There were also very few roads and therefore the organization was confusing. After, there is a clear center to the town and a strong hierarchy can be read. The road system helps to orient people as to where they are and how to navigate throughout the town. [author]

BEFORE: LAND USE SPONSORED SPRAWL   AFTER: LAND USE SPONSORING DENSITY
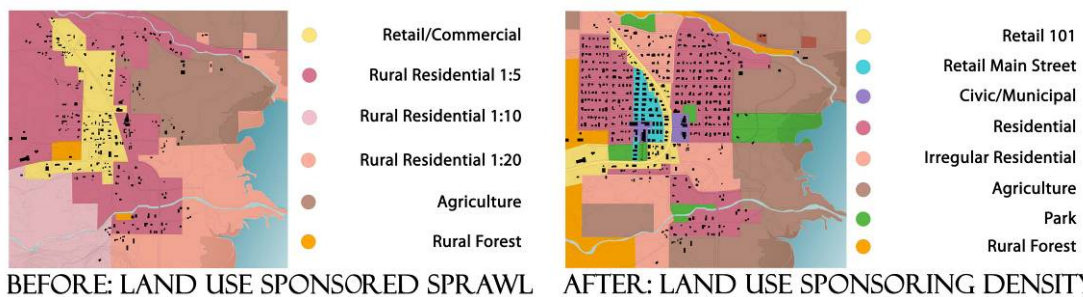
Figure 96: These before and after diagrams illustrate the differences proposed between the current method of organizing land uses and the proposed. Before, the county is proposing to continue expansion of the commercial core along the highway, which will continue to stretch the town out. After, the proposed town plan calls for a more centralized system for organizing land uses around the center of town. This will help keep Quilcene more compact and less sprawled. [author]

BEFORE: UNTAPPED AMENITIES

AFTER: AMENITY NETWORK

Figure 97: These before and after diagrams illustrate how Quilcene currently has very little access to the amenities which surround it. Before, the town has no connection to the bay, no open space or park system, and no relationship with the surrounding elements. After, the proposed plan creates a new park at the end of Herbert Street which extends all the way to the bay, giving the town access to this incredible amenity. It also provides for two other small parks at the north and south ends of town, near the two rivers. Lastly, a walking path has been established around the town, as well as through, in order to provide better pedestrian and bike access to these amenities. [author]

BEFORE: DISCONNECTED

AFTER: CONNECTED
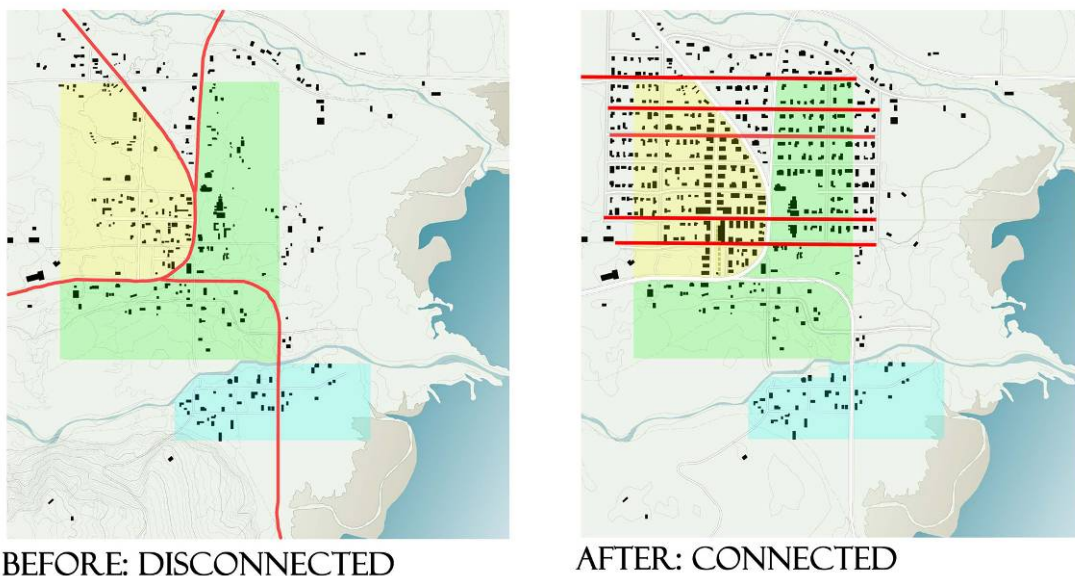
Figure 98: These before and after diagrams illustrate the major differences in the town plan street organizations. Before, since there were very few streets in the existing town plan, the U.S. Highway 101 acted as a major barrier dividing the East, West, and South parts of town from each other. There were only one or two streets that fully extended from one part of town to the other. After, in the proposed town plan the addition of several new streets that actually bridge U.S. Highway 101 have allowed Quilcene to reconnect with itself to create a more unified town. [author]

