

Chester Village and Center District Master Plan

June 2013







CONTENTS

ACKNOWLEDGEMENTS

INTRODUCTION

BACKGROUND

History

4

5

6

8

16

15 16

- Project Scope
- *Existing Conditions*

14 PROCESS

PROJECT RECOMMENDATIONS

- Macro Scale Overall Project Map
- Intermediate Scale Connecting Corridors
- 21 Micro Scale Center District
- 30 Materials
- 32 Landscaping
- 33 Wayfinding
- 34 PROJECT PHASING
- **36 ESTIMATED COSTS**

40 APPENDICES

- 40 Appendix A: Macro Scale Plan
- 42 Appendix B: Intermediate Scale Plans
- 50 Appendix C: Micro Scale Plans

NOTE: APPENDICES D THROUGH I AVAILABLE ON TOWN

ACKNOWLEDGEMENTS

This project was made possible through the sustained efforts of the Chester Main Street Committee. The current committee was formed in June 2011 by a vote of the Board of Selectmen.

Committee members included:

Michael Joplin	John Schroeder
Steven Tiezzi	Jim Zanardi
Al Bisacky	John Divis
Charles Mueller	John King
Charlene Janecek	Virgil Lloyd
Leslie Strauss	

- Board of Selectmen: Edmund Meehan, First Selectman Larry Sypher, Selectman Tom Englert, Selectman
- Meeting minutes and public notices were prepared by Judy Brown.
- Historical photographs were provided by the Chester Historical Society, Diane Lindsay
- *In addition to Main Street Committee members, assistance to the project was* provided by the following individuals: Scot Mills, Tree Warden Richard Leighton, Fire Marshal David Stahnke, Tran System Engineer for Main St Bridge Project
- Master Planning Team:

Brian Kent from Kent + Frost, Landscape Architecture was Principal in Charge of the Master Plan Project and was supported by Chad Frost and Elisa Lathrop Gary Giroux from Stadia Engineering Associates was Principal Civil Engineer and supported by James Rossman Peter Good and Jan Cummings Good from C&G provided Wayfinding and Graphic Design

David Spear of DLS Traffic Engineering provided traffic analysis

INTRODUCTION

Chester is a multi layered community with a strong sense of place. Unlike many other small communities, Chester's Main Street is not a state highway thoroughfare. The layout of its Center District has more to do with the sweep of the Pattaconk Brook than with any imperative for transportation efficiency. This irregular pattern has influenced the village architecture in a positive way: relatively small wood frame buildings are tightly situated but not monolithic. Each building possesses architectural character that reflects a continuum from Colonial, Greek revival and Victorian to 20th century styles. A mix of residential properties including dozens of rental units gives the village a healthy 24 hour presence. The quirkiness of road, river, buildings, topography and other irregular features contributes to the appealing sense of place.

On a typical main street, the right-of-way line demarks an exceptional division between state and local control; Chester's Main Street possesses a more holistic identity. As a measure of Main Street's vibrancy, building facades are well maintained with canvas awnings and porches providing a comfortable transition from sidewalk to interior spaces. Sidewalks shrink, expand, and in some places disappear. In Chester, the "public realm" is a combination of both public and private ownership. The private property has been enhanced and maintained, the public property has suffered from benign neglect.

Despite the deteriorating sidewalks and overburdened pavements, the village retains its charm. Main Street functions as an occasional public square and is used for festivals, special events and Sunday markets. This block also benefits from a southern exposure, enhancing the pedestrian experience and lengthening the seasonal comfort zone on the sidewalk. Sidewalks and pavements are not the only issues deserving attention.

Stormwater runoff overtops the minimal curbs, lighting is spotty and of poor quality, amenities are "inadequate and inconsistent", underground utilities are aging and in some cases abandoned and forgotten. Trees along Main Street have succumbed and are mostly absent.

The resulting streetscape has declined to an unacceptable condition and deserves improvement through carefully crafted changes that respect historic integrity while adapting to current and future needs.









Chester was settled where the Pattaconk and Great Brooks meet Chester Creek, in the flood plain of the Connecticut River. The fast moving water descending from the surrounding hills in combination with access to the river provided opportunities for both hydropowered manufacturing and nautical industry. Both industries are gone but their legacy remains.

The prosperous community fueled development of a compact mixed use Center District between the brooks and the hills. The Center was originally built to house civic institutions and businesses selling essential goods and services. Iconic buildings like the Stone Store, White Building, Pratt House, Maple and Main, Chester Bank, and old Town Hall retain authenticity.

The Center District now reflects a contemporary reality that caters to residents and visitors interested in good food and drink, fine art, and social interaction. It also houses professional offices and upper floor residences.

From 1914 through 1918, the Shoreline Electric Railway opened a spur into the Center. The line terminated at Spring and Main St. where the "Chester wall" was constructed to facilitate boarding the trolley car. The wall remains as a defining artifact of Chester history. Other artifacts that remain include a carved stone water trough and a millstone from the original grist mill.













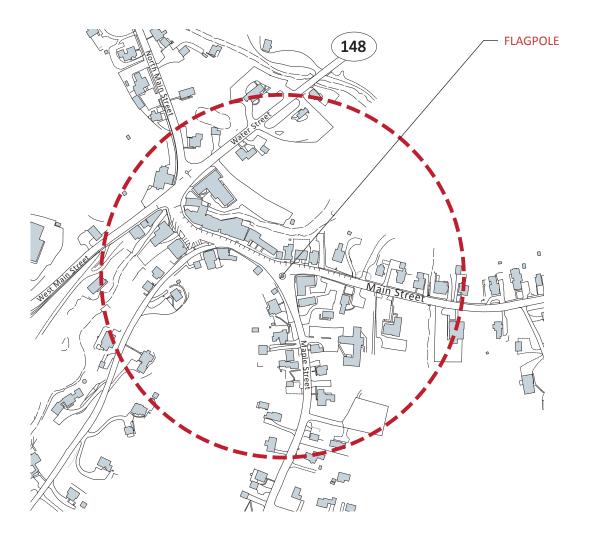


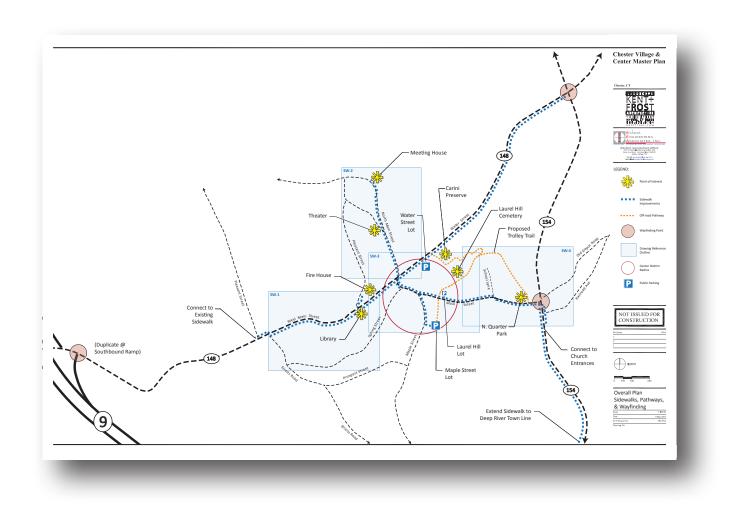
NOTE: Appendix I: Historic Research





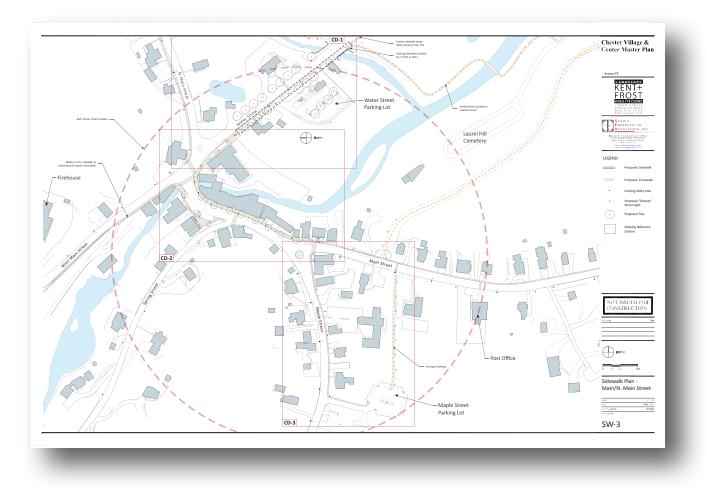
he focus of this plan is the Center District. This includes the streets, sidewalks, parking areas, and landscape areas within the right-of-way. Certain private property also falls within the study area such as where the public sidewalk overlaps the right-of-way line onto private property. The Center District project area was defined as all applicable public land within a 640' radius emanating from the flagpole at Main St and Maple St.





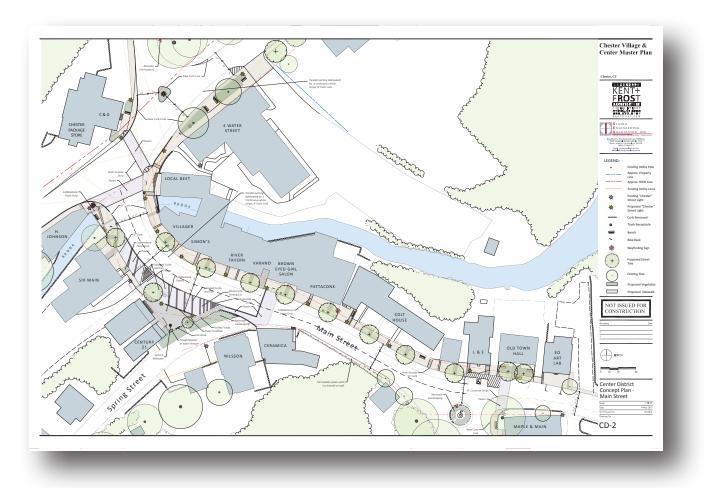
MACRO SCALE - OVERALL PROJECT MAP

The Master Plan addresses the community at three scales of detail. The first scale provides a macro view spanning from the Route 9 interchange to the Water Street/Middlesex Turnpike intersection and south towards the Deep River line. This scale depicts proposed wayfinding points, sidewalks, and trails.



INTERMEDIATE SCALE - CONNECTING CORRIDORS

The second or intermediate scale depicts proposed improvements along streets and open space that connect to the Center District spanning from Pleasant St at West Main St, North Main St to the Meeting House, Water Street Bridge, Laurel Hill, N Quarter Park and the intersection of Main Street and Middlesex Ave. Sidewalks, crosswalks, lighting, wayfinding, and landscaping are included.



MICRO SCALE - CENTER DISTRICT

The third scale focuses on the Center District from the Water St Bridge to West Main, Main Street to the Post Office and Maple St to the parking lot (all within the 620' radius from the flagpole). This scale depicts specific improvements to roadways sidewalks, curbing, crosswalks, lighting, landscaping, wayfinding, parking, and furnishings.



From the Town website:

"Main Street in Chester is a former State road that the town purchased for \$1 from the State. Chester's responsibility for maintenance begins on the village side of the Main Street Bridge and continues to the intersection of Main St and Middlesex Ave. As the name implies, Main St has been one of the primary locations for traffic, infrastructure and commerce since Chester's inception. While under the State's stewardship, Main St was continually "overlaid" with paving material. There are no records of a complete reconstruction. As a result, some portions of the pavement exceed the height of the curb reveal creating significant drainage problems. Beneath the pavement exists ageing and abandoned infrastructure that includes but is not limited to water mains, trolley tracks, sewer lines, water lines, stormwater drainage, and possible electric service".





Street Pavements

Pavements are in various states of condition throughout the Center District. Some areas are in relatively good condition but Main Street in particular has a variety of problems. Cracking is visible in various locations and can be attributed to a number of conditions including substructure degradation, drainage problems and settlement within patches, to name a few. Curbing has been covered by successive overlays along Main Street resulting in drainage problems and rugged, unsightly edges.



Curbing

some cases, into buildings.

Most curbing in the Center Disrict is composed of antique quarried granite that is smaller than conventional curbing. Concrete and asphalt sections occur where granite is missing. Concrete sections are in generally poor condition and asphalt is unsightly and vulnerable to snow plows. In several locations curbing has been subsumed by layers of asphalt paving. The resulting lack of vertical reveal allows stormwater to flow from street to sidewalk and in







Sidewalks

Concrete sidewalks are of various ages and largely in poor condition with cracking, patches and differential settlement. These conditions pose a hazard to pedestrians. Sidewalk widths vary greatly without respect to user volume. For example, the widest section - sixteen feet just east of the Pattaconk Inn - abruptly narrows to six feet.

Drainage

Most storm water runoff that accumulates in the Center District flows into Pattaconk Brook or to a lesser extent into Great Brook. Sloping topography facilitates this flow in most areas. Certain locations like Main Street near Maple Street and the south end of North Main are very flat and storm drainage relies on antiquated catch basins. These drainage structures are generally in poor condition.

Lighting

Note: A more detailed evaluation of infrastructure can be found in Appendix D: Existing Conditions Report



Street lighting in the Center District is very inconsistent. Some areas are very bright from high wattage sodium vapor cobra head fixtures mounted high on utility poles and other areas are very dark. Cobra heads are arrayed with decreasing frequency along adjacent streets radiating out from the center. Municipal parking lots have little or no lighting. Approximately twelve incandescent period fixtures occur along Main Street in the village center that are owned and operated by adjacent property owners. These lights contain single incandescent bulbs and are frequently out of service.



Outdoor Seating Along Main Street



Chester Fireman's Parade



Diverse Downtown Businesses

"We celebrate community, the outdoors, art, history, music, theater, crafts, cuisine and conversation. We cherish our small town way of life, striving to preserve it as we live fully embracing life in the 21st century"

- Chester Town Website



Chester 4 On The 4th Race

Chester Fireman's Parade

Source: Chesterct.org



Chester Sunday Market



Source: Chester.org





Chester Sunday Market



Outdoor Dining on Main Street

Efforts to improve the Center District have evolved over a period of time and predate the beginning of this project. The Main Street Committee formed in the early 2000's and has moved the project forward by receiving state grants, organizing a Chester Center District Questionnaire, and ushering the Master Plan consultant selection process.

Comments from the questionnaire reflected the following sentiments:

- "We are unique and one of the few towns to have a Main Street with one of a kind buildings and homes."
- "We love our town, let us grow, change smart and keep Chester 'Chester'."
- "Growth and change are inevitable and unavoidable. Do not leave it to chance."



Chester Sunday Market

Throughout preparation of the Master Plan, the Committee has been closely involved. Between August 2012 and May 2013, the committee and Kent + Frost met 17 times. Several meetings were also attended by residents who provided useful input.

K+F initiated the planning process with door-to-door interviews of business owners, employees and residents during the summer of 2012. Subsequent contacts were also made with key property owners. This was followed by interviews and site walks with Town officials including the Tree Warden, Public Works Superintendent and Fire Marshal.

Planning team members inspected the entire project area and recorded their observations in the accompanying Existing Conditions Report.

Existing conditions mapping used to generate site plans was derived from a variety of sources including State of CT Geographic Information System data base (GIS) and CT DOT bridge surveys. The planning team took their own measurements at key locations in the Center District.

K+F and the Committee worked with adjacent property owners and the DOT to design a Main Street Bridge deck treatment that would match the planned Main Street streetscape.

Preliminary Concept Plans were presented at a public forum at the Chester Meeting House on March 19, 2013. A follow-up meeting was held on March 26 to address questions, comments and suggestions raised on the 19th. The MSRC approved a Main Street bridge deck design concept on April 9th and referred their recommendation to the BOS on April 17th. At the BOS meeting April 18th the Board reviewed and approved the April 9th bridge deck design and submitted this recommendation to Conn. DOT on April 23rd requesting that it be used for the final bridge design by the project's consulting engineer. The Draft Master Plan was presented to the Planning and Zoning commission on May 9, 2013. The final Master Plan document will serve as the basis for subsequent detailed design and phased project implementation. Additional public input and Planning and Zoning Commission review will occur during subsequent design phases.



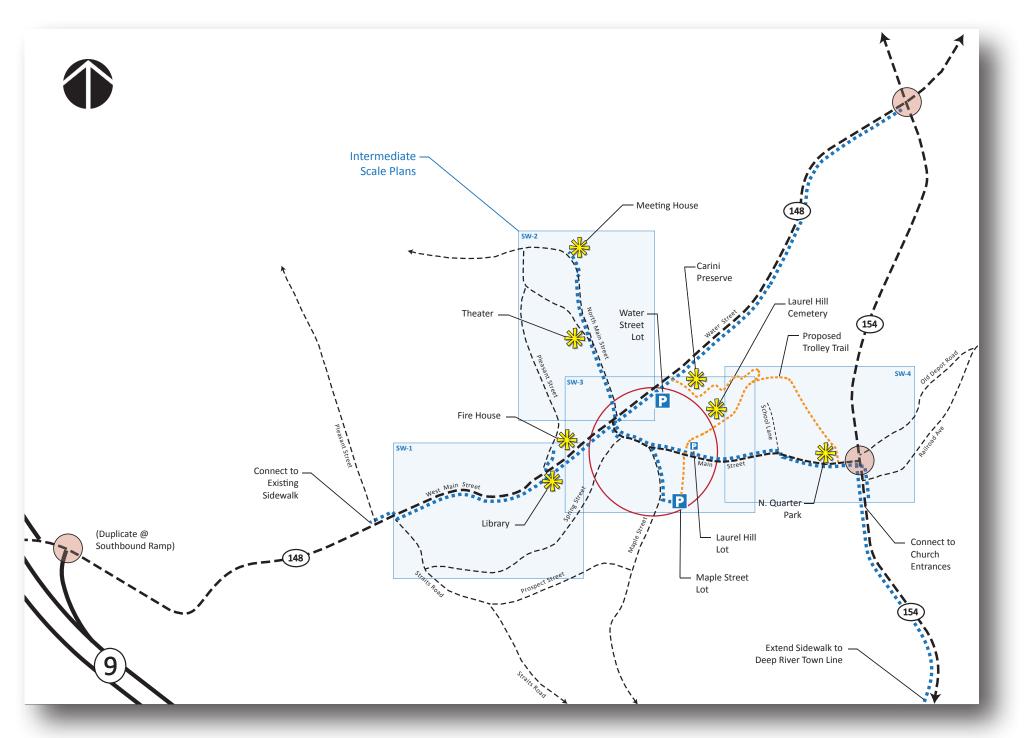
Site Inventory - Summer 2012



Presenting the Master Plan to the Public - March 2013

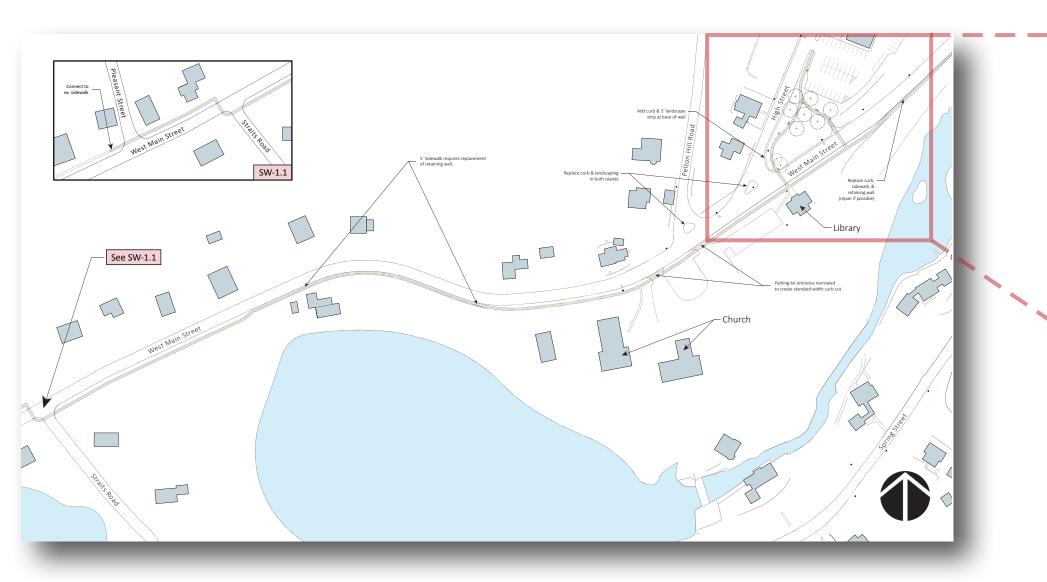


Early in the planning process, questions arose that addressed issues beyond the initial description of the project limits. These issues dealt with wayfinding at the Route 9 interchange and the potential for a trail connection between North Quarter Park, Laurel Hill Cemetery, and the Carini Preserve. Subsequent discussions involved expansion of sidewalks on Water Street to Route 154 and along 154 from Main Street to the Deep River town line. These recommended improvements are depicted on the Macro Scale Plan at a scale of 1" = 300'.



Overall Project Map

An important goal of the Master Plan seeks to improve pedestrian connections between surrounding neighborhoods, parks and the Center District. Street corridors like West Main and North Main have discontinuous sidewalks, unsafe crossings and poor lighting. These corridors are represented at an intermediate scale of 1'' = 60', sufficient to illustrate these improvements.



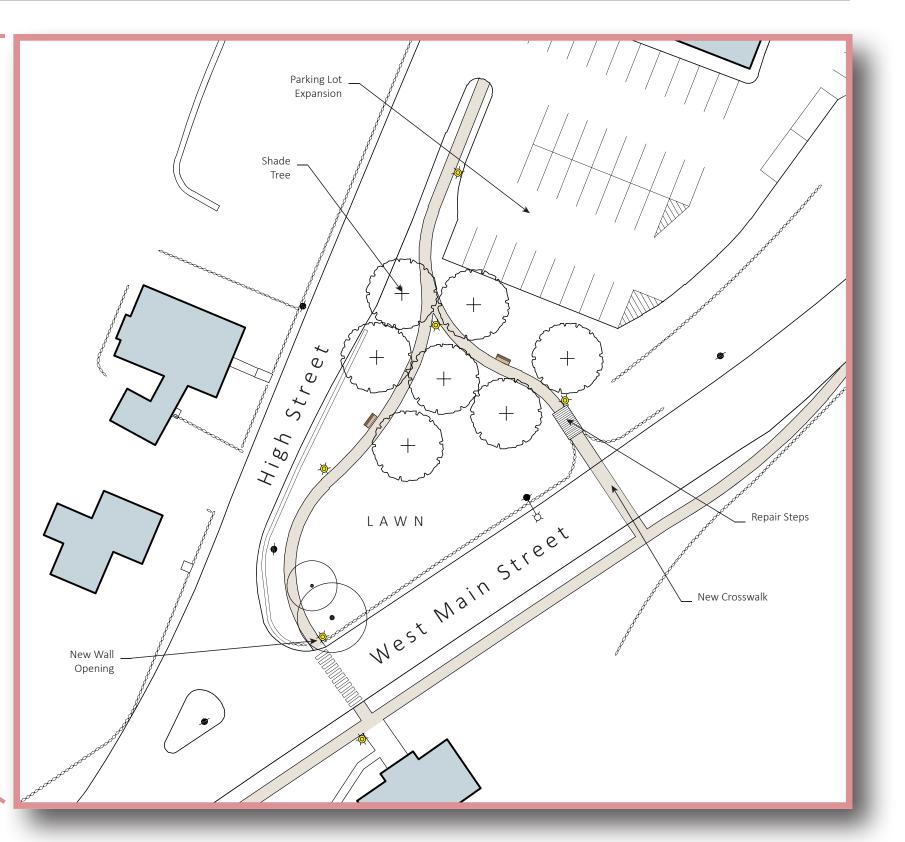
WEST MAIN STREET

West Main Street was resurfaced by the CT DOT in 2012 from the Route 9 interchange to a point on Church Hill near the United Church of Chester. Work stopped there because of potential changes anticipated by this Master Plan to the subsequent segment that connects into the Center District. These changes include recommended replacement of antique curbing, dysfunctional drainage system, deteriorating sidewalks and retaining walls.

The existing sidewalk ends just west of the United Church where the corridor narrows precipitously because of a steep drop-off. Continuation of the sidewalk will require construction of a new retaining wall and guard rail system that prevents cars from leaving the roadway and protects pedestrians. The proposed sidewalk would continue to Pleasant St. crossing to the north side at Straits Rd.

West Main Street to Straits Road

The intersection with High St contains a grassy triangle "parklet" surrounded by a low stone wall. The Plan recommends that the wall be opened where a crosswalk currently ends and a new sidewalk constructed through the parklet up the incline to the fire station parking lot. A second walkway would branch off to the old High School stairway at West Main. This development will present opportunity to create a Center District gateway with lighting, landscaping, and benches. The concept design also anticipates expansion of the fire station parking lot.