EXISTING TOWN PLAN

Figure 99: Existing Town Plan of Quilcene [author]

PROPOSED TOWN PLAN

Figure 100: Proposed Town Plan of Quilcene [author]
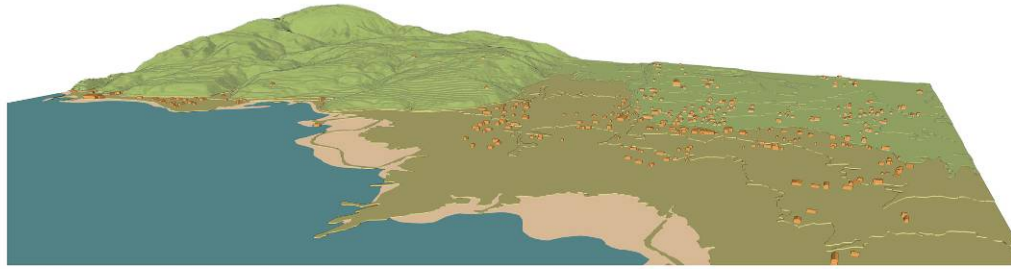
TOWN AERIAL: EXISTING

TOWN AERIAL: PROPOSED

Figure 101: A three-dimensional look at the proposed changes taking place in Quilcene. [author]

During the town planning process, it became necessary to break down the different components of the town into various categories. The next part analyzed was the typical street section. This included studying the existing block structures, lot sizes, setback requirements, and street widths. Design guidelines were written which will govern the development of these facets, but also look at how to incorporate amenities such as sidewalks and planting strips.

WASHINGTON STREET
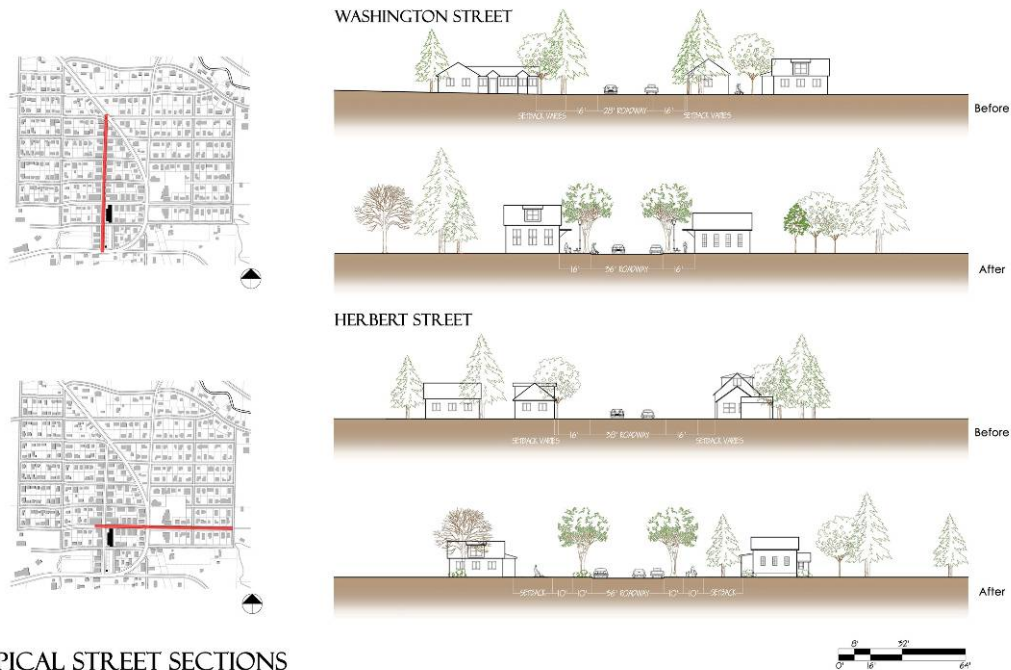
HERBERT STREET

TYPICAL STREET SECTIONS

Figure 102: These street sections demonstrate the existing and proposed conditions for Washington and Herbert Street. These streets make up the backbone of the new town plan, as the two new Main Streets. Washington Street is the new retail/commercial street, while Herbert Street is part retail, part residential. Before, the two streets had no regulations governing their organization. After, each street is governed by design guidelines which dictate sidewalk and street widths, setbacks, and planting strips. [author]