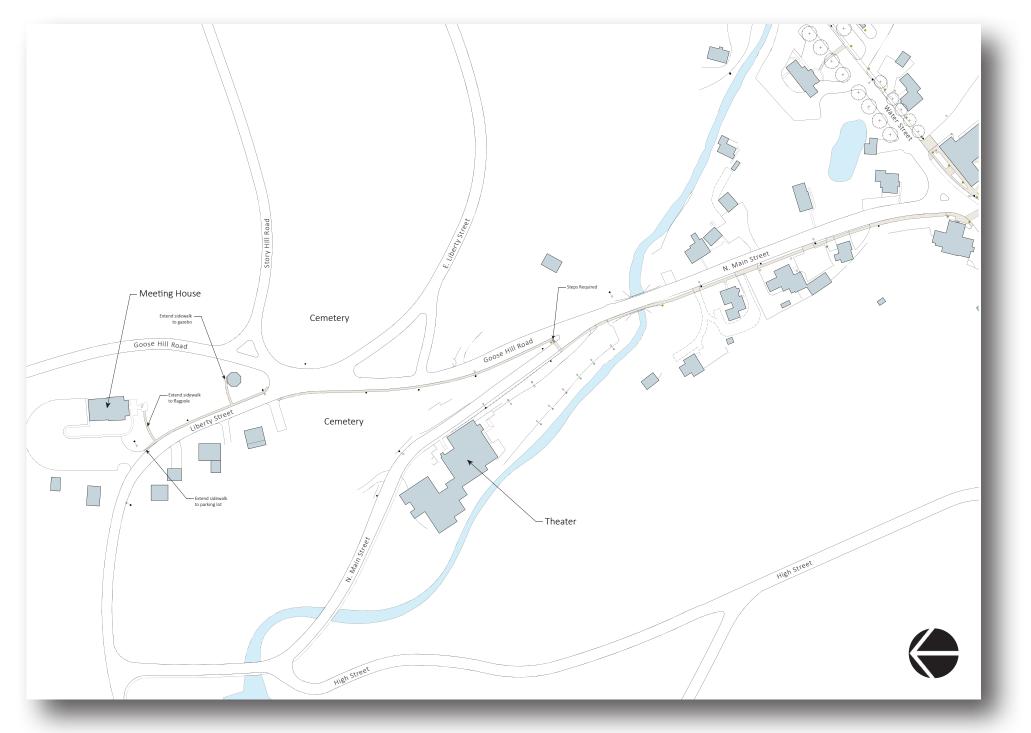
High Street Park Plan Enlargement



PROJECT RECOMMENDATIONS | Intermediate Scale - Connecting Corridors

NORTH MAIN STREET

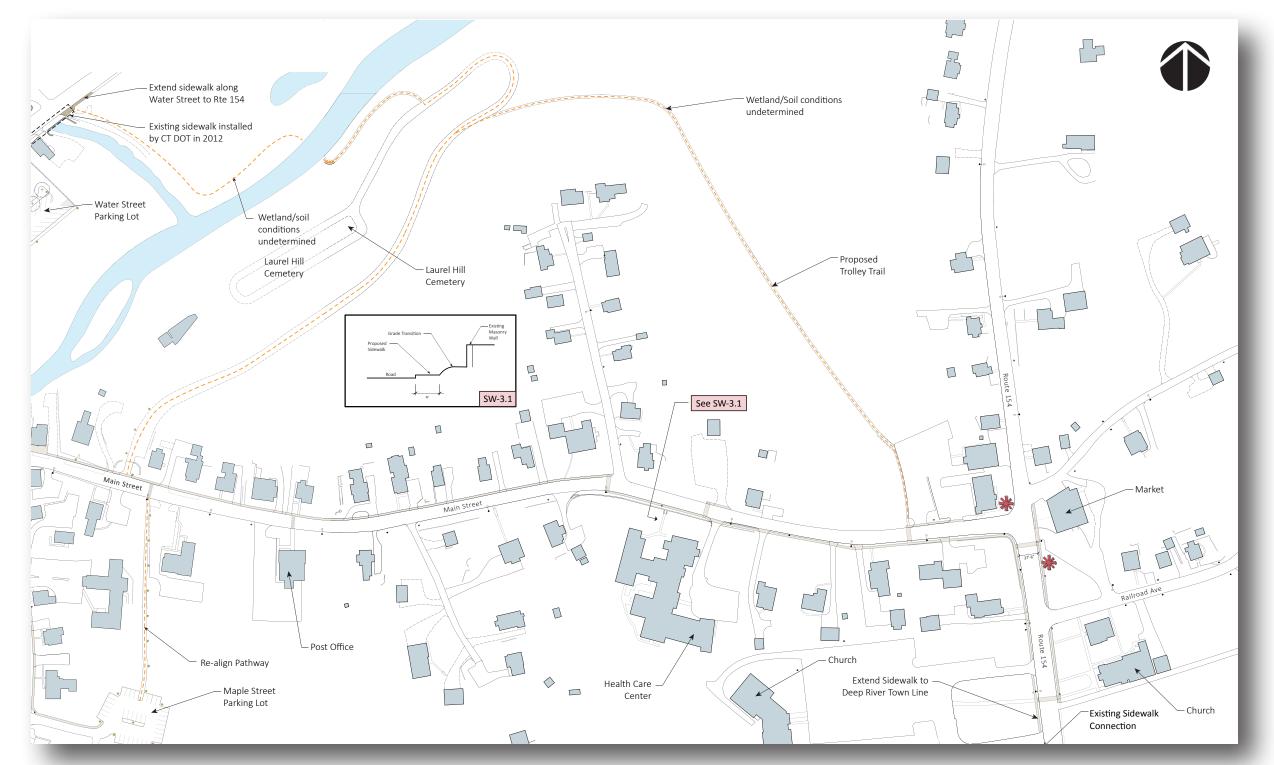
The sidewalk and curbing on North Main is in poor condition. It currently ends at the Norma Terris Theater. The Master Plan recommends replacement of curbing, sidewalk and the extension of sidewalk up Goose Hill Rd to the Meeting House.



North Main Street to Meeting House

MAIN STREET EAST

Main Street east of Maple is one of the flatter sections in town. Drainage is a challenge and stormwater currently puddles on the street. The Master Plan recommends replacement of the curbing, sidewalks and drainage system through this section and up the hill as far as Route 154. The crosswalk at School Lane will be relocated and the sidewalk across the Chesterfield frontage will be reconstructed at normal curb height. Additional sidewalks and a crosswalk at Route 154 will connect Main Street to St. Joseph's Catholic Church and the Veterans memorial.

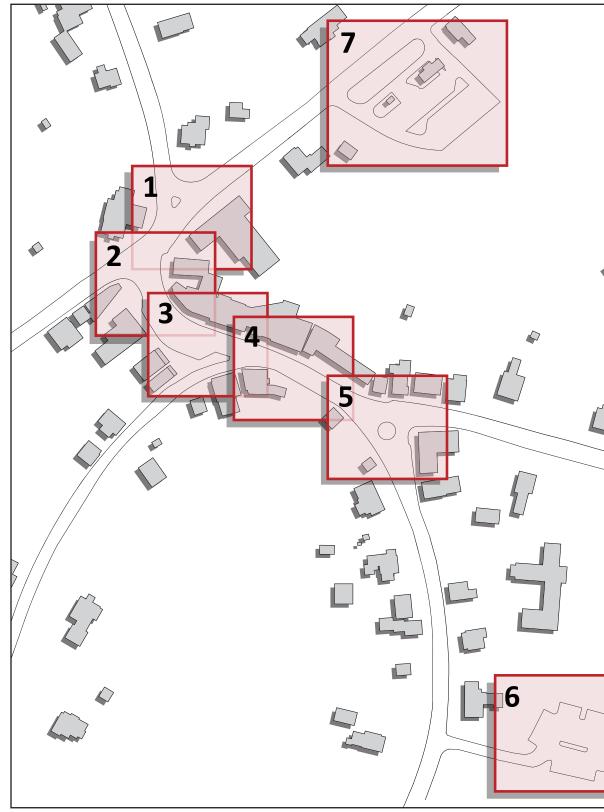


Main Street to Route 154



Design recommendations for the Center District are the result of an interactive process involving the Main Street Committee, Kent + Frost, and public input. The principal goal of this process has been to correct the deteriorating conditions of streets, sidewalks and infrastructure while simultaneously making appropriate and beneficial changes including:

- Widening sidewalks to improve pedestrian safety and allow more space for seating and circulation. A combination of concrete slabs and variable width cobblestone bands will reflect the eclectic variation of the Center District.
- Creating a multipurpose public space at the Chester Wall that accommodates daily needs and a broad range of events.
- Substituting the highway style, cobra head lighting with fixtures that eliminate light pollution and reflect the character of the Center District.
- Improving the periphery parking lots with paving, lighting, landscaping and wayfinding.
- Providing wayfinding signage and a centralized kiosk to orient visitors and promote local events.



Key Plan

Note:

The principal areas of the Center District targeted for streetscape improvements are depicted on the following pages with seven annotated plan enlargements. Complete Center District plans are located at the end of this section and in Appendix C.







Legend:

Line Approx. ROW Line

Existing Utility Pole

Approx. Property

Existing Utility Lines

Existing "Chester" Street Light

Proposed "Chester" Street Light

Curb Removed

Trash Receptacle

Bench

Bike Rack

Wayfinding Sign

Proposed Street Tree

Existing Tree

Proposed Vegetatior

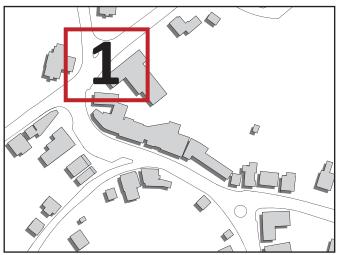
Proposed Sidewalk

1. WATER STREET

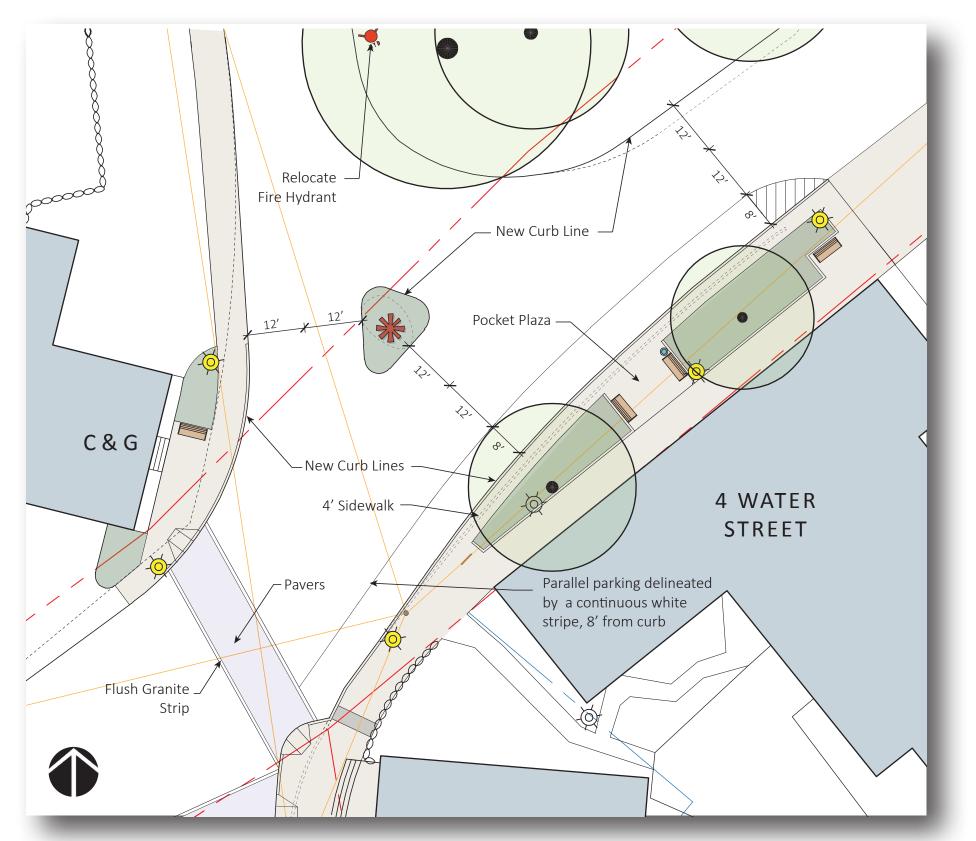
The streetscape connecting Main Street to the new Great Brook Bridge was recently improved (2012) by the addition of a sidewalk constructed by CT DOT. This plan recommends the addition of street trees and pedestrian scale lighting.