EAST-WEST LOCAL STREETS

NORTH-SOUTH LOCAL STREETS
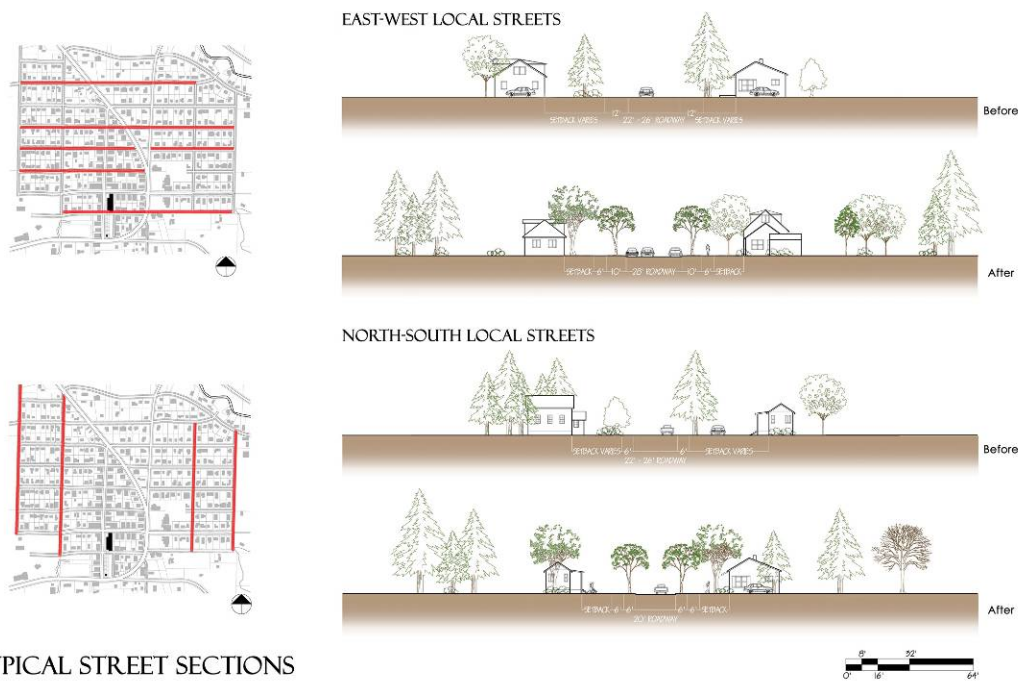
TYPICAL STREET SECTIONS

Figure 103: These street sections demonstrate the existing and proposed conditions for the East-West and North-South Local Streets. They have a slightly different character because the East-West streets support a higher volume of traffic due to their cross-town connectivity. As these two street types are more residential in nature, their character is much more intimate, while still maintaining acceptable Firewise street conditions. These street types will also fall under the design guidelines for future development. [author]

84

Quilcene Design Guidelines

	Washington Street	Herbert Street	Carrier Streets (E/W)	Local Streets (N/S)
Street Widths	2 Travel Lanes w/Parallel Parking = 36'	2 Travel Lanes w/Optional Parallel Parking = 36'	2 Travel lanes w/ 1 Side Street Parking = 28'	2 Travel Lanes w/No Street Parking = 20'
Planting Strips	Included	15 feet	10 feet	6 feet
Sidewalk Widths	16 feet	10 feet	6 feet	6 feet
Block Sizes	Approx. 270' x 600'			
Lot Sizes			80' x 135' (135 x 135 cor) 100' x 135', or 75' x 135'	80' x 135' (135 x 135 cor) 100' x 135', or 75' x 135'
Zoning	Commercial/Retail/Civic/	Residential/School	Residential/Multi-Family	Residential
Commercial Lot Types				
A- 101 Commercial	N/A	N/A	N/A	N/A
B- Main Street Retail	B	B	N/A	N/A
C- Mixed-Use	C	C	C	N/A
Residential Lot Types				
A- Regular Single Family	N/A	A	A	A
B- Larger Single Family	N/A	N/A	B	B
C- Irregular/Pastural	N/A	N/A	C	C
Setbacks	N/A	25 feet	20 feet	20 feet
Parking	Parallel Parking along 2 sides, 8' each	Private Garages and Optional Street Parking	One Side of Street Parking w/ Garages	Private Garages, No Street Parking

Figure 104: Design guidelines for regulating growth and development in Quilcene. [author]

Signature Building

The Town Hall and Firewise Resource Center, through multiple investigations, was ultimately relocated to the crossroads of Washington and Herbert Street, the two Main Streets of Quilcene. By doing this, a new civic center was created in the town. Now the town hall, fire station, police station, library, and post office are concentrated into one area of town. This move helps to foster a better community attitude and spur the town's pride in their newly developing identity. The move in site also allowed the building to move just one block off of U.S. Highway 101, where it would be more accessible (visually and physically) to the passing public.

Part of the exterior exhibition of the building, the Fire Tower, sits right at the intersection of the highway and Washington Street. As motorists emerge from the Olympic National Forest, driving North on the highway, they are greeted by the impressive tower. It acts as a beacon for the town and the passing public on the

highway. It is visible from the North end of Washington Street, as well as along

Herbert Street as one approaches the Town Hall and Firewise Resource Center.

Figure 105: Perspectives showcasing different approach sequences and views of the Town Hall and Firewise Resource Center. [author]

The parti for the building is relatively straight forward. It is a long building

made up of three slices along the long axis. The back slice along the alley, contains

back-of-house type functions. The middle slice contains larger spaces which see

intermediate use by the public. The front slice, paralleling Washington Street is

completely open, available for full access by the public.

Since, it is a long building at the crossroads of an important intersection, there are three major facades. The North façade faces onto Herbert Street, it sits at the intersection of the two Main Streets and acts as the primary entrance to the Town Hall component of the building. The South façade faces the Fire Tower, Firewise Demonstration Garden, and Market Commons. It is also most readily visible from U.S. Highway 101. This is the primary entrance to the Firewise Resource Center component of the building. The West façade parallels Washington Street, holding the street edge. Though this is not a primary entrance façade for the building, it is able to be opened up in good weather.

The openness of the front slice of the building is to create an atmosphere for people to come, interact, and learn. This space also hosts an exhibit for the Firewise program where information on fire history, Firewise techniques, and Smokey the Bear artifacts can be viewed. It is completely glazed along the West wall to create a feeling of being outdoors, as well as open to the second floor to create an even more open sensation.

The sequence of spaces begins at the civic center, where there is a small civic plaza in front of the Town Hall entry. Marking the corner of this intersection is the town Flag Pole. As one continues into the building, they pass by the town meeting room and continue through the Firewise exhibition gallery space before exiting the building on the South end.

The path continues across the street and into the Firewise Demonstration Garden, where individuals can learn about different Firewise plants and landscaping

techniques to apply to their own homes. Adjacent to the garden is a large grassy field which has been preserved for weekly Farmers' Markets.

At the end of the path stands the Fire Tower, it is on access with the Flag Pole. It is a tribute to the old fire tower which once stood atop Mount Walker, a call to Quilcene's past. Inside the tower, visitors can see a re-creation of a typical working Fire Tower. From the viewing platform which surrounds the tower, it is possible to see all of Quilcene as well as Quilcene Bay, which until now, has remained visually inaccessible to the town.

The second floor plan of the building is home to more of the everyday uses. Offices for both the town's Chamber of Commerce as well as the Firewise Resource Center are located there, as well as four classrooms and a small Firewise library. The second level is open to the floor below, both to make the building more open, but also for reasons of ventilation and solar access.