At 4 Water Street, the plan modifies the walkway and tree lawn between the building and Water Street with the following:

- Shifts the curb line north by approximately 2' to enlarge the tree lawn
- Formalizes the ad hoc parallel parking by adding a white line
- Adds a 4' sidewalk along the curb to address the parking spaces
- Widens the sidewalk along the face of the building
- Creates a "pocket plaza" with lighting, benches and bike racks







Water Street Plan Enlargement

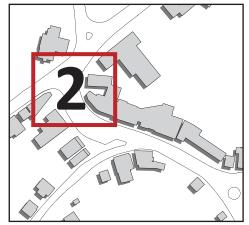
2. MAIN STREET BRIDGE

The 100 year old bridge over Pattaconk Brook is currently under design by the CT DOT for replacement. The structure will include two rows of micro piles placed outboard of the existing stone abutments (like legs of a table) and precast concrete panels placed (like a table top) onto the micro piles. This method allows design flexibility for the alignment of the upstream and downstream deck edges. Since bridge design and the Master Plan project have overlapped, DOT gave Chester the opportunity to collaborate on this aspect of design. The BOS approved the bridge deck design and submitted it to the Conn. DOT on April 23, 2013. The resulting design concept enlarges the sidewalk area on each side and allows the adjacent streetscape design to flow seamlessly across the bridge. The current roadway configuration will change slightly as it crosses the bridge:

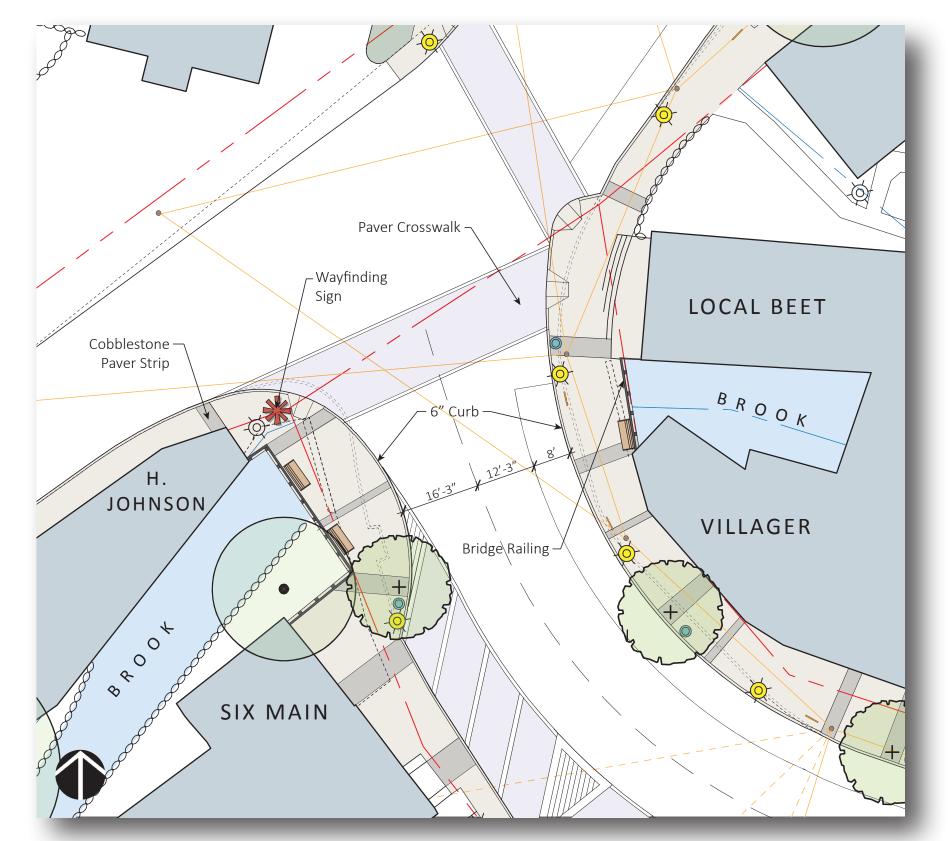
- The curb radius at the West Main/Main St corner will be enlarged to approximately 25' in order to accommodate emergency vehicles and delivery trucks. This will move the curb approximately 3' west.
- The curb line on the east side of Main St will move approximately 3' west in order to enlarge the sidewalk.
- The crosswalk will be enlarged and paved with a combination of pavers and a granite border.

Sidewalks on both sides of the bridge will change. On the east side of Main Street, the sidewalk edge will run along the right-of-way line, approximately 3' east of the existing edge, providing space for pedestrian circulation plus a new light fixture, bike rack, trash receptacle and bench(es) against the railing. The alternating concrete and cobblestone bands will continue across the bridge.

The existing sidewalk on the west side of the bridge will be reduced at the street corner by the larger curb radius. However, the sidewalk will be expanded to the west in order to alleviate this reduction and to connect to the wider sidewalk just off the bridge to the south along Main Street. The expanded sidewalk will allow space for a wayfinding sign, benches against the railing and pedestrian circulation.



Key Plan



Main Street Bridge Plan Enlargement



3. CHESTER WALL PLAZA

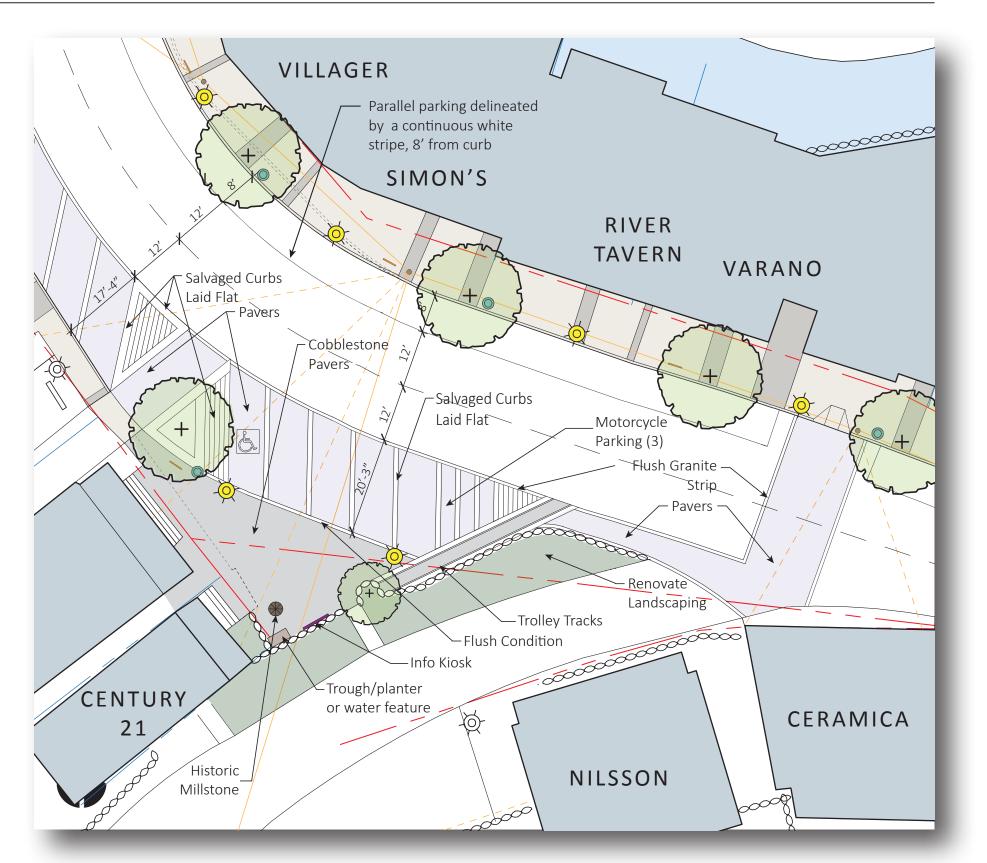
The proposed design creates a 900 sf cobblestone paved pedestrian plaza in the triangle corner with the Chester wall on the southern edge. An information kiosk will be mounted on the wall in the corner. Additional features may include the historic water trough currently located at the Main Street Bridge and a millstone currently residing in the Water Street parking lot. To signify the early 20th century trolley system, a set of tracks will be installed flush with the cobblestones in the original location alongside the wall. The parking configuration will be changed to allow for four diagonal spaces, one handicap accessible space and three motorcycle spaces. The entire area will be on a continuous plane delineated by flush paving bands. It is anticipated that antique curbstones salvaged from Main Street will be used to define parking lines and the boundary between parking spaces and plaza. Paving within the parking spaces will be concrete pavers. The parking/plaza boundary will be further reinforced by light fixtures and possibly with seasonal flowers in large pots or planter boxes.

For special events, the four car and three motorcycle spaces can be cordoned off to expand the plaza by 1100 sf resulting in 2000 total sf of functional plaza available with Main Street open to traffic.



Key Plan

24 Chester Village Master Plan



Chester Wall Plaza Plan Enlargement

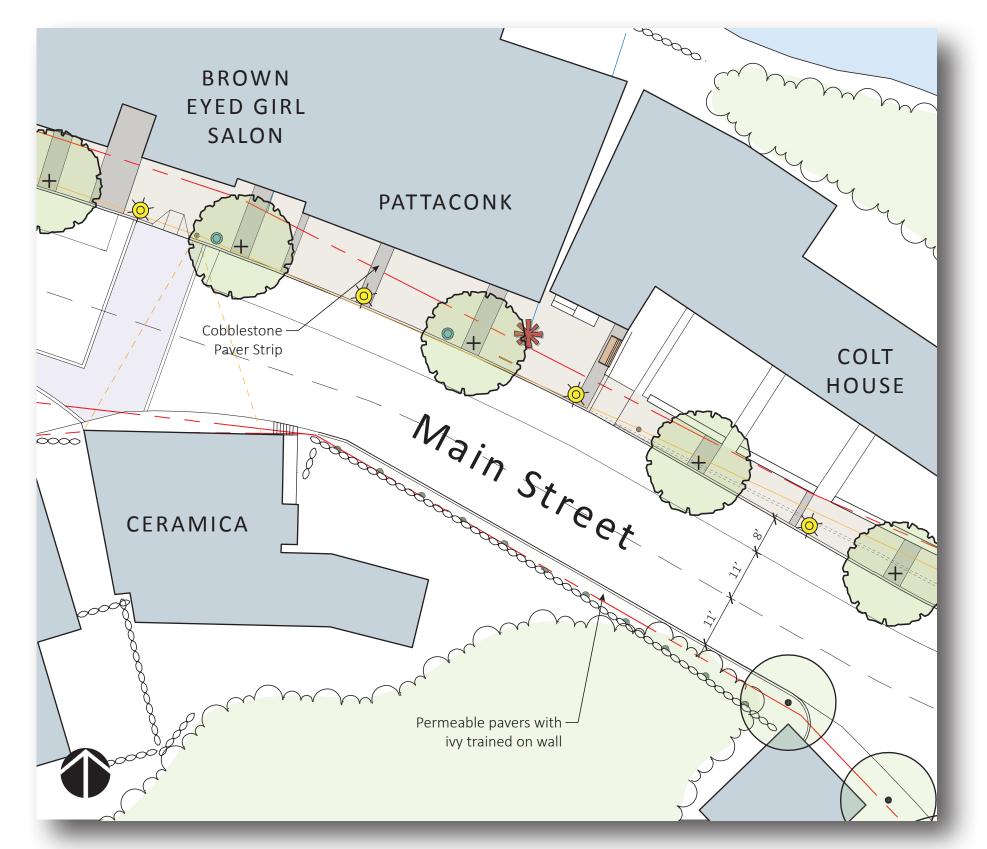
4. MAIN STREET SIDEWALKS

The north side of Main Street from the bridge to the Maple Street intersection contains the most uniform streetscape condition in the Center District. The sidewalk expands and contracts but averages approximately 12' wide except along the Colt House frontage where the sidewalk is 6'. The design concept for this area combines a variable combination of concrete slabs and cobblestone bands with granite curbing, street trees, light poles, trash receptacles, bike racks, street signs and occasional benches.

The plan conforms with the existing curb line up to the Colt House frontage where the sidewalk expands in a taper from 6' at the east end to a total 10' width at the next building west (currently ARS Interiors). The widened sidewalk will allow for a continuation of street trees and light poles that will otherwise not fit on the existing sidewalk.



Key Plan



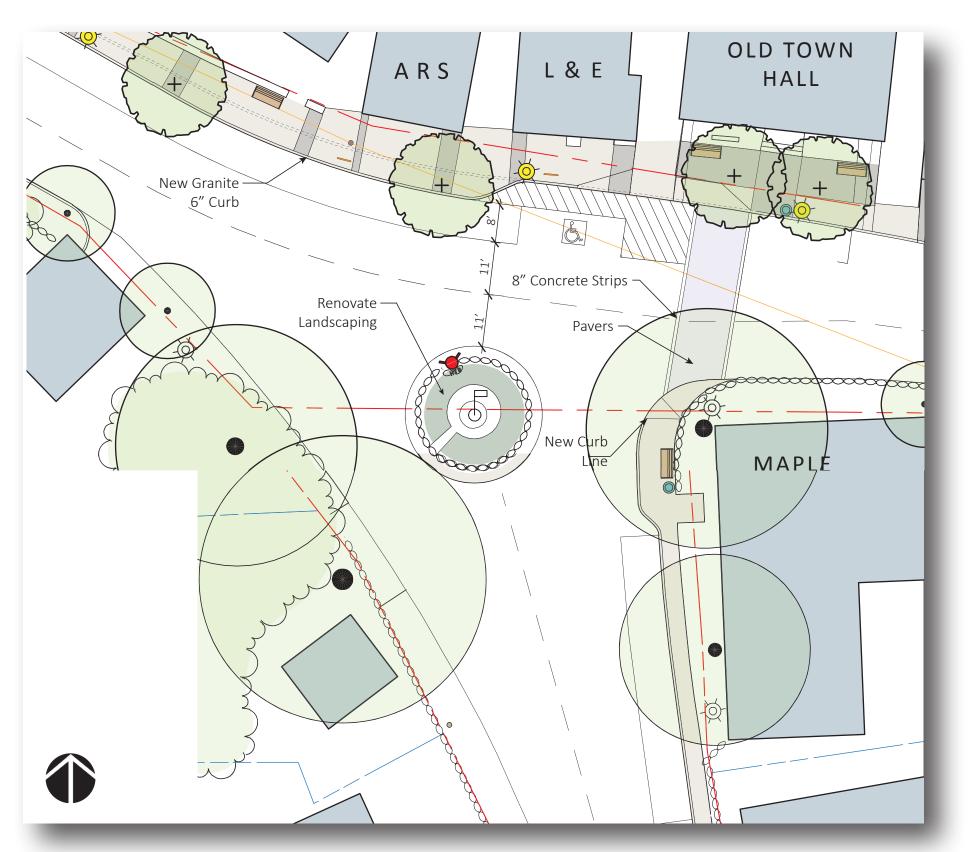
Main Street Sidewalks Plan Enlargement

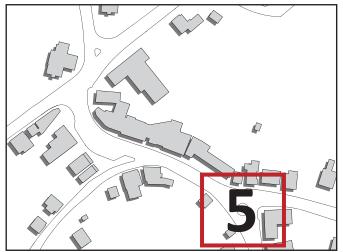


5. MAPLE STREET

The Maple St. and Main St. intersection currently includes no sidewalks or provisions for pedestrian safety on Maple Street. The crosswalk from the Main St. sidewalk terminates into a stone wall. The Master Plan recommends modest changes that greatly improve pedestrian safety and comfort while having a minimum impact on parking spaces.

A proposed sidewalk bump-out at the southeast corner will receive the crosswalk and transitions to a 4' wide sidewalk running south along Maple St. to the parking lot entrance. The bump-out displaces a non conforming parking space but provides space for a bench, trash receptacle and safe pedestrian circulation. The flagpole island is slated for landscape renovation and a decorative paver apron flush with the street.





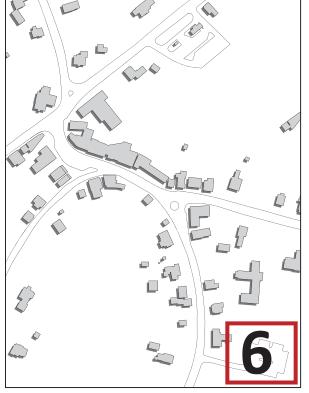


26 Chester Village Master Plan

Maple Street Plan Enlargement

6. MAPLE STREET PARKING LOT

The sidewalk along Maple St. will continue into the parking lot for a continuous pedestrian connection to Main Street. Another connection to Main Street – the gravel paved walkway down the hill through Jacobson & Associates property – is recommended for realignment and reconstruction. The parking lot should be paved and striped to maximize capacity. It may also utilize permeable paving to absorb storm water. Lighting, wayfinding signage and landscaping will make the parking lot more appealing to visitors and employees of Center District businesses.



Key Plan

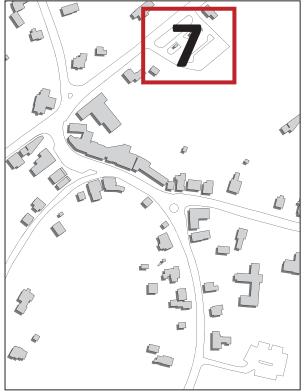


Maple Street Parking Lot Plan Enlargement



7. WATER STREET PARKING LOT

This parking lot benefited from installation of a sidewalk connecting to Main Street in 2012. As the closest municipal parking lot to Main Street, it deserves to be improved early in the project sequence. The Master Plan recommends paving and striping to maximize total capacity. Also recommended is lighting, curbing of interior islands, shade trees and landscaping, and an electric car charging station. The center island may be appropriate as a rain garden to mitigate storm water runoff into the Chester Creek. The existing bus shelter should remain.

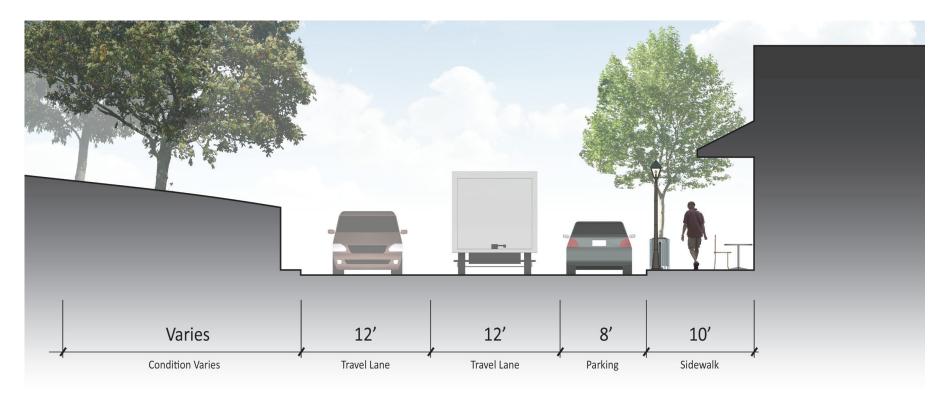




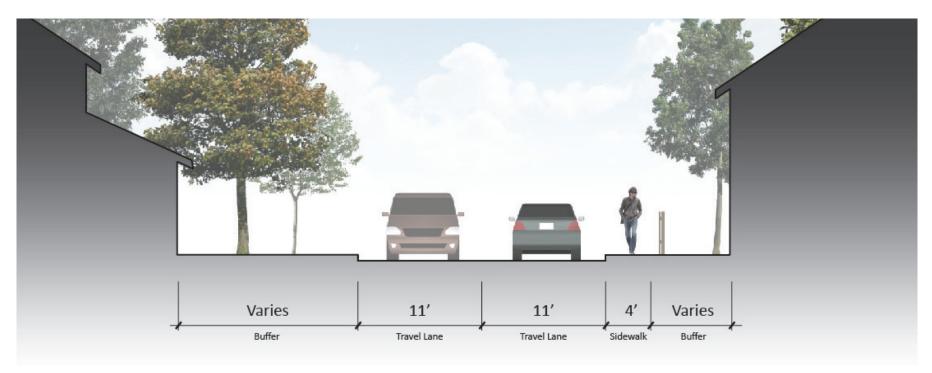
28 Chester Village Master Plan



Water Street Parking Lot Plan Enlargement



Proposed Street Section: Main Street



Proposed Street Section: Maple Street



PROJECT RECOMMENDATIONS | Materials





SIDEWALKS

There is no historical precedent other than concrete for sidewalks in Chester. Alternative materials such as brick, concrete pavers, or stamped concrete have been ruled out as inappropriate for the Center District. The Master Plan recommends standard gray concrete slabs with cross-sectional cobblestone bands of variable width and spacing. A precedent for this design was set with a sidewalk section installed at 69 Main Street in 2005.

Cobblestones are a traditional material that was used as ships ballast and street paving in the 18th and 19th centuries. Although historical evidence of cobblestone paving in Chester is inconclusive, nearby quarries produced a variety of stone products including curbing and building materials used in Chester. Cobblestones with uniform faces can be laid as a relatively smooth surface. The pedestrian area designated as the Chester Wall Plaza is recommended to contain solid cobblestones set in mortar.



CROSSWALKS

Crosswalks must be designed to withstand the rough treatment inflicted by snow plows, heavy traffic and weather. The crosswalks recommended for the Center District are modeled after specific installations on state owned main streets in Connecticut towns similar to Chester. These contain interlocking concrete pavers within flush granite borders. Most of the proposed crosswalks in the Center District occur on the Town owned Main Street. One does, however, cross Water Street and must meet CT DOT standards. Therefore, all crosswalks in the Center District should be of uniform materials and have high durability.



CURBING

The existing curbs on Main Street are mostly composed of antique granite reportedly quarried on nearby Selden Island in the late 19th century. The average dimension of these curbs is smaller in thickness, height, and length compared to current granite curbing. The Master Plan recommends replacing all of the antique curbing with new granite that can achieve a full 6" reveal (average height from pavement to top of curb). The design calls for reuse of the antique granite as paving accents and parking lane marking strips in the Chester Wall Plaza area. Salvaged curbing could also be considered for use in the parking areas.

PROJECT RECOMMENDATIONS | Materials



STREET LIGHTING

The vast majority of outdoor lighting in the Center District is provided by cobra head sodium vapor fixtures approximately 25' above the sidewalk and overhanging the street. In order to provide sufficient illumination on both areas, replacement fixtures must be in the range of 16' tall and 40' to 50' apart. The Plan recommends decorative pole mounted fixtures similar in style to the cast iron and copper lantern fixtures scattered throughout the District. New fixtures would be made from cast aluminum and contain high efficiency LEDs with cut-off optics.



BIKE RACKS

Bicyclists prefer to park as close to their destination as possible. By spreading bike racks along Center District sidewalks in close proximity to buildings and principal destinations, bike use will be encouraged. Inverted U shaped racks can accommodate two bikes each and occupy very little space. They are inexpensive and can be installed in additional locations if demand increases.



A single style of trash receptacle that is visually compatible with the benches and other street furniture is recommended for the Center District. Recycling receptacles of a matching style are also recommended. All receptacles should be metal and highly durable.



BENCHES

The Master Plan recommends benches in several locations from the Main Street Bridge to the corner of Maple and Main St. A durable all-metal model with comfortable contours and simple historic styling has been selected as representative of this approach. A single model may work best, or variations may be appropriate depending on location.



Historic trolley tracks set flush in cobblestone paving.



PROJECT RECOMMENDATIONS Landscaping



PLANTERS

Planters that contain seasonal flowers and foliage can convey a comfortable charm and project a community's pride in its sidewalk environment. Some planters need to be stored off-site during winter months. Others can remain in place year round with rotating displays. A variety of planters ranging from long narrow window boxes to round and rectangular containers are appropriate



STREET TREES

Trees along the Main Street sidewalk are highly desirable but the options for species variety is limited by specific constraints like overhead utilities, adjacent parallel parking and walkway clearance, limited soil volume for root growth, and close proximity to building facades. Selected species must have a compact growth habit, be relatively clean (devoid of fruits and other nuisance droppings), and grow with a straight trunk and high canopy. Some options include:

- Lacebark Maple
- Flowering Pear
- Chinese Lilac
- Hedge Maple

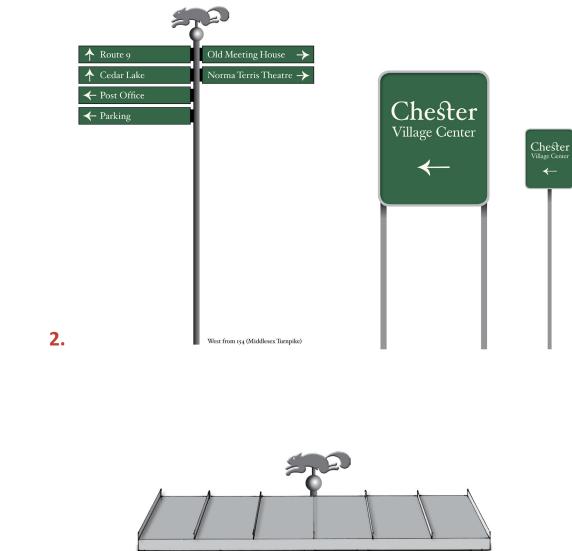
PROJECT RECOMMENDATIONS | Wayfinding

WAYFINDING

Navigating through Chester can be a challenge for those unfamiliar with its curvy streets and hilly terrain. Wayfinding is needed to guide visitors to destinations from the Route 9 interchange, from principal intersection like Water Street and Route 154, and within the Center District to parking lots and destinations like the theater and post office. A wayfinding system has been designed that addresses these three needs:

- Existing "Welcome to Chester" signs at the Route 9 interchange will be replaced with new signs that are more durable and contain space for temporary placards advertising special events.
- Signs that indicate the direction to the Center District will be placed at the Water St/Rte 154 and the Main St/154 intersections. These signs will be large enough to be easily read from moving vehicles.
- 3. Upon entering the Center District, signs will direct visitors to the municipal parking lots. At key points in the Center, pedestrian scale "finger signs" will literally point towards destinations like, "Theater, Meeting House, More Shops, Restaurants, Galleries, Post Office, and Park".
- 4. An information kiosk is proposed for the Chester Wall Plaza. The design envisions a horizontal board containing three panels: a map of the entire town, a map of the Center District, and a bulletin board. A small metal roof will protect the panels from the elements.