Figure 106: Ground Level Plan of the Town Hall and Firewise Resource Center highlighting the sequence of spaces. [author]
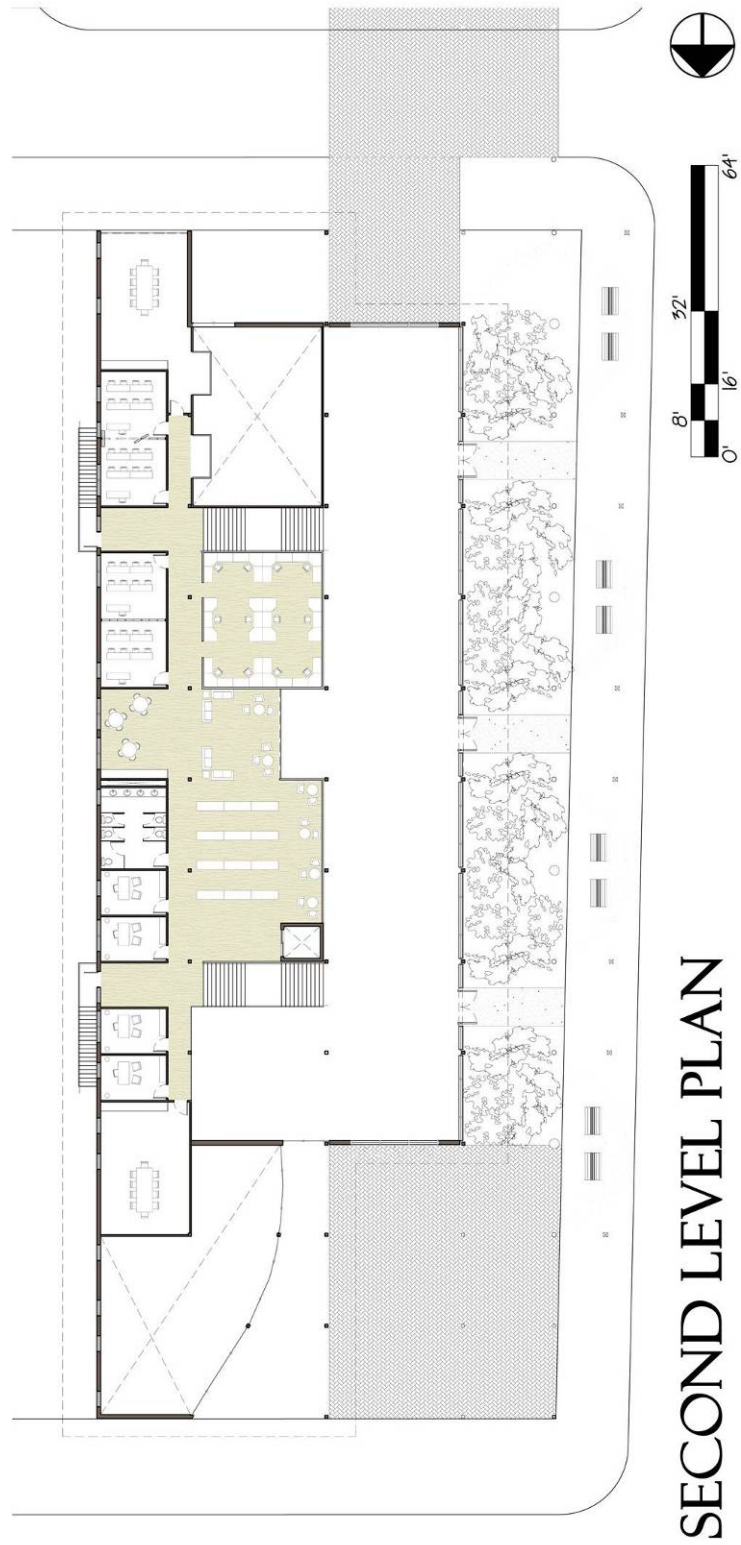
SECOND LEVEL PLAN

Figure 107: The Second Level Plan [author]

Figure 108: West Elevation [author]

HERBERT STREET ELEVATION

ROSE STREET ELEVATION

EAST ELEVATION

Figure 109: North, South, and East Elevations respectively. [author]

VIEW OF TOWN MEETING ROOM AND CIVIC PLAZA

Figure 110: View of North end of building with Mount Walker in the distance. [author]

VIEW OF BUILDING THROUGH QUILCENE FARMERS' MARKET

Figure 111: View of South end of building showing Quilcene Farmers' Market. [author]

Figure 112: Perspectives of both interior and various exterior close-up conditions. [author]