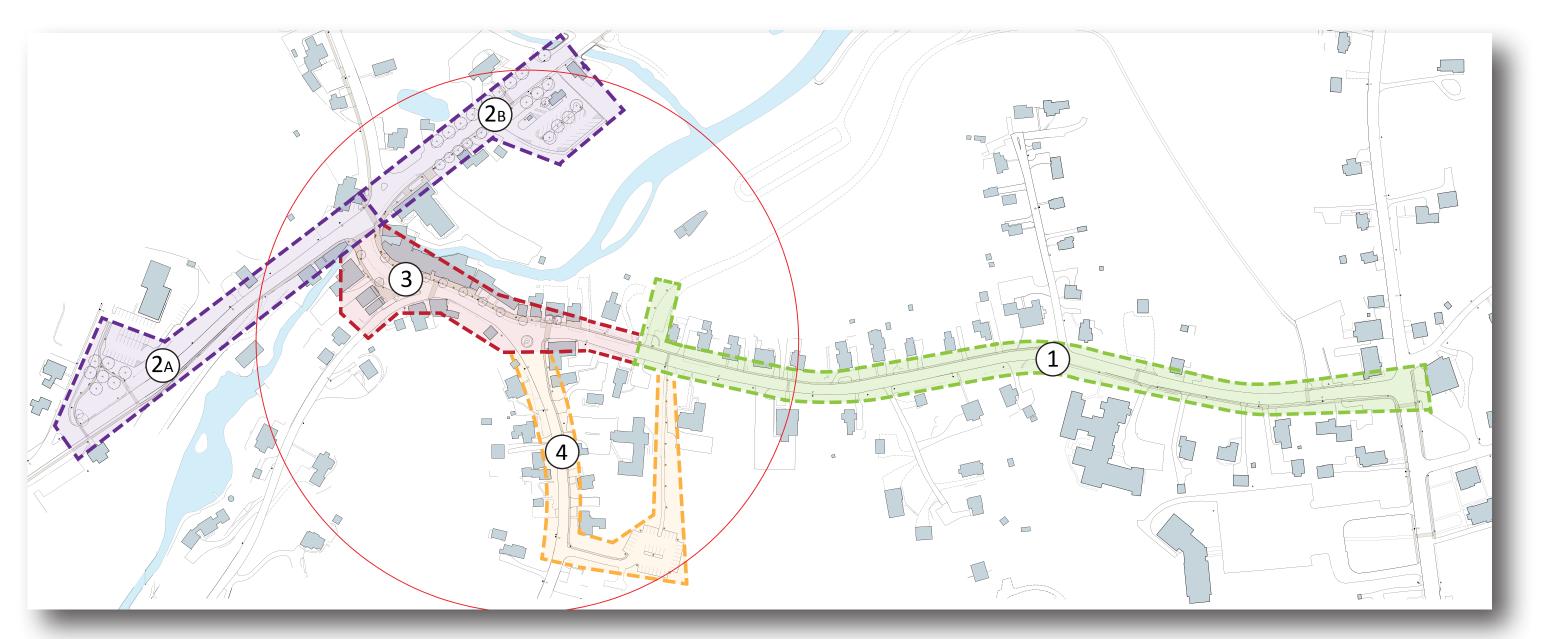
4.



1.



PROJECT PHASING



Phasing Plan

A strategic approach to project phasing will balance several variables including schedule, cost and jurisdiction. The Main Street Bridge project is currently scheduled for early 2016. Certain improvements such as the Water St. parking lot upgrade could occur prior to the bridge project and alleviate parking issues caused by the bridge construction. Improvements to Main Street east of the Post Office and the Laurel Hill parking area could also occur prior to bridge construction. Following bridge construction, the Main Street streetscape could be constructed. The Maple Street parking lot can serve as a staging area for these projects. The West Main St. improvements are within the State ROW and should be conducted under DOT contracts. An exception to this is the parklet at West Main and High St. This project could occur at any time without interference. Other projects recommended in the Master Plan such as the sidewalks along Water Street to 154 and along 154 to the Deep River line are also with the State ROW and will require DOT involvement.

ESTIMATED COSTS

An approximate project cost has been developed based on the imprecise site data available for the project and the concept design plans. This data should be used to prepare a phasing strategy and to target grants and other funding opportunities. Subsequent project design will allow for a more accurate analysis of project costs.

Cost Phases

1	Main Street East	(\$1,371,754)			
2 A	+ West Main Street	(\$1,300,989)			
2 B	+ Water Street	(\$838,042)			
3	+ Main Street West	(\$1,214,067)			
4	➡ Maple Street	(\$763,045)			
	Grand Total: \$5,492,682				



PHASE 1: Main Street East

ITEM		COST	UNIT	QUANTITY	COS
Main Str	<u>eet (East) Improvements</u>				
Reconstr	uction (540-ft) *				
Excavatio	on	\$12.00	CY	600	\$7,200.0
Formatio	n of Subgrade	\$4.00	SY	1800	\$7,200.0
Subbase		\$35.00	CY	400	\$14,000.0
Bitumino	us Concrete - Roadway	\$95.00	TN	330	\$31,350.0
Catch Ba	sins	\$3,500.00	EA	6	\$21,000.0
	15-inch RCP	\$40.00	LF	50	\$2,000.0
	18-inch RCP	\$50.00	LF	350	\$17,500.0
	Brook Culvert	\$25,000.00	SF	1	\$25,000.0
Granite S	tone Curbing	\$40.00	LF	865	\$34,600.0
Concrete	Sidewalk	\$10.00	SF	2700	\$27,000.0
Bitumino	us Concrete - Drive	\$35.00	SY	250	\$8,750.0
Furnishir	g & Placing Topsoil	\$5.00	SY	250	\$1,250.0
Furnishir	g & Placing Topsoil	\$5.00	SY	250	\$1,250.0
Lighting	Infrastructure	\$2,500.00	LS	1	\$2,500.0
Mill & Pa	ve (1200-ft) **				
Excavatio	n	\$12.00	CY	265	\$3,180.0
Formatio	n of Subgrade	\$4.00	SY	235	\$940.0
Subbase	C C	\$35.00	CY	180	\$6,300.0
Milling P	avement	\$5.00	SY	3340	\$16,700.0
-	us Concrete - Roadway	\$95.00	TN	730	\$69,350.0
Catch Ba	•	\$3,500.00	EA	14	\$49,000.0
	15-inch RCP	\$40.00	LF	700	\$28,000.0
	18-inch RCP	\$50.00	LF	600	\$30,000.0
Embankr	nent Wall	\$60.00	SF	1750	\$105,000.0
Granite S	tone Curbing	\$40.00	LF	2400	\$96,000.0
	Sidewalk	\$10.00	SF	9950	\$99,500.0
Bitumino	us Concrete - Drive	\$35.00	SY	375	\$13,125.0
	g & Placing Topsoil	\$5.00	SY	550	\$2,750.
	ncies/ Construction Managem				\$657,344.2

Total: \$1,371,754

* Laurel Hill entrance to Post Office

** Post Office to Rte 154

PHASE 2: West Main Street + Water Street

ITEM	COST	UNIT	QUANTITY	COST	ITEM	С
Mash Main Chuach Incompany					Granite Stone Curbing	(
West Main Street Improvements					Cobblestone Paver Strips	(
Mill & Pave (925-ft)					Concrete Sidewalk	0
Excavation	\$12.00	CY	205	\$2,460.00	Decorative Lamp Posts	\$6
Removal of Existing Retaining Wall	\$50,000.00	LS	1	\$50,000.00	C&G	\$4
Formation of Subgrade	\$4.00	SY	105	\$420.00	Street Landscaping	
Subbase	\$35.00	CY	50	\$1,750.00	Trees - Medium	\$1
Milling Pavement	\$5.00	SY	3270	\$16,350.00	Benches	\$1
Bituminous Concrete - Roadway	\$95.00	TN	580	\$55,100.00	Trash Receptacle	\$1
Catch Basins	\$3,500.00	EA	6	\$21,000.00	Bike Rack	Ś
15-inch RCP	\$40.00	LF	400	\$16,000.00	Crosswalk	Ŷ
18-inch RCP	\$50.00	LF	250	\$12,500.00	Granite Strips	(
Retaining Wall	\$120.00	SF	2750	\$330,000.00	Concrete Pavers	•
Granite Stone Curbing	\$40.00	LF	1035	\$41,400.00	Bituminous Concrete - Drive	•
Bituminous Concrete Lip Curb	\$7.50	LF	925	\$6,937.50	Furnishing & Placing Topsoil	
Concrete Sidewalk	\$10.00	SF	4750	\$47,500.00		
Bituminous Concrete - Drive	\$35.00	SY	105	\$3,675.00	Contingencies/ Construction Management	ŀ
Furnishing & Placing Topsoil	\$5.00	SY	850	\$4,250.00		L
					Water Street Parking Lot	
Contingencies/ Construction Management				\$556,939.05	Excavation	
			Subtotal:	\$1,166,281.55	Remove Antique Granite Curb	9
High Street Park					Remove Antique Granite Planting Curb	0
Benches	\$12.00	CY	265	\$3,180.00	Remove Cobra Head Lights	\$5
Repair Stonewall / Stairs	\$4.00	SY	235	\$940.00	Remove Millstone	0
Concrete Sidewalk Paving	\$35.00	CY	180	\$6,300.00	Formation of Subgrade	\$6
Landscape Trees	\$5.00	SY	3340	\$16,700.00	Subbase	\$6
Decorative Lamp Posts	\$95.00	TN	730	\$69,350.00	Permeable Bituminous Pavement	
2 coor at the 2 amp 1 coto	400100			<i>~~~</i> ,~~~~~~	Granite Curb	0
					Concrete Sidewalk	
Contingencies/ Construction Management				\$64,327.32	Decorative Lamp Posts	\$5
			Subtotal:	134,707.32	Fence	9
					Electric Car Charging Station	\$6
			Total S	51,300,989	Site Landscaping	
			τσται. γ	1,500,989	Shrubs	
					Lawn	
ITEM	COST	UNIT	QUANTITY	COST	Trees - Medium	\$1
					Trees - Small	\$1
Water Street Improvements					Granite Curb - Planting Bed	
Roadway Mill & Pave (440-ft)						
Excavation	\$12.00	CY	100	\$1,200.00	Contingencies/ Construction Management	t
Formation of Subgrade	\$4.00	SY	75	\$300.00		
Subbase	\$35.00	CY	20	\$700.00		
Milling Pavement	\$5.00	SY	1700	\$8,500.00		
Bituminous Concrete - Roadway	\$95.00	TN	280	\$26,600.00		

EA

4

\$14,000.00

\$3,500.00

Catch Basins



соѕт	UNIT	QUANTITY	COST
\$40.00	LF	400	\$16,000.00
\$30.00	SF	30	\$900.00
\$10.00	SF	2500	\$25,000.00
\$6,500.00	EA	13	\$84,500.00
\$4,500.00	EA	2	\$9,000.00
\$1,500.00	EA	17	\$25,500.00
\$1,500.00	EA	4	\$6,000.00
\$1,200.00	EA	1	\$1,200.00
\$300.00	EA	2	\$600.00
\$75.00	LF	94	\$7,050.00
\$18.00	SF	478	\$8,604.00
\$35.00	SY	80	\$2,800.00
\$5.00	SY	950	\$4,750.00
			\$222,288.46
		Subtotal:	\$465,492.46
\$2.75	SF	18800	\$51,700.00
\$40.00	LF	440	\$17,600.00
\$10.00	SF	620	\$6,200.00
\$5,500.00	EA	7	\$38,500.00
\$58.00	LF	250	\$14,500.00
\$6,500.00	EA	1	\$6,500.00
\$6,500.00	EA	1	\$6,500.00
\$2.75	SF	18800	\$51,700.00
\$40.00	LF	440	\$17,600.00
\$10.00	SF	620	\$6,200.00
\$5,500.00	EA	7	\$38,500.00
\$58.00	LF	250	\$14,500.00
\$6,500.00	EA	1	\$6,500.00
\$5.00	SF	1825	\$9,125.00
\$0.33	SF	590	\$194.70
\$1,500.00	EA	4	\$6,000.00
\$1,200.00	EA	1	\$1,200.00
\$40.00	LF	118	\$4,720.00

\$177,905.26 **\$372,549.96**

Total: \$838,042

Subtotal:

PHASE 3: Main Street West

ITEM	COST	UNIT	QUANTITY	COST	ITEM	COST	UNIT	QUANTITY	COST
Main Street (West) Improvements					Parallel Parking Stripe	\$1.35	LF	718	\$969.30
					Painted Parking Hatch	\$1.66	SF	316	\$524.56
Site Preparation					Travel Lane Paint	\$1.35	LF	585	\$789.75
Demo Bituminous Pavement	\$1.30	SF	37357	\$48,564.10					
Demo Concrete Sidewalk	\$1.75	SF	8296	\$14,518.00	Site Planting				
Remove Antique Granite Curb	\$15.00	LF	842	\$12,630.00	Shrubs	\$5.00	SF	1089	\$5,445.00
Remove Cobra Head Lights	\$105.00	EA	7	\$735.00	Trees - Medium	\$1,500.00	EA	12	\$18,000.00
Remove Bike Racks	\$59.10	EA	2	\$118.20	Trees - Small	\$1,200.00	EA	1	\$1,200.00
Remove Trash Receptacles	\$91.50	EA	5	\$457.50		. ,			. ,
Remove Benches	\$193.00	EA	4	\$772.00	Site Lighting				
Remove Catch Basins	\$800.00	EA	8	\$6,400.00	Decorative Lamp Posts				
emove Antique Lamp Posts	\$355.00	EA	3	\$1,065.00	Main Street	\$6,500.00	EA	17	\$110,500.00
emove Antique Water Trough	\$375.00	EA	1	\$375.00	Cemetery Road	\$2,100.00	EA	3	\$6,300.00
lituminous Cutting	\$1.60	LF	134	\$214.40	Centerery Road	\$2,100.00	LA	5	\$0,500.00
op Soil & Placement	\$40.00	CY	22	\$880.00	Contingencies/ Construction Manage	mont			\$655,531.00
					contingencies/ construction Manage	ement		Subtotal:	\$055,531.00 \$ 1,372,742.00
ite Improvements								Subtotal.	91,372,742.00
Benches	\$1,500.00	EA	8	\$12,000.00					
ike Rack	\$300.00	EA	8	\$2,400.00				Subtotal:	\$158,675.00
rash Receptacle	\$1,200.00	EA	9	\$10,800.00		(Associ	ated with Brid	dge Improvements)	\$156,075.00
Vayfinding sign	\$5,000.00	EA	2	\$10,000.00		(A3300)	ated with bit	age improvements/	
rolley Tracks	\$180.00	LF	85	\$15,300.00					
nfo Kiosk	\$15,000.00	EA	1	\$15,000.00				Total S	1,214,067
/ill Stone Seat	\$675.00	LS	1	\$675.00				τσται. γ	1,214,007
Vater Trough	\$675.00	LS	1	\$675.00					
Replace Catch Basins	\$3,500.00	EA	8	\$28,000.00					
avements									
Bituminous Pavement Crosswalk	\$2.05	SF	29837	\$61,165.85					
6" Flush Granite Band	\$40.00	LF	352	\$14,080.00					
	\$40.00	SF	2023	\$40,460.00					
Concrete Pavers									
Concrete Pavers - Parking Spaces	\$20.00	SF	1910	\$38,200.00					
Concrete Pavers Around Island at Flagpole	\$20.00	SF	167	\$3,340.00					
Cobblestone Paver strips	\$30.00	SF	1551	\$46,530.00					
Cobblestone Paver in plaza	\$25.00	SF	1050	\$26,250.00					
Granite Steps at Local Beat	\$75.00	LF	76.5	\$5,737.50					
6" Flush Granite Band	\$40.00	LF	196	\$7,840.00					
12" Flush Antique Granite Band - Parking Line	\$40.00	LF	735	\$29,400.00					
Concrete Sidewalk	\$10.00	SF	8266	\$82,660.00					
	\$40.00	LF	906	\$36,240.00					

PHASE 4: West Main Street + Water Street

4)

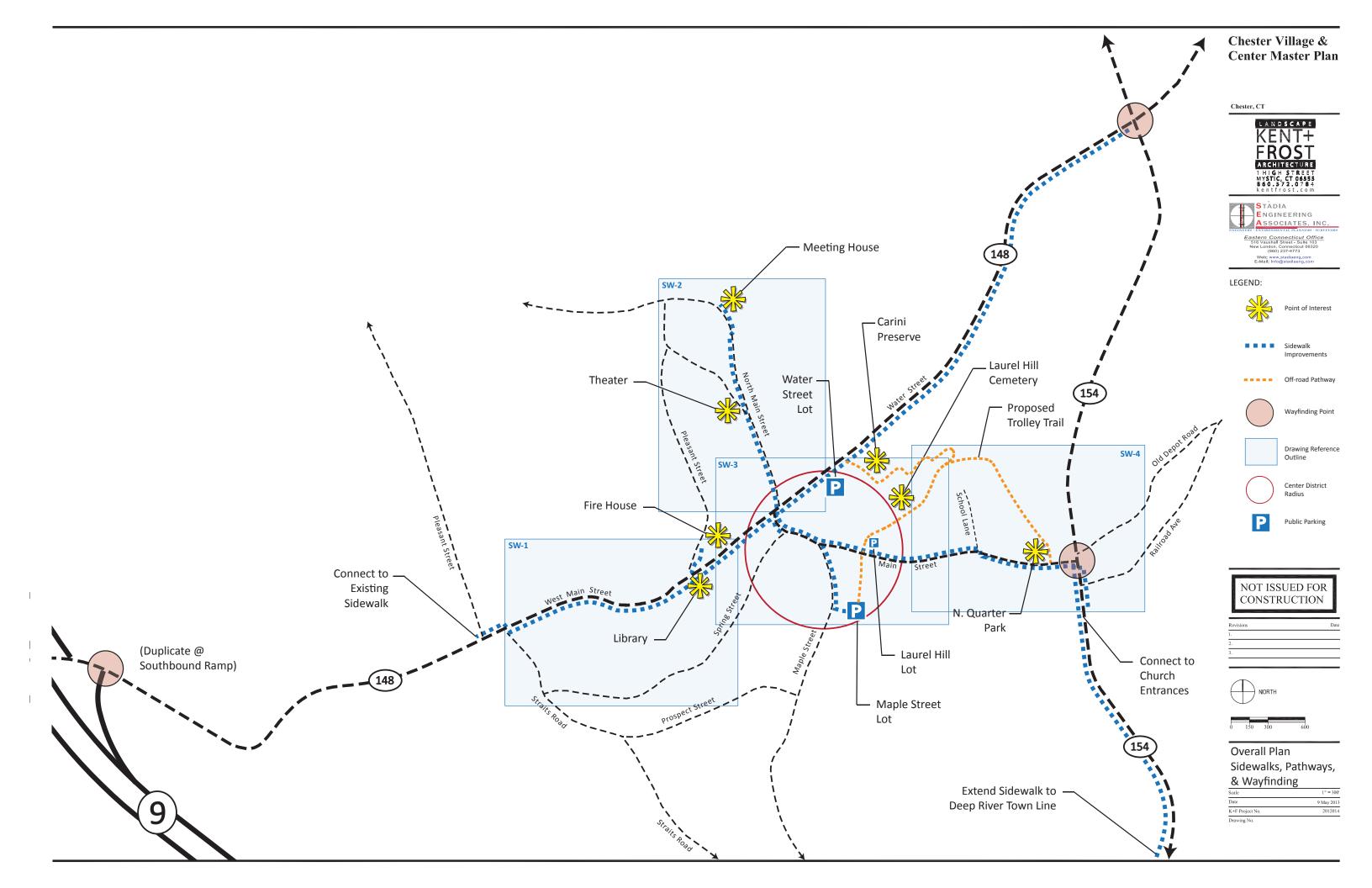
ITEM	COST	UNIT	QUANTITY	COST
Maple Street Improvements				
Roadway Mill & Pave (500-ft)				
Excavation	\$12.00	CY	620	\$7,440.00
Formation of Subgrade	\$4.00	SY	2025	\$8,100.00
Subbase	\$35.00	CY	1860	\$65,100.00
Milling Pavement	\$5.00	SY	450	\$2,250.0
Bituminous Concrete - Roadway	\$95.00	TN	325	\$30,875.00
Catch Basins	\$3,500.00	EA	8	\$28,000.00
Granite Stone Curbing	\$40.00	LF	500	\$20,000.00
Concrete Sidewalk	\$10.00	SF	1850	\$18,500.00
Decorative Lamp Posts	\$6,500.00	EA	2	\$13,000.00
Bituminous Concrete - Drive	\$35.00	SY	95	\$3,325.00
Furnishing & Placing Topsoil	\$5.00	SY	200	\$1,000.0
Contingencies/ Construction Management				\$180,597.26
			Subtotal:	\$378,187.26
Maple Street Parking Lot				
Excavation	\$12.00	CY	370	\$4,440.0
Formation of Subgrade	\$4.00	SY	1900	\$7,600.0
Subbase	\$35.00	CY	320	\$11,200.0
Permeable Bituminous Pavement	\$2.75	SF	12400	\$34,100.0
Bituminous Concrete - Drive	\$2.05	SF	2200	\$4,510.0
Granite Curb	\$40.00	LF	275	\$11,000.0
Concrete Sidewalk				
Driveway Sidewalk	\$10.00	SF	600	\$6,000.00
Sidewalk to Main Street	\$10.00	SF	2900	\$29,000.0
Railing & Steps	\$5,000.00	EA	3	\$15,000.00
Decorative Lamp Posts				
Path to Main Street	\$4,500.00	EA	8	\$36,000.00
Parking Lot	\$5,500.00	EA	6	\$33,000.0
Electric Car Charging Station	\$6,500.00	EA	1	\$6,500.0
Site Landscaping				
Shrubs	\$5.00	SF	265	\$1,325.00
Furnishing & Placing Topsoil	\$5.00	SY	280	\$1,400.0
Contingencies/ Construction Management				\$183,782.55
-				

Total: \$763,045



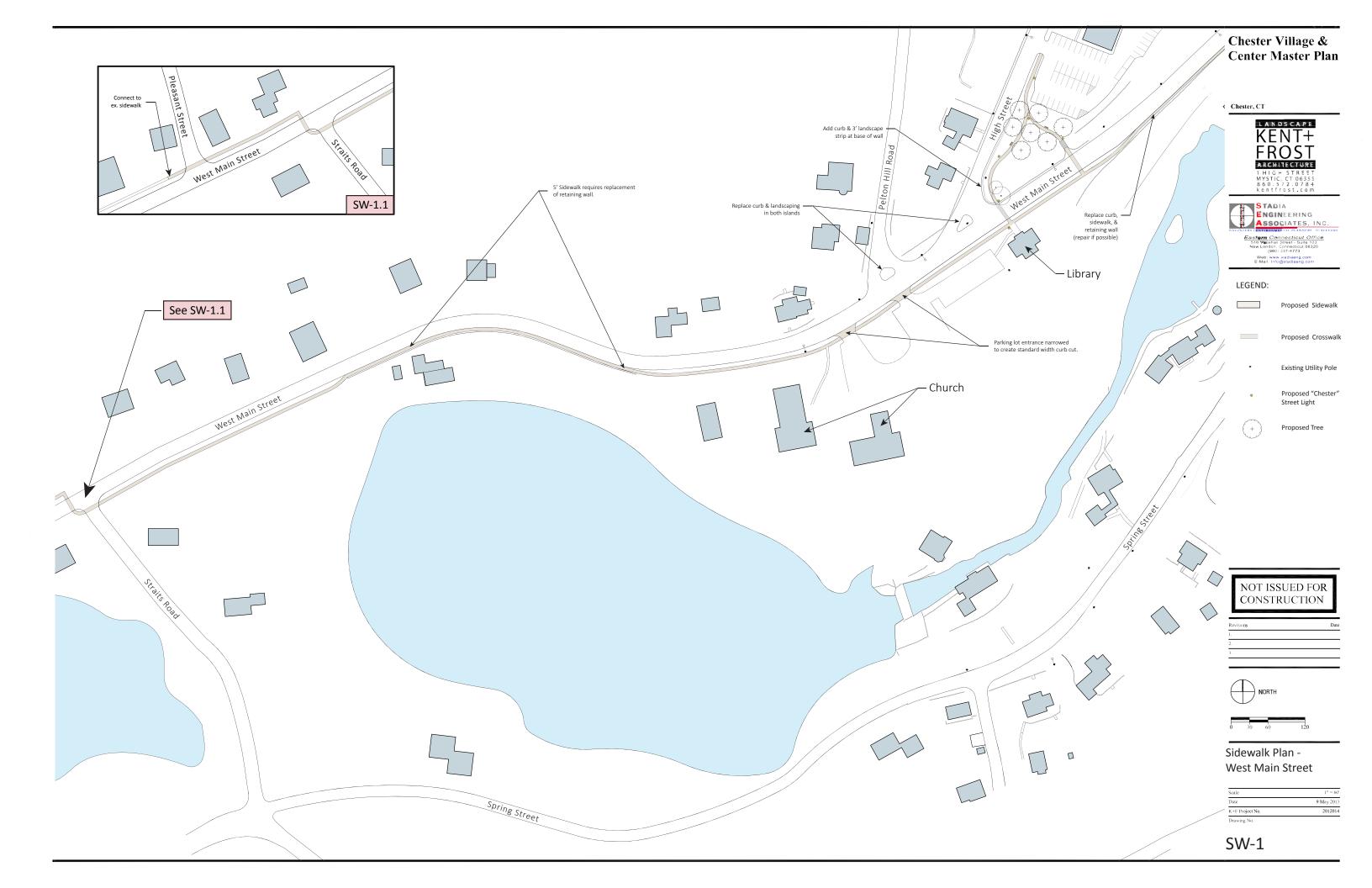
Appendix A

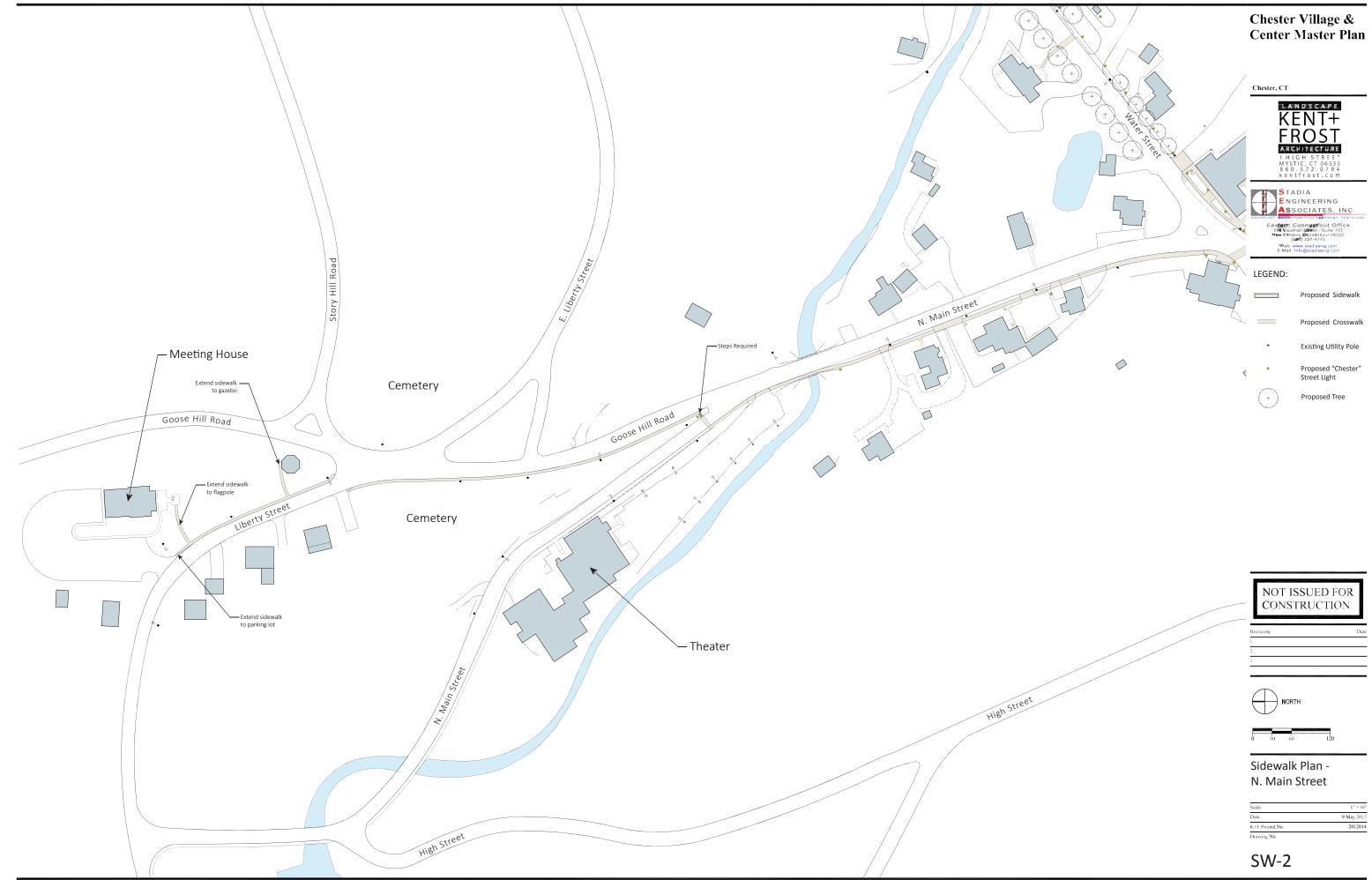
Macro Scale: Overall Project Map



Appendix B

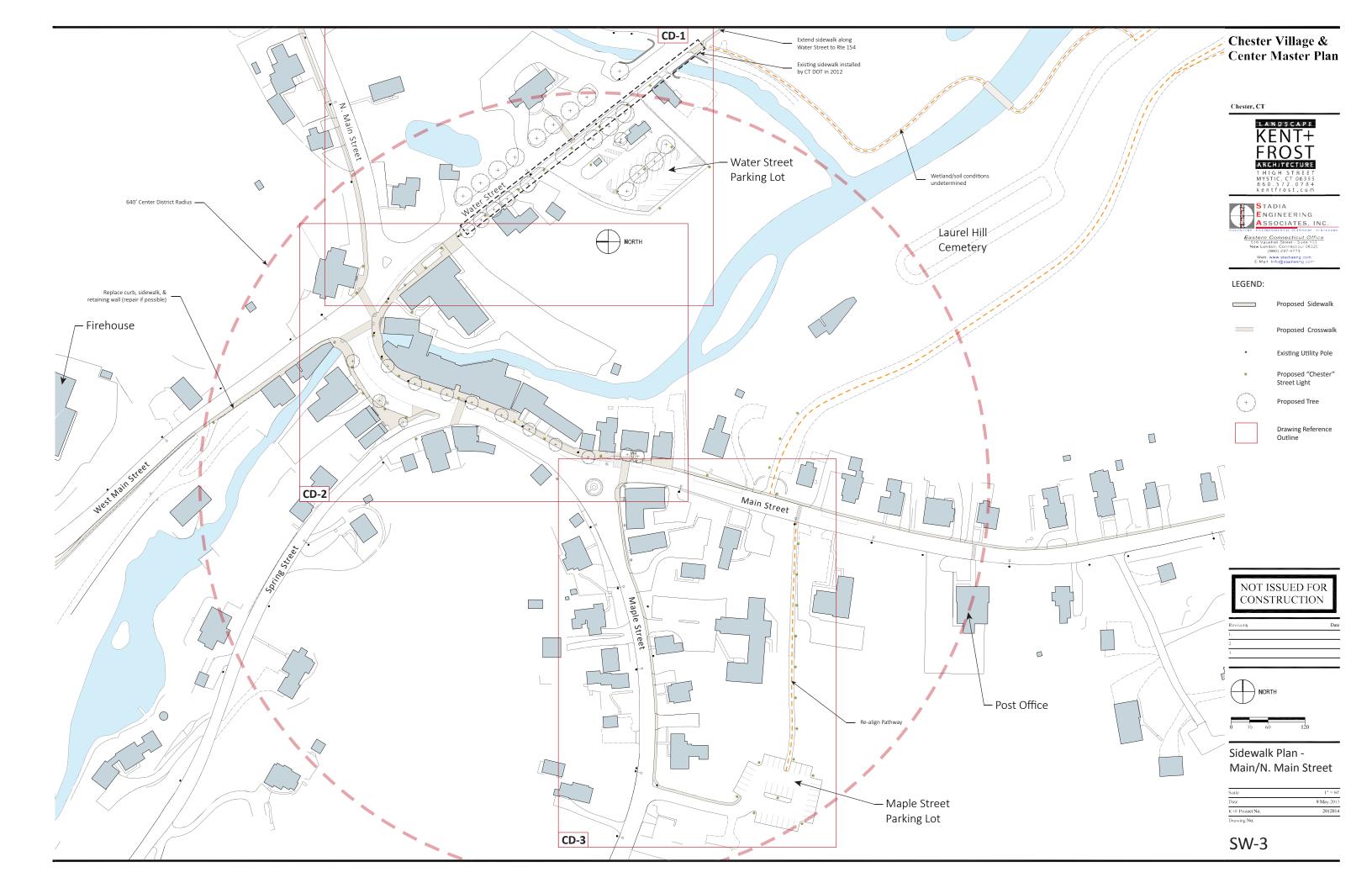
Intermediate Scale: Connecting Corridors

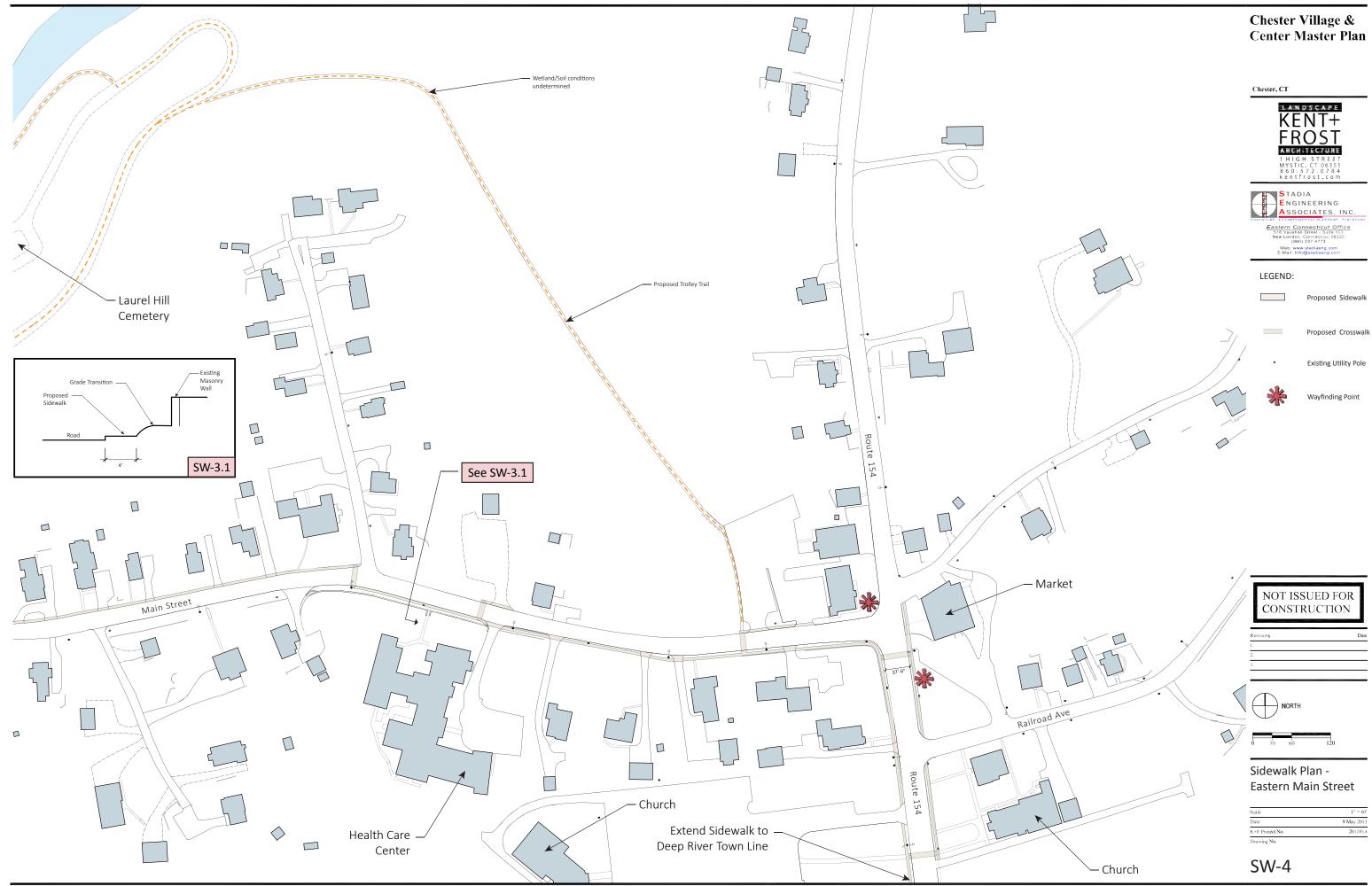




	NOT ISSUED FOR CONSTRUCTION	
Rev	isions	Da
1.		
3.		
(NORTH	

Scale	1" = 60'
Date	9 May 2013
K+F Project No.	2012014





Appendix C

Micro Scale: Center District







Available on Town Website:

Appendix D Existing Conditions Report

Appendix E Town Officials Input

Appendix F Public Input

Appendix G Suitability Report

Appendix H Signage & Wayfinding Report

Appendix I Historic Research