Figure 113: Section Perspective of Town Hall and Firewise Resource Center: Building Community through Architecture. [author]
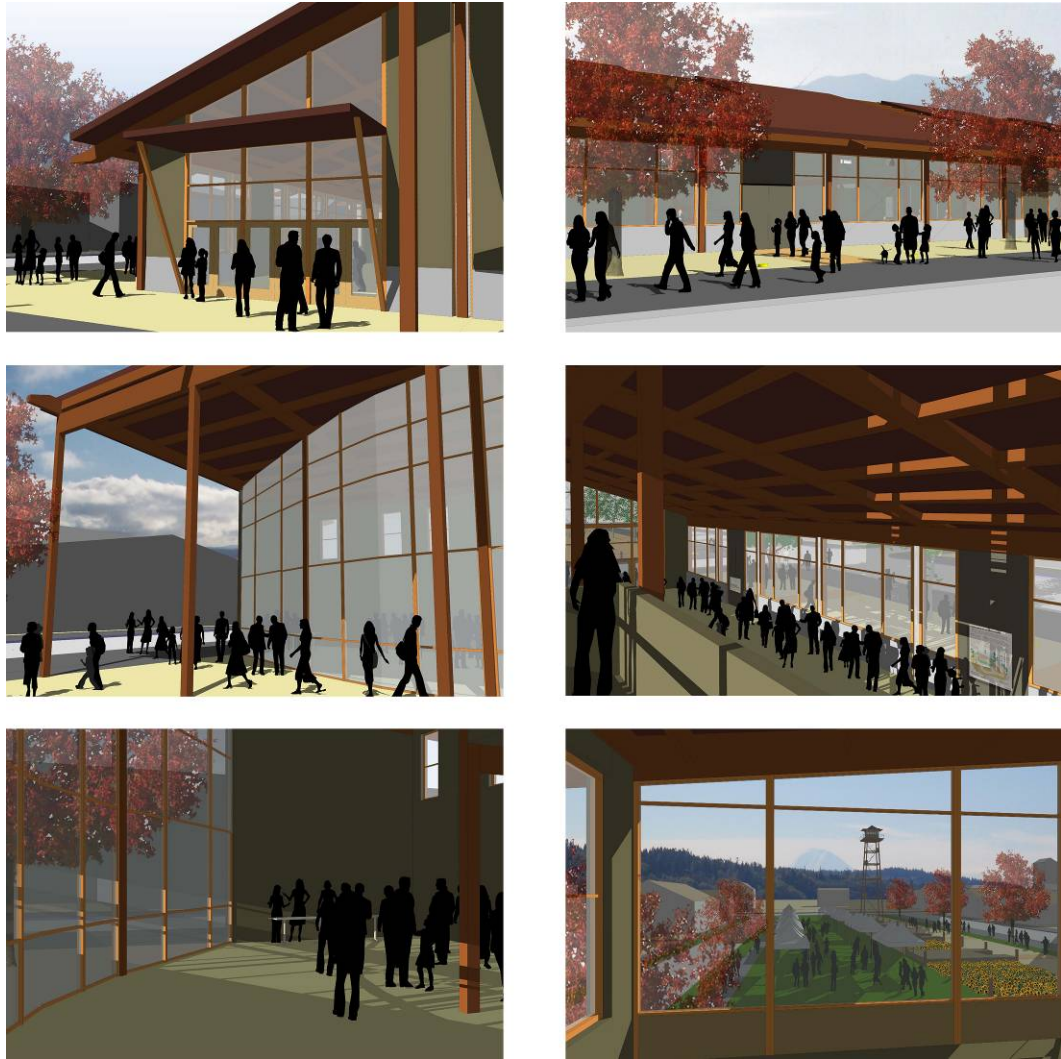
Bibliography

"Bainbridge Island City Hall." <u>Miller Hull</u>. Miller Hull Partnership. 16 Oct. 2005 <http://www.millerhull.com/html/mh.htm>.

"Cabin at Elbow Coulee." <u>Balance Associates, Architects</u>. Balance Associates, Architects. 16 Sept. 2005 <http://www.balanceassociates.com/projects/elbowext.html>.

"Cabin at Elbow Coulee." <u>Wood Design & Building</u>. Wood Design & Building. 16 Sept. 2005 <http://www.woodmags.com/wdb/magazine_rack/2003_winter_22/cabin/index.php3>.

Camfield, Thomas W. <u>Quilcene's Main Street</u>. 1910. Thomas W. Camfield, Quilcene. <u>Port Townsend: the City that Whiskey Built</u>.

Carlson, Linda. <u>Company Towns of the Pacific Northwest</u>. Seattle: University of Washington P, 2003.

Curtis, Craig. <u>Miller Hull Partnership</u>. Seattle. <u>Bainbridge Island City Hall Drawings and Information</u>.

Fentress, Curtis W. <u>Civic Builders</u>. West Sussex: Wiley-Academy, 2002.

"Fire!" Port Townsend: Jefferson County Historical Society.

"Fire Station and Culture Centre in Hittisau." <u>Detail</u> May 2002: 606-611.

"Firewise Communities / USA." <u>Firewise Communities / USA</u>. National Wildland/Urban Interface Fire Program. 12 Aug. 2005 <http://www.firewise.org/usa/>.

Frank, Ann W. <u>Northwest Style: Interior Design and Architecture of the Pacific Northwest</u>. San Francisco: Chronicle Books, 1999.

Garner, John S., ed. <u>The Company Town: Architecture and Society in the Early Industrial Age</u>. New York City: Oxford UP, Inc., 1992.

<u>Google Maps</u>. Google. 12 Dec. 2005 <http://maps.google.com>.

Jefferson County Historical Society. "General Development Through the Early 1960's." 887-897.

Jefferson County. Jefferson County Growth Management. <u>Jefferson County Comprehensive Plan</u>. 1998.

"JMap." <u>Parcel Map Viewer</u>. Jefferson County, Washington. 12 Aug. 2005 <http://www.co.jefferson.wa.us/>.

Kliment, Stephen A., comp. <u>Planning City Hall</u>. Vol. 7. Washington D.C.: Management Information Service, 1975.

<u>Map Related Libraries</u>. Indiana State University. 7 Nov. 2005 <http://baby.indstate.edu>.

Martin, Harry. <u>Contemporary Homes of the Pacific Northwest</u>. Seattle: Madrona, 1980.

Oatman, Daisy, Verna McGinnis, and Janet M. Worthington. "History of Quilcene." <u>Hood Canal Kitchen Kapers</u>: 129+.

Olson, Sherri. <u>Miller/ Hull: Architects of the Pacific Northwest</u>. New York City: Princeton Architectural P, 2001.

"Port Gamble." <u>Port Gamble</u>. City of Port Gamble. 12 Dec. 2005 <http://www.portgamble.com>.

"Port Gamble Sawmill." <u>HistoryLink.org</u>. HistoryLink.org. 12 Dec. 2005 <http://www.historylink.org/essays/output.cfm?file_id=5487>.

"Quilcene/Brinnon." <u>The Emerald Towns of Hood Canal</u>. Quilcene and Brinnon Chambers of Commerce. 7 Nov. 2005 <http://www.emeraldtowns.com/>.

"Quilcene and Vicinity." Map. Quilcene: Quilcene Museum.

"Quilcene Hatchery." <u>Hilton's Coast Seafood Company</u>. Hilton's Coast Seafood Company. 7 Nov. 2005 <http://www.coastseafoods.com/quilcenes.htm>.

Quilcene Museum. <u>Historical Photographs</u>. Quilcene Museum, Quilcene.

Stubblebine, Jo, ed. <u>The Northwest Architecture of Pietro Belluschi</u>. New York City: F.W. Dodge Corporation, 1953.

Taylor, Eva C. <u>With Pride in Our Heritage: History of Jefferson County</u>. Port Townsend: Jefferson County Historical Society, 1966.

<u>The Heart of the Olympic Peninsula</u>. Gateway Visitor Center. 7 Nov. 2005 <http://www.heartoftheolympics.org/>.

"United States Map." National Wetlands Research Center. 7 Nov. 2005
<http://lacoast.gov/education/FragileFringe/UnStates.jpg>.

Unknown. Historical Photographs. Jefferson County Historical Society, Quilcene.

Vaughan, Thomas, ed. Space, Style and Structure: Buildings in Northwest America.
Vol. 1. Portland: Oregon Historical Society, 1974.

Waechter-Bohm, Liesbeth. Austria West: New Architecture. Basel: Birkhauser, 2003.

"Washington Communities at Risk of Wildfire." Progress Report on the National
Wildfire Plan in Washington State. Washington State Department of Natural
Resources. 12 Aug. 2005
<http://seattle.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=seattle&zu=ht
tp%3A%2F%2Fwww.dnr.wa.gov%2Ffire%2Fupdates.html>.

"Water Plan for Quilcene needs $$ tap." Port Townsend Leader 24 June 1998, sec. B:
1-2.

"Where Fire and Money Meet." MSNBC. MSNBC. 12 Aug. 2005
<http://www.msnbc.msn.com/id/3072203>.